

*Karyo
Beruang*

Simple Steps for Your Business Research

Tips & Tricks

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Simple Steps for Your Business Research: Tips & Tricks

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PREFACE

Following the substantial delay due to many tasks and work, it is a great privilege for both of us to be able to finally come up with this simple book to provide the basic guidance for students in trying to write their thesis.

With the understanding that academic writing may potentially provide a huge hurdles for students, deriving from our experience, and though many deficiencies within this book, our basic expectation is at least to make things easier for students. Numerous examples are also included to allow students to directly read the “style”, and most importantly the content of each of the necessary segments in thesis. The examples are directly gathered from our previous work, which have been properly examined by various academicians.

We surely are thankful for the involvement of academicians in developing the successful thesis. We are also thankful for all comments from the editors during the development of this book.

We are welcoming feedback from the academicians and students for the betterment of this book.

Lots of success in your thesis...

Tangerang, Indonesia, February 2018

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WHAT IS RESEARCH?

Research is very much related into decision-making processes. Though the word “research” may appear a bit daunting for people, simply due to its close connections with the use of laboratories, perform by scientists, require data analysis, including various mathematical and statistical testing, research is actually the sets of activities and processes to value the available data toward formulating solutions, given a particular situation. From a simple decision to get lunch (what, where, when, how much, and with whom), to a more complex decision to buy a tour package from travel agencies, for instance, research is needed to assist people in making a better decision.

Inside organizations across the world, managers are also constantly challenged with multiple decisions simultaneously. There are times that the managers make good decisions, which solved the issues, and bad decisions, which lead to persistence of the issues. There are times that managers may have deliberately avoided making decisions, which lead the organizations to get stuck in the process of daily routine operational activities. In any cases, managers may have to learn asking the right questions, look into the right locations, and consider the right factors on any emerging issues in the organizations. Understanding the types of data and information are also beneficial for managers in dealing with daily evenly demanding decisions.

With the help of computer and internet, research today has boosted people’s ability to search and process data at anyone finger-tips. With the help of computer, internet, and hand-held technological gadgets, interaction with people becomes easier and faster. This allows people to chat and exchange data/information faster than ever before. At another step, this allows people to search for more available data/information. Then, in accordance with the initial needs and intention, people can immediately categorize them into “good” or “bad” data/information. Then, with the enormous data/information available online, people may sometimes stop and consider the reliability and validity of those data/information. The attempts in identifying influential factors, gathering information, and analyzing data, are covered in business research. Therefore, it becomes obvious that the purpose of business research is to value the best possible alternative among all available choices toward making better managerial decisions. Please note that it is stated “making better managerial decisions”. It refers to sets of decisions

that managers make on behalf of the organizations, and for the benefits of the organizations. It is not stated “making better individual decisions”, however, which simply means that managers ought not to be acting selfishly only focusing benefits for themselves.

In organizations, arising issues are often inter-related among other business units or divisions. Perhaps, the notable areas to concentrate are finance, marketing, management, accounting, and operation. Most organizational issues are often emerging from the inter-connection of systems and procedures among those units. The inter-twining relationships among divisions or business units become the source of applied research as well as fundamental research to combine all different types of available data and information, different background, skills and expertise, and of course, different possible approaches in dealing with the routine operational activities. The following table shows the selected issues within each unit.

Table 1: Examples of Various Issues Among Departments

Accounting	Finance	Management	Marketing	Operation
Budgeting	Cash Flows	Rules, Regulation & Policy	Customer Preferences	Cycle Times
Inventory Control & Management	Investment	Employee Attitudes	Pricing	Quality Control
Depreciation & Amortization	Value Creation	Human Resources Management	Branding	Wastes Management
Taxation	Capital Structures	Changes in Demographic & Technology	Advertising & Promotional Activities	New Technology
Debts & Borrowing	Issuance of Stocks, Bonds & Other Types of Borrowing	Management Practices	Distribution	Breakdowns
Ratio Analysis	Operational Margins	Information Systems	Packaging	Scheduled Maintenance
Periodic Financial	Risk Management	Strategy Formulation	After Sales Services	Defectives Products

Accounting	Finance	Management	Marketing	Operation
Reports				
Good Governance	Efficiency & Effectiveness	Training & Development	Maintenance & Availability of parts	Scheduling

TYPES OF BUSINESS RESEARCH

As mentioned above, business research can generally be divided into 2 types; **applied research** and **fundamental research**. For managers, applied research may appear to be the most type of research required in the organizations. Nonetheless, managers may also rely on fundamental research.

APPLIED RESEARCH

In term of business research, applied research refers to the study of identifying factors and applying any findings with the intention to solve any issues and problems. The target for applied research is problem-solving.

From this simple definition, it is apparent that organizations may have undergone numerous types of applied research within the organizations as a way to solve problems, minimally to come-up with viable alternatives. For example, an article in Kompas newspaper in August 2, 2014 indicates that the government of Indonesia believes that a policy to control the subsidize gasoline is needed. This is simply due to the diminishing reserves of only about 40% (for diesel engine) and 42% (for gasoline engine) in July 2014. PT. Pertamina (Persero) indicated that as of July 31, 2014, the realization on consumption of the gasoline engine has reached 17.08 million kiloliter, and 9.12 million kiloliter for diesel. Therefore, to avoid running out of gasoline supplies for the remaining months in 2014, the government of Indonesia needs to apply stricter control.

FUNDAMENTAL RESEARCH

Fundamental research is performed to improve understanding on issues/problems, which may be recurring over periods of time. Such understanding on issues/problems may be formulated into action steps towards solving any organizational issues/problems. However, the target for fundamental research is a bit different from applied research. Fundamental research, or it is commonly referred to as basic research, aims to increase understanding and knowledge on certain issues/problems, or phenomena. For some, fundamental research may pose more challenges, and perceived as difficult and unimportant since it may not be practical and/or useful for organizations. The process of understanding the phenomena is vital for managers since often times, actual root-causes may be relatively difficult to identify. Instead, various phenomena usually occur. As Uma Sekaran stated, studying causes and consequences of any issues are crucial to minimize the occurrences of phenomena. This is not done only by organizations, but also by research agencies and universities.

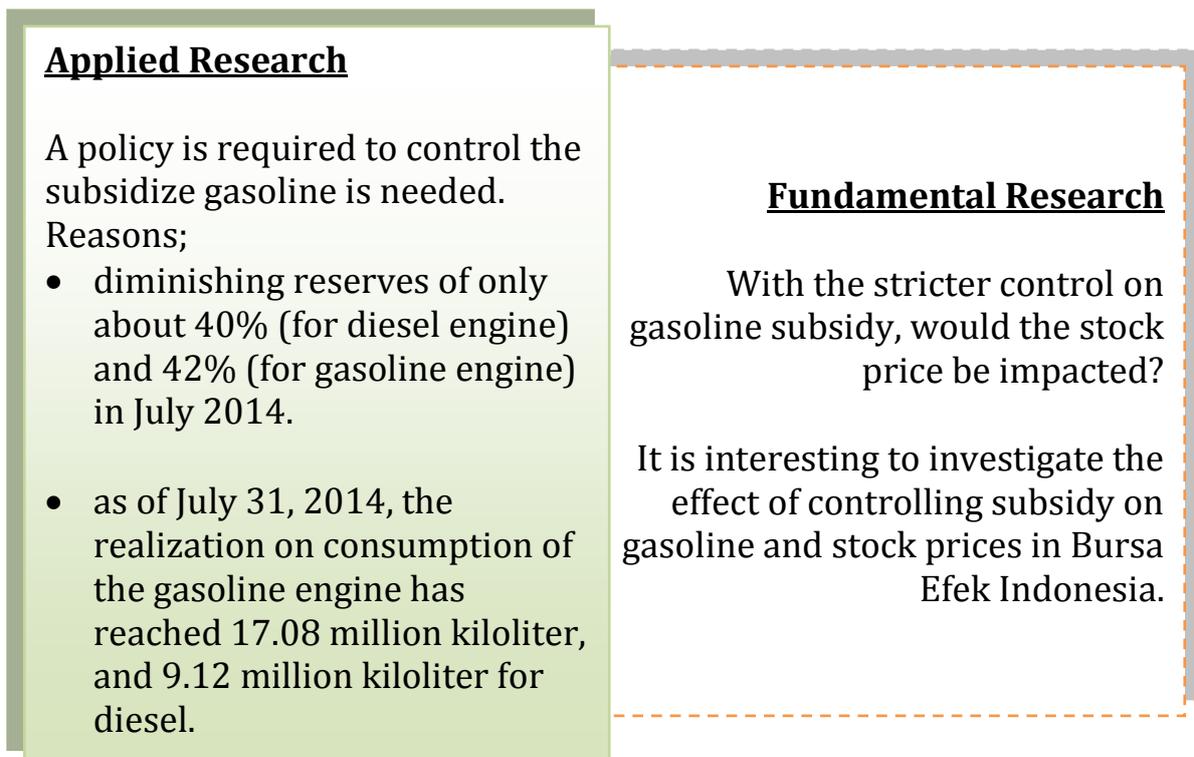
Consider the following example to increase understanding with the potential intention to also solving problems, which was taken from Kompas newspaper in August 2, 2014. The government of Indonesia plans to initiate a stricter control on gasoline subsidy. Would the stock price be impacted? As the government control subsidy on gasoline, the price of gasoline becomes more expensive. At the same time, distribution of goods relies on gasoline. As the prices of gasoline increases, due to heavier control on gasoline subsidy, the cost of distribution rises, and the prices of food and food ingredients become more expensive. This combination squeezes the spendable income toward consuming other products and services. Hence, it is interesting to investigate the effect of controlling subsidy on gasoline and stock prices in Bursa Efek Indonesia.

From the examples above, it is obvious that the intention of the applied research is to simply solve a problem. PT. Pertamina (Persero) has an update record on gasoline reserves. With the consumption rate of about 60% as of July 2014, it means that approximately 40% gasoline reserves are available for public consumption for 5 more months until December 2014. It is clearly a problem and the government of Indonesia needs to propose solutions to avoid public chaos and prevent economic activities come into a sudden stop.

On the other side, the fundamental research leads to a different matter.

Although it is built-up based on the gasoline subsidy, however, the fundamental research attempts to increase understanding on the influential effect of the issue on stock prices, and/or the relationships among issues. Logically speaking, as the spendable income is reduced, Indonesians do not have adequate cash to purchase stocks. Instead, Indonesians may sell their stocks to have more spendable funds. If the actions on selling stocks are increasing, the market is flooded with abundance of stocks with limited buyers. The abundance of stocks leads to reductions in stock prices. Again, logically, it makes sense. Nonetheless, is it applicable in Indonesian situation? To make the story more interesting, one may also ponder on the relationships between Idul Fitri and stock prices. During the Idul Fitri festivities and holidays with families, most organizations are closed for business. Bursa Efek Indonesia is included, along with banks and other financial institutes. During this time, Indonesians may not have engaged in the securities transactions at all. This alone pushes down the stock prices. Following the Idul Fitri festivities and holidays with families, Indonesian may hold minimal reserves toward consumptions. This reduces interests in engaging stocks dealing. Lack of buyers leads to lower prices.

Figure 1: Examples on Applied Research & Fundamental Research



Despite the differences of objectives between applied research and fundamental research, the steps and processes are the same. Both of these types of research are also considered scientific with clear phases

and stages to conduct.

SCIENTIFIC RESEARCH

In terms of scientific research, there are particular guidance to follow; **purpose, testability, replicability, and generalizability**. The lacking of any of these elements may jeopardize the level of scientific approach in conducting research.

THE PILLARS OF SCIENTIFIC RESEARCH

Just like a building, there are pillars of scientific research, which managers may have to comprehend and ensure of following. The pillars on scientific research are;

1. **Purpose** of the research must be clear. The purpose can serve multiple audiences and/or target multiple objectives. Managers must ensure that the purpose is justifiable for the benefits of the organizations. Justifications on short-term and long-term benefits may be the convincing steps for management to start conducting research. Embedded in this characteristic is certainly the notion of associated costs on research. The purpose of research may be wonderful with specific justifications on organizational benefits, however, require expensive associated costs of research, this means that the research purpose is unserved.
2. **Testability** directs that the research must be tested via hypotheses or proportions. The formulation of hypotheses or proportions may be done following any interviews and preliminary research studies into literatures, regulations, and other available data/information. On the other side, testability also refers to the transparent testing processes in accordance with the data, either via quantitative data analysis, or qualitative data analysis. At the very least, the collected data/information should be tested on the ground of their reliability and validity.
3. **Replicability** refers to the needs that research must be able to be replicated. May not be exactly the same, but at least upon considering additional situations and phenomena, managers may add other constraints in the research, though heavily relying on the previous research on the same topic. Just like the example on applied research

and fundamental research, the first research can simply focus on the government policy on controlling gasoline subsidy. This can be followed by the second research, which focuses on the relationships between the gasoline subsidy and stock price. The third research can consider the effect of Idul Fitri festivities, since the time between announcement of the government policy on controlling gasoline subsidy and the Idul Fitri festivities are pretty much side-by-side.

4. **Generalizability** seeks for broad scope of applicability. The research findings may also be applicable in different organizational settings, countries, or culture. The broader scope of applicability of research findings, the higher the value. Perhaps, this is true for fundamental research. For applied research, generalizability may be difficult to be considered applicable for other organizations. This is simply due to the fact that applied research may often study within a particular organization only, and thus, the boundaries are limited, with its own uniqueness. Nonetheless, though it is limited into organizational boundaries, the applied research in one organization can certainly be generalized into business units, representative offices, and subsidiaries, for instance.

TYPES OF SCIENTIFIC RESEARCH

Findings and answers can be generated based on **deduction reasoning**, or **induction reasoning**, or **both deduction and induction reasoning** processes.

DEDUCTION

Deduction reasoning refers to formulation of conclusions based on logical generalization. Theoretical-based researches are often categorized as deductions since the processes on forming conclusions (which is the theory itself and relationships or impacts among issues) are based on logical generalization (which is the occurring phenomena).

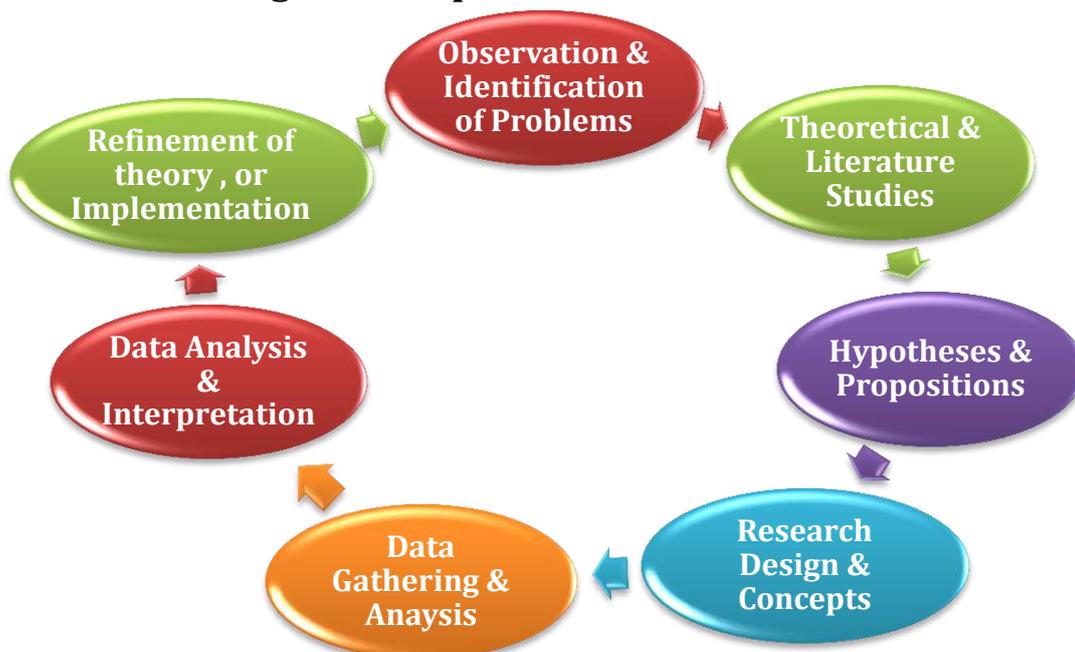
INDUCTION

Induction reasoning refers to the formulation of conclusions based on phenomena. The objective of induction is to increase understanding, provide explanations, including making predictions. Phenomena-based researchers are often categorized as induction since the conclusions are the direct results on analyzing prevailing public phenomena.

As shown in the illustration below, the general steps in conducting scientific research include few stages.

1. For managers, usually it starts with the observations. In a particular fast-food restaurant, for instance, a manager may observe that customers are lining-up for more than 10 minutes before they are served and able to place their orders. Such observations are followed by identification of problems. What could be contributing to the problems that customers are not served and/or able to place their orders in less than 10 minutes? At this time, managers can talk to employees to see what the potential causes, which may contribute to the delay in serving. At the same time, managers may talk casually to customers on their perspective, which may contribute the delays.

Figure 2: Steps in Scientific Research



2. Then, managers need to integrate formal and informal data/information to evaluate whether a problem does exist in his/her

fast-food restaurant. This may be the time that the managers may look into various literatures and/or case studies, which may have discussed previously about similar issues.

3. From the literature studies, the manager can extract hypotheses, which serve as the preliminary conclusions. The formulations of hypotheses are essential since they direct the types of data, how the data would be collected, and how the data would be analyzed.
4. Based on the hypotheses, the manager is able to develop concepts, which may assist him/her on the particular measurements to use. As mentioned above, the concepts and research design are important to decide the process of data collection, data analysis, and data interpretations.
5. The research findings are used toward refinements of theories, for fundamental research, or organizational implementation, for applied research.

In addition to the deductive and inductive types of scientific research, **case studies** become an alternative approach toward in-depth analysis of particular situation in organizations. Similar to the applied research and deductive scientific approach, case studies carry the similar intention on problem-solving. Often times, case studies rely on particular issues or occurrence inside organizations, which may not re-occur in the future in the similar manners and situations. Also, often times, case studies are used to investigate phenomena in other organizations, and consider whether those phenomena are applicable in one's organizations. A simple example is about exchange rate. For organizations with importing and exporting transactions, exchange rate may likely provide impact to the organizational performance. Specifically, for organizations that engage in international trades based on US dollar, may likely experience fluctuations of exchange rate in US dollar and home currency, which impact the bottom-line. However, the strengthening and/or weakening of Euro may not directly impact the organizational performance, unless organizations engage also in Euro-based currency for their international trades. The same is true for organizations that may not engage in international dealings. Though the exchange rate fluctuates over time, nevertheless, organizations with domestic sales may only experience indirect effect. In such phenomena, managers may turn into case studies of other organizations on how to manage foreign-currency exposures.

Another type of scientific research is in the form of **business plan**, or commonly referred to as **feasibility study**. Since this type of scientific research involves action steps, it is also known as **action research**. Though this type of scientific research remains highly debated, nonetheless, it is difficult to ignore that the process of compiling all-related plans to form a business are also considered scientific. In using this approach, managers may scan the environment to learn all possible relatedness into setting-up a business or projects. Then, managers may try to formulate the plausible actions steps for various types of planning, such as; organizational plan, production plan, sales/marketing plan, resources management plan, and financial plan, with the intention to know whether a particular business or project is feasible to run/implement, able to generate satisfactory cash flows, and the future expected returns are considered adequate relative to the initial investment.

The organization of this book follows the commonly structured research, particularly in the academic setting. Generally, the academic-based research consists of 5 chapters; introduction, literature study, research method, data analysis, and conclusion. Appendices are also attached, in addition to those 5 basic chapters. On each of the chapters, samples of real researches, which are conducted previously, are provided to allow readers to grasp the understanding on how each of the chapters should be written. The expectation is to allow readers and students to increase their ability in producing better organized research.

CHAPTER 1: INTRODUCTION

In many cases, regardless of the organizations, business research write-up will always start with an introduction. The introduction is grouped together in chapter 1. The purpose of this introduction is to introduce the readers on the topic chosen in the research. This chapter should lay all the underlying foundation where the research is going to be heading.

Depending on the researchers, both **deductive** and **inductive** approach can be used. If one prefers to use inductive approach, the introduction should consist of possible stories, facts and phenomena, which are experienced by people, or occurring in organizations across industries and countries' borders. Evidence of such phenomena should be supported by articles from periodicals, such as; newspapers and magazines, including online sources of newspapers and magazines.

Referring to the previous examples on government control on gasoline subsidy and stock price, researchers can gather stories, facts and phenomena surrounding the gasoline subsidy, government control, and stock prices. It is believed that information on those issues are widely available in newspapers and business-related magazines.

If one prefers to use **deductive approach**, the introduction should consists of underlying theories, and occurring phenomena in the market, whether those phenomena are matched to what the theories have stated, or those phenomena deviate from the theories. The differences, or gap, become the purpose of study. Evidence of theories can simply be directly taken from the prevailing theories in the market, which are widely discussed in textbooks, for instance.

Referring to the previous examples on government control on gasoline subsidy and stock price, researcher can search for theories related to subsidy, tax and stock price. Required information on theories should be widely available in financial and taxation textbooks.

Once the background of study has been sufficiently written, now the researcher is able to formulate problems. In this section, which may be called **Problem Statements**, or **Identification of Problems**, the researcher should based him/herself on the background and extract the problems to be focused on the research.

Limitations of research may have to be written as a way to limit the

scope of the research. Remember the basic pillars? If the topic of research becomes too wide, it affects the cost of research and length of research. It is always recommended to limit the scope to allow researchers to focus and conduct deeper analysis on the particular topics.

To further polish the introduction chapter, it is also recommended to have a separate section for **research questions**. The basic difference between Problem Statement and Research Questions is simply on the why that researchers should write them. For the problem statement, researchers should write sentences and statement with the intention to explain the problems. For the research questions, researchers should write questions based on the problem statements with the intention to questions particular issues.

To better illustrate the actual writing of chapter 1, whose purpose is to provide sufficient foundation and background toward the topic of the research, examples from actual research are shown in the following section.

SELECTED SAMPLES

SAMPLE # 1: ECONOMIC INDICATORS AND ORGANIZATIONAL PERFORMANCE

The following research sample is based on the actual work of an undergraduate thesis in 2009, which was originally written by Mayasari Sagita Soekasah¹ from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*A Correlational Study Between Selected Indonesian Economic Indicators Towards the Revenue and Performance of PT. Fortune Indonesia, Tbk*”.

The approach used in this study was quantitative-based research, which mainly relied on questionnaire to evaluate the relationship among variables based on the economic indicators and organizational performance. Interviews were also conducted to learn the insights of the organization-wide impact of the economic indicators. Secondary data from financial statements of publicly-listed firms are also considered in-lieu of the managerial explanations and evidences on what the firms have attempted to do.

CHAPTER 1 - INTRODUCTION

1.1. Background

1.1.1. Advertising

Nowadays, advertisements have been a part of people's live. It has shown new products and services that people may use in their daily lives. Without advertisement people will not be able to know that their needs can be fulfilled or where to fulfill them. Centuries ago, advertising was done by verbal communication also known as word of mouth. These days, advertisement is defined as a message that offers a product to the consumers through a media.

As consumers, people are all potential targets of advertisement. Today, advertisements are delivered in many different ways. Companies will place their ads in the newspaper, magazine or billboards. Some big companies even make their announcements of new products or services on the radio or even broadcast it on television. Every single waking hour, people always see many different commercials. Since advertising can be effective in influencing people to purchase goods or services, there are many companies competing with each other in making better advertisements.

Other than influencing people, advertisements can also have an influence on the

economy. Companies can increase their sales by getting more customers as well as maintaining old customers. Advertising can help companies to complete this task. The economy will be stimulated because an advertisement can help a company to sell more products or services, which means more tax and possibly a higher gross domestic product ("GDP").

Consumers are an important part of the economy. As a consumer, advertisements give people more options. By watching commercials, consumers will have more products or services to choose from. Advertising helps producers or sellers gain the trust of the consumers. By advertising, a seller can make their company seem huge or have an attractive logo. This will attract more customers and build more trust towards the company. Overall, advertising can help people be aware, remember and trust.

1.1.2. Economy

The term economics refers to the understanding and improvement of the economy as a whole (Schiller, 2006). Economics has 2 main branches; macroeconomics and microeconomics. Macroeconomics deals with the performance, structure and behavior of a national or regional economy as a whole, while microeconomics only focus on the actions of individual agents and their behavior towards determining the prices and quantities in specific markets.

Many macroeconomists pay close attention to indicators such as GDP, unemployment rates and price indices to better understand how the economy as whole operates and functions. In this thesis, the economic indicators will be more selected and focused. As mentioned before, these indicators will be focused on four key indicators which are GDP, inflation, interest rates per Bank Indonesia and lastly the exchange rate of Rupiah against US Dollar.

1.2. Research Problems

There are few research problems to be investigated in this thesis, as follows;

1. This research attempts to study the correlation between key factors of Indonesia's economic indicators, which are; fluctuations of GDP, inflation, interest rates per Bank Indonesia, and exchange rates of Rupiah against US Dollar towards PTFI's performance.
2. This research attempts to study the Indonesia's GDP as a dependent variable, which is predicted to have been influenced by inflation, interest rates per Bank Indonesia, and exchange rates of Rupiah against US Dollar.
3. This research attempts to study the impact of Indonesia's GDP towards the performance of PTFI during 2004 to 2008. The performance of PTFI includes revenue, and other commonly used financial ratios measurements, such as; ROE, ROA, NPM, ART, DAR, DER and CR.
4. Comparing the advertisement sales made by PTFI during the period of 2004 to 2008 to the advertising industry's performance during the same period.

1.3. Research Questions

With regards to the above mentioned research problems, the following are the respective research questions to be analyzed further in this thesis. Those research questions include;

1. Do the Indonesian economic indicators, namely GDP, inflation, interest rates per Bank Indonesia, and the exchange rate of Rupiah against US Dollar have a strong correlation towards PTFI's revenue during 2004 to 2008?
2. Do the fluctuations in the Indonesia's GDP, as a dependent variable of inflation, interest rates per Bank Indonesia, and exchange rates of Rupiah against US Dollar, have a strong correlation to the performance of PTFI during 2004 to 2008?
3. How much contributions have PTFI's advertisement sales by media towards the advertisement sales by media of the advertising industry in Indonesia during 2004 to 2008?

1.4. Research Objectives/Significance

The main objective behind this research is to determine the correlation between selected Indonesian economic indicators towards the revenue and performance of advertising agencies. This research paper will mainly focus on one advertisement agency; PT Fortune Indonesia, Tbk. ("PTFI"), as the research object.

The secondary significance of this study is to discover the level of contribution that PTFI has towards the Indonesian advertising industry. All data will be provided by PTFI and will be dated back as far as January 2004 until December 2008.

1.5. Scope Limitation

The study is limited as follows;

1. To analyze the impact of the correlation between the changing economy in Indonesia towards the revenue and performance of PTFI. This paper concentrates on PTFI because the company is publicly listed, so the data can be easily obtained. Period of the study relies on the quarterly financial data of PTFI from January 2004 to December 2008.
2. Regarding the performance of PTFI, during the period of 2004 to 2008, this research focuses on seven main accounting ratios, such as; Return on Equity ("ROE"), Return on Asset ("ROA"), Net Profit Margin ("NPM"), Account Receivables Turnover ("ART"), Debt to Equity Ratio ("DER"), Debt to Asset Ratio ("DAR"), and Current Ratio ("CR").
3. The economic indicators used are; GDP, inflation, interest rates per Bank Indonesia, and the exchange rate of Rupiah against US Dollar.
4. Additional subjects include necessary data regarding advertisement sales of the advertising industry in Indonesia. Such data will be used as comparisons toward PTFI's financial data during 2004 - 2008.

1.6. Report Structure

This thesis will be structured into 5 different chapters, as follows;

1. Chapter 1 discusses the background of advertising, the general Indonesian economy, the objective, scope limitation, questions and problems of the research paper.
2. Chapter 2 focuses on the literature studies, which is relevant and related to the main topic of this research paper. The literature studies will include a brief explanation about Indonesian general economy, an explanation regarding advertisement and its types, sales, and advertising agencies. As additional research, this study also includes information about financial statements and different methods to measure a company's performance.
3. Chapter 3 describes the frameworks which are used to conduct the research toward hypothesis testing. This chapter includes the research objectives and sources of data.
4. Chapter 4 shows the result of the data that has been analyzed using the necessary statistical tools.
5. Chapter 5 focuses on the conclusion and recommendation after analyzing all data gathered.

SAMPLE # 2: BALANCED SCORECARD AND ORGANIZATIONAL PERFORMANCE

The following research sample is based on the actual work of an undergraduate thesis in 2010, which was originally written by Pacifico Shorea Rotariaⁱⁱ from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*The Implementation of Balanced Scorecard in Assessing The Strategic Performance: A Case Study on Publicly Listed Companies in Indonesian Cosmetics and Household Industry*”.

The approach used in this study was quantitative-based research, which mainly relied on questionnaire to evaluate the relationship among variables based on the research model. Secondary data from financial statements of publicly-listed firms are also incorporated to provide managerial explanation and evidence on what the firms have attempted to do.

CHAPTER 1 – INTRODUCTION

1.1. Overview of Research Topic

Cosmetic and household are consumed daily necessities for people, especially for women. However, as the time goes by, men also use those products. With increasing amount of the demand for the products, the cosmetic and household firms offer variety of the products. The products would be the cheap one to the expensive one. The customers may choose the products based on their need and the buying power.

In the past, the demand of customers for the products are depend on their need, but today when there are many advertisements and offer of the new products that effect the demand of customers, so it will cause the demand of customers are not only depend on the need but also depend on the want of customers. The buying power will influence the people to buy what they need or wants (Kotler and Armstrong, 2008). The wealthier the people, the more money they have to buy good quality of products.

In this globalization era, the competitions among the companies are tighter. For example, when Association of Southeast Asian Nations (“ASEAN”) members countries and China started running ASEAN China Free Trade Agreement (“ACFTA”). There will become easier to the foreign companies from China or ASEAN members to sell the products in Indonesia and the impact of the local products is the demand of the local products will decrease because the price of the overseas products are cheaper than local products. One of the industries in Indonesia, which will be effected by ACFTA and globalization, is cosmetics and household industry.

Cosmetics and household industry is one industry which offers the daily’s products, such as, hair care products, face and skin products. Because there is an agreement

about free trading among China and ASEAN members, it will be easier to export or import foreign product to Indonesia. The threat that was faced by the Indonesian industry is the cheaper foreign products, which will raise tighter competition among companies. The competitions among the companies will enforce each company to evaluate the strategic performance in order to be better from their competitors.

Today, there are many companies that only emphasis to the financial measurement but the way to assess the strategic performance is more just focusing one financial measurement. However, it become important to also measure from non-financial aspect, such as, a company's relationship with its customers, its key internal processes, its learning and growth (Kaplan and Norton, 2000).

The appropriate tool to assess the performance of the company is balance scorecard. Balance scorecard is a management system about organization's strategic performance in four perspectives which are financial, internal processes, customer, and learning and growth. Balance scorecard also helps the company to assess the strategic performance and to accomplish the management processes, such as: translate the companies' vision and strategy; communicating and linking; business planning and target setting; and feedback and learning (Kaplan and Norton, 2000).

Based on the explanation above, this research attempts to review balance scorecard to assess the implementation in the companies' strategic performance and to evaluate the performance of the companies.

1.2. Research Problems

There are several research problems to be investigated in this research, as follows:

1. This research attempts to study the implementation of balance scorecard to assess the strategic performance of companies in cosmetics and household industry during 2004 to 2008.
2. This research attempts to study about the problems that occur based on four perspectives of balance scorecard to achieve the objectives of the companies in Cosmetics and household industry, such as:
 - a. Financial perspective: can the company achieve the financial target?
 - b. Internal process perspective: will the internal business results lead to financial success and satisfied customers?
 - c. Learning and growth perspective: can the capabilities of the companies achieve the companies' strategy?
 - d. Customer perspective: are the companies able to provide good services/products and satisfy their customers?
3. Comparing in the implementation of balance scorecard to each publicly listed company during the period of 2004 to 2008.

1.3. Research Questions

Referring to the above research problems, the following research questions are formulated;

1. Question #1: for the Indonesian cosmetics and household industry, has the balance scorecard been implemented to assess the company's

strategic performance?

2. Question #2: for the Indonesian cosmetics and household industry, do the companies need the improvement to achieve their objective based on the four perspectives of balance scorecard?

1.4. Research Purposes

Referring to the above research problems and questions, this study aims for the following issues;

1. The main purpose of this research is to analyze the implementation of balance scorecard in assessing the strategic performance in cosmetics and household industry. This research mainly focuses on cosmetics and household firms, which are listed in BEI. This purpose becomes significant as this study compares the theories on balance scorecard to the actual application in firms.
2. The secondary purpose of this study is to evaluate the strategic performance towards the companies' ability to meet their obligations, and conducting the performance reviews on the companies. The data will be dated backed as far as January 1, 2004 to December 31, 2008. This study becomes significant since the companies' strategic performance can be evaluated by using balance scorecard. Companies can gauge their objective achievement. Also, this study becomes significant as the result of this study may assist in the enrichment of understanding on balance scorecard and performance management.

1.5. Research Scope & Limitations

The study is limited as follows;

1. According to Jakarta Stock Exchange Industrial Classification ("JASICA"), each company is categorized into 9 sectors. Every sector is divided into many sub sectors. This research is limited to study the cosmetic and household industry, which is a part of the consumption goods sector.
2. To analyze the implementation of balance scorecard to assess the strategic performance in cosmetics and household industry. This study concentrates on the companies in cosmetics and household industry which is publicly listed, so the data can be easily obtained. The study covers the period from January 2004 to December 2008.
3. Based on the four perspectives of balance scorecard, this research only focuses on three perspectives, such as, financial perspective, customer perspective, and learning and growth perspective. Because of the limitation in obtaining data of internal business process perspective.

1.6. Report Structure

This research is divided into five main chapters, and each chapter has several sub categories. There are consists of:

1. CHAPTER 1: Introduction, which discusses about the general statement of

problem area, research purpose, research problem, significance study, research questions and hypothesis, scope limitation, and thesis structure.

2. CHAPTER 2: Literature Reviews, which focuses on the related references and theories that related to the topic of the research.
3. CHAPTER 3: Research Methodology, which describes about the research process, data collection method, research design and data analysis used to perform the thesis.
4. CHAPTER 4: Result and Discussion, which point out and detailed analysis and discussion regarding the finding that previously stated.
5. CHAPTER 5: Conclusion and Recommendation, which outlines the conclusion of the research and the recommendations that can be used for the future enhancement.

SAMPLE # 3: CONSUMER BEHAVIOR FOR FOOD RETAILERS

The following research sample is based on the actual work of an undergraduate thesis in 2011, which was originally written by Federica Setiawanⁱⁱⁱ from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*Analyzing Consumer Behavior in Small Food Retailers: Empirical Study in BSD City*”.

The approach used in this study was quantitative-based research, which mainly relied on questionnaires to evaluate the relationships among variables in this study.

CHAPTER 1 – INTRODUCTION

This chapter discusses the general statement of problem area, research purpose, research problem, significance of study, research question and hypothesis, methodology, design and instrumentation and data analysis.

1.1. Background of Research

Consumers are individuals or organizations who consume products and services produced by manufacturers, service providers and marketers. Consumers may be the buyers, end-users or both buyers and end-users of products and services. Consumers’ process of buying and using products and services is defined as consumer buying behavior or consumer behavior. Overall, consumer behavior studies consumers process of select, acquire, use, and dispose of products and services with purpose to fulfill consumers’ wants and needs, (Klopper, 2006; Perner, 2008; Hoyer and Macinnis, 2009; Mooij, 2010).

Many people believe that the study of consumer behavior is important. Marketing managers for example, need to study consumer behavior to find out their consumers’ value that they can use to develop, communicate, and deliver products and services which (Hoyer and Macinnis, 2009).

Academics also benefit from the study of consumer behavior, because they use the data of consumer behavior for further research and structure the course to teach academics students, (Hoyer and Macinnis, 2009). Study of consumer behavior is essentially vital to students of marketing faculty as they will work on marketing plan when they become the workforce.

This research focuses on consumer behavior in small food retailers in BSD City. BSD City is a new part of urban development and with this new development, a new market of food retailers become available. With a new market, there comes a new demand and then new challenge in selling food products and services. BSD City is located near Serpong area in which many of middle class people lives. According to

Sekretariat Tangerang Selatan (2007), the total number of families from KS tahap 2 to tahap 3 plus in Serpong area is 20.759 out of 26.454 families. These people prefer to go to small food retailers, which in this context are small restaurants located in food court, because these retailers provided cheaper foods that they can purchase easily.

Due to its location which is near to Jakarta Selatan area, there are also many Jakarta residents, who visit BSD City to dine or eat out. Jakarta residents experience traffic almost every day and they likely go to small food retailers, which are conveniently located near the main road and office building. Jakarta residents, who migrated to BSD City, would do the same due to their eating habits which are more adventurous as they are attracted to more exotic food like Chinese and Japanese.

In conclusion, this research is focusing on consumer behavior of these population groups to find out consumer behavior that best represent them.

1.2. Research Problems

Based on the background and purpose above, there are two facets of research problems which are:

1. To identify factors/dimensions of consumer behavior in small food retailers of BSD City's FB Outlets especially in Giant and ITC BSD.
2. To identify consumer purchase intention based on food variety, food quality and physical attributes variables food retailers in BSD City

1.3. Research Questions

With regards to the above research problems, the following research questions are formulated;

1. Question # 1: What are the consumers' profiles of small food retailers in BSD City's food court?
2. Question # 2: What is the variable that has the most influence to consumer behavior?
3. Question # 3: How strong is the correlation between BSD City's consumers' behavior and their consumer purchase intention?
4. Question # 4: What is the variable that has the most influence BSD City's consumer purchase intention?

1.4. Research Purposes & Significance

This study attempts to examine the relationships between consumer buying behavior and purchase intention. To ensure that the targets are achieved, the following specific purposes and significance are formulated;

1. This research is to analyze the consumer buying behavior of BSD City community in small food retailers. This study becomes significant since readers can find out about consumer behaviors on small food retailers in BSD City.
2. The second purpose is to find out consumer's purchase intention based on consumer preferences of food variety, food quality and physical attributes of small

food retailer outlets. This study becomes significant since the existing and future food-related businesses in BSD City can use data on consumer behavior from this study in making future marketing and business plan

1.5. Theoretical Perspective

This study focuses on the use of consumer behavior theory. Consumer behavior explains factors that influence consumers to purchase products and services, namely the mix of personal, psychological, social and cultural factors (Gilligan and Willson, 2009). Consumer behavior is strongly associated with People factor of 8 P's marketing mix (Morrison, 2002).

1.6. Research Method & Design

1.6.1. Research Method

The study is researched using a descriptive research method focusing on cross sectional studies in which samples are measured only at one point of time. The data gathered represents quantitative data. Primary data is gathered through questionnaires while secondary data is gathered through literature review.

1.6.2. Research Design

Data collection methods use questionnaires with close ended questions for measuring variables associated with this proposed study. The questionnaires ask relevant questions regarding the consumer behavior in small food retailers and the consumer view of existing food products offered by food retailers. The questionnaires use the Likert scale model.

The sampling method for this proposed research is a convenience non probability sampling method. The population of this research is BSD City's residents. The samples are residents around ITC BSD and Giant Area and also visitor of BSD City who eat in these three areas.

1.7. Data Analysis

Data gathered from questionnaire is analyzed by AMOS AND SPSS software.

SAMPLE # 4: SWOT ANALYSIS OF INTERNATIONAL UNIVERSITIES

The following research sample is based on the actual work of an undergraduate thesis in 2006, which was originally written by Diga Ferdian Rupang^{iv} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*The International Bachelor’s Degree of Business Program in Three Universities in Jakarta: A Competition Analysis*”.

The approach used in this study was qualitative-based research, which mainly relied on documentation studies/verifications, interviews, and focus group discussion to evaluate the insights of internal analysis (strengths and weaknesses) and external analysis (opportunities and threats) in this study.

CHAPTER 1 - INTRODUCTION

This chapter lays out the underlying foundation on the research topic, including research problems, questions, and purposes.

1.1. Background

The presence of business studies affiliated with international universities in Indonesia nowadays has becoming more and more important. Especially in Jakarta, the number of international programs in business, especially the undergraduate programs, offered in universities has been increasing rapidly. There are several names of international universities in Jakarta such as President University (PU), Swiss German University (SGU), Universitas Indonesia International (UII), Monash University, Bina Nusantara International (Binus International), and many others. Each of these international universities offers different types of courses and faculties, pricing, infrastructure and their curriculum is normally different with one another.

The school of business has been one the most favorite destination of studies in the international universities and the demand of students, who are willing to join the faculty of business, are increasing. People think that the study of business is important and essential for them to anticipate the business trends and develop good career in the business world (Ebert and Griffin, 1998), and in order to get the better education in business, many people choose the international universities. Perhaps, among many reasons, it is important to note that international universities offer several advantages, such as; double degree programs, overseas internship programs, better foreign languages education/training, and unique quality of the teaching staff.

The dual degree program is probably the main advantage of an international university. In Jakarta, if a person graduates from a local university and took business as their main subject, they will only receive the title of *Sarjana Ekonomi* (SE), but in the case of international universities, they are capable to offer the program of dual degree which will provide their graduates with two titles, *Sarjana Ekonomi* (SE) and

also the degree of Bachelor of Business Administration (BBA). The double degree program is seen as a great advantage by the students who want to study business because from their point of view, it will give them a chance of getting better education and more acceptable title, but also more opportunity in finding and building their career paths (Ebert and Griffin, 1998).

Table 1.1. List of Selected International Universities in Jakarta

No.	Name of International University	Year of Establishment	Program	No. of student as of 2006
1.	Swiss German University	2000	Business Administration	764
2.	Universitas Indonesia International	2004	General Business Economics	50
3.	Bina Nusantara International	2001	Accounting, Marketing	

Sources: Respective Universities Internal Information.

The other significant advantage of international universities is the overseas internship program. Basically the program of internship is to help the student in adapting and understanding the working environment more by placing them in a specific company. It will also help the student in gaining knowledge of what to expect in the real working environment (Hanna, 1998). There are several universities which are having the internship program for their students overseas, so instead of doing it in Jakarta like most of the local universities do, they will send their students to a foreign country and conduct their internship program there for a specific period of time.

Inevitably, the high demand for the courses regarding the business education has made international universities realize that it can be one of the best ways to attract students to enter their university. Different international university has their own strategy of promoting their business related courses. The variables being used in this thesis will include the three international universities; SGU, UII, and Binus International. Each of them has their own advantage regarding their Bachelor's degree program in business administration. The reason why the author chooses the three respective universities among the rest of the international universities are because SGU is the first of the international university in Indonesia, UI is one of the leading university education providers in Indonesia, and Binus is considered as the most developed university in Jakarta.

These analyses will eventually help as a guideline and also references in understanding what are the advantages offered by their faculty of business, how is their marketing strategy of the three universities, and also the competition between the three international universities regarding their program of business.

1.2. Research Problems and Questions

The research problems and questions can be formulated as follows:

Table 1.2. Research Problems & Research Questions

Research Problems	Research Questions
1. The faculty of business is advantageous in each of the three international universities	1. What are the advantages of the faculty of business in each of the three international universities?
2. The competition level in the Bachelor's degree program in the faculty of business is relatively tight between the three international universities	2. What is the competition level of Bachelor's degree Program in the faculty of business between the three international universities?
3. There are notable strengths, weaknesses, opportunities, and threats of the faculty of business of the three international universities	3. What are the strengths, weakness, opportunity, and threats of the faculty of business of the three international universities?

1.3. The Objective & Significance of the Research

The objectives of the study were:

1. To compare the advantages that each of the three international universities with regard to their Faculty of Business. The study is expected to give a better understanding of the educational system of the international universities in Jakarta.
2. To analyze the competition level of the Bachelor's degree Program in the Faculty of Business in three international universities in Jakarta. The study is expected to give valuable information regarding the level competition there are in and how to improve the standard of their educational program regarding the business related subjects.
3. To analyze the S.W.O.T of each of the three international universities regarding their Business program. the study is expected to provide valuable information which can be used as a guide and reference. The study is expected to help students in choosing the university that is suitable for them according to their perspective.

1.4. Contribution to Knowledge

Prior research in the area of this study is limited. This research contributes to the existing knowledge by revealing the competition analysis result of the three prominent international undergraduates program in Jakarta, focusing on the business studies. Analysis of the three international universities under the coverage of this study can provide us valuable information regarding the courses of business that is available in Jakarta. The study will also show the advantages of each of the three international universities in relation to their courses of business, and can be used not only for the prospective students who wanted to look the education of business in the bachelor's degree, but also by each of the universities themselves as evaluation tools for improving their courses of business.

1.5. Thesis Limitation

This study is limited in investigating the competition of the three international universities regarding their business faculty only. The rationale is that Jakarta is a

major market for education industry. The focus of investigating the three international universities is to allow an indebt examination of the competition among the three international universities regarding their business program. The timeframe being covered in this study is also limited from 2000 to 2006.

1.6. Organization of the Study

This thesis will be consisting mainly of five chapters. The first chapter will be the introduction part where it shows the background of the study, the objective of the research, the limitation of the study, and so on. The chapter 2 of the thesis will be consisting about the literature review related with the study. In chapter 3, it will be consisting about the conceptual framework of the thesis. Chapter 4 will shows us the methodology used in this thesis, chapter 5 will show us the findings and analysis based on the research of the problem, and finally chapter 6 will give the conclusion of the thesis.

SAMPLE # 5: VALUE CREATION IN MANUFACTURING FIRM

The following research sample is based on the actual work of an undergraduate thesis in 2009, which was originally written by Maika Nova Yudha^v from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is *“Analysis of Value Creation by Manufacturing in Indonesia from a German Furniture Wholesaler’s Perspective: A Case Study of PT. Ploss Asia”*.

The approach used in this study was a qualitative-based research, which mainly relied on documentation studies/verifications, and interviews, with evidence to support the necessary calculations on value creation.

CHAPTER 1 – INTRODUCTION

1.1. Background of the Study

1.1.1. Furniture

Furniture is a term for the movable objects that support human body such as seating and which provide storage such as shelves. Furniture can be made from several materials such as teak, wooden, plastic, iron, glass, stainless steel, aluminum, rattan, stones, water hyacinth, and metal.

In general, furniture divided into three categories, which categorized as outdoor furniture, indoor furniture and accessories. Wood can be classified as two types, which are hardwood (from oak and broad-leaves trees) and softwood (from pine). Besides the furniture, the producers also provide upholstery that work of providing seats furniture with padding, springs, webbing, fabric, or leather covers. Outdoor furniture or garden furniture is typically made of water resistant materials, as with the function that have to be adapted in all conditions or climate. The major raw material has been used for manufacturing outdoor furniture is teak. Teak is naturally contains silica that makes it resistant to fungal decay, effects of water and chemical, fire, acid, and weather (adverse effects of being outside). Other raw materials which often used for outdoor furniture are aluminum, rattan and plastic. Aluminum is typically robust and long lasting and plastic is typically waterproof to leave-out year round. Rattan is also good material for outdoor furniture because it is lightweight, durable, and flexible.

1.1.2. Furniture Demand

Nowadays, market demand of furniture becomes higher in worldwide. The industry offers attractive growth opportunities for multinational players to enter the market. World furniture production is worth about US\$ 352 billion and has been driven primarily by demand from the United States, Japan and Europe (ASMINDO, 2006). As with the global market, home furniture is the largest segment in furniture market, accounting for about 65% of furniture sales (IBEF, 2008). The furniture industry is

progressively transforming into a competitive sector, which is affected by the entry of global brands, emergence of large retail players and the resultant consolidation. Germany has the largest furniture market in Europe (for about 22% from total in Europe). The consumption of furniture products are €17,036 million in 2005, and half consumption of the furniture is imported from foreign countries. Total import value in Germany by 2005 is €6,375 million or 2,251,000 tons. (ASMINDO, 2006)

Currently, trends in furniture design are conservative. The international trends in furniture express in the use of every global trend from country sophistication to tropical luxury. Wooden is mixed with other raw material such as fabric, metal or even glass. Leather is still the most popular categories for upholstery, which usually used in collaboration with fabric.

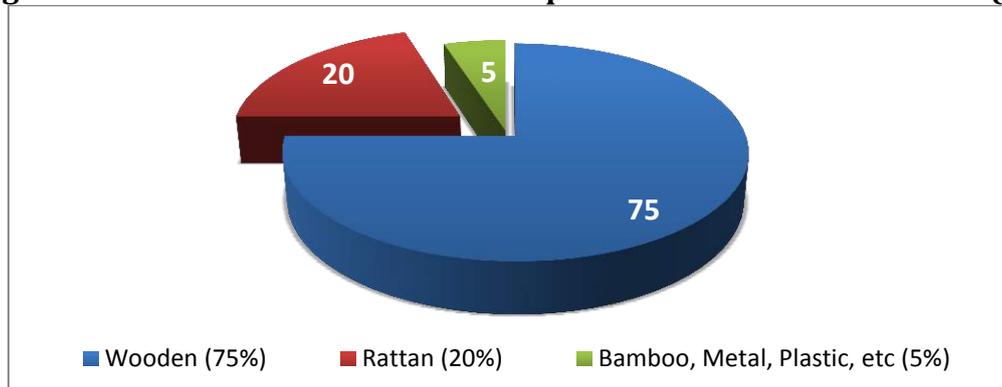
1.1.3. Furniture International Trade

1.1.3.1. Indonesian Furniture Products

Teak wood has been known and important for centuries in Java. There are two groups of teak wood producers in Java, either on state forest or outside state forest. Perum Perhutani, a state enterprise, is the major producer of teak wood. It manages about one million hectares of teak plantations located on state land, of which 0.6 million hectares is under production forests. Nevertheless, with one million hectares, Javanese teak plantation is the largest of the world, as teak plantation area in the world is about 2.7 million hectares (Roda, 2007).

The furniture industry is also composed of a huge numbers of actors. Jepara is an industrial district devoted to the production of wood furniture and wood carving. It regroups about 14,000 small workshops and 1,000 medium and large enterprises (Wiyancoko, 2002). In Jepara, most of the furniture industry uses teak wood as raw material. For various reasons, Jepara became a place for mass production of low quality teak products, which are sold overseas at low price.

Figure 1.1.3.1 Indonesia's Furniture Exports based on Raw Materials (%)



Source: Badan Pusat Statistik, accessed in April 2008.

In Jepara, a total of 15,271 units of production have been identified, it employed approximately 170,000 workers in Jepara. The activity creates considerable revenue between Rp 11,900 to 12,300 billion per year of added value (about €1 billion per year). In other word, the use of around 9m³ of round wood, sustain 1 fulltime employee per year (Roda, 2007).

Besides teak and wood, rattan is also produced from Indonesia which has been known to grow up to hundreds of meters long. 70% of the world's rattan population exist in Indonesia, where distributed among Borneo, Sulawesi and Sumbawa islands (<http://www.encyclopedia.com>, accessed in April 2009).

1.1.3.2. The Growth of Indonesia Furniture Export

Based on the data of Central Statistic Bureau, the overall perspective of Indonesian export by February 2004, industrial sector gave a contribution of 67.12% while the non-oil and gas sector of 23.5%. The mining and agriculture sectors are 5.37% and 4.01%.

Furniture is one of the ten main products which have been driven heavily to increase the total of export in non-oil and gas sector. The government is committed to do trade liberalization by increasing furniture products besides shrimp, coffee bean, CPO, cacao, textile, electronics, automotive parts, rubber and sandals.

Teak has been viewed by traders and buyers as a commodity in global market. Furniture exports particularly in Jepara increased substantially in 1998. This created a boom of the teak industry based on cheap wood and cheap labor force. Teak furniture prices have been dictated to Indonesian people by the international market. For instance, a teak chair sold at less than US\$ 10 in Jepara, which can be sold in higher price in foreign countries.

Table 1.1.3.2 Indonesian Export Performance of Wooden Furniture (1997-2005)

Year	Volume (in tons by X '000)	Value (million USD)
1997	360	527
1998	158	252
1999	478	854
2000	587	1091
2001	561	1037
2002	436	782
2003	660	1168
2004	609	1172

Source: <http://www.wipo.int/about-ip/en/>, accessed in April 2008

Furniture trading has become the significant sector in the world trading of manufacturing products, and the export volume per year has rapidly corresponding to the growth of total world population and the increase of world's income per capita. These two factors are the primary contribution to the growth of world demand toward furniture. The world furniture trading in 1997, recorded at around US\$ 41 billion, then in 2005 the value reached US\$ 80 billion (Roda, 2007).

The furniture business has been known to be the hereditary business in Indonesia. Furniture industry in Indonesia is dominated by small and middle scale business, most of all from micro or home-industry. Many of them created a joint venture with a large industry or trading houses. As a percentage of total wood exports, export of plywood remains the highest position. Following the crisis, the proportion of wood

furniture export in the total wood export tends to pick up with an average per year of over US\$ 1 billion (Roda, 2007).

Indonesia is after Malaysia the world's second largest tropical exporter of furniture. Indonesia's furniture exports are expanding, growing from US\$ 1.58 billion in 2004 to US\$ 1.65 billion in 2005 (Maskayu, 2007). There is an upward trend of Indonesia furniture export. A higher growth of 5-7% is expected in the coming years. Based on Indonesian statistic, it estimated that the Indonesian furniture sector comprises more than 3,500 companies with over two million workers.

Wooden furniture dominated the furniture sector, accounting for the total furniture exports. The furniture industry is mainly concentrated in Java (such as Jepara, Semarang, Solo, and Surabaya), where furniture accounts for about 40% of Java's total exports. The Indonesian furniture industry relies heavily on timber as its raw material with an annual requirement of 4.5 million m³. Although Indonesia is the world's second largest timber producer, the industry faces shortages of raw materials. The main timber species for wood carving are teak, mahogany and sonokeling. Almost half of the total national rattan production is based in Cirebon (<http://www.dephut.go.id/>, accessed in May 2009).

1.1.3.3. The Growth of Germany Furniture Import

World imports of wood furniture reached around US\$ 32.1 billion in 2001. United States is the biggest market importing around US\$ 11 billion in 2001, with other major markets such as Europe and Japan.

Germany has the largest furniture market in Europe, for about 22% from total in Europe. The consumption of furniture products are €17,036 million in 2005. Half consumption of the furniture is imported from foreign countries. The total of import value in Germany is €6,375 million, or 2,251,000 tons in 2005 (Tambunan, 2006).

In addition, there is a good potential market for furniture products to enter German market, while considering that kitchen furniture is a focal point in Germany. Most of the people live in apartment, some of the middle-up class live in a country-house where surrounding with a garden. Therefore, it results more demanded in outdoor furniture in high class groups, especially in summer.

**Table 1.1.3.3 World's Largest Furniture Importer Countries
1996-2004 (million in US\$)**

Country	Period								
	1996	1997	1998	1999	2000	2001	2002	2003	2004
USA	7,309	8,551	10,275	12,604	14,970	14,624	16,781	18,718	21,404
Germany	6,134	5,679	6,198	6,080	5,862	5,813	6,048	7,569	8,161
England	1,891	2,117	2,571	2,865	3,140	3,377	4,225	5,278	6,633
France	2,751	2,696	3,018	3,196	3,254	3,297	3,566	4,369	5,415
Japan	2,592	2,529	2,021	2,252	2,801	2,817	2,760	3,145	3,773
Canada	1,191	1,439	1,603	1,739	2,061	2,068	2,258	2,549	3,043
Belgium	1,679	1,692	1,931	1,903	1,868	1,791	1,851	2,233	2,591
Austria	1,279	1,245	1,262	1,341	1,376	1,466	1,389	1,770	1,984
The Netherland	1,571	1,389	1,369	1,743	1,604	1,471	1,460	1,813	1,971
Switzerland	1,619	1,393	1,523	1,585	1,490	1,431	1,502	1,749	1,970

Country	Period								
	1996	1997	1998	1999	2000	2001	2002	2003	2004
Spain	455	501	558	685	747	767	825	1,385	1,861
Italy	543	585	680	801	842	840	898	1,131	1,474

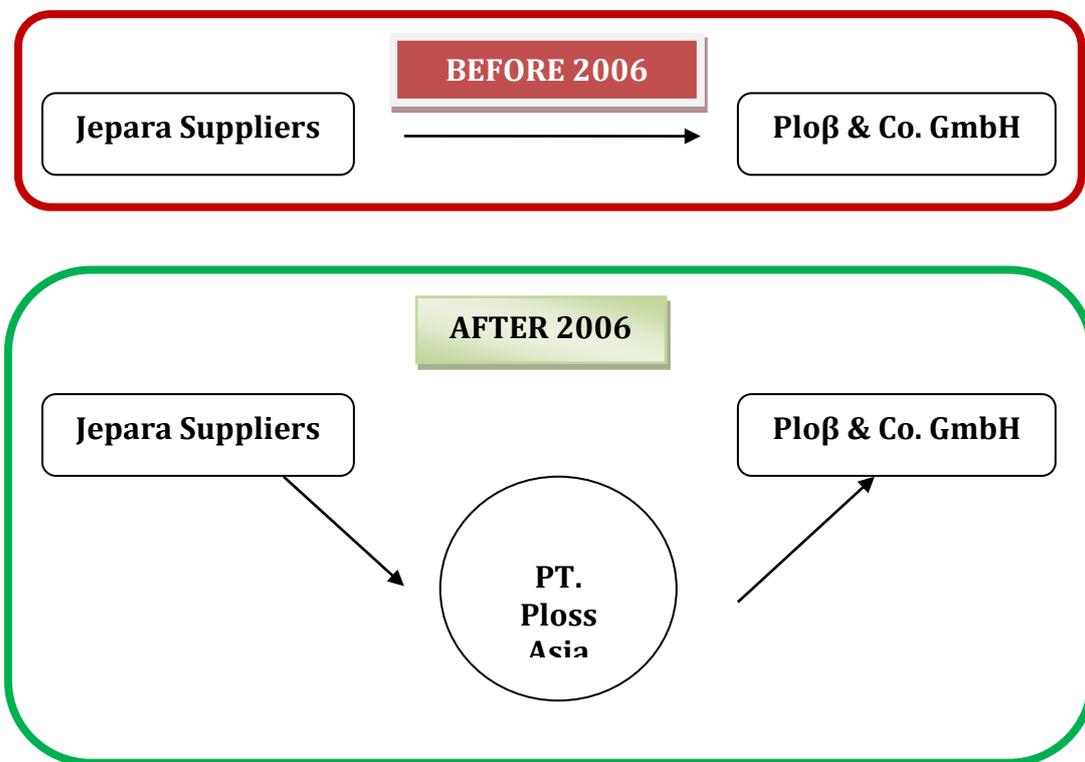
Source: ASMINDO, accessed in April 2009.

1.2. Company Background

Ploß & Co. GmbH (“PCG”) is a German company that runs a business in furniture trading industry in Hamburg, Germany. As a wholesaler, the company distributes the furniture product to many retailers in Germany and other foreign countries nearby. The furniture products are manufactured in PT. Ploss Asia (“PPA”), the subsidiary company of PCG, where located in Semarang, Indonesia.

PCG has built PPA in Semarang as a supporting unit to focus on the quality control for the goods manufactured by Jepara suppliers. In this case, PPA categorized as a monopsony, which is an example of imperfect competition. A monopsony is a market form that only has one buyer. PPA has running the business under supervised of PCG and built only for selling the goods to PCG.

Figure 1.2. Business Organizations Process



Source: observation in PPA and PCG, 2008-2009

Before 2006, when PPA was built, PCG is supplied the furniture products directly from Jepara suppliers. After several years, they faced many rejections from the customers around Europe due to the lack quality of the products. Therefore, they officially opened a subsidiary office in Indonesia with a view to face the problems and add more value to the products so it will be appropriate and acceptable to European market. Besides their responsible to focus on quality control, PPA also assumed to bridge between suppliers in Jepara and PCG.

1.3. Research Problem Identification

There are some problems may be occurred in relation to the manufacturing of goods in Indonesia. There is a wide public opinion about the minimum quality of Indonesian production, which includes some internal problems, such as; ineffective and inefficient of production and distribution, and financial risks. Hence, this affects the perception on minimum quality of Indonesian furniture production. Generally says, it comes up with the lack quality of raw material (wood) from Indonesia which has decreased in quality as an impact of illegal logging. In addition, Indonesian labors are not qualified as international labor standard and inefficient physical infrastructure (especially technology), which is influencing the ineffectiveness of distribution. Therefore, it would be the major problems for Indonesia to fierce international competition.

1.3. Research Questions

Concerning the above research problems, this study focuses on the following research questions;

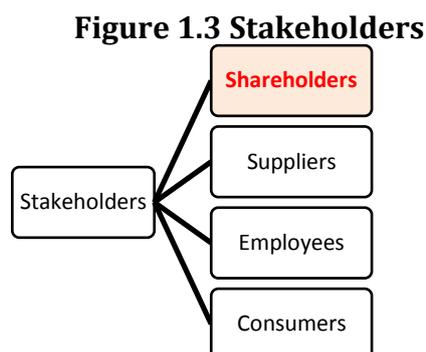
1. Q₁: What are PCG considerations in doing production in Indonesia?
2. Q₂: What are other benefits for PCG by manufacturing the goods in Indonesia?
3. Q₃: What is the major thing that PPA (Indonesian Manufacturer) needs to be concerned in entering German market?
4. Q₄: How PPA creating competitive advantages and adding the existing value?

In relation to the above questions, the preliminary hypotheses can formulated as follows:

1. H₁: The low-cost labor is the major reason for low-cost production in Indonesia.
2. H₂: The availability of natural resources which is used to produce the goods are affecting the decision of PCG in manufacturing the goods in Indonesia.
3. H₃: Indonesia productions of furniture are less quality than other countries' production because of unskilled labor.
4. H₄: Lack of productions' quality caused by insufficient of technology in Indonesia.

1.4. Research Limitation

Value creation of building a subsidiary company as a supporting unit in Indonesia covers the needs for PCG. This thesis will focus on the issues related only to the shareholders.



Source: observation in PPA, 2009.

This research follows the pattern in a case study analysis and will mainly focus on value creation by manufacturing in Indonesia for German furniture's wholesaler. The survey, observation, and interview will be mainly at PPA in Semarang to find out the value creation for the businesses. In this case study, the scope is limited only to gather the data that from PPA Semarang, Indonesia.

Due to time constraint and scope limitation, this paper is unable to research directly in PCG Germany as a wholesaler in Germany, including the customers of PPA.

1.5. Research Purpose & Significance of Study

The primary purpose of this research is to analyze about the value creation in producing teak furniture in Indonesia. A secondary purpose is to enhance the existing value and competitiveness of Indonesian furniture in international market competition.

The study is significant for some reasons, such as: analyzing the value estimation, ascertaining the competitive strategy for PCG to maximize profit, and address barriers that might occur in the operational process of running the business. It attempts to come up with a solution to overcome these barriers.

SAMPLE # 6: VALUE CREATION IN PROPERTY & REAL ESTATE COMPANIES

The following research sample is based on the actual work of an undergraduate thesis in 2009, which was originally written by Caroline Nasmul^{vi} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*Value Creation of Publicly-Listed Property and Real Estate Companies in Indonesia*”.

The approach used in this study was a quantitative-based research, which mainly relied on the formulation of structural equation modeling to support the necessary calculations on value creation.

CHAPTER 1 - INTRODUCTION

1.1. Background of the Study

Property and real estate industry can be described as a growing industry in Indonesia. As a developing country, the demand for this business is relatively high. With the help of government policies (such as reduction in interest and infrastructure improvement) and a healthy economy, this type of business can be very profitable. Unlike other countries, there is still many unexploited land in Indonesia which gives a great opportunity for real estate and property industries to boom (Ririh & Adhi, 2011)

The growth in property business around Asia Pacific also gives a positive impact for Indonesian market. It attracts many foreign investors to enter the industry, which boosts the domestic market. Compared to the United States, Europe, and Middle East, Asia has the highest level of economic development. It is also the reason why investors are more interested in investing their money in Asia rather than developed countries like America. Moreover, from other countries in Asia Pacific, Indonesia has the lowest property prices. With the lowest price and increasing demand, investing here in Indonesia will certainly be profitable.

With a good economic situation and a great chance to gain profit, real estate and property investment surely has its own market within the community. Therefore, the business is growing and competition is getting tougher as well. From only a few real estate and property firms established in the past few years, now there are at least dozens of similar companies running in Indonesia. Their work can be seen from condominiums, apartments, residential complexes, and offices that occupy nearly all vacant land especially in big cities such as: Jakarta, Surabaya, and Medan.

In addition, the Lippo Group predicts that property investment will have the highest growth potential in 2011. The rapid flow of foreign funds has helped trigger the development of this business. PT Bakrieland Development Tbk also predicts 20% growth in the market of property industry. Event Agung Podomoro Group has

confidence in the growth of property industry for 10% higher than Bakrieland's prediction since all the economic indicators strongly support the business (www.bataviase.co.id).

With all the positive forecasts and confidence from the major companies themselves and high demand from customers, real estate and property businesses surely need to prepare a good strategy that can excel their current ability in the market. Not only to deliver a good product and service for customers, but they also need to keep innovating, creating brands, and having well-trained and committed resources. This can be described as the broader definition of value creation (www.referenceforbusiness.com). Thus, creating value is one of the most necessary tasks for management to do so that the firm can stand out among all the competitors and boost profits.

Besides its important task in generating more profit, value creation also ensures a business to be sustained in the future. When an organization understands the important role of value creation, it will give you the benefit to prosper in the future (Spulber, 2009).

1.2. Research Problems, Questions & Hypotheses

There are two research problems and questions in this study;

1. Problem 1: to examine the value creation of publicly listed property and real estate companies in Indonesia.

Question 1: how do listed property and real estate companies in Indonesia create their value?

Hypothesis 1: value creation analysis has been implemented in property and real estate companies

2. Problem 2: to investigate the contribution of the value creation indicators in assessing the performance of listed property and real estate companies in Indonesia.

Question 2: Which of the six indicators applied in this study have more effect to the value creation?

Hypothesis 2: shareholder value model has a stronger effect than other indicators in the value creation.

1.3. Research Purposes & Significance

Referring to the above research problems and questions, this study attempts to achieve the following purpose;

1. To analyze the value creation of the publicly-listed property and real estate companies in Indonesia. This study analyzes the methods used to establish the value creation in the publicly-listed property and real estate companies in Indonesia
2. To scrutinize the influence of value creation indicators related to the publicly

listed property and real estate companies in Indonesia. The study is significant because it provides approaches in determining value creation and highlights the connections among value creation, competitive advantage and value based management. It is expected that this study is able to contribute a valuable knowledge on understanding the importance of value creation in generating the success of the business.

1.4. Theoretical Perspective

Some of the theories used in this study as the foundation to analyze the value creation in the publicly-listed companies in Indonesia are as follows;

1.4.1. Resource-based View of the Firm

A resource-based view points out that a firm's resources are the major contributions in creating the value of the firm. However, to implement the value creation, these resources should be available to use and the firm should have capabilities to utilize the resources strategically. The theory also argues that competitors cannot copy other organization's strategic capability because of four conditions (Hubbard, 2008, Anantadjaya, 2008):

1. Organizations are different. Each organization has a unique story which is hard to be copied.
2. Some of their capabilities are rare and valuable.
3. These capabilities are difficult to be imitated.
4. These capabilities are not easily traded.

Based on the conditions above, a firm's resources and capabilities is critical in order to create value. If all of the four conditions are included in the firm's capabilities, it will provide a competitive advantage. In other words, the firm will gain sustainable competitive advantage through their potential strategic assets, whether it is tangible or intangible, productive or nonproductive as long as it is managed effectively and efficiently through continuous value creation strategy implementation (Belkaoui, 2002, Anantadjaya, 2008). Competitive advantage is what the organization does better than competitors which create value to customers and is not easily to be imitated.

1.4.2. Value Chain Theory

Value chain analysis is a useful tool to help identify a key activity within a firm and could be a potential competitive advantage for the organization. It can be determined both with qualitative and quantitative measurements (www.edbarrows.com). Based on Michael Porter's concept, organization can be said as a chain of activities. This chain of activities then grouped into a system to help measure the value in each activity (Recklies, 2001). However, not all activities create value. Only a few of them generate unique value that has implication in how customers decide to buy the product or not. There are several tools to know whether these chains of activities create value or not. These tools are benchmarking, reengineering, and outsourcing. Benchmarking can be used to know which part of the activities generate lower value, while reengineering and outsourcing will be used to improve the value of those low value activities if they are still likely to be profitable (Hubbard, 2008).

1.4.3. Value Creation Analysis

Value is usually defined subjectively. It is determined differently depending the

appraiser perspective (Shaw, 2010). Whatever the terms are, value creation is necessary in the business. It helps the company to know which part it should concentrate to grow and have more advantage than the competitors by utilizing unique resources efficiently and effectively (www.referenceforbusiness.com; Anantadjaya & Yudha, 2009). This is how value creation analysis works. It is an instrument to decide a good corporate strategy in assessing performance and to achieve a maximum value in the future (Fuller, 2001).

1.5. Scope and Limitation

Due to time constraints and broad aspects related value creation, the study will focus only on the following aspects:

1. The study is limited to property and real estate companies listed on the Indonesian Stock Exchange from year 2008-2010.
2. The calculation of value creation is based only on productivity, efficiency, effectiveness, cost and benefit analysis, shareholders' value model, and economic value added (EVA).

1.6. Report Structure

The writing structure is divided into five main chapters, where each has several sub-categories. The five main chapters consist of:

1. CHAPTER I: Introduction, which gives a background of the study, research purpose, problem identification, significance of study, theoretical perspective, research question and hypotheses, and scope limitation.
2. CHAPTER II: Literature Review, which consists of literature and theories related to the topic of this thesis.
3. CHAPTER III: Research Methodology, which outlines several research processes and design, theoretical framework, hypotheses, type of data, and data analysis.
4. CHAPTER IV: Result and Discussion, consisting of value creation calculation and analysis of the calculation from the author.
5. CHAPTER V: Conclusion and Recommendation, consist of the conclusion arise from the analysis and recommendation for further improvement.

CHAPTER 2: LITERATURE REVIEW

Chapter 2 focuses on the explanation of literatures, which are used as the foundation of the research to support the variables and dimensions used in the research. The section of the literature review attempts to outlay to the readers the relevant literatures/theories chosen in the research. This chapter should lay all the underlying theories pertinent to the variables and sub-variables used within a particular research activities.

The section on literature review should be considered as the core section of the research report to outlay the theory-building in accordance with the variables and indicators/parameters to be used in the research activities. Several elements are required to be incorporated in the literature review, such as;

- **the grand theory**, which provides the “umbrella” theory that underlies the research activities,
- **variables** to represent the specific theory used in the research activities,
- **sub-variables**, which may also be referred to as indicators or parameters¹,
- a dedicated table to show **previous studies**, which are relevant to the current research topics,
- a dedicated table to show **differences** of previous studies and the current research topics,
- research model as a result of the “filtering” process based on the differences of the previous studies and the current research topics, and perhaps,
- the statements on **hypotheses**.

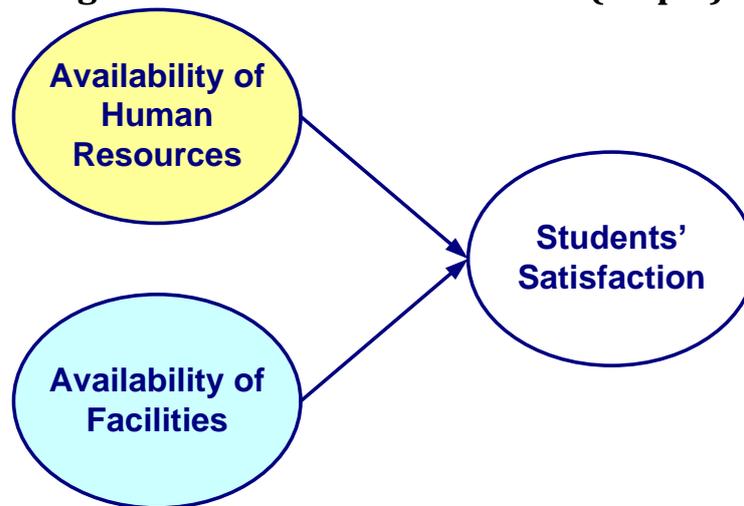
In order to appropriately develop the systematical literature review, it is highly recommended to formulate the basic research model first. The basic research model should closely mirror the initial intention on what the researchers are trying to do. For instance, a researcher would like to study about the level of satisfaction on the learning process of universities. From this, it is obvious that one of the variables used in the research is “satisfaction”, undoubtedly. Because the intention is to study the satisfaction on the learning process of universities, it is obvious also that the “targeted” research object is the students. Indirectly, parents and “users” of universities’ graduates can also be included. Next, the

¹ Please note that the word “sub-variables” are used interchangeably with “dimensions”, “indicators”, and “parameters”.

researcher should attempt to ponder upon other variables, which may likely bring about influences into the level of satisfaction. It is suggested that this is the time to start thinking about the influential variables onto the level of satisfaction in universities. Various variables can certainly be considered. From the availability of human resources in the universities, all the way into the availability of facilities, perhaps, can provide some degrees of influence on the level of satisfaction. certain industrial sector.

From the above-mentioned thinking processes, researchers can attempt to come-up with an illustration to provide a pictorial views on the relationships among the intended variables. The following illustration shows the basic research model that researchers can portray;

Figure 3: Basic Research Model (Step 1)



With the above basic research model, the next step for the researcher is to identify the sub-variables, or usually called as dimensions, or even parameters on how to approximate the main variables. For example, for the level of students' satisfaction can potentially be approached by questionnaires on the actual learning processes in the previous semesters. Deriving from the previous discussions, for instance, perhaps, the questionnaire can consist of some statements encircling around RATER (reliability, assurance, tangibility, empathy, and responsiveness), such as (Parasuraman, Zeithaml, & Berry, 1988);

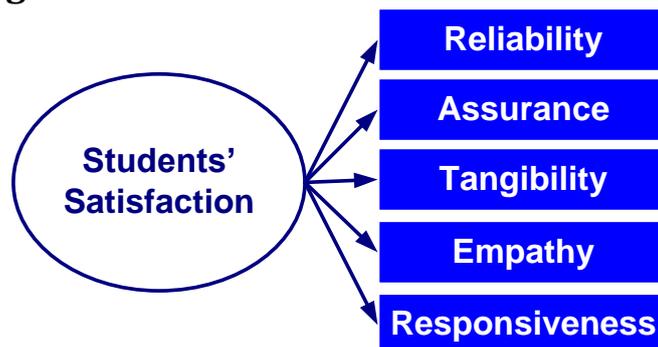
1. Statements on "reliability" may be as follows;
 - a. The university has provided the follow up actions on complaints raised by students
 - b. The university has delivered the courses in accordance with the prescribed curriculum
2. Statements on "assurance" may be as follows;

- a. The lecturers appear to have the sufficient understanding to deliver the courses
 - b. The university staff members have the sufficient understanding to handle various matters in the university
3. Statements on “tangibility” may be as follows;
- a. The classrooms appear sophisticated.
 - b. The library has the wide range choices on literatures and publications.
4. Statements on “empathy” may be as follows;
- a. The operational hours of the university are convenient for students
 - b. All of the university staff members, including the lecturers, are willing to take extra efforts on handling various matters
5. Statements on “responsiveness” may be as follows;
- a. All of the university staff members, including the lecturers, always have time to provide the necessary assistance for students
 - b. the choices of textbooks and other publications, including the assignments and teaching materials, appear to have been set following the market trends and future opportunities

With the sets of statements above, the following illustration can be drawn to mirror the relationships between the main variables of the level of students’ satisfaction and the sub-variables.

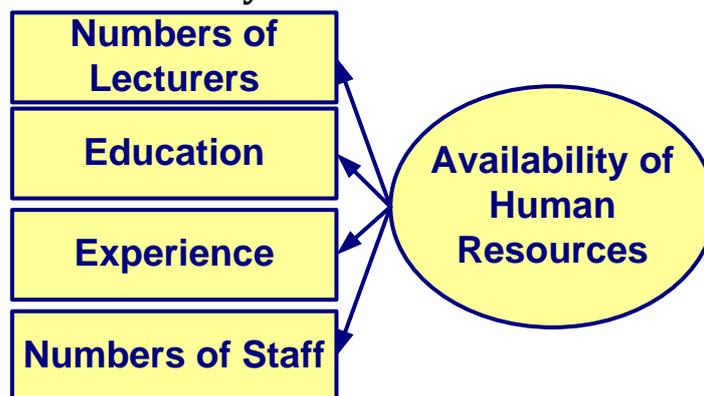
The illustration simply states that the level of satisfaction of students can be approximated by reliability, assurance, tangibility, empathy and responsiveness.

Figure 4: Satisfaction and Its Sub-Variables



The same thing can be done for the other main variables on the left-hand side, the availability of human resources and availability of facilities. Researchers should identify the sub-variables, or dimensions, or parameters, to approximate the availability of human resources and facilities. Perhaps, researchers can ponder upon the various parameters on the availability of human resources from; education, experience, numbers of staff, numbers of lecturers, and many others. The following illustration provides the pictorial diagram of the relationships among variables and sub-variables. At this time, of course, we have not yet confirming these parameters to any textbooks and/or academic journal articles. Nonetheless, as the part-two basic research model, it provides the necessary illustration.

Figure 5: Availability of Human Resources & Facilities



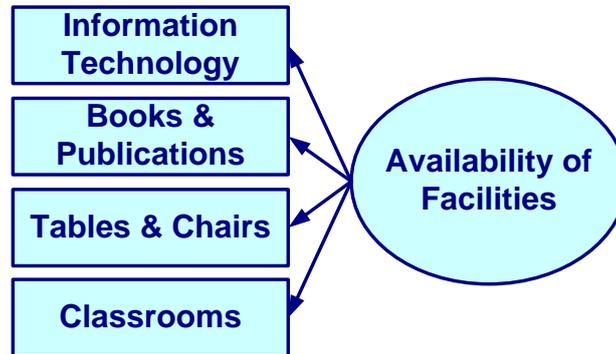
The above illustration simply states that the availability of human resources can be approximated by numbers of lecturers, the level of education, the years of experience, and also the numbers of staff members in the university. It means that;

1. As the numbers of lecturers rise, it is expected that the availability of human resources increases, logically. This is also true for the numbers of staff members of the university.
2. As the level of education increases for the lecturers and/or staff members of the university, it is logically expected that they become more available for students' various queries.
3. As the years of experience lengthen, it is reasonably expected that they become more available for students' concerns.

Also, for the approximation of the availability of facilities, researchers can contemplate upon numbers of tables, chairs, classroom, library (books, magazines, journals, and other publications), laboratories (equipment

and tools necessary), WiFi, computers, printers, cafeterias, and many others. Again, as stated previously, though we have yet to confirm the availability of the supporting literatures, this simple approximation provides the basic elaboration of the basic research model.

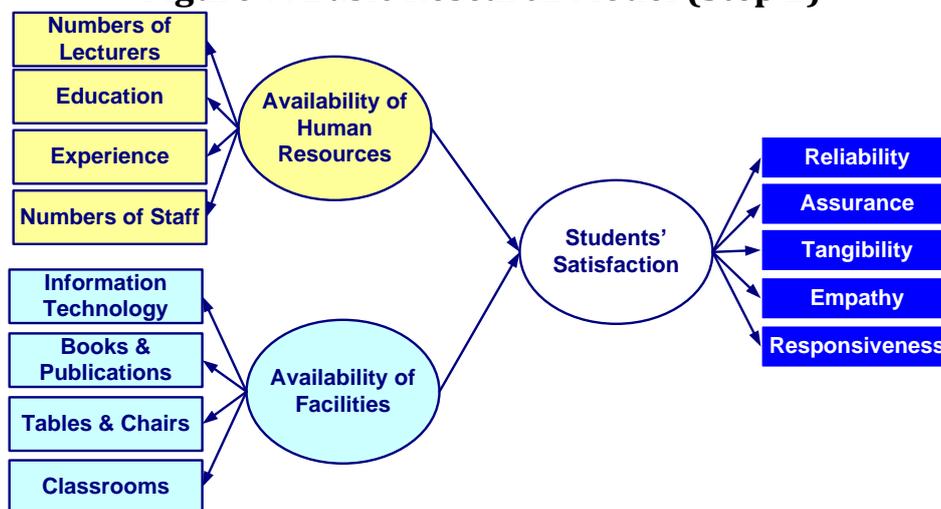
Figure 6: Availability of Facilities



Just like the previous illustration, the above diagram simply shows that the availability of facilities can be approximated by the presence of information technology, numbers of books/publications, numbers of tables and chairs, as well as classrooms. It means that the availability of the university’s facilities will be considered better as the presence of the university’s information technology becomes more prominent. This is also true for the other sub-variables mentioned above; the numbers of books and publications, numbers of tables and chairs, and classrooms.

Once we have basically attempted to identify the sub-variables, the variables and their respective sub-variables can be combined, as illustrated in the following figure.

Figure 7: Basic Research Model (Step 2)



Now, we do have a relatively complete basic research model. The next step is to start searching for the relevant supporting sources and theoretical references for those variables and sub-variables. For the level of students' satisfaction and its sub-variables, one academic-based source has been noted above from Parasuraman, Zeithaml & Berry (1988). However, it is strongly recommended to find out more sources from textbooks and academic journals. Additional sources are used to build-up the previous studies as well, as a small part of this literature review. The same must be done to look for academic/theoretical references for the other variables; availability of human resources and availability of facilities.

Once the sources are found for these variables, the researchers have the obligation to also search for academic references for the use of sub-variables to approximate the main variables. In this case, the researchers should search for academic references that indicate that the levels of education of the lecturers are able to be used as the approximation toward the availability of human resources in universities. Of course, one may find difficulties in finding the explicit references, which denotes such an analogy. Nevertheless, from the study of Human Resources Management, it is stated that the "ingredients" for successful managers may likely consist of the level of education and years of experience. Also, from the combined study of Human Resources Management and Marketing, for instance, it may be discussed that the numbers of personnel in organization as employees correspond to the "time of delivery" of any products and services. Marketing fields explicitly recognize the importance of people in organizations. This can certainly be used to proxy the availability of human resources, undoubtedly.

The final step is to ensure the necessary academic references about the intended relationship between the main variables. On one hand, the researcher should find the academic references to support the intended relationship between availability of human resources and the level of students' satisfaction. On the other hand, researchers should find the academic references to support the intended relationship between the availability of facilities to the level of students' satisfaction.

Assuming that researchers can find all the necessary academic references, though only approximation and proxies, otherwise, the basic research model (step 2) can be regarded final. However, if the researchers cannot find the sound academic references, in approximations and proxies, the basic research model (step 2) must

undergo modifications to alter the use of certain sub-variables and/or the variables in the basic research model.

Once the research model can be finalized, the next section is about the previous studies pertinent to the chosen variables and sub-variables used in the current research. For instance, for the main variable “level of students’ satisfaction” and its sub-variables of RATER, the researchers should be looking for previous studies, which were performed using some or all the sub-variables. The same is to be done with the main variables 2 and 3 with their respective sub-variables. In order to minimize the time of search, the researchers should be able to look for academic references for the previous studies while collecting sources for the supporting theories in the section of literature review.

Using the assumption that there are available academic references from textbooks and academic journals, the basic research model can be finalized. Using those variables and sub-variables, the content of the literature review can be formulated as follows;

Figure 8: Systematical Sections of the Literature Review

Chapter 2: Literature Review		
2.1.	Customer Satisfaction	As the grand theory and the main variable 1
2.1.1.	Reliability	Sub-variable 1.1
2.1.2.	Assurance	Sub-variable 1.2
2.1.3.	Tangibility	Sub-variable 1.3
2.1.4.	Empathy	Sub-variable 1.4
2.1.5.	Responsiveness	Sub-variable 1.5
2.2.	Availability of Human Resources	Main variable 2
2.2.1.	Numbers of Lecturers	Sub-variable 2.1
2.2.2.	Levels of Education	Sub-variable 2.2
2.2.3.	Years of Experience	Sub-variable 2.3
2.2.4.	Numbers of Staff Members	Sub-variable 2.4
2.3.	Availability of Facilities	Main variable 3
2.3.1.	Presence of Information Technology	Sub-variable 3.1
2.3.2.	Numbers of Books and Publications	Sub-variable 3.2
2.3.3.	Numbers of Tables and Chairs	Sub-variable 3.3
2.3.4.	Numbers of Classrooms	Sub-variable 3.4

2.4.	<p>Previous Studies</p> <p>To outline the previous studies, it is recommended to use a simple table format, which consists of;</p> <ul style="list-style-type: none"> • Title and author(s), whose purpose is to provide the necessary title and authors of a particular study, • Variables and sub-variables, whose purpose is to outlay the various variables and sub-variables used in a particular study, • Research method, whose purpose is to denote the approach used in a particular study, and • Findings, whose purpose is to show the brief summary of a particular study. 	To compare the current study and the previous studies
2.5.	<p>Differences of Studies</p> <p>To simply show the notable differences in bullet point, for example.</p>	To note the viable differences between the current study and the previous studies
2.6.	Research Model	Based on the final version of the research model, which was developed with the complete available academic references
2.7.	Statements of Hypotheses	Based on the final version of the research model

SELECTED SAMPLES

SAMPLE # 1: BRAND LOYALTY IN HOTEL

The following research sample is based on the actual work of an undergraduate thesis in 2012, which was originally written by Rafica Hartopo^{vii} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*Analysis of Brand Loyalty: A Case Study in 5-star Business Hotel in Jakarta*”.

The approach used in this study was quantitative-based research, which mainly relied on questionnaire to evaluate the relationship among variables based on the brand image, service quality, perceived value, customer satisfaction, trust and personalization onto brand loyalty. Interviews were also conducted to learn the insights of the organization-wide impact of the chosen variables.

CHAPTER 2 – LITERATURE REVIEW

2.1. Framework of Thinking

This study attempts to investigate the following variables and indicators.



Figure 2.1: Framework of Thinking

2.2. Background

Global tourism development followed with the development of hotel industry around the globe has resulted in many hotels with strong brand influence. Brand, which is believed to play an important role in marketing strategy, create uniqueness of the property's products and services from the customers' point of view.

Since brand image is simply not enough to achieve success in business performance, international companies identify the need to create and maintain brand loyalty. In addition, this research is concentrated on brand loyalty, there is no further explanation regarding other terms of brands, unless it is discussed among the influencing factors explained below.

There are many factors that contribute to brand loyalty (Dahlgren, 2011; Gustafsson, et al, 2005; Kuusik, 2007). Seeing it as a necessity, analyzing the influence factors (brand image, SERVQUAL, perceived value, customer satisfaction, trust and personalization) of brand loyalty will be identified regarding its role in tight business competition. In addition, when a loyal customer is engaged in a particular brand, they would more likely become one of the important brand promoters to their environment. As word-of-mouth comes from loyal customers, who may influence the environment; it will allow the company to achieve better business performance.

2.3. Brand Image

2.3.1. Definition

Kotler and Lee (2009) defined brand image as the customer's perception of a specific product/property. The idea behind brand image is that the consumers are not just purchasing a product/service but also the image associated with that product/service. Creating and maintaining brand image with both new customers and existing or regular customers is critical for the survival of a company in a competitive environment (Heskett, 2002; McMullan and Gilmore, 2008). Brand image should be positioned based on underlying emotional attitude/value to distinguish this product/image from other similar products in order to increase business performance (Keiningham, et al, 2008). Brand image creates uniqueness of the property in the customer's point of view. In short, brand image is an important strategy to develop a sustainable competitive advantage for any business, including the hotel industry (Han and Sung, 2008; Kandampully and Hu, 2007).

2.3.2. Role of Brand Image

Brand image is distinguished by its memorability, meaningfulness, esthetic appeal transferability within and across product categories as well as across cultural boundaries and market segments, adaptability and flexibility over time, and legal competitive protective ability and defensibility (Keller, 2003). Brand image has long been recognized as one of the central tenets of marketing research, not only because of its role as a foundation for tactical marketing-mix but also its role in building long-term brand equity (Keller, 2003). In a mature and competitive environment, as in the hotel industry, brand image has an important role as an alternative strategy to product differentiation (Kim & Kim, 2005).

As an important aspect for marketing strategy, brand image includes totality of

customer's opinion about, experience with, and attitude toward a company or organization. Market Street Research measure a company's brand image based on approach of (Kim, et al, 2008):

1. Overall business reputation,
2. Quality and appeal of product and or services,
3. Convenience (location, operating hours, etc.),
4. Sales and marketing effectiveness,
5. Customer service,
6. Delivery and timeliness,
7. Costs,
8. Resolution of problems and complaints

Therefore, it will conclude the essential parameters of brand image (Kim, et al, 2008), as follows:

1. Brand image is the concept of a brand that is held by customers,
2. Brand image is largely a subjective and perceptual phenomenon that is formed through customer's interpretation, both rational and emotional,
3. Brand image is affected and molded by marketing activities and the characteristic of the perceiver,
4. Where a brand image is concerned, the perception of reality is more important than reality itself.

2.3.3. Variables associated with brand image

Kotler and Lee (2009) evaluated that a customer's actual experience with the product and services, and promotion strategies, consisting of advertising, public relation, and word-of mouth communication will shape the "image" in customers' minds. Likewise, Keller defines that brand image can also be explained based on the variables. These are trademark able devices that serve to identify and differentiate the brand (Keller, 2008). The variables associated with the model are: brand names, logos, characters, slogans, jingles, and packages.

2.3.4. Benefit of Brand Image

Since the brand attributes are the functional and mental connections with the brand image that the customers will perceive, they may be specific or conceptual. Benefits are the rationale for the purchase decision. Thus, there are three types of benefits related to brand image:

- **Functional benefits**
Functional benefits are the benefits gained by the customers based on the knowledge of the products and services' function. The basic understanding for the functional benefits is to define what makes one's products and services better than other similarly established properties.
- **Emotional benefits**
Emotional benefits are the benefits that are gained by the customers based on their appeal feelings to the products and services offered. The focus is to define how to make the customers feel better by consuming our products and services rather than others.
- **Rational benefits**

Rational benefits define the benefits gained by customers based on their trust and support in one’s products and services. The main focus in this area is to define why the customers believe us and not other products and services.

2.3.5. Brand Image in the competitive business

In this competitive business, brand image is an essential key for a property by symbolizing the firm’s past and present marketing strategies. An image can impact the customer’s perception of quality, perceived value, customer satisfaction, and finally brand loyalty (Kandampully and Hu, 2007). Brand image brings the wide-ranging effects on market share, price, communication, and relationship between customer and the brand itself.

2.4. Service Quality (SERVQUAL)

2.4.1. Definition and Importance

The SERVQUAL instrument was introduced by Parasuraman (1988), by defining the usage of disconfirmation approach wherein the gap between customer’s expectations and the actual performance of the service promised is measured (Naik, et al, 2010). Most of the research in the industry would use the “SERVQUAL” scale to measure service quality in verifying the business’ success.

Service quality is widely acknowledged as an important competition strategy (Han et al., 2008), incorporated in the hotel industry. It is therefore imperative for managers in the hotel industry to apply the SERVQUAL model for the measurement of service quality in the property. Because it has been trustworthy as a measurement model for more than 20 years, the SERVQUAL model is essential in order to meet the requirements to satisfy the guest’s expectations and ensure a position on the growing global tourism market.

2.4.2. Dimension in SERVQUAL

Regarding SERVQUAL, service quality represents a multidimensional construction in which the choice of the most important characteristics of service is the essential issue. One of these important keys is delivering the basic needs of the customers. A variant of a scale containing desirable characteristic of services, known as the SERVQUAL scale, was developed in marketing research with the aim of measuring service quality (Lazibat, 2009). SERVQUAL defines service quality through ten dimensions, which sum up in five (Lazibat, 2009):

Table 2.1: Dimension in SERVQUAL

Dimension	Key Measurement
Tangibility	<ul style="list-style-type: none"> • Physical evidence • Appearance of physical facilities • Personnel, and • Communication materials.
Reliability	Ability to perform the premised service dependably and accurately.
Responsiveness	Willingness to help customers and provide prompt service.
Assurance	Knowledge and courtesy of employees and their ability to convey trust and confidence.
Empathy	Provision of individualized caring attention to customers.

Source: Lazibat (2009)

Each of the listed dimensions has different features, which leads to the different influence on the grading of success of a single dimension.

2.5. Perceived Value

2.5.1. Definition and Importance

Perceived value is defined as the customer’s overall assessment of the utility of a product based on perceptions of what is received and what is given (Ali, 2007; Gallarza and Saura, 2006; Petrick and Backman, 2004; Al-Sabbahy, et al, 2004).

Nowadays, the concept of perceived value is very important in the business environment (Ali, 2007). Perceived value affects the customer’s behavior and provides strategic implication of the business’ success (Hu, et al, 2009; Al-Sabbahy, et al, 2004).

Perceived value considers the customers, their culture, and time. A deep understanding of the customer’s perceptions of value should be determined to analyze a positive outcome of perceived value (Sanchez, et al, 2006).

2.5.2. Components of Perceived Value

According to Sanchez, there are two components in building perceived value, consisting of the benefit components and sacrifice components (Sanchez, et al, 2006). The benefit components consist of (Ali, 2007):

1. Economic benefit, referring to the customer’s money and savings when purchasing the products and services,
2. Emotional benefit, referring to affective gain by customer for purchasing the specific services, in example: hotel stay and dining packages,
3. Social benefits, referring to customer’s recognition of products and services as the referrals’ choice, as the relatives and friends recommended the products and services to them, and
4. Relationship benefits, referring to stage when a customer considered the service providers present the customer’s expectation and fulfill his/her needs. In this stage, the customer sees the products and services provider as valuable source.

Table 2.2: Benefit and Sacrifice Components

Benefit Components	Sacrifice Components
Economic Benefit	Price Sacrifice
Emotional Benefit	Time Sacrifice
Social Benefit	Effort Sacrifice
Relationship Benefit	Risk
	Inconvenience

Source: Ali, 2007; Sanchez, et al, 2006.

Sacrifice components consist of:

1. Price sacrifice, referring to amount of money cost as perceived by the customers,
2. Time sacrifice, referring to amount of time the customer have spend on observing, purchasing, and consuming the products and services,

3. Effort sacrifice, referring to physical energy and effort to observe, purchase, and consume the products and services,
4. Risk, referring to the probability of negative consequences of purchasing and/or consuming the products and services, and
5. Inconvenience, referring to conditions where customers had unpleasant experience while consuming particular products and services.

2.6. Customer Satisfaction

2.6.1. Definition

Customer satisfaction is the outcome of customer's perception of the value received in a transaction or relationship, where value equals perceived service quality, compared to the value expected from transactions or relationship with the competitors (Dominic and Guzzo, 2010).

The level of customer satisfaction is influenced by various attributes, consisting of internal factors and external factors. Internal factors focus on a company's effort to fulfill and deliver the customer's needs and expectations, while the external factors identify the other customer's involvement of supporting and/or harming customer satisfaction (Abdullah and Rozario, 2009).

2.6.2. Dimension of Customer Satisfaction

Customer satisfaction focuses on the creation of value for customers, anticipating and managing expectations, and demonstrating the ability and responsibility to satisfy the needs of the customers (Dominici and Guzzo, 2010). As the tourism and hospitality industry has developed, the accommodation, in this case the hotel industry exists because they have customers to serve. Therefore, customer satisfaction becomes a strategy to survive business competition.

2.7. Trust and Personalization

2.7.1. Definition of Trust and its characteristic

Trust is defined as when one party is confident in its partner's reliability and honesty (Ibodullayevna, 2011). However, there has not been much study on trust in supporting brand loyalty. Trust is an essential aspect in customer-brand relationships, and successful business is also based on trust. Logically thinking, when the customer decides to purchase a particular product, he/she should have the trust of the product to fulfill his/her needs and expectation.

Trust affects the perceptions, attitudes, and performance of individuals and groups, and facilitates cooperation, decreases costs, and improves the ability to manage complexity, especially in surviving the tight business competition (Scott, 2008). Besides, trust enables adaptive behavior, and creates ability to lead and manage change yet promotes sustainable business.

According to Scott (2008), there are three characteristics of trust, consisting of:

- Competence, which is defined as the combination of technical and adaptive capacities that enables individuals, groups, and systems to share and achieve a vision (Scott, 2008). In other words, competencies represent the ability to obtain results. Competency is measured by performance, which leads to how a business fulfills its obligation and commitment by capability of doing the work

well and delivering tangible results consistently. Logically thinking, trust is built based on no broken promises, therefore, Drucker (2007) stated that the foundation for doing good is doing well, focusing on the customers. Competency includes the cognitive ability to evaluate and discriminate between individuals and organizations to determine who can be trusted, the extent, and the circumstances.

- Compassion, which is defined as awareness of one's connection to, and interdependence on others. Compassion shows concern for the needs and interests of others and caring about them, in this case: customers, rather than personal profit. Compassion is based on both genuine respect and value of others. The emotional (affective) element of trust is the emotional relationship between the customers and providers.
- Character, which reflects character and integrity. Character is the degree of integrity that a business possesses, while integrity is consistency of action and credibility between values and actions. Consistently maintaining character and integrity is important in building a relationship and trust between customers and providers.

2.7.2. Personalization

Personalization is related to meeting the customer's needs and expectations, which to an increasing extent are tailor-made to a customer's specific desires (Ranjbarian, et al, 2011). This approach focuses on every customer as an individual. Every customer who has different needs and expectations needs to have unique treatment and unique offers.

Since there is not much previous research according to personalization services to customers, Bergmen and Klefsjo (2003) stated that personalization focuses on several aspects, consisting of (Ranjbarian, et al, 2011; Bergman and Klefsjo, 2003):

1. Identify the customer's needs and buying habits
2. Differentiate customers according to value and need
3. Conduct personal relationship with customers
4. Customize products and services on offer to different types of customers.

2.8. Brand Loyalty

2.8.1. Definition

Since brand loyalty is one of the tools to survive in tight business competition, there are several studies that cover this issue. Therefore, there are several definitions in identifying brand loyalty.

Giddens (2002) stated that brand loyalty is the customer's preference and decision to purchase to a particular brand rather than another brand with similar products and services. The decision was made both on a conscious and unconscious basis. It happens because the customer perceives that a particular brand offers the most appropriate fit, having the right product features, image, and level of quality at the right price (Dahlgren, 2011).

Brand loyalty is defined as the customer preference to do the repetition in purchasing

one's products and services in consistency (Manurung, 2009). This behavior represents the affection, commitment and ownership with particular brand. The loyal customer has positivity and loyalty to a particular brand.

Brand loyalty concentrates on the intention to purchase a particular brand, not necessarily the actual action of purchasing. Therefore, it might be concluded that the attitude towards the brand must be favorable for loyalty to be created, and there has to be a repetition of purchases.

2.8.2. Defining the customer with Brand Loyalty

There are several characteristic of brand loyalty's customer, consisting of (Angriawan, et al, 2011; Giddens, 2002):

1. A brand loyal customer has commitment to the according brand,
2. The customer who has high brand loyalty is willing to pay additional money for a particular brand compared to other brands,
3. A brand loyal customer recommends the particular brand to his/her friends, family, and other people,
4. During repetition purchase to that particular products offered that brand, a brand loyal customer would most likely does not have too much consideration, moreover compare it to the other brands,
5. A brand loyal customer would like to know latest information about the development and improvement of the particular brand, and
6. A brand loyal customer might always attain the good relationship and become strong marketers (word-of-mouth) for the particular brand.

2.8.3. Importance of Brand Loyalty

Brand loyalty is an essential key for today's business competition regarding:

1. Creating customer maintenance and growth is the first goal of many companies, and the loyal customer is the key to success in the service business.
2. Since hotel as a service industry focuses on both the products and services offered, brand loyalty would definitely answer the needs of one-to-one marketing/relationship marketing. Therefore, it would be crucial to understand the mechanism that controls the customer's buying behavior. Brand loyalty is the entrance key and the deciding factor of customer buying process (Dahlgren, 2011).

2.8.4. Dimension of Brand Loyalty

There are at least four dimensions of brand loyalty consisting of behavioral, attitude, cognitive, and conative loyalty (Dahlgren, 2011; Kuusik, 2007).

- Cognitive loyalty
Cognition can be based on previous or secondhand knowledge or a recent experience with the brand. In this stage, the use of the brand in daily and/or random question is simply a routine and does not stimulate customer's satisfaction (Dahlgren, 2011). Therefore, the intensity of brand loyalty is not more than just performance. The customers who purchase and used this particular brand simply indicate that one brand is more advantageous than other brands with similar products and services.

- **Affective loyalty,**
In this stage, there is attachment to or attitude toward the brand that has developed based on increasingly satisfying experiences with the brand (Dahlgren, 2011; Kuhn, 2007). This brand loyalty is based on the customer’s affection and commitment to the particular brand (Angriawan, et al, 2011). The customer might have an emotional relationship with the according brands that are expressed with or without comparing one’s chosen brand with others. While cognition can directly be influenced by new information, the effect could not be changed as easily as that. Since the customers were loyal at a deeper level of commitment, it will be very beneficial for the business’ marketers (Angriawan, et al, 2011; Dalgren, 2011).
- **Conative Loyalty**
Conation is defined as a commitment or plan to repurchase a specific brand. In this level, there are positive emotions towards the brand. However, the intention to repurchase the brand is expected but can remain unfulfilled (Kuhn, 2007; Oliver, 1999). Conative loyalty might be seen as the loyalty state that contains the deeply held commitment to purchase the brand (Dahlgren, 2011; Angriawan, et al, 2011).
- **Action/Behavioral Loyalty**
At this stage, there are a customer’s act and behavior purchase the products and services from a particular brand repetitively (Angriawan, et al, 2011). This loyal behavior could be reflected from the frequency and consistency of the purchase. A recent study identified that a customer is in the stage of behavioral loyalty when he/she purchases at least five-times (Brown, et al, 2006); three-times; and four-times (Manurung, 2009; Assael, 2006). The customer is prepared to overcome possible obstacles that might prevent him/her from using the products and services in order to attain the preferred brand. Therefore, this stage represents the result of readiness to act and overcome the obstacles (Dahlgren, 2011; Kuhn, 2007).

Table 2.3: Dimension of Brand Loyalty

Loyalty Phase	Characteristics	Vulnerabilities
Cognitive Loyalty	Advantageous quality and features perceived.	Superficial, low intensity loyalty.
Affective Loyalty	Attachment and attitude toward brand established.	Vulnerable to switching.
Conative Loyalty	Commitment or plan to purchase.	Desire may remain unfulfilled.
Action/Behavior Loyalty	Strong eagerness to act.	Deteriorating performance.

Source: Dahlgren, 2011.

2.8.5. Benefits of Brand Loyalty

Brand loyalty contributes to companies:

- Improves on business performance since brand loyalty relies on the core base of customers. Previous research has shown there is a positive relationship between customer’s brand loyalty and business profitability. Recent research observed an organization could increase its profits by almost 100 percent by

improving brand loyalty by just five percent, and it was estimated that attracting new customers was four to six times more expensive than keeping existing ones (Kotler and Lee, 2009).

- Reliance on word-of-mouth sales initiated from the core base, may result in reduced marketing and operational costs, increased sales, less price elasticity and partnership activities of loyal customers, all of which demonstrate the power of word-of-mouth.
- Using word-of-mouth sales might reduce cost on advertising, which could then be allocated to expand or develop more products. This allocation may help the company create more uniqueness to make it be seen better and distinguish the business from similar businesses.
- Leads to brand equity. Brand equity is defined as the value that a company has realized from its products and services with a recognizable name as compared to its generic equivalent. When a business reaches brand equity, for example in hotel, the customers will not look for another hotel. Whenever and wherever they travel for any purpose, the hotel chosen will be that particular brand. Therefore, the company may ensure that its brand is memorable, easily recognizable and superior in quality and reliability to others.

2.9. Hotel in Indonesia

2.9.1. Definition

The word 'hotel' is derived from "Hospitium" (Greek), which is defined as a living room. Moreover, the word "Hospitium" is used to distinguish the Guest House and Mansion House (defined as a big-sized house) that leads the changing definition from Hospitium to Hostel. These "Hostels" are rented to public for the temporary stay. During their stay, all guests are obligated to follow the regulations determined by the host.

According to the development of tourism and change in market trends, the demands of the guest leads to the change of these strict regulations, "Hostel" changed to "hotel" which is known as a room rented to guests and focuses on guest satisfaction.

Based on SK Menparpostel No. KM 34/HK 103/MPPT-87, hotel is defined as an establishment that provides accommodation/lodging, food and beverage, and other related facilities to guests, which are organized commercially and fulfill the terms and conditions set by the government, and the services are given to guests who use accommodation facilities, and guests who consume particular services provided by the establishment (Ahira, 2011).

2.9.2. Classification

There are several classification indicators for hotels based on Dirjen Pariwisata SK: Kep-22/U/MPPT-87 (Scribd, 2010), consisting of:

2.9.2.1. Classification based on location

- City Hotel/ Business Hotel refer to hotels located in the center of the city, which can mostly be categorized as business hotels, since most of these hotels

are located in the Central Business District (CBD) in one city.

- Residential Hotel refers to a hotel, which functions as a condominium, which is rented periodically to guests who are served regularly by personal hotel attendants. The services provided are based on the contract agreement.
- Resort Hotel refers to a hotel, located in a resort, mostly built to support tourism activities in destinations. The majority of guests are travellers, people who are on holiday rather than on business.
- Motel refers to a building or a house mostly located in sub-urban areas, which provide accommodation and parking spaces to guests. Room rates and facilities are usually below hotel standards.

2.9.2.2. Classification based on Numbers of Rooms

- Small Hotels have at least 50 guest rooms.
- Medium Hotels have at least 51-100 guest rooms.
- Large Hotels have at least 101 guest rooms or more.

2.9.2.3. Classification based on Stars

- 1 Star Hotel, refers to the hotel that has at least 15 guest rooms (include bathroom inside), which is 20m² width minimum,
- 2 Star Hotel refers to the hotel that has at least 20 guest rooms (include bathroom inside) and minimum width 22m². In addition, this hotel should have at least one suite room with width minimum 44m²,
- 3 Star Hotel refers to the hotel that has at least 30 guest rooms (including bathroom inside), and minimum width 24m². In addition, this hotel should have at least two suite rooms with width minimum 48m²,
- 4 Star Hotel refers to the hotel that has at least 50 guest rooms (including bathroom inside) and minimum width 24m². In addition, this hotel should have at least three suite rooms with width minimum 48m²,
- 5 Star Hotel, which classify to Palm, Bronze, and Diamond Level. This hotel refers to the hotel that has at least 100 guest rooms (including bathroom inside) and minimum width 26m². In addition, this hotel should have at least four suite rooms with width minimum 52m², and
- Melati Hotels do not fit the criteria of the Star Hotel, and, mostly, the quality of Melati Hotels is below and/or almost similar to 1 Star Hotels.

2.9.2.4. Classification based on Business Ownerships and Affiliation

- Privately owned and operated Hotel
A privately owned and operated hotel may have investors or others with a financial interest in the hotel, but the ownership structure is in one person or company's name.

- **Independent Hotel**
Independent Hotels are run and managed by individuals privately. They may have many other hotels of the same name in different locations, however they do not allow any other proprietor to use the brand name (usually these hotels are family-owned).
- **Leased Hotel**
Hotels in this category are also privately owned, but normally the physical building belongs to someone else. The lessor has rights to set minimum rent and to rise the price based on net revenue.
- **Managed Hotel**
A Managed hotel is also privately owned hotel, but in addition, Managed hotels sign an agreement with another hotel brand to run the hotel.
- **Chained Hotel**
A Chained hotel is a group of hotel properties all having the same brand and overall identity. Various properties within the same chain may differ in terms of appearance and amenities offered. A Chain Hotel allows its brand name to be shared by many proprietors in return for fixed payment according to terms and conditions of the contract. Based on location boundaries and corporate office position, chained hotel can be classified into local chained hotel and international chained hotel.
- **Franchise Hotel**
A franchise hotel operation is privately owned, but the owner pays an up-front fee to purchase the franchise along with ongoing royalties.

2.10. Research Model

A Research model is defined as a specific model to describe the overall framework of the research. Therefore, it is very important to identify the model of the research to determine all the processes used to conduct the research, starting from limiting the scope of the research to writing the research proposal (explained further in chapter 3, sub 3.1 Research Design). According to the problem identification, research purpose, framework of thinking and the literature review, the research model is explained through:



Figure 2.2: Research Model

Based on the research purpose and the research model, this research is defined as the quantitative research, which define as formal, objective, and systematic process in which numerical data are used to obtain information (result and findings). The quantitative research focuses on variables, examine relationship among these variables, and determining cause-and-effect interactions between variables (Muijs, 2010). In addition, this research emphasizes on descriptive and analytical research approach.

2.10.1. Descriptive Research

Descriptive research refers to the type of research question, design, and data analysis that will be applied to the research purposes. This research is considered descriptive research since it is focusing on determining these five factors that influence brand loyalty in international-chained hotels in Jakarta.

2.10.2. Analytical Research

Analytical Research describes and interprets the past and/or recent past from the selected sources, which may be journals, trends, and previous research. Since there is some research related to factors influencing brand loyalty in other service industries, this research will put emphasis on these factors and adjust several factors to the needs of hotel industries in Jakarta.

2.11. Hypothesis

Referring to the above research model, the hypotheses are formulated as follows;

Hypothesis # 1:

H₁₋₀: Brand image influences brand loyalty in hotels.

H₁₋₁: Brand image does not influence to brand loyalty in hotels.

Hypothesis # 2:

H₂₋₀: SERVQUAL influences brand loyalty in hotels.

H₂₋₁: SERVQUAL does not influence to brand loyalty in hotels.

Hypothesis # 3:

H₃₋₀: Perceived Value influences brand loyalty in hotels.

H₃₋₁: Perceived Value does not influence brand loyalty in hotels.

Hypothesis # 4:

H₄₋₀: Customer Satisfaction influences brand loyalty in hotels.

H₄₋₁: Customer Satisfaction does not influence brand loyalty in hotels.

Hypothesis # 5:

H₅₋₀: Trust and Personalization influence brand loyalty in hotels.

H₅₋₁: Trust and Personalization do not influence brand loyalty in hotels.

SAMPLE # 2: ECONOMIC INDICATORS AND ORGANIZATIONAL PERFORMANCE

The following research sample is based on the actual work of an undergraduate thesis in 2009, which was originally written by Mayasari Sagita Soekasah from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*A Correlational Study Between Selected Indonesian Economic Indicators Towards the Revenue and Performance of PT. Fortune Indonesia, Tbk*”.

The approach used in this study was quantitative-based research, which mainly relied on questionnaire to evaluate the relationship among variables based on the economic indicators and organizational performance. Interviews were also conducted to learn the insights of the organization-wide impact of the economic indicators. Secondary data from financial statements of publicly-listed firms are also considered in-lieu of the managerial explanations and evidences on what the firms have attempted to do.

CHAPTER 2 – LITERATURE REVIEW

2.1. Indonesian Economy

Advertisement can have an influence on the economy. However, in some poor economic situations, advertisement sales might be slightly influenced. As experienced before, a poor economic condition is a situation where a country's economy experiences a decline, where the demand of money is higher than the supply of money, in other words the economy is unstable. According to Ebert and Griffin (2005), an economy is stable when “*the amount of money available in an economic system and the quantity of goods and services produced in it are growing at about the same rate*”. When a country's economy is unstable, banks are sometimes obligated to sell their investments in order cover their losses. These losses may come from depositors asking for their savings back. Unfortunately in a situation like this, banks have difficult time supplying money because their customers who borrow money cannot pay them back. Some banks may be forced to close or merge with other banks to survive.

A country facing an unstable economy will most likely experience a decrease in their total market value of all finished goods and services produced in that particular country in a given year. This will equal to the total investments, consumers and government spending, plus the total value of exports minus the total value of imports (Ebert and Griffin, 2005). This is commonly known as a decrease in a country's GDP.

2.1.1. Gross Domestic Product

GDP represents the total market value of all final goods and services within that country during a given year. According to Ebert and Griffin (2005), GDP is commonly

used to measure the overall performance of an economy. A high value of GDP means that the economy within the country is very good. There are three types of GDP which includes:

1. Current GDP is expressed in the current prices of the period being measured
2. Nominal GDP is the production of goods and services valued at current prices
3. Real GDP is the production of goods and services valued at constant prices.

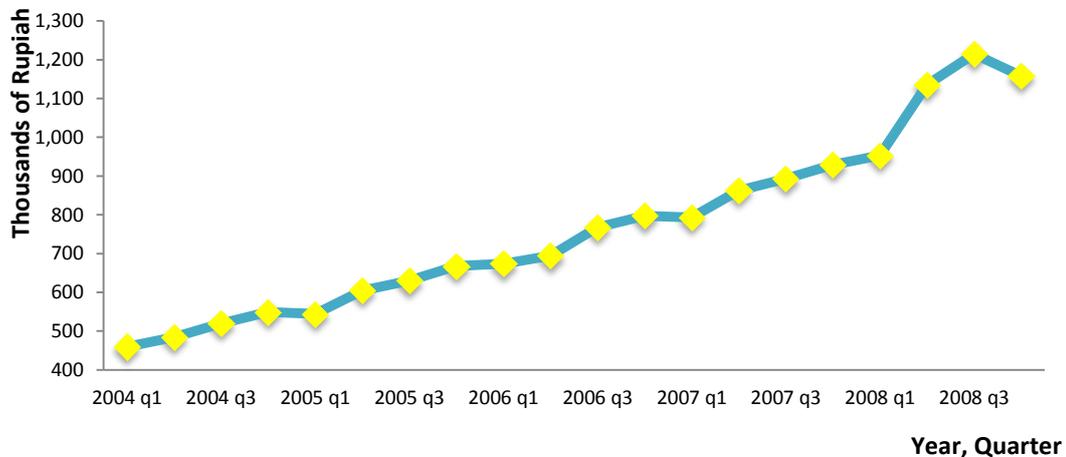


Figure 2.1: Quarterly Indonesian GDP (2004 - 2008)

Source: [http://indexmundi.com/indonesia/gdp_per_capita_\(ppp\).html](http://indexmundi.com/indonesia/gdp_per_capita_(ppp).html), accessed May 2009

The above figure displays the changes in Indonesia’s GDP during the period of 2004 to 2008. It shows a steady growth every year. This implies that the economy in Indonesia is doing fairly well.

2.1.2. Inflation

The overall upward price movement of goods and services in an economy, usually measured by the Consumer Price Index (“CPI”) and the Producer Price Index (“PPI”). Over time, as the cost of goods and services increase, the value of US dollar is going to fall because people will not be able to purchase as much with US dollar as they previously could. The following graph shows the changes in inflation during 2004 - 2008.

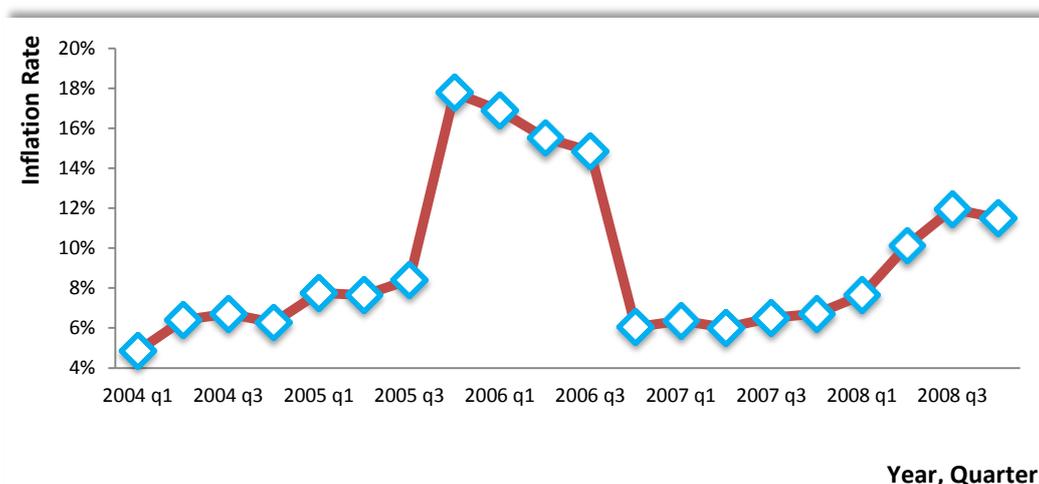


Figure 2.2 Indonesian Inflation Rate (2004 - 2008)

Source: [http://indexmundi.com/indonesia/inflation_rate_\(consumer_prices\).html](http://indexmundi.com/indonesia/inflation_rate_(consumer_prices).html), accessed May 2009

By referring to the above figure, it can be seen that the inflation rate in Indonesia shows a lot of variation in value. It can be concluded that during 2006 – 2008, the prices of goods and services in Indonesia was rather unstable.

2.1.3. Currency value change

As described in the figure below, the value of Rupiah has also changed during the last five years. As a country’s economic condition falls or recovers, their currency value also feels the effect. As an instance, when a country’s economy is growing, their currency value also strengthens. Vice versa, if a country’s economic condition is poor, then their currency value is weakened. Fluctuations in currency value can affect many parts of a business. For instance, an international company has a branch in Indonesia, they choose to advertise with a particular agency and pay the services with US dollar. In the advertisement agency’s perspective, if the US dollar would strengthen then the advertisement agency would pay less compared to if the US dollar were to weaken.

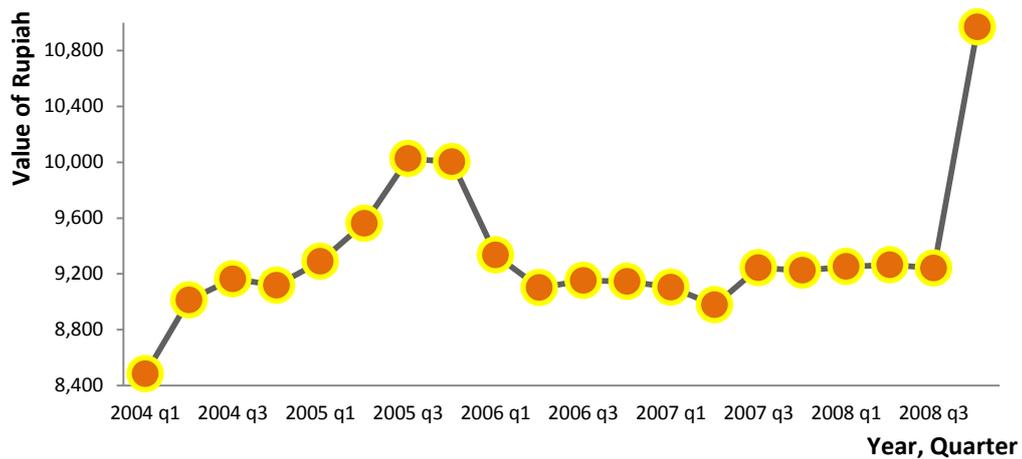


Figure 2.3 Indonesian Rupiah value
 Source: <http://www.oanda.com>, accessed May 2009

2.1.4. Central Bank of Indonesia interest rate

When a country experiences a poor economic condition, the government will attempt to take actions based on their monetary policy (Ebert and Griffin, 2005).

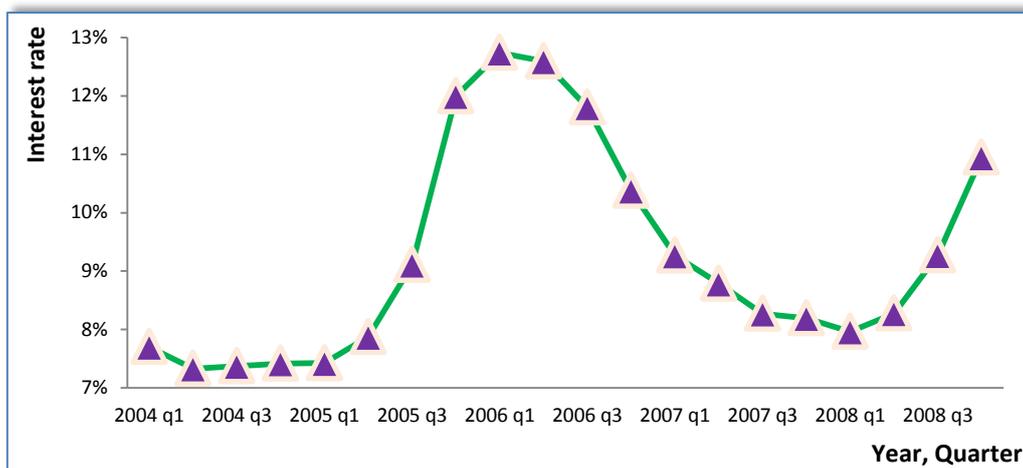


Figure 2.4 Indonesian Interest Rate
 Source: <http://www.bi.go.id>, accessed May 2009

In some cases, the central bank will be involved in controlling a country's supply of money. In a case where the supply of money is low, a country's central bank will most likely raise the interest rates to encourage people to save their money in the bank. This will increase the central bank's supply of money which could be used for many things. On the other hand, if a country's supply of money is in surplus, the central bank could lower the interest rates to encourage people to invest rather than deposit (Ebert and Griffin, 2005). By doing so, the central bank plays an important role in stimulating the economy. The following figure will show the movement in interest rates set by the Central Bank of Indonesia between the years of 2004 to 2008.

2.2. Advertisement

Based on Duncan (2005), advertisement is defined as a message that a person, group of people or company sends to the general public in order to persuade, inform, promote, or influence the public's behavior towards buying, supporting or approving a particular product or service. There are many types of advertising that companies use depending on the product or message they are trying to express.

2.2.1. Role of Advertising

Philip Kotler (2005), author of the book *Principles of Marketing* describes advertising as "*any paid form of non-personal presentation and promotion of ideas, goods, or services by an identified sponsor*". Advertising can be delivered through many types of media including magazines, newspapers, television, direct mail, radio and internet. By summarizing the theory of advertising by Kotler (2005), advertising itself has 5 main functions, which include grab awareness, building-up attraction, creating perception, generating action, and increasing the power of mind to remember things.

2.2.2. Advertising Purpose

According to Philip Kotler (2005), advertising has three main purposes, which are to inform, persuade, and remind.

1. Informative advertising

Basically, informative advertising is used to introduce a new product or service to the public. Its main objective is to build a primary demand for the product or service. The advertisement may inform the public about the new product, suggest new uses of a product, informs the market about any price changes, explains how the product is used or even available services that come with the product.

2. Persuasive advertising

This type of advertising is used when new competitors enter the market. The company's main focus will be to persuade the customers to stick to their products and services rather than changing to a different brand or vice versa. This advertisement will try to show information or images that will give the market a feeling that they are getting more value on the product or service they purchased.

3. Reminder advertising

This kind of advertising is more commonly used on older products that have been on the market for a long time. Its primary objective is to maintain the customer's awareness of the product or service. Basically, its purpose is to remind customers that the product is still there for purchase. Examples of reminder advertising is

reminding customers that the product might be needed in the future and reminding customers where the products are available.

2.2.3. Types of Advertising

Wells in his book *Advertising Principles and Practice* states that “*Advertising is complex because so many different advertisers try to reach so many different types of audiences*” (Wells, 2006). Considering all these different advertising situations, advertising can be identified into seven major types;

1. Brand advertising

Nike is a good example of brand advertising because Nike focuses on the development of their brand name and its image. Some of their commercials do not even promote new products; Nike only wants to promote the name of the brand.

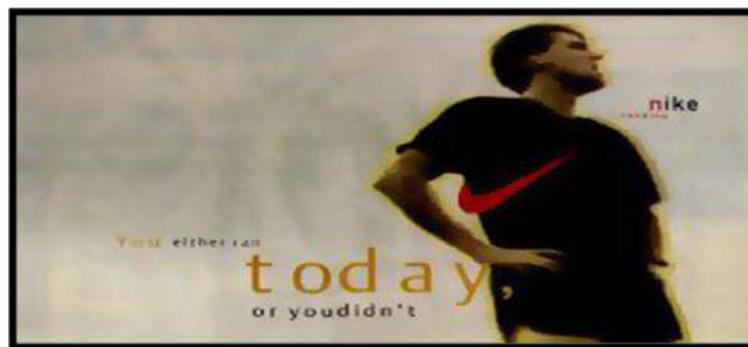


Figure 2.5 Nike brand advertising

Source: <http://www.xroads.virginia.edu/projects.html>, accessed June 2009

2. Retail or local advertising

Many advertising practices focus their efforts on retailers or manufacturers that sell their products in a certain area. Most of these advertisements focus on showing where to buy the products so that more people visit the retailers or manufacturers.

3. Direct response advertising

This type of advertising can use any type of medium; however, its purpose is different compared to retail advertising. Direct response means that they are trying to motivate the sale directly rather than increase visitors.



Figure 2.6 Bath and Body Works direct response advertising

Source: <http://www.bathandbodyworks.com>, accessed June 2009

4. Business to business advertising
This particular type of advertising is sent from one business to another. Business to business advertising is not directed at the public.
5. Institutional advertising
The messages sent are focused more on creating a corporate identity or influencing the general public to understand the company's point of view. For example, in 2007 PTFI supported the Global Warming Conference in Bali by producing and placing print ads and posters. This is intended to show the public that PTFI cares about the global warming situation.
6. Nonprofit advertising
Not for profit organizations such as charities, associations, hospitals, orchestras, museums and religious institutions advertise for many reasons. For example, *Palang Merah Indonesia* ("PMI") a health organization advertises to attract more blood donors.

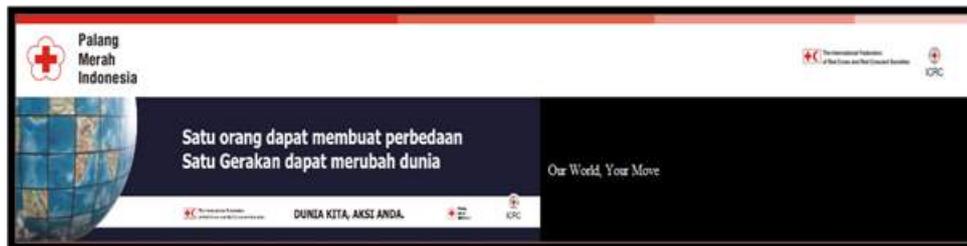


Figure 2.7 Palang Merah Indonesia non-profit advertising
Source: <http://www.palangmerah.com>, accessed June 2009

7. Public service advertising
Public service announcements send a message to the public for good reasons. For example, an advertisement stating that the public should stay away from drugs or alcohol.



Figure 2.8 US Department of Health and Human Rights public advertising
Source: <http://www.samhsa.gov>, accessed June 2009

2.3. Advertisers

The advertiser is the core agency in the management system of advertising. Advertising begins with the advertiser, the person or organization that uses advertising to send out a message about its products (Wells, 2006). The expenditures by advertisers generally could be used as a basis for measuring of the advertising

agency's size as the industrial agency. As an example, *Persatuan Perusahaan Periklanan Indonesia* ("PPPI") reported that the Indonesian cosmetics & toiletries industry spent more than Rp. 11 trillion in advertising back in 2007. This data can be used to measure the advertising industry's size and performance.

William Wells (2006), in his book states that the advertiser also approves the advertising plan which contains media strategies and details outlining the message. The advertiser has two options whether to hire an outside agency or to use their in-house agency. When creating a successful advertising campaign, some advertisers believe that an outside agency can be more effective and efficient compared to them.

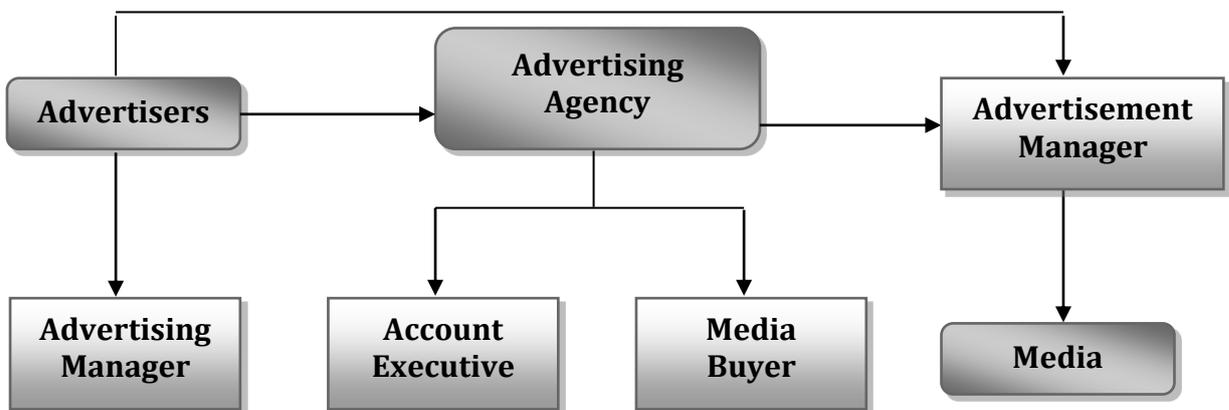


Figure 2.9 Advertisers, Advertising agencies and the Media

Source: Kasali, 1992

The figure above shows that the advertiser could immediately be connected with the media's side without going through the advertising agency. This could happen because several reasons:

1. The advertiser's side possibly is not a big company so they do not feel that they need the agency's advertisement service. This may because the cost that is possibly too large compared with the total budget of advertising.
2. The advertiser's side could possibly be a large company that felt they must form a special division in the company that specially handled advertising activities as that was carried out by the advertising agency. Therefore the advertising service was not handed over to the advertising agency.
3. Sometimes the advertisement manager immediately contacts the advertiser to get an advertising order and immediately will hand over the specific order through the advertising agency that was appointed.

2.4. Advertising Agencies

Advertising agencies are businesses in the service industry which control every aspect of an advertising campaign (Kasali, 1992). Their size and scope vary from agency to agency and some range to different kinds of businesses. Some advertising agencies have only one or two major clients while others have hundreds of clients spread throughout the country or the world. Generally, an advertising agency is able to manage an account, purchase media access and sometimes provide creative services for a client. A manager must make the decision whether or not to use an

advertising agency’s services, this decision depends heavily on the company’s financial resources and its advertising strategies.

Within the agency there are professionals who specialize in managing an account, meaning they organize, create and place advertising. This is done so that it will meet objectives better than most small businesses can do by themselves; however the expense of using such a service is often too expensive for smaller companies. Some small to mid-sized businesses still find that advertising agencies can help them plan and monitor their advertising strategies. An agency’s expertise and resources are very useful when businesses decide to plan a broad advertising campaign that will need a large amount of resources.

Other than helping the planning process, an agency can also assist in maintaining and analyzing a business’s advertising strategy. Depending on its size, some agencies will have different departments which work on the separate parts of an account. An account manager or the account planning department will coordinate the work of these departments to insure that all the client's needs are met. The departments within a full-service agency are shown in the following figure.

1. Research

The research department is in charge to provide clients with details regarding the audience of the final advertising campaign as well as information related to the market of the product being advertised. Information that the research department provides should include market research so that a much more focused ad campaign can be conducted. With specific information such as the market for the campaign, advertising can be specifically directed to the ideal target audience.

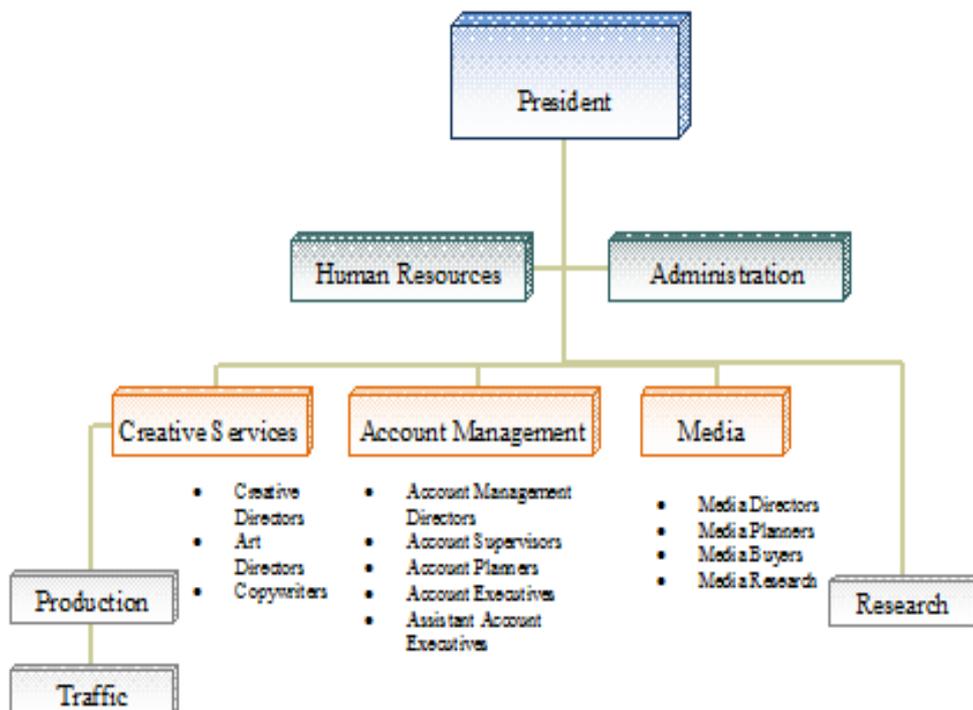


Figure 2.10 Organizational Chart for Full Service Ad Agency

Source: Duncan, 2005

2. Creative Services

Most advertising agencies have employees who specialize in many creative areas that provide quality as well as professional services. For example, graphic designers are in charge of the presentation of printed ads, the copywriters are in charge of providing the text for those printed ads, and the art department is in charge of providing the needed pictures or images for those printed ads. The final product produced by the agency should already be fully developed and ready to be distributed.

3. Media Planning or Buying

Besides researching potential target markets, another service provided by an agency is the actual placement of the finished advertisement in various media. This is done to reach a maximum number of audiences. An agency will be able to negotiate any of the terms of a contract which were made for placing ads in any specific media. For full service advertising agencies, they will deal directly with television, radio, newspapers and magazine representatives.

2.4.1. Advantages and Disadvantages of Using Advertisement Agencies

Companies seeking to increase their sales or customers, advertising agencies provide them with the needed resources and expertise (Kasali, 1992). It is the agency that brings together all the professionals in different fields to produce a high quality advertisement. Usually advertisement agencies are knowledgeable about business strategies and media placements. A very important factor in launching a successful media campaign is the experience and connections that these agencies have.

One particular disadvantage when using an advertisement agency is the added difficulties in dealing with new people. A company needs to be very careful when choosing the right agency, and reaching an acceptable and good ad campaign could prove to be time consuming and taxing. Companies that choose to advertise through an agency should watch what they are receiving for their investment. Cost is probably the most important factor that must be considered carefully when choosing to advertise through an agency.

2.5. PTFI

The company is the first and only advertising public company in Indonesia. PTFI is more commonly known as Fortune Indonesia and is fully recognized as one of Indonesia's leading marketing communication companies. PTFI has four subsidiary companies; PT. Fortune Pramana Rancang, PT. Pelita Alembana, PT. Fortune Adwicipta and lastly PT. Fortune Travindo. Those subsidiary companies specialize in different areas of advertising. Specifically in creative services, public relations, advertising and communication, graphic design, and finally travel. Further detail regarding the company profile will be described in chapter 4.

Mr. Indra Abidin, the President Director of PTFI describes PTFI as “proudly independent, the first and only publicly-listed company in the communications industry, an Indonesian team with roots in its country and commitment to international levels of work”. PTFI has progressed through the years and made many amazing accomplishments, for instance in 2007, PTFI received an award from

Carrefour for “Best Innovation Company”. This is only one of many accomplishments that PTFI has. PTFI also specializes in providing services in the advertising sector including media planning. They even made a subsidiary company to specialize in that service area. In 2004, PTFI successfully performed many services including media planning for the Ministry of National Education.

2.6. Theoretical Studies

To properly understand the theoretical concepts of analyzing a company’s performance in chapter 4, a list and definition of several financial concepts will be made. The financial concepts include financial reporting, efficiency, leverage, liquidity and profitability measurements. The definition and types will be described below.

2.6.1. Financial Report

Every financial or non-financial organization needs to have financial reports to keep track of their financial activities in a certain period (Weygandt, et al, 2008). The information which is available in financial reports is very useful for banks or other external parties such as creditors, the government or potential investors. Financial reports basically show a company’s performance and position. There are many types of financial reports; however this research will focus on a company’s income statement and balance sheet.

1. Income statement presents the revenues and expenses and resulting in net income or net loss for a specific period of time. (Weygandt, et al, 2008).
2. Balance sheet, according to Weygandt, et al (2008), *is a summary of a company’s assets, liabilities and total equity at a certain period*. These three parts of a balance sheet gives investors an idea of what the company owns and owes and the total amount invested by other investors.

The purpose of financial statements is to provide the necessary data regarding a company’s financial performance and position so that internal and external users can apply the information in their financial decision making (Weygandt, et al, 2008). Financial statements include assets, liabilities and equities which show a company’s financial position. While on the other hand, they also include reported income and general company expenses to show their financial performance.

2.6.2. Performance Measurement

Financial ratios are used to analyze the financial reports of a particular company; therefore a manager for example can see the performance of the business and interpret the financial strengths and weaknesses of that company. According to Gitman (2003), *“ratio analysis is a calculation and interpretation of financial ratios to analyze and monitor the company’s performance”*. He also stated that *“to do financial ratios it is basically done by conducting two analyses”*, which include: (1) cross sectional analysis is an analysis in which it compares the financial ratios of multiple companies in the same time, and (2) time series analysis (longitudinal) is an evaluation of the company’s performance by comparing previous performances with recent ones.

2.6.2.1. Profitability Measurement

To measure a company’s level of profitability there are several ways to calculate

them. Three of the most commonly used equations are the ROE, ROA and NPM (Ross, et al, 2008), as follows;

1. ROE measures the company's profitability by showing how much money of net income was earned for each investment made by the stockholders.
2. ROA indicates how profitable a corporation is when referring to their total assets available. The return on asset shows how efficient the management is at using their assets to generate revenue.
3. NPM measures the company's profitability by showing how much profit a company generated out of total revenue.

2.6.2.2. Efficiency Measurement

Account receivables turnover is the period between the selling of the product or service until the time they receive money for their goods or services. This is a good way to measure a company's efficiency in making sales and also how liquid their account receivables are.

2.6.2.3. Leverage Measurement

To measure a company's leverage there are several ways to calculate them. Two of the most commonly used equations are the DER and DAR (Ross, et al, 2008), as follows;

1. DER measures the company's financial leverage by calculating the total debt divided by the total equity. This ratio shows the proportion of equity and debt the company is utilizing to finance its assets.
2. DAR measures the company's financial leverage in relation to their assets. It is used to see whether the company's assets are sufficient to pay their total debt.

2.6.2.4. Liquidity Measurement

Current ratio is a way to determine whether a company's current assets are sufficient enough to cover current liabilities or their short term debt. The current assets of a company can be seen by reviewing their balance sheet; generally a company's current assets include cash and accounts receivable. On the other hand, a company's current liabilities usually include accounts payable which signifies their short term debt to suppliers.

SAMPLE # 3: BALANCED SCORECARD AND ORGANIZATIONAL PERFORMANCE

The following research sample is based on the actual work of an undergraduate thesis in 2010, which was originally written by Pacifico Shorea Rotaria from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is *“The Implementation of Balanced Scorecard in Assessing The Strategic Performance: A Case Study on Publicly Listed Companies in Indonesian Cosmetics and Household Industry”*.

The approach used in this study was quantitative-based research, which mainly relied on questionnaire to evaluate the relationship among variables based on the research model. Secondary data from financial statements of publicly-listed firms are also incorporated to provide managerial explanation and evidence on what the firms have attempted to do.

CHAPTER 2 – LITERATURE REVIEW

2.1. Strategy

2.1.1. Definition of Strategy

Hubbard, et al (2008), defines strategy as:

“Those decisions that have high medium-term to long-term impact on the activities of the organization, including the analysis leading to resourcing and implementation of those decisions, to create value for key stakeholders and to outperform competitors”.

According to the definition above, strategy contains of the formulation, decision, and implementation. Formulation means that the organizations are looking for more information to formulate the vision, mission, and objective. The vision, mission, and objective are needed to analysis the internal and external environment. After that, the organizations consider the information to determine the best decision for the company. Finally the company will implement the decision into action to fulfill the stakeholders’ needs and to be better than the competitors.

2.1.2. Level of Strategy

Strategy is divided into three levels (Pearce and Robinson, 2007), as follows:

1. Corporate strategy, where the organizations concern about the selection the type of business that company should compete or hold and to formulate the long-term strategy.
2. Business Strategy, where the organizations are concerned about the decision which companies have made to fulfill the stakeholders’ needs and how to survive in the competition.

3. Functional Strategy, which is related to each division in the organization to implement the short-term strategy and achieving the business strategy.

In conclusion, the three levels of strategy are needed to assist the company in achieving their objective and survive in the fiercer and tighter competition, by way of interpreting the giant-scale into a more particular action steps.

2.1.3. Model for Strategy

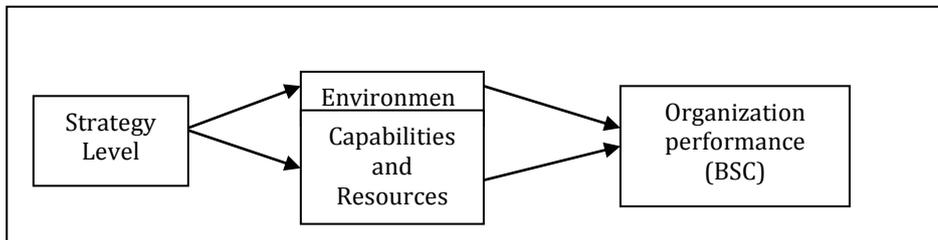


Figure 2.1 Strategy organization performances in the ESC gap analysis model

Source: Hubbard, et al (2008) modified

The model for strategy is used to help the company to achieve their objective, fulfill the stakeholders' needs, and survive in the competition. The model analyze from three aspects, such as, the strategy, environment, and capability to assess the organization performance which call Environment-Strategy-Capabilities ("ESC") gap analysis.

2.1.3.1. Strategy

The strategy is needed to help the organization in determining the company's goals. In determining the company's goals, the organizations have to pay attention in three major components, such as, existing business strategy, customers, and key stakeholders.

1. Identifying and analyzing the existing business strategy
 In identifying and analyzing the existing business strategy, the organizations formulate the strategy into vision and mission. According to Hubbard, et al (2008), Vision is the main focus of the company in translating its long-term objective and Mission is about the implementation of vision in short-term action. Thus, those statements can be concluded that the good vision and/or mission consist of the plan of the organization to pursue the expected results.
2. Creating value for customers
 When the organizations plan to offer the new product to the market, they have to consider the need of the customer meet the buying power. The organization also should identify the personal emotional, and the benefits after customers buy the product, so it's not only how the organization generate the profit. The purpose of those activities is to satisfy the customers and create a sustainable competitive advantage.
3. Creating value for key stakeholder
 The key stakeholders consist of the several parties, such as, board of director, a majority shareholder, a dominant customer, a critical supplier, the top management team. In other word, the key stakeholders are the individual or

parties who have the significant influence to current and long-term strategy of the organization. Because of that, the organizations have to identify and analyze the key stakeholders' expectation.

2.1.3.2. Analyzing the Environment

When the organizations formulate their strategy, environment is one of difficult part to analyze. The reasons are the scope of the environment is too wide and environment is out of organization's control. According to Hubbard, et al (2008), the environment is divided into two aspects, macro-environment and industry environment.

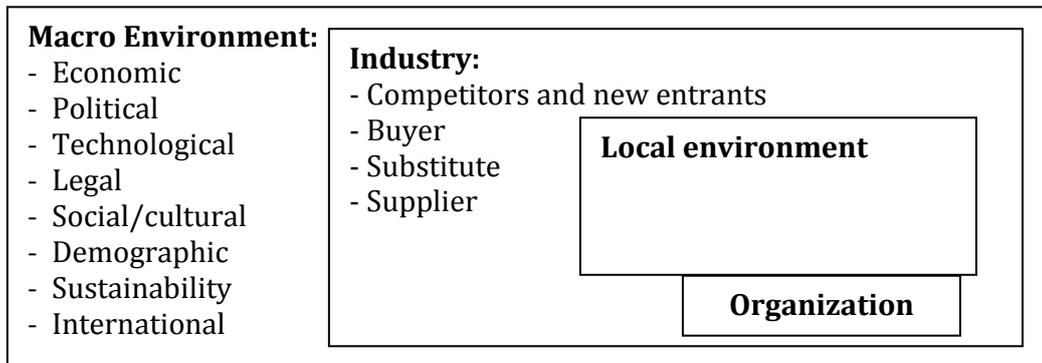


Figure 2.2 The external environment

Source: Hubbard, et al (2008) modified

A. Analyzing the Macro Environment

When the organizations analyze the macro-environment, they have to seek more information about the trend that influence to the future growth. There are some trends that might influence the company's strategy, as follows.

1. Economic trend might influence the industry, such as, Gross National Product ("GNP") and personal disposable income growth, inflation rate, unemployment rates, exchange rate, taxation rates and wages rates.
2. Political trend could influence in some industries in order to reduce the barriers from international trading and the agreement. The governments have the authorities through the legislation, government agencies, and government administrative.
3. Technological trend is continually changed. The technological would be effected to the industry in the future and make the industry aware to the advanced technology.
4. Legal trend influences the industry involves in increased the willingness of the court to discover if there are malpractices that have done by the professional or organization.
5. Social/ cultural trend is difficult to predict, because it depends on the demand of the customers. For instance, the change of the marital status and employment occur the new need, such as, the more demand for convenience foods and increased child care.

6. Demographic trend is one of the factors that influence in strategic analysis. The decreasing in birth and immigration program will be effected to the demand of the customer for the school, and the product related to children.
7. Sustainability trend entails the organization to create the sustainable competitive advantage. Increasing the number of industry will be effected indirectly to the natural environment, such as, lack of water, water quality, salinity, global warming, and decreasing oil reserved.
8. International trend becomes the business strategies of organizations toward international competitions. It is proven by reducing of trade barriers among industries and increasing the speed of communication of new ideas and good practice.

B. Analyzing the Industry

Based on Pearce and Robinson (2007), industry environment is the condition where the competitions influence most of organization in providing the same products and services. The aim of the industry analysis is to assess the environment factors that influence to the industry profitability. In assisting the organization to analyze the strategy, Michael E. Porter created five forces analysis which is illustrated before.

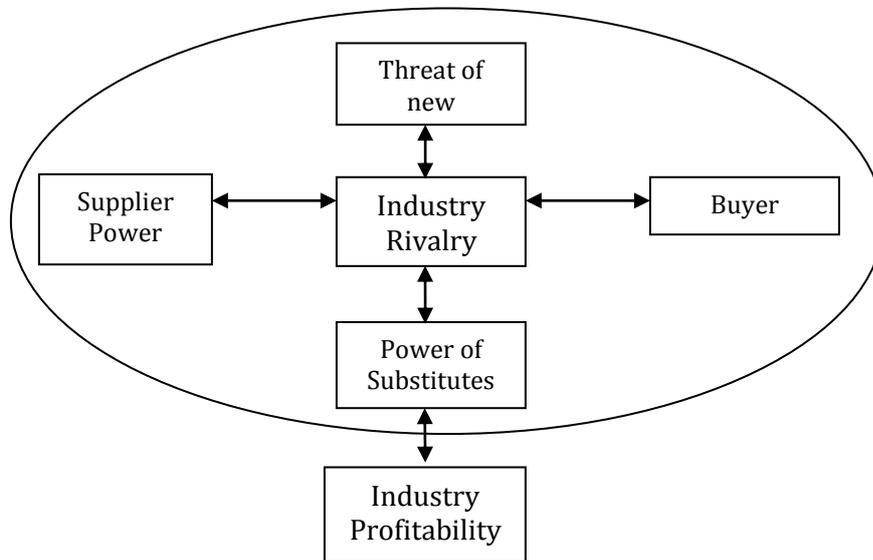


Figure 2.3 Five forces analysis

Source: Hubbard et al, 2008

C. Analyzing Organization's Resources and Capabilities.

The resources and capabilities are the basic need of the organization to implement their activities. Resources and capabilities are also help the organization to analyze and identify what the organization should do to perform better than their competitors.

Resources are divided into two, such as, tangible asset and intangible asset. Then, capabilities are the process to translate the resource into output. Resources and capabilities will be combined to formulate the strategic capabilities. Strategy

capabilities are the strategy that organization used to analyze the customers' wants and perform better than its competitors. There are some difference aspects that organization have to identify before apply the strategy capabilities, as follows;

1. Functional analysis

In functional analysis, the organizations separate the resources and capabilities into each function. The purpose is to assist the organization in determining the each function which has significant impact to the organization.

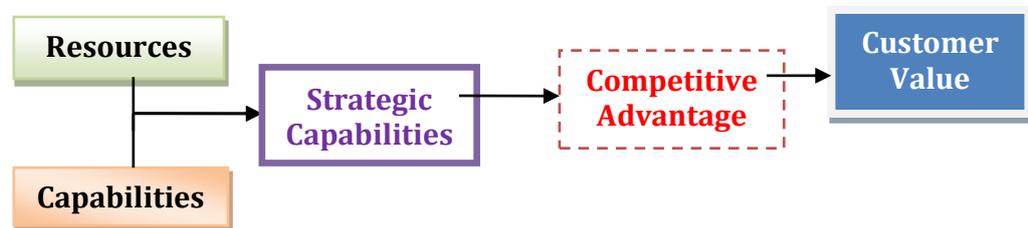


Figure 2.4 Resources, Capabilities, Strategic Capabilities & Value Creation

Source: Hubbard, et al (2008), modified

2. Resources Analysis

This aspect is more about analyzing the available resource of the organization. In analyzing the resources, the organization can identify the strategy capabilities to create value for the customer and perform better than the competitors.

3. Process and system analysis

Process and system analysis is intended to combine the functional and resources analysis. It's means that company can seek more information to achieve their objectives and generate the competitive advantage.

D. Measuring organization performance

Information about the performance of the organization is used to determine the strategy and face the competition. In measuring the strategic performance, the organizations need the appropriate method. Most of organizations only focus on the financial perspective. However, the appropriate method to help the company assess the strategic performance is balance scorecard. Balance scorecard is the method to translate the vision and mission of the company into four perspectives, such as, financial perspective, customer perspective, internal business process, and learning and growth perspective.

2.2. Balance Scorecard

From the explanation about the strategy above, there are several indicators that must be analyzed to achieve the expectation outcomes, such as, the level of strategy, capabilities, and environment. In measuring the strategy performance of the organization, most companies usually attempt from the financial perspective. However, if the company only concern about the financial perspective, the company will generate the maximum revenue in short-term period but not necessarily in long-term period. In assessing organization performance effectively, Kaplan and Norton (2000) develop the system which called balanced scorecard. Balanced scorecard is the system which measures the organization performance based on the financial perspective, customer perspective, internal business process perspective, and

learning and growth perspective. By adding the third perspective, the company could assess their strategic performance effectively.

Companies also can use balanced scorecard as their management system. By using balanced scorecard as their strategic management system, the management could combine the long-term goals with short-term actions (Kaplan and Norton, 2000). There are four processes in management system, such as:

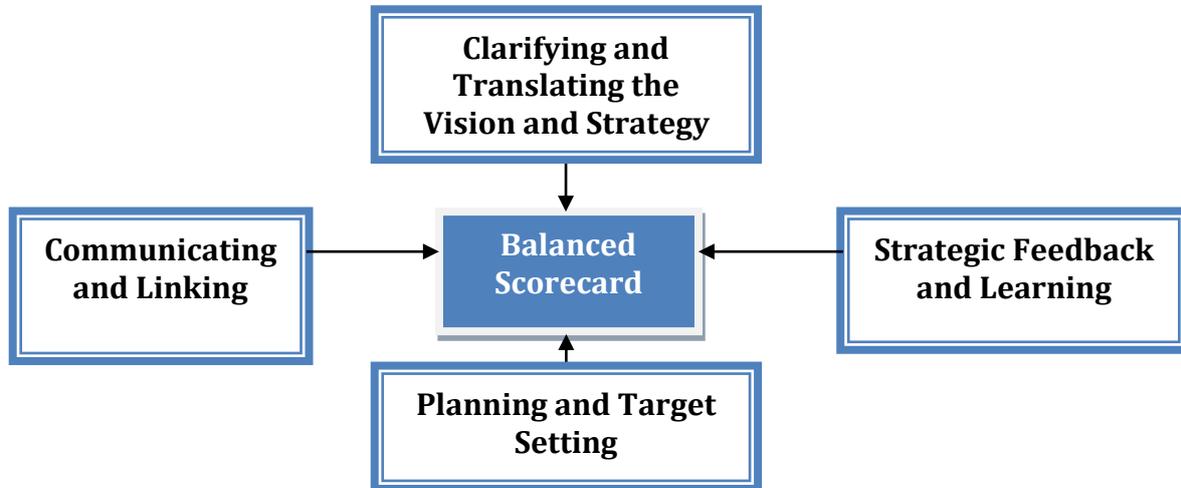


Figure 2.5 Using BSC as a strategic management system

Source: Kaplan and Norton (2000)

1. Clarify and translate vision and strategy
In this process, the managements clarify the mission statement of the organization. After that, the managements translate the mission statement into each perspective in balanced scorecard to achieve the organization's strategic objectives. By using balanced scorecard, the managements may analyze the gap which occurs in clarifying and translating the companies' vision and strategy.
2. Communicate and link strategic objective and measures.
Communication and linking the strategic objective and measure can be done by the organization through company newsletters, bulletin boards, videos, and other electronic devices (Kaplan and Norton, 2000). All communication devices are used by the company to inform to all employees about objective that companies want to be achieved. From each perspective in balanced scorecard also can be used by the company as a link between the individual's need to the organization's goals.
3. Plan, set targets, and align strategic initiatives.
In the third process of management systems, balanced scorecard is used by the organization to plan, set the target, and align the strategic initiatives. When the management plans to set the target in financial objectives, the management may also analyze from the other perspectives, such as, customer, internal business process, and learning and growth. Then, those perspectives will link to the company's strategy in achieving the company's goals.
4. Enhance Strategic feedback and learning

The previous three management systems are the basic things when the organizations want to achieve and implement their strategy. The last process of the management system is about enhancing the strategic feedback and learning. In this management system, the company needs the feedback to face the threat from the competitors, find the opportunities, and to identify whether their plan meet their expectation or not. After gathering the feedback, the company also needs the information to evaluate and improve their strategic learning.

Hence, it is apparent that the function of balanced scorecard is more than a mere measurement of the organization-wide systems. Balanced scorecard is also used as the underlying management system. Despite the endless debates surrounding the ideas on balanced scorecard, the combination of all perspectives is used to implement the organization's strategy by evaluating the past performance to forecast the future performance.

2.2.1. Definition of Balanced Scorecard

Balanced scorecard consists of two words; balance and scorecard. Scorecard means that card to record the individual or group performance. Scorecard is also used as a plan for the employee in implementing their task and translating employees' expectations. Balance is referred as the balance of the organization performance in financial aspect and non financial aspect, short-term and long-term objective, and internal and external performance (www.netmba.com).

BSC is a management, measurement, and controls system with comprehensive frameworks to assist the management in assessing the strategic performance. Balanced scorecard is divided into four perspectives, such as, financial perspective, customer perspective, internal business process perspective, and learning and growth perspective. Through cause-effect relationship, financial is used as the benchmark where the three other perspectives is used as the drivers. There are several indicators that is being measured in balanced scorecard, such as, financial and non-financial aspect; short-term and long-term performance; external and internal indicators; and past performance and future performance.

2.2.2. Four Perspectives of BSC

The four perspectives of BSC are used in assisting the organization performance from financial and non financial aspects. Those 4 perspectives are; financial, customers, internal business process, learning and growth.

2.2.2.1. Financial Perspective

Financial perspective is the measurement that common used in the organization. In financial perspective, the company measures the organization performance by counting the number. By measuring the financial perspective, the company could expect the appropriate ways to improve and achieve their strategy. So, the main functions of financial perspective are to define the financial performance and set the main target for measuring of all the other perspectives in balanced scorecard. According to Kaplan and Norton (2000), there are three stages to identify the financial objective of the organization:

1. Growth Stage

Growth stage is the first step of passing their life cycle. In this stage, the

organizations focus on growing their potential resources. In utilizing their potential resources, the organization develop and increase their product or service, expand their facilitation, enhance their operating capabilities, work on in their distribution channel to sustain the global network and customer relationship. They also utilize the available resources to measure the growth rate and sales regarding to their financial target. Thus, the financial objective in growth stage would be sales growth where the company enters new market, offer their product and service to new customers.

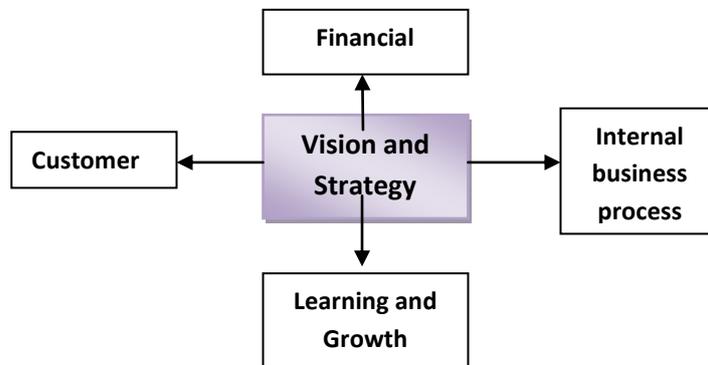


Figure 2.6 Translating vision and strategy: four perspectives

Source: Kaplan and Norton (2000)

2. Sustain Stage

In this stage, the company is more about measuring the financial profitability. The organizations also focus on how to maintain their market share which is intended to gather maximum profit. The target in this stage is the results of investments have been done before. Financial aspects which are concerned in this stage are operating income, gross margin, return on investment, return capital employed, and economic value added.

3. Harvest Stage

After the companies encounter growth and sustain stages, the next step will about harvest stage. In the last stage, the companies harvest the result of previous investment by maintaining their capabilities and equipment. The main goal is to maximize their cash flow and generate the profit. Accounting measurement that is used in this stage is the cash flow from operational, reduction rate in working capital, return on investment, operating income, and economic value added.

From explanation above, all of stages are applied by the organization in normal life cycle. However, fiercer competition would make the organizations are difficult to achieve the harvest stage. Thus, the company should review periodically their financial objective to achieve their expectation.

In measuring the financial aspect of the company, ratio analysis is needed as the tools of company's growth. There are several ratios that commonly used to measure the company's position and capability (Ross, et al, 2008), as follow;

1. Liquidity ratio asses the company's short-term obligation and the speed of the asset convert into cash.

- a. Current ratio ("CR") is used to identify the company's liquidity and the ability of company to pay their debt in short-term period. Current ratio is calculated by dividing current asset into current liabilities.
 - b. Acid test ratio ("ATR") is referred as the ability of the organization in paying their short-term liabilities without calculating their inventory which is normally difficult to convert into cash. The acid test ratio can be computed by subtracting current asset by inventory, and then dividing by current liabilities.
2. Profitability ratio is used to measure the operating success and the income of the company in a particular period of time. The effect of all measurement will influence liquidity position and the company's ability to grow.
- a. Profit margin ("PM") is the financial measurement to control company's cost. PM can be computed by dividing net income by net sales.
 - b. Return on asset ("ROA") is the ratio can be used to measure whether the company utilizes their available resources effectively or not. ROA can be calculated by dividing net income by total asset.
 - c. Return on common shareholder's equity ("ROE") is referred as the company's ability to generate their profit by using its equity. Thus, its measurement based on the common stockholder's point of view. It is counted by dividing net income by total stockholder's equity in given period of time.
3. Asset Utilization Ratio is the ratio to measure the effectiveness of the company in utilizing its assets to generate the sales.
- a. Receivable Turnover ("RETO") is used to measure the period of times that the credit sales can be created and collected. To calculate RTO, it can be computed by dividing net sales by accounts receivable ("A/R").
 - b. Inventory turnover ("ITO") measures the average inventory which is sold during the period. The aim of inventory turnover is to assess the liquidity of the inventory. This ratio is being counted by dividing the cost of goods sold ("COGS") by inventory.
 - c. Fixed Asset Turnover ("FATO") is the ratio to assess the ability of the company in generating its sales from fixed assets. Fixed asset includes net property, plan, and equipment. FATO can be counted by dividing net sales into fixed assets.
 - d. Total Asset Turnover ("TATO") is used to measure the ability of the company to generate sales from its asset. Total asset includes fixed asset, inventory, A/R. TATO is computed by dividing net sales by its total assets.

2.2.2.2. Customer Perspective

To achieve the organization's objective in the future, the companies have to pay attention to the customer perspective. The customer perspective is more about

identifying the customer and target market in which they have decided to compete. In this perspective, the companies also have to understand what the customers' need and want and how to satisfy their customers. According to Kaplan and Norton (2000), there are two measurements to assess the customers' profitability, as follows;

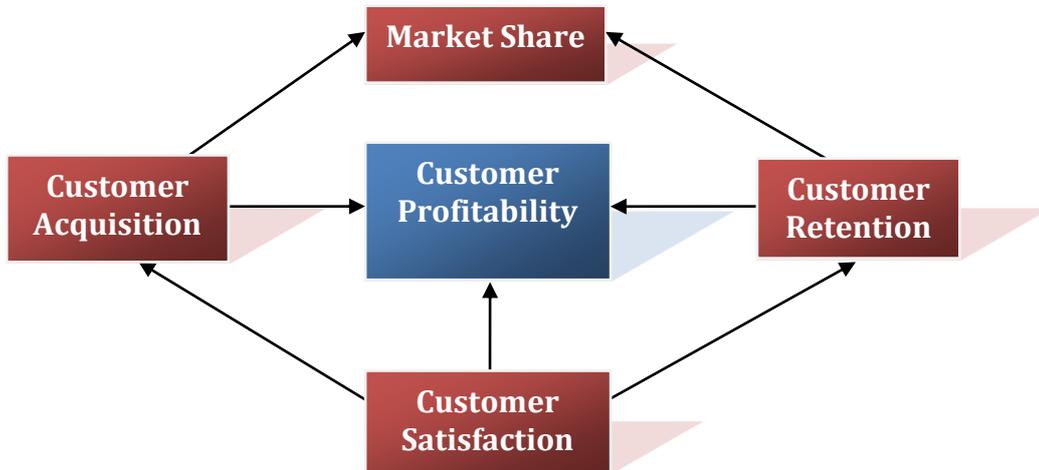


Figure 2.7 Customer perspectives – Core measurement

Source: Kaplan and Norton (2000)

1. Customer Core Measurement group is the core to measure the customer profitability. It consists of several aspects, such as:
 - a. Market Share is used by the companies to identify the targeted customers to offer the product or services. When the companies measure the market share with the market segment, it would balance to organization's objective.
 - b. Customer Acquisition is the aspects to measure the power of the companies in attracting new customers. The purpose of measuring the customer acquisition is to develop their business. Customer Retention is important, particularly when companies want to expand their business.
 - c. Customer Retention is the aspect that companies used to identify the customer loyalty.
 - d. Customer Satisfaction reflects the combination of customer retention and customer acquisition. The customer retention and acquisition are factors to analyze the need of customers. Feedback from the customer is needed to analyze how well the company runs the business.
 - e. Customer Profitability is the measurement to analyze the willingness of the customer in granting the profit to the companies. The function of the customer profitability is to maximize the profit of the organization.
2. Customer Value Proposition is the tool that companies use in offering the product or service to the customer and creating the customer loyalty and satisfaction. Customer value proposition is divided into three categories, as follows;

- a. Product/Service Attributes are used the company to analyze the willingness of the customer in buying the product/service. Product/service attribute include its product/service, price, and quality as the reference for the customers.
- b. Customer Relationship is about the personal emotion of the customer when the buy the product or service. To keep the relationship with the customer, the companies have to focus on the quality of the product or service, the distribution of the product/service to the customer.
- c. Image and Reputation is the intangible asset that company use to attract the customers. Advertisement is the method that companies use in attracting the customer and creating the competitive advantage.

2.2.2.3. Internal Business Process Perspective

The internal business process is the perspective to assist the company in achieving the customer and shareholders expectations. According to Kaplan and Norton (2000), the internal business process is divided into three activities.

1. Innovation Process refers to when the organizations analyzes the need of customers and create the products to fulfill the customer's want. There are two components in innovation process, such as, identify the market that company chosen and create the product/service.
2. Operation Process is the process to produce the product or service into deliver the product to the customer. This process is emphasize to distribute the product efficiency, consistent, and on time.
3. Post-sales Services are the process to offer the service after the customers buy the product. The examples of post-sales services are the warranty, repairs, and maintenance.

2.2.2.4. Learning and Growth Perspective

Learning and growth perspective is implemented after companies formulating the three perspectives in balance scorecard. The purpose is providing the facilities in achieving the organization's objective. According Kaplan and Norton (2000), there are several factors to support the learning and growth perspectives, as follows.

1. Employee Satisfaction is referred as the level of satisfaction of the employee towards the companies' performances. The satisfaction of employee can be measured through the surveys by distributing the questionnaire or interviewing directly.
2. Employee Retention reflects to the loyalty of the employee toward the organization. In maintaining the employee retention, the measurement can be done by calculating key employee turnover in a particular period.
3. Employee Productivity is the combination of employee retention and employee satisfaction. The employee productivity includes the morale of the employee, innovation, and working process.

SAMPLE # 4: CONSUMER BEHAVIOR FOR FOOD RETAILERS

The following research sample is based on the actual work of an undergraduate thesis in 2011, which was originally written by Federica Setiawan from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*Analyzing Consumer Behavior in Small Food Retailers: Empirical Study in BSD City*”.

The approach used in this study was quantitative-based research, which mainly relied on questionnaires to evaluate the relationships among variables in this study.

CHAPTER 2 – LITERATURE REVIEW

2.1. Consumer Behavior

Consumer Behavior is the study of consumers and the process they use to select, acquire, consumer and dispose goods, services, activities, experiences, and idea in orders to satisfy their needs and desires, (Klopper, 2006; Perner, 2008; Hoyer and Macinnis, 2009; Mooij, 2010). Based on this definition, consumer behavior involves on how consumers act toward the fulfillment of their psychological and biological needs. Fulfillment of needs can be achieved for example by purchasing product and services (in this case food products and food services).

Nowadays, there are many choices of products and services available to be purchased. As a result, consumers have time to evaluate available choices before they decide to make a purchase. Consumers, in making purchase decision, are inclined to be affected by some factors associated with the products and services. These factors influence consumers view and affect their buying behavior with regard to products and services. Realizing this, academic and business researchers developed several models to explain consumer behavior by focusing on important consumer motives and buying processes, (Hisrich, 2000; Tyagi and Kumar, 2004). The models are:

- The Psychoanalytic Models is a model which focuses on motives for buying and the process of learning. For example, consumers in buying food products have motives to fulfill their biological needs. According to this model, a buyer motive is very complex as consumers motivations are buried deep in their minds and therefore difficult to determine.

- The Sociological Model is a model which explains how consumer behavior is affected by social forces around them. Social components are divided into culture, subculture, social class and reference groups. Consumers gain ideas from and are influenced by these very component. For example, consumers consumed food products which are recommended by family and relatives and these products are in line with consumers’ culture.

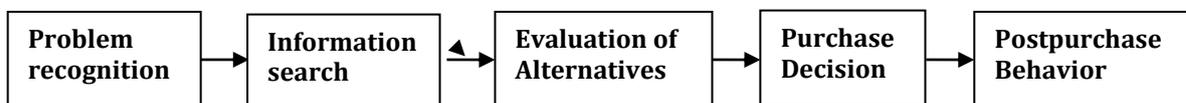
- The Economic Model is a model that focuses on consumers' intent to maximize their enjoyment from their purchase. This model is introduced by economists believing that consumers are rational people who perceive their self interest, use a limited amount of money to satisfy their wants and needs from the range of products available. This effort is also called utility maximization, (Hisrich, 2000). An example of this model is consumers buying low priced food products to get more quantity to satisfy their hunger.
- The Stimuli Response Model is a model which takes account of a variety of models including stimuli from suppliers' marketing effort. In this model, there is a sequence of steps such as drive, motive, stimulus, cue, and response. When consumers give a satisfying response as a result of stimuli and cues given by suppliers then brand loyalty will occur. For example, consumers are affected by advertisements and promotions from a restaurant that attract them to eat at that restaurant. They are satisfied with the restaurants' products and services and wish to come again at a later date.

Four model theories above are models that are generally known. By using these models to find out about consumer behavior, marketers can structure their marketing mix to fit this behavior. Consumers, in making purchases, go through a process that starts before the actual purchase and affects their behavior after purchase (Tyagi and Kumar, 2004; Kloppner, 2006). The process of consumer products and services purchase is explained further in the consumer buying process.

2.1.1. Consumer Buying Process

Consumer buying process describes the stages that consumers go through when making purchases, (Morrison, 2002 ; Tyagi and Kumar, 2004). The first stage is need awareness or problem recognition follow up by information search, evaluation of alternative, purchase and post purchase evaluation.

Figure 2.1. Consumer Buying Process



Source: Tyagi and Kumar, 2004

A. Need Awareness/ Problem Recognition

Consumer buying process begins with need awareness. In this stage, a need deficiency is recognized. Consumers' awareness of need deficiency can be stimulated by stimuli from marketers, social source, and internal drive. Stimuli from marketers are shown through promotion and advertising. Social sources such as opinion leader, family, friend, and relative provide opinion and recommendation regarding products. Internal drive comes in form of basic needs such as hunger or thirst. Example of stimuli that comes from marketers is a situation when food retailers introduce new products in market. This situation induced consumer needs to try new products.

B. Information Search

After customers aware of their needs, they began to search for information of product that can fulfill their need. According to Lamb, Hair, and Daniel (2008), information search is divided into two types, which are internal search and external search. Internal search usually used for frequently purchased product by recalling of previous memory associated with products and brands. External search is information gathering method usually used to purchase new products. External search is divided into three (3) sources:

1. Personal sources: acquired from friends, acquaintances, coworkers and family recommendation of certain products or services. When choosing which restaurant to go, consumer asks from opinion and recommendation from friends or family members.
2. Public sources: public rating organization that comments on products and services. In Indonesia, public rating for hotel and restaurant is usually done by Indonesia Hotel and Restaurant Association (IHRA). Every year, IHRA publish a book about hotels and restaurants under this organization. This book could be used as public sources in getting information.
3. Marketer sources: such as advertising, company websites and sales people. Food consumers could get information from food magazines; television or radio advertisements; and brochure distributed by food retailers' sales people.

C. Evaluation of Alternatives

Information gathered through information search is evaluated based on consumer criteria. Criteria can be objective or subjective (Morrison, 2002). Objective criteria include prices, locations, physical characteristic of facilities and services offered. Subjective criteria are intangible, for example organization image perceived by consumer. Consumers make decision using the result of their evaluation. They develop attitude and preference for each alternative and may even rank the products or services.

D. Purchase Decision

On purchase decision stage, consumers have choice to purchase the products. The decision can be influenced by family members or other social contacts. If consumers decide to purchase the product, they choose the best product which best satisfy their needs based on evaluation from previous stage. Consumers later go through process of going to food sellers or restaurants and do the actual process of food product transaction.

E. Post Purchase Behavior

Post purchase behavior involves consumer experiences with the food product that they purchased. The experiences may lead to satisfaction or dissatisfaction that consumers feel to the said product. Dissatisfaction of food product may lead the consumer to feel that the alternative product is preferable.

In practice, Consumer Buying Process is influenced with some factors whether it is

internal or external factors. Internal factors are factors which come from inside a person and external factors which come from environment around the consumers, (Reid and Bojanic, 2009; Kumar 2010) Internal factors are consists of personal and psychological factors while external factors consists of social and cultural factors. These factors are explained further in next section.

2.1.2. Factors That Affect Consumer Buying Process

Consumer Behavior is strongly influenced by the mix of personal, psychological, social, and cultural factors (Gilligan and Wilson, 2009; Lamb, Hair and Daniel, 2008). By the combination of these factors, consumers are influenced to purchase certain goods and service that compromise with these factors.

A. Personal Factor

Personal Factor is unique to certain person which means each person's personal factor has different influence to his purchase decision making. Personal factors are categorized into age and life cycle, occupation, economic situation, lifestyle and personality.

- **Age and life cycle**

Consumer buying process may affected by age and family life cycle. As people grow their needs and preferences of product and services also change. Preference or taste of products and services mostly age related. Family life cycle also shaped the purchase of products and services. For example, a teenager preferred to eat fast food. This teen later grew up to be a man and had a family. This man changed his preference from fast food into slow food for more healthy life for him and his family.

- **Occupation**

Consumers have tendency to purchase products and services associated with their occupation. For example: mechanic buys technical equipments, and gardener buys gardening equipments. Consumer who owns a food retailers or chef tends to look the cooking and food ingredients sections first before looking anything else.

- **Economic Situation**

Consumers' economic conditions affect their purchase. If consumers' economic condition is not so good, they will not choose products with high expenditure and high risk. Consumers with low income will choose small food retailers rather than high class restaurants.

- **Lifestyle**

Lifestyle means pattern of living. It also means the way person lives. Activities opinions and interest of consumer affect their choice of products and services. Lifestyle usually affected by culture of consumer living environment and it affects consumers' pattern of acting and interacting in society. Lifestyle in which people follow right now is healthy lifestyle. Healthy lifestyle means healthy food, good rest, do more exercise (sports) and other health activities.

- **Personality**

Personality is a pattern of behavior based on individual perception and his traits. Perception is affected by external environment while traits are individual characters

that formed as he grows. When facing with stimuli of new products from marketers which interest him, a person with bold personality will directly buy the products while a person with assertive personality will wait and think further. When facing a situation, people with different personality will act differently.

B. Psychological Factor

Besides personal factors, consumer selection and purchase of product or services are also influenced by psychological factors. Psychological factors influence how consumers interact and perceive environment around them. These factors are divided into some component, for example motivation, perception, learning, belief and attitude.

- **Motivation**

Each consumer has different needs. Consumer needs consists of biological, physiological and social needs. When these needs arise, motivation to do action that can fulfill those needs also appears, for example by purchasing goods and services. Famous motivation theory is Maslow's Hierarchy of needs that divide needs into 5 states. According to Maslow, fulfillment of needs should start from physiological needs, followed by safety, social, self esteem and self actualization needs. Motivation which associated with foods is a fulfillment of physiological needs.

- **Perception**

Consumer's perception is affected by individual interpretation (based on information collected and gathered) and exposure to external stimuli (like marketing stimuli from suppliers). For example, when a consumer heard negative information about the product that they usually used, he may or may not be influenced by it. In the other hand, when consumer got affected by negative stimuli from many sources, he may change his interpretation and does not use the product anymore. Like a case of China bad milk issues which are tainted with chemicals and caused 4 infants died and 53,000 infants ill. This news change the perspective of many consumers and many countries banned the import of this product.

- **Learning**

Consumers learn from experiences. In this context, these experiences could be gained by doing action, such as select, purchase, and use of goods and services, to fulfill their needs. The process that consumers experienced are learned and then used as basis for their decision making in buying goods and services in the next purchasing process.

- **Beliefs**

Belief is a combination of individual knowledge, common sense and actions. It also means assumed truth or what individual thinks to be true. This belief may later influence consumer behavior in purchasing products and services.

- **Attitude**

Attitude is combination of individual perceptions, values and beliefs. When consumers perceive product and then evaluate the products based on their values and beliefs, they may give positive or negative views of products. Positive views of products may affect consumer to make purchase decision and negative views of

products may affect consumer not to purchase the products.

C. Culture Factors

Consumer buying behavior is not only influenced by internal factors but also from external. Consumer's behavior and perception are influenced by the culture that they learned in environment they live in. These influences are coming from culture at large, sub culture, and social class.

- **Culture**

Culture in international marketing is the sum total of learned belief, values and customs that serves to direct consumer behavior in a particular country market (Doole and Lowe, 2008). Belief, values and customs of a country are ingrained in its people. They realize that their culture is special when they come in contact with other culture.

- **Sub Culture**

Each groups, region and country has different culture. Culture also has sub culture, for example religion, ethnicity, language, and other sub cultures. Members of same subcultures shares same values and attitude, therefore will purchase same or similar products. They also prefer products and services which are parts of their culture. For example, consumer with Islamic religion will not choose any food product which has pork ingredients inside it. Marketers who want to put a sub culture as their target market has to understand the needs and wants of that particular sub-culture,

- **Social Class**

Society has variety of social class which has different buying behavior from one and another. Social class mostly determined by income, wealth, education, occupation and other factors. Consumers behavior is varied depends on consumer's social class. For example, educated and high class consumers usually prefer to eat in mid scale to high class restaurants rather than eat in Kaki Lima.

2.1.4. Social factors

External factors which influenced consumer behavior not only come in from of cultural factors but also from social factors. The ways consumers perceive and behave on a situation are greatly influenced by the people they associated with. From all people that interact with consumers, the ones that have major influenced in consumers buying behavior are family and reference groups. Consumers buying behavior also influenced by role and status factor that they have in society.

- **Reference groups**

Reference groups have impact on formation of individual's attitude and behavior. In this context, consumers may have to rely on several reference groups' opinion to make purchase decision. One type of reference groups is opinion leader. Opinion leader is a person who influences other with his skill, knowledge, and other characteristic. Opinion leader also serves as role model guiding other people to follow their action.

- **Family**

Of all people that associated with consumers, family is the most important. Individual

basic values and beliefs are shaped by family and it also serves as strong reference groups because behavior and action of young people in the family usually dictated by their parents. Most consumers in Indonesia in making purchase decision are greatly influenced by family opinions. Therefore, marketers in this country targets family member who has most power in making decision.

2.1.5. Roles and Status

Each consumer has different role and status in the society. Different role and status affect how they make their purchase decisions. Because each consumer usually has some roles in society, he may be influenced to purchase some products associated with those roles. There is also a need for greater status that consumers want to achieve. Consumers may buy products and services that appeal this need.

2.1.6. Consumer Purchase Intention

Consumer purchase intention means probability of consumers to purchase products and service in the future. According to Bradmore (2004), consumer purchase intention is the likelihood that a consumer will buy a particular product resulting from the interaction of his or her need for it, attitude towards it and perceptions of it and of the company which produces it. Based on this definition, there is a significant correlation between products and services quality to consumer purchase intention. According to Roche (2005), the higher consumer perception of products and services, their purchase intention will also go higher.

In order to predict purchase behavior, marketers study in depth on consumer purchase intention. Consumer purchase intention is better predictor rather than consumer positive behavioral attitude to products and services because in the end purchase intention led to the purchase itself. Consumers framework of thinking move from their belief, attitude, purchase intention and last ended with the actual purchase (Shoemaker and Lewis, 1999)

2.1.7. Marketing Mix

People factor of 8P's marketing mix introduced by Morrison (2002) correlates strongly with consumer behavior. People have important role in marketing especially in food service industry because food products and services are delivered from people to other people which in this case between sellers and consumers. Consumers of food services industry not only concerns about food products but also quality of service done by food sellers. The quality of service influences consumer's perception of overall product experience. To understand the way of service that acceptable to consumers, marketers study consumer behavior.

2.2. Small Food Retailer

Small food retailers, in this context, are small restaurants located in food court area at shopping mall. These retailers usually share their dining area, therefore their food preparation area come in form of small space room. Food court in ITC BSD and Giant provides food products from many area such as local Indonesian, Chinese, Japanese and western cuisine.

BSD City as a new area of development provides a new market area for food products. This market comprised of suburban people who moved to urban area to find

employment, education opportunities, and higher living standards, as well as urban people who migrate from their cities due to their cities become too crowded and unfit for living. A demand of small food retailers comes as suburban people who generally purchase cheaper food products and urban people who are more adventurous with culinary choices gather together bring similar eating habits to new urban area. Therefore, this research is done to find out consumer behavior that best represents the combination of both people group.

SAMPLE # 5: SCREENING & MONITORING

The following research sample is based on the actual work of an undergraduate thesis in 2011, which was originally written by Wynne Frederica^{viii} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*The Roles of Screening and Monitoring Functions in Bank Loans: An Industrial Analysis on Firm’s Value in Indonesian Publicly-Listed Manufacturing Firms*”.

The approach used in this study followed a quantitative-based research, which mainly relied on secondary data to evaluate the relationships among variables based on the research model. Secondary data from macro-economic indicators and financial statements of publicly-listed firms are also incorporated to provide managerial analysis, explanation and evidence on the role of screening and monitoring in bank loans.

CHAPTER 2 - LITERATURE REVIEW

2.1. Macro Economy

In a simple definition, economy is the whole consumption and production activities. There are two kinds of economy, macroeconomic and microeconomic. In other words, macroeconomic is the big picture of the economic situation (Schiller, 2006). A study into macro economy focuses on national goals, such as; full employment, control of inflation, and economic growth. On the other hand, microeconomic study focuses on individuals, firms, and government agencies, which will affect the whole economy.

Korajczyk and Levy (2003) stated that firms often schedule debt issuance based on the market conditions. Baum, et al (2009) stated that uncertainties in the market conditions are experienced by firms. The country’s conditions, including the structure of government agencies, often time, provide influence toward portion of firm’s leverage. This portrays that the degree at which firms may choose to rely on external sources of financing, may not only dependent on the macroeconomic conditions, but also on government structure of a country. Jäntti and Jenkins (2001), Bhattacharjeet. al (2004) and macroeconomic model developed by Pesaran, Schuerman, Treutler, and Weiner (2006) showed that GDP, inflation, and interest rate may well be used to represent the macroeconomic conditions.

2.1.1. GDP

GDP refers to the total market value of all final goods and services produced within a nation’s borders in a given time period (Schiller, 2006). The four elements used to calculate GDP are;

a. Consumer Goods and Services

Daily activities such as buying breads, books, laptops (goods), watching movies, paying rent cars, paying tuition fees (service) are consumer consumption and it is

used up on daily basis.

b. Investment Goods and Services

Investments on machinery, plant, buildings, and other equipments are what the company needs to run the business. Those investment goods are used to replace the worn out machinery, to facilitate the production in order to increase the value of the stock price; hence, there will be possibilities for the firm to be expanded. These investment goods empower the company possibilities to produce more goods and services in a future. In a poor country, where the GDP growth is not adequate enough to raise the living standard, more investor is needed to solve that problem.

c. Government Services

Government also plays its role as consumer and it affects the GDP. The difference compare to the consumers' activities is the government purchases the resources to build the facilities for the community. Creating highways, streets, building school, universities, hospital and purchasing new public transportation are examples of what the government spends to serve its community.

d. Net Export

At this point, the goods and services that a country produces do not always end up and/or used within the country. There are exports and imports. While exports lead to sales of products and services from a given country to other countries, imports signify the opposite. Technically, imports do not affect the total accumulated GDP of a particular country since GDP only includes goods and services produce within a nation's borders. However, it is crucial to note that GDP measurements are based on market purchases. Hence, to get an accurate amount of GDP, imports must be excluded.

GDP can be used to estimate government income. At a micro level, the so-called "producers" of those GDP are firms within a country. It is apparent that the level of GDP influences the country's income since it shows the "real" income of firms domestically. Hence, the fluctuations on firms' income level will eventually affect the decision of banks in extending loans. Since banks are also "firms" inside a particular country, the level of GDP also affects banks. Naceur and Omran (2008) found that GDP per capita have a positive and strong correlation toward bank's performance.

Pesaran, Schuermann, Treutler, and Weiner (2006) found that GDP influence supply and demand for debts and loans in the market. The favorable economy positively affects the demand and supply of bank services.

2.1.2. Inflation

When the average level of price in the market increases, not jut for specific product, the economic market experiences inflation. The basic consequence of the inflation is uncertainty. When the average level of price change significantly, it will be hard for a financial manager to make an economic decision (Schiller, 2010). For example, if a company wants to build a factory, it will be built in 3 years. Unfortunately, the financial manager faces the possibility of the changing of the cost of construction within 3 years. There must be a certain computation to decide whether to do the new investment and expand production or not.

The most common measurement in order to measure the inflation is the Consumer Price Index (“CPI”). It is the mechanism to count the changing average price of consumer goods and services. The aim is to observe whether the inflation occurs or not. By doing so, it is possible to calculate the inflation rate. The other measurement is Producer Price Index (“PPI”), which is the price of the raw material that will be used to process the final goods for the consumer. It is obvious that PPI is usually used as a clue for the potential changes in consumer price; for example, when a producer increases the price, it will affect the consumer’s price.

The main goal for the economic policy is the price stability. According to Full Employment and Balance Growth act of 1978, the target is to maintain the inflation under 3 percent. Instead of keeping the inflation at the zero, the government still has another consideration which is the unemployment rate. By keeping the inflation at the zero, it means government has to restrain the spending money and cutback the production which will lead to the increasing number of unemployment. In a brief, the inflation rate is the “cost” that the government has to pay in order to maintain the number of unemployment from raising (Schiller, 2010). In term of banking, inflation is believed to be directly influencing the labor cost and indirectly influence the interest rate.

2.1.3. Interest Rate

The number of interest rate affects the money market. As any other product in the market, money also has a “price” in the market. The price of the money is shown by its interest rate. People have an opportunity to gain their money if the interest rate is high. Higher interest rate creates people to buy bonds and stocks. On the other hand, if the interest rate is relatively low, people are willing to save their money at the bank account or just hold it. In other words, when money supplies increase in the money market, the interest rate tends to be lower (Schiller, 2010). In addition, Bank Indonesia, as a central bank in Indonesia, has a power to inject or withdraw money in a money market, which will influence the interest rate. For the investors, the level of interest rate influences the investment decision. Investors tend to spend more when the number of interest rate is high and do more investment when the interest rate is low.

Bank is one of the subject in macroeconomic condition, it can be said that the changing of macroeconomic condition will influence the bank decision in screening and monitoring the company. Bank may increase or decrease its interest rate due to the macroeconomic condition. Moreover, the increasing and decreasing rate of inflation and GDP not only affect the bank’s point of view, but also affect the company performance. In research done by Naceur and Omran (2008) they found that the increasing rate of bank interest due to the macroeconomic variable. It will be the consideration for the company’s manager since interest rate is the cost that company has to pay. The macroeconomic uncertainty faces by the bank, forces the bank to readjust their risky loan to avoid the possibility of default (Baum, et al, 2004). In contrast, when macroeconomic condition is more stable, it will be easier for the bank to count the loan return.

2.2. Screening

The process of collecting information and screening for individual debtor and business institution are the same. The different is only on the basic finance information. While an individual debtor is being analyzed of its salary, bank account, other asset, record of loan, credit card, the number of work years, marital status and number of children; the business institution is being analyzed of its company's profit and losses, assets and liabilities, future plan, and its competition in the industry (Mishkin, 2006). The bottom line is a bank will screen whoever wants to make any loan in order to screen out bad risk creditors from the good ones.

Research conducted by Hooks (2003) used income and sales to be a proxy of the company condition. High income and high sales are associated to the low risk of default; hence, this theory states a positive correlation between the level of those variables and the level of utilizing bank loan also. Hooks (2003) found a positive correlation between growth sales and utilizing bank loan.

Company age will also be considered as one of proxies in this study. Hooks (2003) states that a young company will be seen as a company that has a high risk default since the company does not have a robust management yet. As the company age increases there is a tendency that the level of utilizing debt will increase as well. Rajagopal (2005) found a positive correlation between company age and utilizing debt due to building the reputation of the company. In contrast, Hooks (2003) and Dewaelheyns and Hulle (2007) found that company age and utilizing debt has a negative correlation. This is because the older the company the easier it is to have the access to generate fund from external sources.

2.2.1. Company Age

In screening the company, there is a need to know whether the management of the company is robust or not. Older company tends to have a better management (Hooks, 2003). Since the aim for the screening function is to select the company with more value, there is a need for the screening function proxy, which can show the value of the company. Company age is suitable to be a proxy for the screening, since many of the researchers use company age to identify its management.

Based on Loderer and Waelchli (2010) as the company getting older, its profitability become lower. Profitability has a correlation to the profit of the company. It has a relation to the screening function, since the goal in screening the company is to select the company with lower rate of default. Moreover, this research also shows that older firms are less efficient compared to their industry peers, as manifested in higher cost, slower growth, older assets, and reduce R&D and investment activities. This condition will lead the firm come into declining phase on its operational activities.

On the other hand, Pastor and Veronesi (2003) found that investors' uncertainty decrease as the firms grows older. It means that when the company is well known in the market, it will be facilitated the screening process. Many investors tend to invest their money in the well known company, which one of the indicators is the age of the company. In addition, Adams, Almeida, and Ferreura (2005) and Cheng (2008) argued that variability of stock returns is negatively related with firm age. It means that company age can be the indicator for screening in determining which

company has the more variability of stock return and which one is not. Variability of stock of the return indicates the earning or the losses of the company, which has a relation to the value of the company.

The condition when the age stands against the profitability, by the end will affect the firm value. It is inevitable that one of regarded factor forming the firm value is profitability. Though firm age does not affect directly the profitability, this factor has also become one of the variables for this study, since it can be used as one of the indicator in screening to indicate the profitability, uncertainty, and variability of stock return, which have a relation to the firm value. Regarding there are so many various opinions about the indirect effects of the company age to the firm value, this study uses the company age as one consideration in screening the company.

2.2.2. Profitability

Profitability, become one of the consideration in screening the company because profitability allows to see the condition and the efficiency of the company. From the profitability, there is a possibility to see the cash flow of the company. Hence, profitability may affect the value of the company.

Research done by Ramezani, Soenan, and Jung (2000), found that by maximizing growth on profitability, has no affect toward firm's value or shareholder's value. That study relied on return on investment ("ROI"), return on equity ("ROE"), economic value added ("EVA"), and market value added ("MVA") to represent firm's profitability. The findings indicated that only ROE generated profit.

In this study, Net Income Margin ("NIM"), which is formulated as net income divided by total sales, is used to represent the profitability of firms. It is simply due to the fact that this formula offers the possibility to see the condition as well as the efficiency of the firm. As Hooks (2003) used profitability as one of screening variables, therefore, the profitability is included as on of the variables in this study.

2.2.3. Sales

Sales are also used to represent the screening function since sales can indicate total accumulated revenue over time. Hence, sales can be analyzed from year to year to see the likelihood of trends. Sales are needed in screening since it is perceived to have a direct impact on firm's value.

Clay (2002) found that sales significantly affect the firm value by negative coefficient relationship. Stand oppositely, Kumar (2004) had his result that sales in India affect significantly as positive relationship in 1994 – 2000 to firm value, measured by return on assets ("ROA"). In addition, Maury and Pajuste (2005) found that sales have positive significant effect on firm value on 804 companies.

This various results lead the author to involve sales as one of variables in this research, regarding Hooks (2003) defined that sales are used as one of screening variables that he used in his paper.

2.3. Monitoring

Bank is also known for its monitoring function. Empirically, the observable company

activities can be proxied by the size of its tangible asset (Hooks, 2003). Firms with more tangible assets will have more activities, and this will allow external parties to monitor the company. It can be concluded that the higher the level of tangible asset, the easier the company in obtaining debt. However, Hooks (2003) found that there is a negative correlation between the levels of tangible assets and utilizing bank loan; the research by Rajagopal (2005) concluded the same result.

Other studies use another variable to be a proxy of monitoring the utilizing debt. Rajagopal (2005) uses MTB in determining the growth option of a company. MTB value is a ratio between company's share in a market and book value of a market. MTB value increases as the company's growth option increases since intangible asset such as growth option is not counted in the book-value composition. It can be concluded that company growth option is a measurement of tangible asset. The higher the rate of MTB owned by the company the higher the rate of the intangible asset. This can be said that company with a high rate growth option shows a positive correlation; consequently, this type of company is more difficult to observe.

2.3.1. Tangible Asset

Tangible assets show the operational activity from the firm. Firms with higher tangible assets tend to have more convenience access to raise funds due to the sizeable collaterals. Many theories suggest that tangibility increases borrowing capacity because it allows creditors to more easily repossess a firm's assets. However, Campello and Giambona (2010) shows that tangible assets, which facilitate the convenient access to raise the funds are only redeploy-able types of assets. To strengthen these opinions, Anup, Chowdury, and Suman (2010) found that tangible assets, which are mostly comprised of property, plant, and equipment, have positive correlation on leverage and surely by the end will affect the firm value. They suggest that the more company will be able to generate sales through its fixed assets, the more efficient will be the firm and profit will be relatively higher.

There are so many researches with different results about the correlation of fixed assets and firm value. Since this condition, and regarding Hooks (2003) involving this variable as the monitoring variable, therefore this variable as one of two monitoring variables is being used in this research.

2.3.2. MTB Value

Market-to-Book Value (MTB) is considered as measurement of intangible assets. It can be said that, the company, which have higher intangible assets than tangible assets, will have lack on collateral. It means company on this condition will face difficult to raise funds mainly from debt. In opposite side, there is logic state that higher MTB means higher growth opportunity, it means, company has better future cash flow which will derives higher firm value.

Results show, Vance (2008) found that intangible assets are related to firm value, although the impact of intangible assets on firm value is not larger than the impact of tangible assets. In contrast, Heins et al. (2007) found that the negative relationships between intangible assets and firm value. Since there are so many arguments and researches stated about the relationship between intangible assets (MTB) to firm value with various result, regarding Hooks (2003) this variable is being

used for this study as one of the monitoring variable.

2.4. Firm Value

Company’s value essentially affect in analyzing the business valuation, fundamental analysis, portfolio analysis and financial modeling. There are many descriptions of company’s value; however, this study focuses on EV. EV is an economic measurement that shows the market value in a business. EV can be calculated by adding some factors, such as; market capitalization value, debt value, and value of other debt including deficit in pension plan. Then, those three factors above are subtracted by cash, and short-term assets.

Theoretically, there are some advantages in calculating the company’s value in the concept of EV, which are:

- a. Measurement with the EV has less affect on capital structure. Therefore, measurement using this method is usually used to compare the capital structure of a company to another company. However, there are many factors involved and the industry’s condition in every country is different.
- b. This concept can also be used to compare the level of return of companies in the same risk level because in practice the investors cannot calculate the debt value correctly. For that reason, enterprise value is used to solve the company’s capital structure problem.
- c. The low EV may indicate that the company is going through the undervalue condition; hence, the shrewd investors may take a decision to purchase its company’s share.

2.4.1. EV/EBITDA

$$EV/EBITDA = \frac{\text{Enterprise Value}}{\text{EBITDA}} \dots\dots\dots(2.1)$$

Equation 1. EV/EBITDA

Source: Damodaran, 2006

The enterprise value to EBITDA multiple is a firm value multiple. It relates to the total market value of a company, net of cash, the earnings before interest, depreciation, taxes, and amortization of a company. Not netting out the cash will result in an overstatement of the true value to EBITDA multiple when the interest income from the cash is not counted as part of the EBITDA. The cash will be subtracted to value but the income from the asset is excluded from the income measure (EBITDA). Company with the cross holdings can be difficult to estimate the enterprise value to EBITDA multiple. Cross holdings can be classified as minority active, minority passive holding or majority holdings. A company where classified as a minority holding the operating income did not reflect the income of the company. The numerator, which includes the market value of equity, should incorporate the value of the minority holdings. As a result, the value to EBITDA multiple will be too high for the company, and it is causing that many analyst conclude that the company is overvalued. On the other hand, companies with a majority holding which the EBITDA include 100% of the EBITDA of

the holding; the numerator reflects only the portion of the holding that belongs to the firm. The company will be classified as an undervalued company since the value of the EBITDA will be too low. When holdings are in private firms, the correction for the cross holding is difficult. With passive investment, the estimated value of the holdings from the numerators can be subtracted or adding the portion of the EBITA of the subsidiary to the denominator. In active investments the proportional share of the value of the holding in the numerator can be subtracted, and it also applied to the entire EBITDA of the holding from the denominator.

The reason why this study uses EV/EBITDA to measure the firm values are:

- a. This ratio measures the value of the firm from its share and also its interest bearing debt.
- b. Since it is using the EBITDA not the Net Income, it purely count the earning value of the firm.
- c. In EBITDA there is no effect from deducting the depreciation and amortization assets; hence, there is a possibility in count the real earnings

2.4.2. PER

$$\text{PER} = \frac{\text{Market Price}}{\text{Earnings Per Share}} \dots\dots\dots(2.2)$$

Equation 2. Price Earning Ratio

Source: Damodaran, 2006

The PER is a comparison ratio between the market price per share and earnings per share. The market price per share is the numerator where the earnings per share is the denominator. The problem in computing the PER is on the variations on earnings per share used in the computing the multiple which there are five difference variables. Those variables are the current earnings per share, the trailing earnings per share, forward earnings per share, fully diluted earnings per share and primary earnings per share. Moreover, there are two factors that influence on which measure of the earnings per share is used:

- a. The volatility earning per share at this firms. Forward earnings per share can be substantially higher or lower than trailing per share where could significantly be different from the current earnings per share.
- b. The management options. Since the high growth company tend to have far more options on employee outstanding and it is relatively to the number of shares, it is tend to have large differences between diluted and primary earnings per share.

It is difficult to ensure that the earnings per share are uniformly estimated across the firms when comparing the PER of the firms since these following reasons:

- a. Company often grows by requiring other company. Some different approaches lead to different measures in earning per share and different

PER as well.

- b. Diluted earnings per share that is used on estimating the PER might be multiplied.
- c. Often, companies are discreet in whether they want to expense their capitalizing on their items at least for reporting purposes. The expensing of capital expense gives companies the possibility of shifting their earnings from period to period and panelizing those companies that are reinvesting more.

2.4.3. PEG

$$\text{PEG} = \frac{\text{(2.2)}}{\text{Earnings Growth}} \dots\dots\dots(2.3)$$

Equation 3. Price Earning Growth

Source: Damodaran, 2006

To identify whether the company has an undervalued or overvalued stock, analyst sometimes compare the PER to the expected growth rate. The PEG ratio is the sum of the price-earning ratio divided by the expected growth rate in earning per share. The simple calculation for example the PER of 30 with a growth rate of 15% is having the PER of 2. There are different ways to determine which PER should be used to estimate the PEG ratio. The current PER is used when the expected growth rate in earning per share is based on earnings in the most recent year. It should use the trailing PER if it is based in trailing earnings. The forward PER should never be used, since there will be double counting of growth in the result.

2.4.4. PBV

$$\text{Price to Book Value} = \frac{\text{Market Capitalization}}{\text{Book Value of Equity}} \dots\dots\dots(2.4)$$

Equation 4. Price to Book Value

Source: Damodaran, 2006

The market expectation of the companies earning power and cash flows is called the market value of the equity in the company. The difference between the book value of asset and the book value of the liabilities is called the book valued of equity.

There are several reasons why investors used the price book value ratios in their investment analysis. Firstly, is that the booked value gives a stable and intuitive measured of value that can be compared to the market price. The book value is much simpler for comparison. Secondly, price book value ratios can be compared across similar firms for signs of under or overvaluation. Last, company which can not be valued using price earning ratios, that is usually have negative earnings, can be evaluated using the price to book value ratio. Even more, the companies with negative book value are much more less then the companies with negative earnings.

Despite all of the advantages associated in using PBV ratios, there are several disadvantages. The book value just like earnings, are affected by accounting decision on depreciation and also other variables. The PBV ratio may not be comparable, when accounting standards are widely various across companies. It could be also vary when comparing price book value ratios across countries. Moreover, the book value may not so be meaningful for services and technology companies that do not have significant tangible asset. Lastly, if a company has a sustain string of negative earning reports it will lead to a negative PBV.

PBV, is calculated by dividing the market price per share with the current book value of equity per share. The multiple is fundamentally consistent, while the numerator and denominator are both equity values. This is the situation of there is a potential for inconsistency depend on how computing the book value of equity per share. Some of the problems can be eliminated by computing the PBV using the total market value of equity which divided by the book value of equity. The best way to measure the ratio is when there are multiple classes of equity to use the composite market value of all classes of common stock in the numerator and the composite book of value of equity in the denominator.

There are two other measurement issues that have to confront in computing this multiple. First, it relates to the book value of equity, which it gets updated in frequently in their accounting measure. Consistency demands the use of same measure of book equity for all companies in the sample, where most analyst use the most current the book value of equity and some use the average over the previous year or the end of the latest financial year's book value of equity. Secondly, it concerns the value of option outstanding. It will need to compute the estimated market value of management options and conversion option (in bonds and preferred stock) and add them to the market value of equity before computing the PBV.

The book value equity and price to ratio could be affected by the accounting standard. For example, if comparing the PBV ratios of technology firms in two markets which the situation that one of the market allows the research expenses to be capitalize and the other does not, it should be expected that the result of the PBV ratios will be lower than the former since the book value of equity will be augmented by the value of this research asset.

2.5. Research Model & Hypotheses

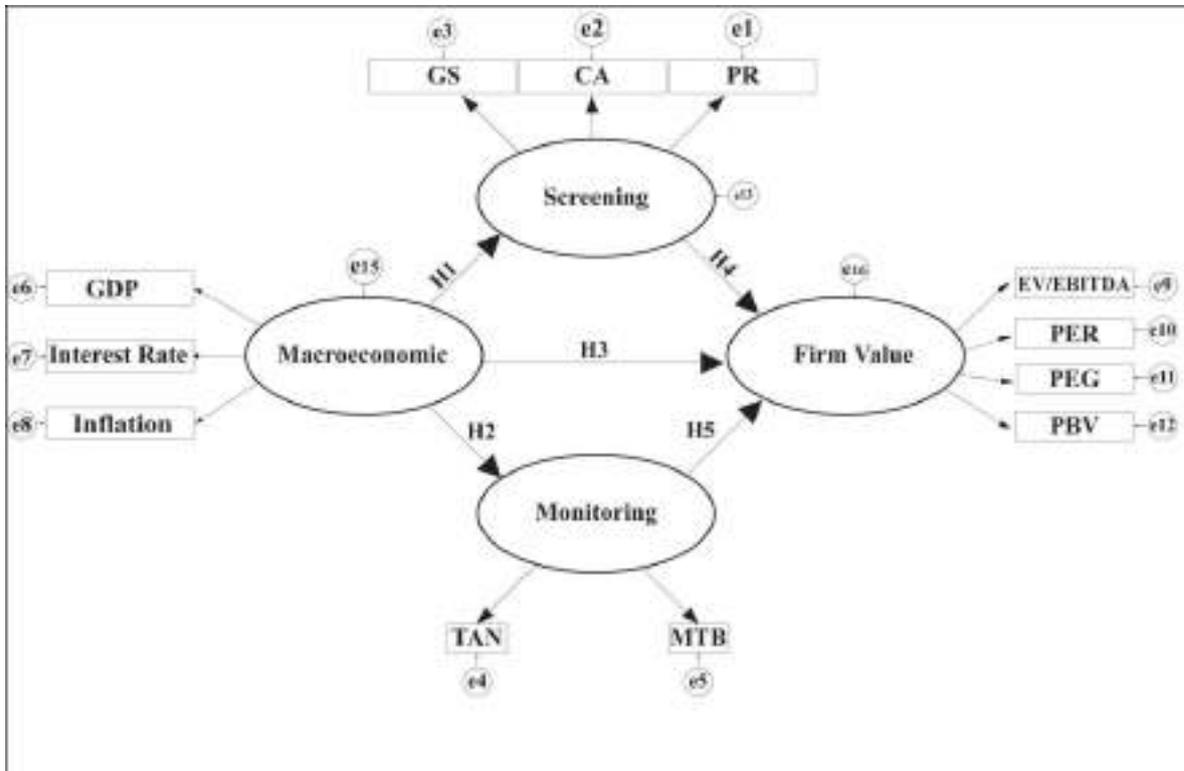
The background, research problem, research purpose, and previous studies that have been discussed above lead to the formulation of research model and hypotheses in this study.

Based on the following research model, hypotheses in this study are formulated as follows;

- Hypothesis 1 : The macroeconomic conditions have a strong influence toward screening.
- Hypothesis 2 : The macroeconomic conditions have a strong influence toward monitoring.

- Hypothesis 3 : The macroeconomic conditions have a strong influence toward firm's value.
- Hypothesis 4 : Screening has a strong influence toward firm's value.
- Hypothesis 5 : Monitoring has a strong influence toward firm's value.

Figure 2.1 Research Model



SAMPLE # 6: MOTIVATIONAL RESEARCH

The following research sample is based on the actual work of an undergraduate thesis in 2013, which was originally written by Syarief Naif Dahbul^{ix} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*Analysis of Maslow’s Hierarchy of Needs Toward Employees in Micro and Small Enterprises in Tangerang*”.

The approach used in this study followed a qualitative-based research, which mainly relied on primary data and information based on interviews and distribution of questionnaires to obtain numerical responses to support the relationships among variables/indicators on the research model.

CHAPTER II – LITERATURE REVIEW

II.1. Overview

As this study focuses on the management of human resources, particularly on the motivational elements, this chapter puts-forth the discussions and analyses on the personnel and the basics on human resources management, which leads to the various developments on motivational theories, which are widely-accepted today. The following illustration shows the framework of thinking on this study.



II.1.1. Personnel & Human Resources Management

In the beginning of the industrial era, workers/labors were mainly perceived as parts of production process. This perception treated those workers/labors just like machine to have the ability to produce output at a constant rate. Though this view was widely accepted then, it was no longer acceptable shortly after. As people’s knowledge and understanding expand, workers/labors may have to be treated better than simply an element in the production/business processes. The treatment toward workers/labors at the time was started to swing, from a simple personnel management, which mainly concerned about attendance, leaves, and defective outputs, for instance, to the more modern human resources management, which included training/development, counseling, and more concerns toward those workers/laborers.

Roughly about a generation ago, North America's various productions and manufacturing plants were the focus of envy of the world. At the time, North America has everything, from motorcycle production plant, automobile, steel, tire, banking, computers, to consumer goods (Werther & Davis, 1996). North America has all arrays of materials, from the raw materials required for production process, all the way into the finished goods. However, those industries are experiencing "weight-loss program" upon encountering relentless challenges from international competitors from Japan, South Korea, Taiwan, and other European nations (Werther & Davis, 1996). From this condition, it is clear that the success of nations is very much dependent on the performance of organizations within those countries. If one looks deeper into the organizations, it is apparent that individuals in each of the organizations in particular countries are the key driver.

It is obvious that the term "human resources", which is widely used today, refers to the group of individuals in organizations. In terms of the term "human resources", an organization, in this case, "*consists of people with formally assigned roles who work together to achieve the organization's goals*" (Dessler, 2013). The management of human resources symbolizes the activities to facilitate the contributions of each individual in achieving the organizational objectives. The role of human resources becomes more crucial as they engage themselves from the very beginning, such as; ideas, innovation, planning process, and strategy formulation, to the end process within organizations, such as; evaluation and control (Mello, 2006). Perhaps, the best captured importance of human resources is mirrored in the slogan of Union Carbide, "*assets make things possible, people make things happen*" (Gitonga, 2007; Werther & Davis, 1996; Woodhouse, 2013).

In order to obtain the organizational objectives, it is important to know that the ultimate goal of every organization in the world is simply becoming better at all time and reaching the status of organizational excellence (Quartey & Botwe, 2010). This goal toward becoming a better organization serves as the central point that all workers/labors must jointly work-on. To get to the position of better organizations, there are combinations of challenges, however. Aside from the obvious challenges locally, organizations must also adjust toward global challenges. Among all the challenges, both locally and globally, at least 3 main challenges (Biro, 2012; Dessler, 2013; Ebert & Griffin, 2012; Evans, Pucik, & Bjorkman, 2011; Mello, 2006) are worth noted as the foundation toward building-up an argument on employee motivation. Though it is not exactly the same, but in much of similar fashions, Forbes magazine is also noted such challenges (Biro, 2012). Those challenges are; human challenges, which are mainly concerned with demographic changes and personal development (Biro, 2012), technological challenges, which are mainly concerned with all the technological updates (Evans, Pucik, & Bjorkman, 2011; Mello, 2006), and global challenges, which are mainly concerned with the international players' actions in the marketplaces (Evans, Pucik, & Bjorkman, 2011).

The illustration below provides the likelihood connection between the challenges in the marketplaces and what organizations must do to encounter such trends. Though this illustration appears simple, nonetheless, the actual actions plans to win the challenges are undoubtedly complex. The action plans rely heavily on human resources management (Rivai & Sagala, 2010), particularly on employee

management toward synchronizing the idea, efforts, and innovative intentions toward organizational objectives in meeting the market challenges.

Those combinations of organizational challenges can only be solved by groups of individuals/employees in every organization across the globe. Hence, the view toward employees must be modified toward human resources, or better yet, human assets, or human capital (Mello, 2006). The studies pertinent to human capital are included in a bigger topic on intellectual capital (Anantadjaya, 2009), which has become the common understanding for organizations worldwide. This perspective may push toward strategic view of HR via appropriate development of policies and programs as investment to enhance value of those employees. The following illustration shows the possible avenues that employees can potentially bring to organizations (Mello, 2006).

Illustration 2: Market Challenges



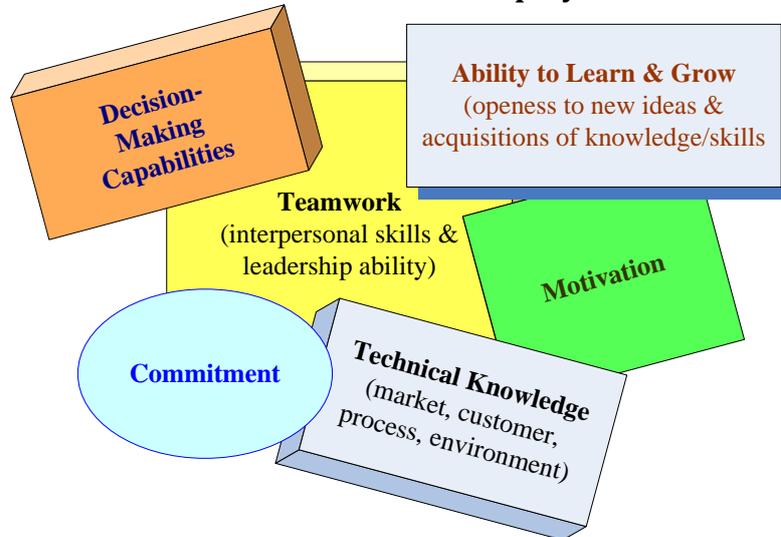
Source: Dessler, 2013

From the following illustration, it is evident that employees are valuable for organizations, not only from the technical knowledge that they have the fullest potential to expand, but also from other factors. Though the illustration is not clearly identified the starting point, nonetheless, the elements for employee value are worth noted. Of course, the best possible way to improve the employee value is simply work on all elements toward value creation. However, organizations may have limitation in doing so, not only financially, but also in terms of non-financial issues, such as; time, effort, willingness, attitudes, and others.

Say, that organizations start with technical knowledge, the improvement in knowledge alone, may not able to push toward the maximum level of value, unless the other elements are also available. For example, the attempts in increasing knowledge on customers' preferences (a part of employee's technical knowledge) may not able to contribute much if the employees do not have the willingness to learn and grow. Also, the potential increase in knowledge may not be beneficial if there are no supports/commitments from the management/owners, including teamwork from all management layers, and common motivation toward continuous improvements.

In terms of organizational assets, there are 5 major categories of assets within organizations (Mello, 2006). These pools of assets represent capital that organization can potentially leverage to boost the performance (Anantadjaya, Nawangwulan, Hardianto, & Finardi, 2013), and add value (Anantadjaya, 2009; Biro, 2012) to every steps in operational activities.

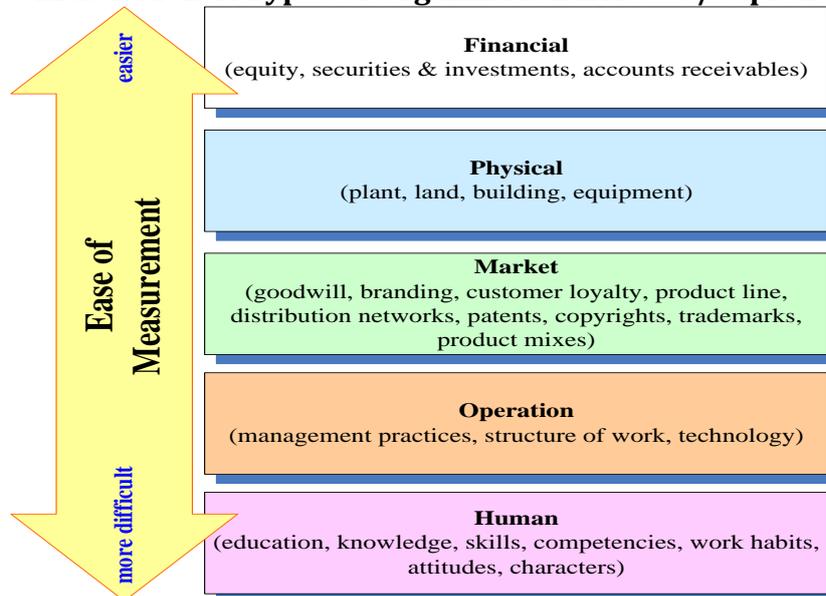
Illustration 3: Sources of Employee Value



Source: Mello, 2006

From the illustration below, it is apparent that human asset/capital is a part of the overall sources of assets/capital for organizations (Kaplan & Norton, 2004; Stewart, 2005). This notion has been widely noticed and studied (Anantadjaya, 2009). In order to maintain and/or otherwise increasing the employees' work motivation, it becomes necessary to rely on motivational approaches. Such approaches are important to lure employees into the most productive-mode of work habits and ethics (Quartey & Botwe, 2010).

Illustration 4: Types of Organizational Assets/Capital



Source: Mello, 2006

The earliest known studies on motivational approach were conducted by Frederick Taylor with his financial incentives idea on motivation in the late 1800 in the state of Pennsylvania, in the US (Dessler, 2013). Because Taylor's study was heavily relied on exact numbers and calculations, this study was later known as the scientific management approach (Ebert & Griffin, 2012). From this classical perspective, the motivational approaches have developed into more behavioral, contemporary, and contingency approaches as a way to cope with the growing expectation from employees. At least such developments are in accordance with the common managerial functions; planning, organizing, staffing, leading, and controlling (Dessler, 2013; Ebert & Griffin, 2012). The study on human resources management encircles particularly on the staffing function (Plunkett, Attner, & Allen, 2008), which may include the following, but not limited to; job analysis, planning labor needs, recruitment, employee orientation, training and development, compensation and benefits, managing wages/salaries, performance appraisals, building employee commitment, and many others (Dessler, 2013). Those are excluding the need to know issues for managers (Dessler, 2013; Ebert & Griffin, 2012; Evans, Pucik, & Bjorkman, 2011; Mello, 2006), such as; equal opportunity and affirmative action, health and safety, grievances, an labor relations.

II.1.2. Motivational Approach

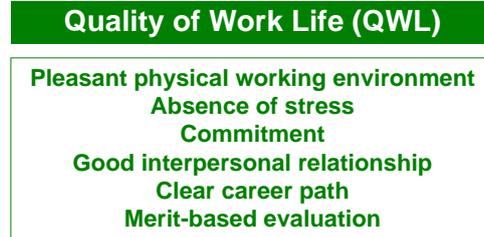
As mentioned, various motivational approaches are targeted to induce employees to maintain their motivation toward work (Quarthey & Botwe, 2010). Though the basic expectation is to have increasing motivation without constant and/or maximum inducements from management/owners, a mere stable motivation toward work is regarded sufficient. Management and owners need to master the knowledge and understanding on such motivational approaches to really exercising the most appropriate method within organizations.

Originally derived from Latin "*movere*", which literally means "move" or "push", motivation is intended to push forward "inner energy" of people to increase their efforts toward work, collaboration, and integration among other employees to synchronize their movements toward organizational goals and objectives (Quarthey & Botwe, 2010). This is an important assignment to ensure each individual, in accordance with his/her job descriptions, to orchestra their responsibilities together. This is the basic explanation why some people work tirelessly on long hours despite their accumulated wealth, but at the same time, there are people, who are struggling to get pass their shifts though they may not have accumulated wealth.

Motivation relies on "*the attitude or feelings workers have about the organizations and their total work life*" (Plunkett, Attner, & Allen, 2008). Motivation also relies on "*internal psychological process*" toward goal-directed behaviors, purposes, and direction (Quarthey & Botwe, 2010). Logically speaking, this attitude, feelings, or psychological processes are the ones driving people toward establishing the quality of work life (QWL) to ensure that factors in the working environment portray positive influence toward job satisfaction (Plunkett, Attner, & Allen, 2008; Quarthey & Botwe, 2010). Hence, other than a simple set of needs and wants of individuals, it appears there are numerous combinations of elements that must be present in making-up the basic driver toward motivation. The illustration below

provides a glimpse on what the QWL is all about. Such elements may be the secret ingredients behind motivation. Plunkett, Attner & Allen (2008) stated that motivation is simply *“the result of the interaction of a person’s internal needs and external influences..., which determine how a person will behave”*

Illustration 5: Quality of Work Life



Source: Plunkett, Attner, & Allen, 2008, modified

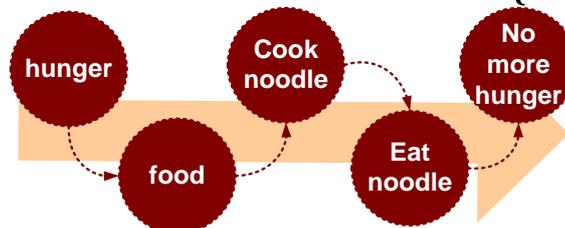
At the very basic stage, one can imagine that motivational approaches are intended to minimally provide the following aspects, perhaps; (1) as mentioned previously, motivation is targeted to increasing efforts and willingness toward achieving organizational goals and achievements (Dessler, 2013; Ebert & Griffin, 2012; Rivai & Sagala, 2010), and (2) as also mentioned previously, motivation symbolizes inter-connected processes between efforts and fulfilling/satisfying needs (Anantadjaya, Nawangwulan, Hardianto, & Finardi, 2013; Barton, 2006; Kaplan & Norton, 2004; Putra, Nawangwulan, Seancho, & Pitaloka, 2012).

II.1.3. Motivation Model

Based on the behavioral studies from the psychology and marketing fields, individual needs are the foundation on motivational model known today. The failure in fulfilling those needs may trigger either physiological and psychological alerts (Plunkett, Attner, & Allen, 2008). If the failure is related to physical needs, then the physiological alarm may sound. Otherwise, the psychological siren may sound.

A simple illustration is helpful, indeed. As shown in the following illustration, a basic motivational model starts from hunger. This hunger represents individual need. Recognition of this hunger will likely signal a drive toward searching for food. Among other available choices of food, let say that an individual decides to prepare a simple noodle. This represents individual behavior toward satisfying his/her need of hunger. The final step in eating the cooked noodle represents individual actions toward achieving goal. Once fully-fed, an individual enters the stage of “no more hunger”. This feeling represents the actual feedback based on the behavior and action. The actual application of this simple model into real life situation may reveal countless influences that eventually add the complexities.

Illustration 6: Basic Motivational Model (Example)



Source: Plunkett, Attner, & Allen, 2008, modified

An advancement of this basic motivational model incorporates the following factors (Plunkett, Attner, & Allen, 2008); (1) past experience, which mainly focuses on relationships between performance and rewards, job satisfaction, frustration/stress level, and efforts on the last assignments, (2) environmental influences mainly emphasizes on managerial values, corporate culture, and managerial actions/expectations, and (3) perceptions of the expected efforts in comparison to the value of outcomes, including the potential value of rewards.

II.2. Motivational Theories

Among the motivational theories known today, there are important names, which are considered as the leading influencers in the field of motivational and behavioral studies. Regardless of the modern categories known today, as content theory, or process theory, for instance, those notable leading influencers are; **Frederick Taylor** with his classical motivational approach, which later was recognized as the father of scientific management (Dessler, 2013; Ebert & Griffin, 2012), 2-factors motivational theory, which also known as intrinsic and extrinsic motivational theory from **Frederick Herzberg** (Dessler, 2013; Ebert & Griffin, 2012; Plunkett, Attner, & Allen, 2008; Quartey & Botwe, 2010), **Doouglas McGregor** with X and Y human perspectives on motivational approach (Dessler, 2013; Ebert & Griffin, 2012; Plunkett, Attner, & Allen, 2008), achievement-power-affiliation motivational theory from **David McClelland** (Plunkett, Attner, & Allen, 2008), expectancy-instrumentality-valence motivational theory from **Victor Vroom** (Dessler, 2013; Ebert & Griffin, 2012; Plunkett, Attner, & Allen, 2008; Quartey & Botwe, 2010), existence-relatedness-growth motivational theory from **Clayton Alderfer** (Plunkett, Attner, & Allen, 2008), and **Abraham Maslow** with his hierarchy of needs (Bostan, Condrea, Burciu, & Alunica, 2009; Chou, 2010; Dessler, 2013; Ebert & Griffin, 2012; Plunkett, Attner, & Allen, 2008). From the perspective of motivation studies, undoubtedly, this portrays as an important element for management as to ensuring the organization-wide smooth operational activities.

II.2.1 Taylor's Classical Motivational Theory

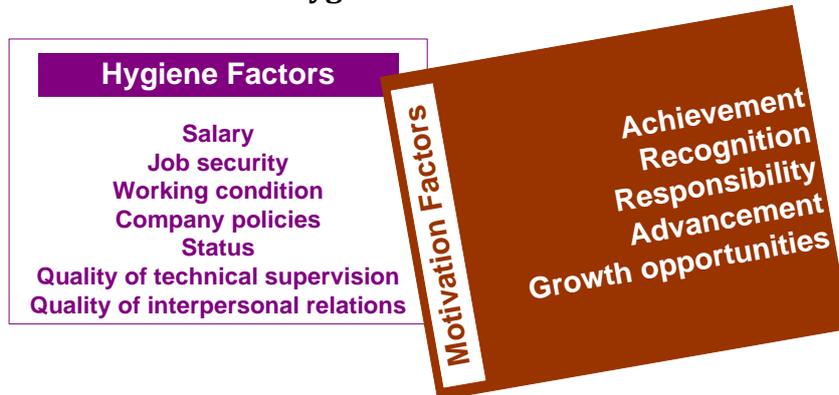
This theory was initiated by Frederick Taylor in the late 1800. During his supervisor-ship, Taylor observed a systematic "*tendency of employees to work at the slowest pace possible and to produce at the minimum acceptable level*" (Dessler, 2013). Knowing that workers still have energy to commit to other work despite the long-hours at the factory, Taylor planned to secure such energy within Midvale Steel Company toward productivity gains. Though financial incentives were the plausible option at the time to induce Midvale's employees, Taylor formulated standards for daily output, which was later known as the fair day's work, for each job based on scientific analysis. This analysis made Taylor popular as the father of scientific management approach. The scientific management approach emphasizes on continuous work improvement via observations and sets of analyses. In addition to the initiations of financial incentives, fair day's work, and scientific management approach, Taylor was also pioneered the use of incentive pay as a way to reward employees whose outputs were beyond the standards daily output.

II.2.2 Herzberg's 2-Factor Motivational Theory

This theory was developed by Frederick Herzberg, which consisted of 2-factor

of hygiene and motivator (Plunkett, Attner, & Allen, 2008). The hygiene factor leads to job dissatisfaction, where as the motivators produce job satisfaction. This finding was the results of observation and interview sessions with employees, where they told stories on factors that made them satisfied or dissatisfied at work.

Illustration 7: Hygiene and Motivational Factors



Source: Plunkett, Attner, & Allen, 2008, modified

Based on the interview sessions, Herzberg noted that the mishandling of hygiene factors is the main cause of unhappiness on the job (Plunkett, Attner, & Allen, 2008). Though these hygiene factors are relatively external, or extrinsic in nature, they are part of the context of the job (Quartey & Botwe, 2010). These hygiene factors include; salary, job security, working conditions, status/position, policies, supervisors, and interpersonal relations (Dessler, 2013; Ebert & Griffin, 2012). When management/owners provide low wages/salaries, or unfriendly policies, or uncomfortable working conditions, employees may not be happy with their jobs. Similarly, Herzberg noticed that the motivation factors indicate the level of job satisfaction. Though these motivational factors are relatively internal, or intrinsic in nature, they are part of the content of the job (Quartey & Botwe, 2010). These motivators include; achievement, recognition, responsibility, advancement, and growth opportunities (Dessler, 2013; Ebert & Griffin, 2012; Michael, 2010). When management/owners provide no recognition, no growth opportunities, and no rooms for achievement, employees may not be satisfied with their job and show only low or average performance.

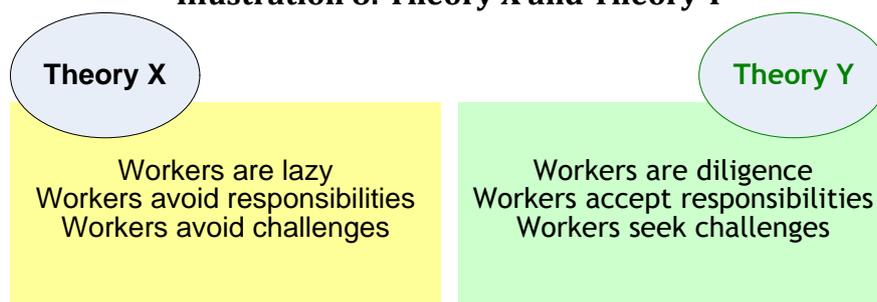
II.2.3 McGregor's Theory X and Theory Y

Based on the behavioral studies on human being, in 1960, Douglas McGregor formulated theory X and Y to symbolize negative and positive perspectives of supervisors/managers/owners, respectively. These theories, in fact, show the natural way of managing people (Business Ball, 2010). McGregor suggested 2 fundamental approaches in managing people. Though, managers may use theory X more, which often times they experienced poor results, theory Y has a tendency to enlighten managers in dealing with employees to produce better performance and results (Business Ball, 2010). McGregor's ideas on theory X and Y signified the modern understanding on psychological contract among employees, including supervisors, managers, and owners (Business Ball, 2010).

From the perspective of theory X, employees are often seen as individuals, who are just simply lazy and do not have willingness to work. For these reasons,

supervisors/managers/owners may have to direct those employees constantly to make sure that they are really doing the assigned tasks properly during the allowable time period. Based on theory X, it becomes important to always motivate employees (Ingram, n.d.) and control them around the clock (Prit, 2007). From the perspective of theory Y, employees are often seen as individuals, who are just having inner driver toward energy boost, willingness to work, and not only accept responsibilities, but seek more responsibilities (Prit, 2007). In addition, they often show countless ideas and innovative thinking to constantly improve the work processes (Prit, 2007). For these reasons, supervisors/managers/owners do not have to direct them, but rather, provide rooms for improvements so they can manage the assigned tasks themselves better over time. The rooms for improvements may include; permission to constantly learning from mistakes, trying new methods, and even re-evaluating tasks (Ingram, n.d.).

Illustration 8: Theory X and Theory Y



Source: Ebert & Griffin, 2012, modified

Considering both theories, which are basically mirroring the perception of supervisors/managers/owners, it is crucial to lean toward theory Y. It is important that employees show goodwill within the working environment (Ingram, n.d.). The results are undoubtedly beneficial for those employees as they are increasing their own contributions, or otherwise referred to as employable values, for organizations (Reader, n.d.).

If theory X is viewed from the perspective of Maslow's hierarchy of needs, it becomes apparent that employees may be targeting only the lower level of needs. This is merely the same for supervisors (Rivai & Sagala, 2010). However, if one looks at theory Y from the perspective of Maslow's hierarchy of needs, it is obvious that employees and supervisors may be targeting the higher level of needs (Rivai & Sagala, 2010). McGregor believes that theory Y dominates organizations since the nature of human resources are basically energetic toward something that they are working on. The influencing conditions are often the distortion toward keeping the positive attitude over time. For these reasons, McGregor also believes in participative management, challenging tasks, increasing responsibilities, expanding scope of work, for instance, to optimize employees' efforts (Ebert & Griffin, 2012).

In 1981, William Ouchi, a professor of management at UCLA, introduced theory Z, which referred to the Japanese management style (Business Ball, 2010). Under any circumstances, this theory Z is not an expansion of McGregor's theory X and Y. Theory Z advocates the best combination of theory Y and the modern Japanese management styles, which emphasizes on trust, freedom, strong loyalty and interest

in teamwork and organization (Business Ball, 2010). For these reasons, theory Z focuses on attitudes and responsibilities of employees, whereas theory X and Y pay attention more toward management (Business Ball, 2010).

II.2.4. McClelland's Psychological Theory Needs

The needs theory introduced by a psychologist, David McClelland, is mainly emphasized on regular and normal human interactions with the environment (Plunkett, Attner, & Allen, 2008; Reader, n.d.). As people progressing in their needs, of course, strong mentality becomes the basic ingredient for success. McClelland's needs theory consists of; achievement, power, and affiliation (Dessler, 2013; Plunkett, Attner, & Allen, 2008). These basic needs describe individuals' behaviors (Ebert & Griffin, 2012; Reader, n.d.). For instance, the needs for achievement directs individuals to excel in accordance with sets of standards. The needs for power directs individuals to control others via substantial influence over them. The needs for affiliation directs individuals toward close interpersonal relationships. As a psychologist, McClelland recognizes the different mixtures of needs among individuals; high-achievers, power-motivated individuals, or affiliators (Plunkett, Attner, & Allen, 2008).

Individuals with high achievement needs are likely to constantly improve his or her individual performance. Though it may sound selfish, nonetheless, high-achiever people may be beneficial for organizations around the world, regardless of the industry and/or size. It is important for managers/owners to capitalize on high-achievers via participative management, delegation of authority, or objective settings (Plunkett, Attner, & Allen, 2008). Concrete, factual, and logical feedback, rather than emotional, are required to fuel the energy of these high-achievers (Plunkett, Attner, & Allen, 2008). At the end, these high-achiever individuals are the ones running the show within organizations. Managers/owners can just simply monitor the processes periodically. Some notable characteristics of high-achievers include the following (Plunkett, Attner, & Allen, 2008);

1. Willingness to perform tasks due to potential chances on personal improvement, and not necessarily because of any types of rewards, which are often associated with the completion of the tasks.
2. Prefer to assume responsibilities, rather than allowing others to handle the problem-solving processes. Though this may sound selfish, but allowing this to occur may lead to efficiency and quick responses.
3. Prefer to have factual feedback to evaluate the progress to continuously improve performance. Personal opinion and/or emotional criticism add no value to these high-achievers.

The second type of McClelland's theory of needs is power. For a power-motivated individual, control and influence over people fulfill his or her needs. This type of individuals are likely to compete head-to-head with others, if the outcomes allow them to assume dominance (Plunkett, Attner, & Allen, 2008). For this reason, conflicts and confrontations often the usual "flavors of the day" for power-motivated individuals.

For affiliators, on the contrary to power-motivated people, these individuals prefer to become just like other people. Not only that these affiliators prefer to avoid conflicts and confrontations, but they try to make friends with everybody. Though this type of individuals may sound easy to manage, nonetheless, if time constraint is present, affiliators may not be able to deliver in-time due to their conciliatory preference (Biro, 2012; Plunkett, Attner, & Allen, 2008). For managers/owners, it is about making choices between getting the results, quality of results, speed in getting the results, and frictions with colleagues.

Illustration 9: McClelland's Psychology Theory of Needs



Source: Plunkett, Attner, & Allen, 2008

II.2.5. Maslow's Hierarchy of Needs

Maslow's hierarchy theory of human needs may be the most talked-about motivational theory. Though it appears simple, but this theory is easy to grasp and full of factual evidence to support the validity of this theory. A native from Brooklyn, New York, who was born in 1908, a humanistic psychologist, Abraham Maslow initially developed a theory of personality, which was later become popular as one prominent approach on employees motivation (Brandes, Franck, & Pieper, 2010; Prit, 2007). Generally, it is believed that humans are likely to try reaching the higher stages of elements in life (Bostan, Condrea, Burciu, & Alunica, 2009). This is not only covering the physical and/or tangible items, but also for non-physical/intangible items, such as; skills, understanding, and knowledge.

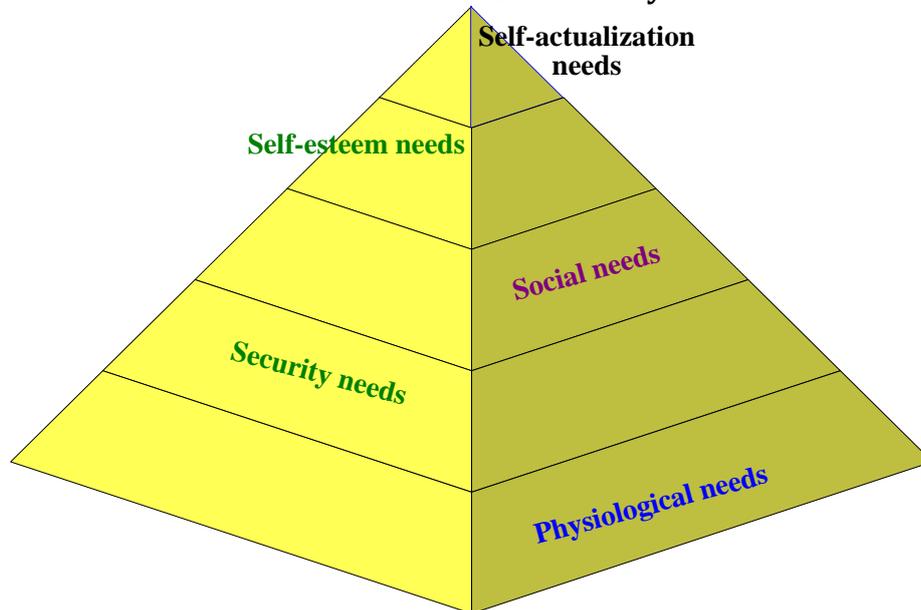
Maslow's hierarchy of needs was formulated based on the following premises (Plunkett, Attner, & Allen, 2008); (1) unsatisfied needs influence individual's behaviors, (2) individual needs *are arranged in a priority order of importance*, (3) each level of needs must be satisfied first before working toward the next level of needs, and (4) *if need satisfaction is not maintained at any level, the unsatisfied need will become a priority once again*. Based on those premises, Maslow formulated 5 layers or stages of human needs, as shown in the following illustration. From the bottom-up of the triangle, the layers of those human needs are; (1) physiological needs, (2) safety/security needs, (3) social needs, (4) self-esteem needs, and (5) self-actualization needs.

Physiological needs, such as; food, shelter, and clothes represent the most basic, yet strongest needs for human being (Ingram, n.d.). As these needs physically regulate people daily, it is expected that the level of income may contribute significantly to the level of satisfaction of these physiological needs. Inside organizations, to meet these primary needs, wages and salaries represent the inducements to allow employees to buy basic necessities. Aside from wages and salaries, drinking water, comfortable room temperature, minimal noise distortion, and lunch breaks also serve as inducements to fulfill the physical needs.

Once the physiological needs are met, the next priority is individual

safety/security needs, as shown in the following illustration (Ingram, n.d.; Plunkett, Attner, & Allen, 2008). This simply means avoiding physical harm, minimizing risk, or avoiding danger, to maintain well-being. Such individual behaviors are mirrored in purchasing insurance policies, union memberships, signing up for retirement plans. In organizations, aside from wages and salaries, employment benefits, including working conditions, are offered to ensure individual safety/security toward job security.

Illustration 10: Maslow's Hierarchy of Needs



Source: Dessler, 2013; Ebert & Griffin, 2012; Plunkett, Attner, & Allen, 2008, modified

The next layer is social needs. Once the safety/security needs are somewhat satisfied, people are now working toward fulfilling their social needs by making friends, establishing companionships, and joining clubs, or becoming members in certain groups (Plunkett, Attner, & Allen, 2008). At this time, people start looking for love, affection and belongingness as a way to putting identifiable label unto themselves (Ingram, n.d.). In organizations, employees are fulfilling this level of needs by establishing frequent interactions with fellow workers. Lunch breaks may be one avenue to do so. Office gathering, parties, and sport activities may also become the routine opportunity for socializing. Though it may sound formal and/or technical, meetings may also become a routine event to interact with colleagues.

Once the social needs are fulfilled, individuals are now working toward achieving self-esteem, both on individual basis, or professionally, inside the organizations (Plunkett, Attner, & Allen, 2008). This layer of needs is basically directed toward respect and recognition of individual's competence. This self-esteem layer has the ability to offer pride, confidence and a sense of importance (Ingram, n.d.; Plunkett, Attner, & Allen, 2008). Undoubtedly, managers may want to express appreciation and recognition for job completion to avoid employees de-motivation toward work. This set of needs may become the underlying reasons on organizational rewards and acknowledgment via plaques, certificates, and other types of recognition. Hospitality companies, such as; hotels and restaurants, often put-up

pictures in public places for their “employee of the month” to try to meet this self-esteem need.

The highest level of human needs is now about self-actualization, or commonly called self-realization (Plunkett, Attner, & Allen, 2008). Once the lower layers of needs are fully met, people will now work toward actuating themselves as to maximizing skills, abilities, and potential. In organizations, it is important to provide “extra space” for individuals as to allow them to do something creative and innovative regarding their workflow and processes.

Maslow’s hierarchy of needs provide workable and/or practical framework of motivation (Plunkett, Attner, & Allen, 2008). This is relatively crucial for managers in handling staff. Via deeper analysis on staff comments, attitude, quality of work, quantity of work, and considering the personal circumstances, it is expected that managers can map-out the need level for individual workers. The following table attempts to show practical examples of this theory of human needs.

Table 2: Examples of Employees' Conditions and Managers' Responses

Workers' Conditions	Levels of Needs	
	Demanding Satisfaction	Managers' Responses Toward Fulfillment of Needs
An employee has a newly born child	Physiological or safety/security	<ul style="list-style-type: none"> • Considering increase pay • Promotion to a higher-paying job
Workers are concerned about the recent merger	Safety/security	<ul style="list-style-type: none"> • Confirming job security • Explaining the merger terms and conditions
Workers are having communication difficulties with their supervisors/managers	Social	<ul style="list-style-type: none"> • Inviting them to an informal meeting outside the office hours • Offering praise and recognition

Source: Plunkett, Attner, & Allen, 2008, modified

II.3. Previous Studies

The following table shows several studies in relation to motivational theories, which include; employee motivation toward work, human capital, roles of human resources, and job satisfaction. It is interesting to note that motivational studies are basically limitless. One can simply use the perspective of human resources management, general management, behavioral studies, or even from other fields of studies, such as; psychology, finance, or economics.

Table 3: Selected Previous Studies (based on years of publications)

No	Author(s)	Topic, Variable(s), or Indicators	Analyses and Results
1.	John Woodhouse (2013)	Asset management depends on human factor via training, continuous improvements, business	The success of asset management depends on human resources, particularly those

No	Author(s)	Topic, Variable(s), or Indicators	Analyses and Results
		understanding, vision, coaching, commitment, and communication skills	individuals with adequate education, skills, attention to detail, and teamwork
2.	Irma M. Nawangwulan, Linawati, Shinta and Frengky (2012)	Individual attributes, individual behaviors, group psychology, group synergy and balanced scorecard	Individual attributes depends on personal motivation toward positive behaviors and work performance. Individual behaviors have positive influence toward the formation of group psychology and group synergy
3.	Maika N. Yudha (2012)	Creating positive environment via pleasant conditions, teamwork, fair appraisals, fair standards, growth opportunities, flexible practices, leaderships, and management practices	Financial incentives hold the key ingredient in maintaining employees, particularly in group rewards, incentives, and recognition
4.	Meghan M. Biro (2012)	Challenges for HR and leaders; (1) investment in leadership development, (2) culture collaboration, (3) developing communication skills, (4) sustain accountability, and (5) reward emotional intelligence	Organizations may have to (1) increase investment to develop and sustain leadership qualities, (2) promote collaboration to achieve future success, (3) build good communicators, (4) improve accountability of leaders, and (5) pushing forward for emotional intelligence
5.	Andrea Hammermann and Alwine Mohnen (2012)	Firm's size, organizational benefits, personal characteristics	Smaller firms provide fewer benefits, personal characteristics (gender, marital status, risk aversion, school grades, workload) influence the unequal dispersion of benefits, reward/acknowledge top performers, benefits increase work satisfaction
6.	Lucica Matei and Catalin-Ionut Cornea (2011)	Intrinsic motivation, extrinsic motivation, public service motivation	Intrinsic motivation has substantial influence on public service employees. Nonetheless, with slow pace modifications on extrinsic

No	Author(s)	Topic, Variable(s), or Indicators	Analyses and Results
			motivation, interests on intrinsic motivation may diminish.
7.	Sachin Kumar Srivastava and Manoj Dixit (2011)	Need-based motivation, process-based motivation, reinforcement-based motivation, working ability, growth theory	Because of the process enjoyment, people remain motivated though they do not obtain the desired ultimate results. Inner motivation directs inner satisfaction and dedication toward jobs or assignments
8.	Jae Min Lee and Sherman D. Hanna (2011)	Savings goals and actual saving behavior of households based on the lifecycle hypothesis and Maslow's theory of hierarchical human needs	Ranking of saving goals: (1) savings for retirement and security, (2) savings for emergency and safety, (3) savings for love and family, (4) savings for self-growth, and (5) savings for self-esteem and luxuries
9.	Stanislav Ivanov (2010)	Ego tourism is associated with eco tourism, volunteer tourism, adventure tourism, extremely luxurious hotels, unusual accommodation establishment, and exclusive destination, which are mirroring the Maslow's hierarchy of needs	The motives behind socially acceptable tourism (such as; adventure, eco, sustainable, volunteer) are predominantly ego enhancement of travelers
10.	Linjie Chou (2010)	Cross-cultural research may have to be perceived from cultural elasticity and dynamism. To do this, Maslow's hierarchy of needs provides a solid foundation on cultural variations. The secondary needs on the latter 3 stages are basically socially learned and culturally determined	Cross-cultural management led to a new cultural perspective on ecology, particularly on the interdisciplinary dynamics behind the cultural essentials. Trust is a significant factor for owners/managers of small and medium enterprises toward benefits of networks. Trust corresponds to safety/security needs in Maslow's hierarchy of human needs.
11.	Enterprise Rent-A-Car (2009)	The role of human resources, attracting applicants, recruitment, and selection	Coaching, mentoring, training, and recognize/reward achievements to motivate

No	Author(s)	Topic, Variable(s), or Indicators	Analyses and Results
			employees. The motivated employees will push themselves toward organizational goals
12.	Sam PD Anantadjaya (2009)	Intangible assets include partner capital, customer capital, human capital and structural capital (Stewart, 2005), or human capital, information capital, and organizational capital (Kaplan & Norton, 2004), lead to organizational value	Partner capital, customer capital and structural capital support human capital. Likewise, information capital and organizational capital support human capital. The existence of those types of capital indicates the internal motivation driver for employees
13.	Ionel Bostan, Petru Condrea, Aurel Burciu, and Alunica Morariu (2009)	Comparison on motivational components between Maslow's hierarchy theory of human needs and Alderfer's existence-relational-growth theory of motivation	Alderfer's ERG theory enriches Maslow's theory since individuals can try to satisfy 2 or more needs simultaneously.
14.	Bratu Constantin (2003)	The prevailing motivational theories, which relatively focus on wages/salaries and organizations, ignore other human needs and labor security, including the importance of affiliation to any social groups	Motivations and human needs represent individuals' philosophy, psychology and sociology. Issues on motivation often relate heavily on the value systems in the society

Source: Various

Considering the previous studies, as mentioned above, this study is different in terms of the following facts;

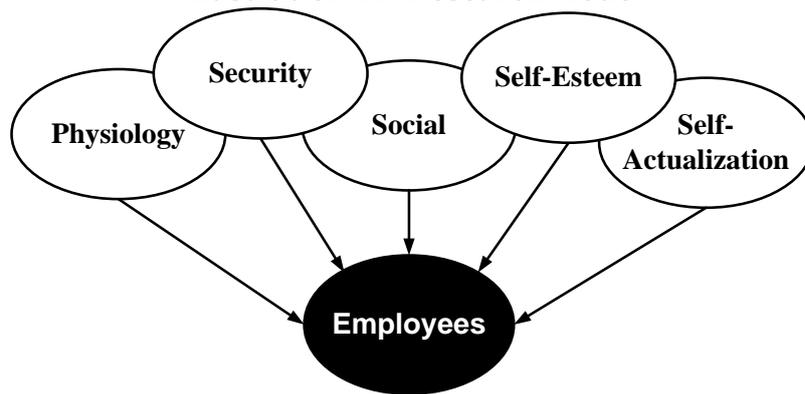
1. This study focuses only on the 5 layers of Maslow's hierarchy theory of human needs to note the likelihood of category of employees within organizations, and the levels of employee's job satisfaction.
2. This study focuses on micro and small businesses in the Regency of Tangerang, particularly in 2 different sites, ITC BSD City, and BSD Plaza.
3. The intended analysis of this study relies heavily on tabulations and calculations of averages of each of the layers within Maslow's hierarchy theory of human needs, on which the data are obtained during the period of April-May 2013.

II.4. Research Model

Based on the research background, facts, conditions of the marketplaces, and

the analysis on theoretical details, the following research model is formulated.

Illustration 11: Research Model



From the above research model, it can be inferred that this study attempts to learn the most likely level within Maslow's hierarchy of needs for employees of micro and small enterprises. As previously mentioned, this study attempts to investigate the following propositions;

- Proposition 1 : Self-esteem is the most likely level within Maslow's hierarchy of needs for employees of micro and small enterprises, in general.
- Proposition 2 : Self-actualization is the most likely level within Maslow's hierarchy of needs for employees of micro and small enterprises with more years of experience.
- Proposition 3 : Self-actualization is the most likely level within Maslow's hierarchy of needs for employees of micro and small enterprises with higher educational background.
- Proposition 4 : Self-actualization is the most likely level within Maslow's hierarchy of needs for older employees of micro and small enterprises.

SAMPLE # 7: INTELLECTUAL CAPITAL

The following research sample is based on the actual work of an undergraduate thesis in 2013, which was originally written by Elisabeth Feimianti^x from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is *“Value Creation of Intellectual Capital Towards Financial Performance and Market Valuation in Publicly-Listed Consumer Goods Industry”*.

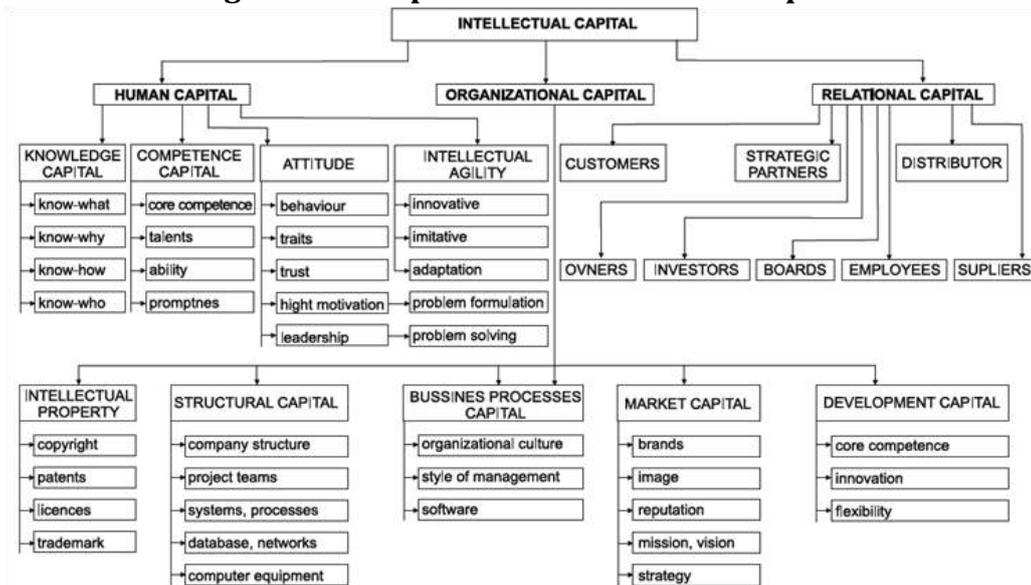
The approach used in this study followed a quantitative-based research, which mainly relied on primary data and information based on the development of structural equation modeling to obtain responses to support the relationships among variables on the research model.

CHAPTER 2 – LITERATURE REVIEW

2.1. Intellectual Capital and its elements

Intellectual Capital has different kind of definitions over decades. Among many types of definitions, intellectual capital can be defined as economic value from three types of intangible assets which are human capital, organizational capital and social capital (Choudhury, 2010). According to Khanhossini, et al. (2013) the definition of Intellectual Capital is the intangible value in the company that is created by human resources through their skills, knowledge, innovation, motivation, in accordance with company’s resources to increase profitability and value creation for the company. Even though most of them has different definitions, however, the definition of intellectual capital is about knowledge capital or capital that is derived from knowledge (Jurczak, 2008).

Figure2.1 Components of Intellectual Capital



Source: Jurczak (2008)

Intellectual Capital consists of three types of elements: Human Capital, Structural (Organizational) Capital, and Social (Customer) Capital. Human Capital is the basic resources of the organization that encompasses knowledge, motivation, innovation and competencies to support the business performance and solving any problems exist in organization. On the other hand, Structural (Organizational) Capital is the company resources that will optimize employee’s performance, such as Information Technology, policies and procedures, and control in the company. Lastly, Social (Customer) Capital is business relationships between company and external parties for instance suppliers, clients, partners, banks, government, and other parties or institutions. (Charles & Adelman, 2010; Khanhossini, Nikoonesbati, KHeire, & Moazez, 2013).

Figure2.2 Intellectual Capital Report



Source: Bischoff, Vladova, & Jeschke (2011)

Figure 2.2 shows the process of development of intangible assets to gather the hidden potential of it, and it is expected to give the result of both financial results and non-financial results. Total turnover of assets per year and potential sales growth over the years can be considered as financial result. On the other hand, intangible assets can also contribute to non-financial results such as number of customers’ satisfaction, number of customers in percentage, or increase the value of patents and goodwill.

2.2. Intellectual Capital Measurement Methods

According to Jurczak (2008), Intellectual Capital Measurement Methods can be divided into four groups:

1. Direct Intellectual Capital Methods (DICM) – Identifying the intangible assets components in the company, then estimate the value of those assets and evaluate directly.
 - Brooking’s in 1996 Technology Broker Method
 - Citation-Weighted Patents by Bontis in 1996
 - The Value Explorer™ by Andriessen & Tiessen in 2000
 - Intellectual Asset Valuation developed by Sullivan in 2000
 - Total Value Creation, TVC™ was developed by Anderson & McLean in 2000
2. Market Capitalization Methods (MCM) – The value of intellectual capital is derived from the value of difference between a company’s market

capitalization and its stockholders' equity.

- Tobin's q method was developed by Stewart in 1997
- Investor Assigned Market Value (IAMV™) by Standfield in 1998
- Market-to-Book Value developed by Stewart in 1997 and Luthy in 1998

3. Return on Assets Methods (ROA) – In order to calculate intellectual capital using ROA method, there are several steps that need to be done. Firstly, calculate ROA as follows:

$$ROA = \frac{\text{average pre-tax earnings}}{\text{average tangible assets}} \dots\dots\dots (2.1)$$

The result of company ROA should be compared to its industry average. Secondly, calculate average annual earnings from intangibles as follows:

$$\Delta ROA \text{ company and industries } \times \text{ average tangible assets} \dots\dots\dots (2.2)$$

Lastly, calculate intellectual capital value as follows:

$$\frac{\text{average annual earnings}}{\text{company's weighted average cost of capital or an interest rate}} \dots\dots\dots (2.3)$$

- Economic Value Added (EVA™) was developed by Stewart in 1997
- Human Resource Costing & Accounting (HRCA) by Johansson in 1997
- Calculated Intangible Value by Stewart in 1997 and Luthy in 1998
- Knowledge Capital Earnings was developed by Lev in 1999
- Pulic's Value Added Intellectual Capital (VAIC™) Model in 1998
- Accounting for the Future (AFTF) by Nash in 1998

4. Scorecard Methods (SC) – This method is more qualitative because from this method, the intellectual capital and indicators would be shown and reported as scorecard or graphs.

- Human Capital Intelligence developed by Fitz-Enz in 1994
- Sandia Navigator™ by Edvinsson & Malone in 1997
- Value Chain Scoreboard™ by Lev in 2002
- Intangible Asset Monitor by Sveiby in 1997
- Intellectual Capital Navigator and Intellectual Capital Index (IC Index™) by Ross, Ross, Dragonetti, & Edvinsson in 1997
- Value Creation Index by Ittner, Baum, Larcker, Low, Siesfeld, & Malone in 2000

However, amongst all, Pulic's VAIC™ Model is the most preferable for this research because it is relatively easy and possible to do. This model is more quantitative and it is easy to get the data which is mostly from company's financial report. Therefore, it is the most applicable of them.

2.3. Value Added Intellectual Capital (VAIC™ Method)

Intellectual Capital is often considered as an intangible asset. However, Intellectual Capital can never be found on any financial statement of the company. Additionally,

Intellectual Capital can be managed, but it is difficult to consider Intellectual Capital as assets since it is very intangible, difficult to be assessed and cannot be owned by the company. In contrast, even though Intellectual Capital is not considered as asset, if the company has the intention to acquire Intellectual Capital, it is recognized as expenses (Gigante & Previati, 2011).

Even though the intellectual capital is not easy to be measured, the intellectual capital can be valued by using value added measurement in order to make it more visible. Value added is a measurement that reflects employee's and management's contribution to value creation. In addition, value added is used to lead to wealth creation of the company (Pulic, 2008).

The method of analysis of intellectual capital that would be used in this research is VAIC™ that was introduced by Ante Pulic in 1998 to measure intellectual capital efficiency. VAIC™ is different compare to others, and it is more detailed. It also has links between activities of the company, resources and financial outcome (Jurczak, 2008). According to Khanhossini, Nikoonesbati, Kheire, & Moazez (2013), there are four reasons why Pulic's model is much better than others for measuring intellectual capital:

1. VAIC™ is very simple and transparent and provides a basis for standard measurement.
2. It is easier to calculate intellectual capital since it can easily be derived from audited financial statements and therefore its calculation is also approvable.
3. This model is based on both performance evaluation and creation value of tangible and intangible assets of a company.
4. This model has been used in foreign valid studies and researches.

The relationship between customers and product or services only determines value, while the value added and resources is engaged in value creation. Moreover, due to limited space, therefore, Pulic's model excludes social or customer capital and only involves two basic components which are human and structural capital (Pulic, 2008). However, there are three types of efficiency or variables that would be used for measurement, which are human capital efficiency, structural capital efficiency, and capital employed efficiency (Muhammad & Ismail, 2009).

Value added is a parameter of business success since input and output are taken from the market. Intellectual capital cannot be separated from financial capital in order to get more accurate result on business. According to Pulic (2008), the sum of STVA and VAHC are represented overall efficiency of a company in value creation and its intellectual ability while VACA is represented financial capital efficiency.

There are five steps to calculate intellectual capital using VAIC™ model (Muhammad & Ismail, 2009):

1. Calculation of Value Added (VA)
 $VA = OUT - IN$, where, OUT refers to total income from all products and services sold during period of t, and IN refers to all expenses (except labor, taxation, interest, dividends, depreciation) incurred by firm for period of t

According to Pulic (2008), VA can also be calculated by using this equation:

$$VA = P + C + D + A = \text{operating profit} + \text{employee cost} + \text{depreciation} + \text{amortization}$$

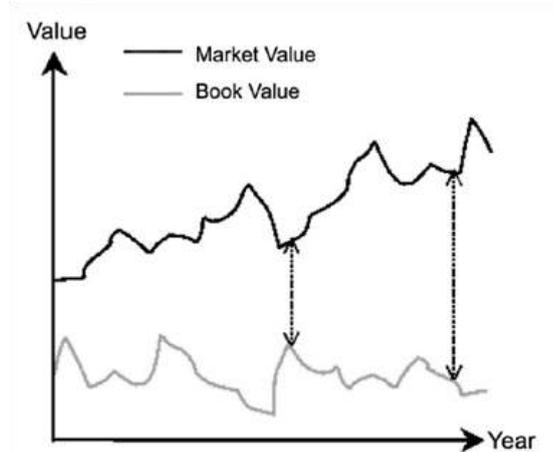
2. Calculation of Value Added Capital Employed Coefficient (VACA)
 $VACA = VA / CA$, where CA refers to Capital Employed, which equals to Total Tangible Assets at the end of t period, and VACA signifies the value created by one unit of capital employed during t period
3. Calculation of Value Added Human Capital Coefficient (VAHC)
 $VAHC = VA / HC$, where HC refers to Total salaries, wages and all incentives for the company during the period of t, and VAHC denotes the value created by one unit of Human Capital invested during period of t
4. Calculation of Value Added Structural Capital Coefficient (STVA)
 $STVA = SC / VA$, where SC equals to Structural Capital = $VA - HC$, and STVA represents the proportion of total VA accounted by structural capital
5. Calculation of Value Added Intellectual Coefficient (VAIC™)
 $VAIC = VACA + VAHC + STVA$, where VAIC indicates corporate value creation efficiency on firm resources

The higher VAIC coefficient is, the better intellectual capital for the company, because it indicates that intellectual capital is creating more value and more efficient (Pulic, 2008).

2.4. Financial Performance

In order to evaluate financial performance, both perspectives between book value and market value should be calculated, because according to Wang (2008) that presented the graph from Market Intelligence Center, Taiwan (2003), there is a significant gap that occurred between them that is shown on figure 2.3 below. Additionally, a gap that exists is contributed to intellectual capital value that is not listed on Balance Sheet (Madinios, Chatzoudes, Tsairidis, & Theriou, 2011).

Figure 2.3 Gap between Market Value and Book Value

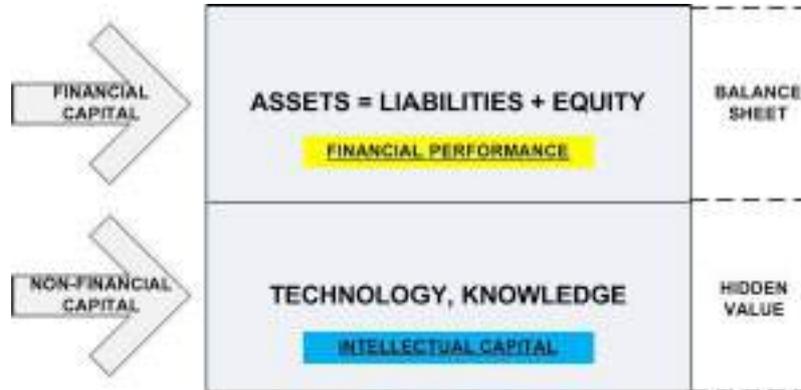


Source: Wang (2008)

In addition, the scheme of position between Intellectual Capital and Financial

Performance are shown on figure 2.4 below. There are two types of capital on that figure, which are financial capital and non-financial capital. Financial capital is represented by financial performance that consists of assets, liabilities and equity, and stated clearly on balance sheet. However, for non-financial capital is represented by intellectual capital which is not listed directly on balance sheet, so, it is considered as hidden value of the company.

Figure 2.4 Positions of Financial Performance and Intellectual Capital



Source: Wang (2008)

2.5. Accounting Value (Book Value)

According to Besley & Brigham (2008) there are four type of financial ratios, leverage, profitability, liquidity, and asset management ratios. The selection of indicators for each type of financial ratios is in accordance with the main indicators that are usually chosen by investors to measure the company’s performance. Moreover, the indicators were also used in several previous studies and each of indicators are connecting between one and another.

2.5.1. Debt to Ratio (DR)

Debt ratio is categorized as leverage ratio. Debt ratio is one of ratio analysis to measure the percentage total asset that belongs to company which is funded by creditors from borrowing. The formula is (Ross, Westerfield, & Jordan, 2010):

$$Debt\ Ratio = \frac{Total\ Liabilities}{Total\ Assets} \dots\dots\dots (2.4)$$

Creditor perceives that lower ratio of DR is better than higher ratio because it indicates that the company has more assets rather than liabilities. Moreover, a higher DR can lead to any bankruptcy since the total liabilities is significantly high.

2.5.2. Return on Equity (ROE)

ROE is considered as one of the profitability ratios. Moreover, it is also known as Rate of Return on Stockholders’ Investment. It is computed as follows (Berk, DeMarzo, & Harford, 2012):

$$ROE = \frac{Net\ Income}{Book\ Value\ of\ Equity} \dots\dots\dots (2.5)$$

According to Berk, et al. (2012), the higher of ROE, the better of the company, because the company is able to make investments that is very profitable.

2.5.3. Net Working Capital to Total Assets (NWC to TA)

Net working capital to total assets is one of liquidity ratios. NWC to total assets can be calculated as follows (Ross, Westerfield, & Jordan, 2010):

$$\text{Net working capital to total assets} = \frac{\text{Net working capital}}{\text{Total Assets}} \dots\dots\dots (2.6)$$

Net working capital is derived from current assets minus current liabilities. Moreover, it is often considered as the amount of short-term liquidity that the firm has, because both current assets and current liabilities are in short-term period. The bigger value of this ratio, the better it is, because it means that the company is more liquid (Ross, Westerfield, & Jordan, 2010).

2.5.4. Asset Turnover (ATO)

Asset Turnover is one of the measurements for asset management (Ross, Westerfield, & Jordan, 2010).

$$\text{ATO} = \frac{\text{Sales}}{\text{Total Assets}} \dots\dots\dots (2.7)$$

Asset Turnover indicates the efficiency of asset production that can be sold during one year period. The bigger the ratio of ATO, the better because it means the company is more efficient.

2.6. Market Value

Market Value measurement is more dedicated to a company that is publicly traded because this value cannot be found if the company is not issuing shares to the public to be traded (Ross, Westerfield, & Jordan, 2010). The share price determines the market value of a company. Therefore, if the company is listed, people can know exactly how much it is worth in the market without estimating the value of the company.

2.6.1. Earnings per Share (EPS)

The formula to calculate EPS is as follows (Ross, Westerfield, & Jordan, 2010):

$$\text{EPS} = \frac{\text{Net Income}}{\text{Shares Outstanding}} \dots\dots\dots (2.8)$$

EPS is derived from net income divided by shares outstanding in order to get the amount of price per outstanding share in the market. It means how much net income that is contributed to each share that remains in the market (Ross, Westerfield, & Jordan, 2010).

2.6.2. Market-to-book Ratio (M/B Ratio)

In order to compare capitalization of market and book value of the firm's equity, market-to-book ratio can be used as the benchmark to evaluate firm's assets (Berk, DeMarzo, & Harford, 2012).

$$\text{Market - to - book - ratio} = \frac{\text{Market Value per share}}{\text{Book Value per share}} \dots\dots\dots (2.9)$$

Book value per share can be derived from:

$$Book\ Value\ per\ share = \frac{Common\ Equity}{Number\ of\ common\ shares\ outstanding}..... (2.10)$$

Market to book ratio is considerably good if its ratio is more than 1. The reason is because the market value per share is bigger than its book value per share, so, the company is successful to create high value in the market compare to its historical cost for the investment (Besley & Brigham, 2008).

2.6.3. Price-earnings Ratio (P/E Ratio)

Investors need a ratio that can be used to evaluate the firm’s earnings compared to its stock price. Therefore, Price-earnings ratio is chosen to assess whether a stock is under or over valued (Berk, DeMarzo, & Harford, 2012).

$$Price - earnings\ ratio = \frac{Price\ per\ share}{Earnings\ per\ share}..... (2.11)$$

P/E ratio measures how much an investor is willing to pay for each earning. Moreover, a higher P/E ratio is better because it is expected to have high future growth prospects. This ratio is also comparable to other industries; the higher P/E ratio compare to other companies in the same industries, the lower the risk of the company because it has high share price value in the market (Ross, Westerfield, & Jordan, 2010).

2.7. Previous Studies

There are several previous studies that underlie this research. The summary of previous studies is shown in the table below:

Table2.1 Summary Previous Studies

Author & Title	Variables, Indicators & Industry Sector	Results
<p>Sam PD Anantadjaya (2009)</p> <p>Measuring Human Resources: A Case Study in Small and Medium Enterprises</p>	<ul style="list-style-type: none"> • Independent: Human Capital • Dependent: sales, expenses, TA, TL, TE, total inventory, NI, interest expense, tax, expense, growth rate, debt-to-asset, debt-to-equity, ROE, ROI, ROCE, ROA, ROS, and ITO • Industry: Small and Medium Enterprises 	<p>Human Resources statistically impact the level of effectiveness, efficiency, and productivity in creating higher firm’s Value</p>
<p>Nik Maheran Nik Muhammad & Md Khairu</p>	<ul style="list-style-type: none"> • Independent: VACA, VAHC, STVA 	<p>Intellectual capital has greater influence in</p>

Author & Title	Variables, Indicators & Industry Sector	Results
<p>Amin Ismail (2009)</p> <p>Intellectual Capital Efficiency and Firm's Performance: Study on Malaysian Financial Sectors</p>	<ul style="list-style-type: none"> • Dependent: Profitability, ROA • Industry: Financial Sectors 	<p>banking institution compared to insurance company and security brokerage companies</p>
<p>Martin Clarke, Dyna Seng, & Rosalind H. Whiting (2010)</p> <p>Intellectual Capital and Firm Performance in Australia</p>	<ul style="list-style-type: none"> • Independent: VACA, VAHC, STVA • Dependent: ROA, ROE, Revenue Growth, Employee Productivity • Industry: Firms listed on Australian Stock Exchange 	<p>Human capital efficiency is the important element of Intellectual Capital. In contrast, physical and financial capital provides the strongest influence over firm performance compare to intangible assets.</p>
<p>V. Murale, R. Jayaraj & Ashrafali (2010)</p> <p>Impact of Intellectual Capital on Firm Performance: A Resource Based View Using VAIC Approach</p>	<ul style="list-style-type: none"> • Independent: VACA, VAHC, STVA • Dependent: Market to book value • Industry: Information Technology sector 	<p>All the three components of VAIC shows a significant positive relationship with market value to book value</p>
<p>Wasim ul Rehman, Chaudhary Abdul Rehman, Hafeez ur Rehman & Ayesha Zahid (2011)</p> <p>Intellectual Capital Performance and its Impact on Corporate Performance: An Empirical Evidence From Modaraba Sector of Pakistan</p>	<ul style="list-style-type: none"> • Independent: VACA, VAHC, STVA • Dependent: EPS, ROE, ROI • Industry: Modaraba sector (Islamic finance) 	<p>One of the important components for measuring the IC is Human Capital Efficiency (HCE)</p>
<p>Ka Yin Yu, Hing Tai Ng, Wai Kwan Wong, Kai Wah Samuel Chu & Kin Hang Chan (2011)</p> <p>An Empirical Study of the Impact of Intellectual</p>	<ul style="list-style-type: none"> • Independent: VACA, VAHC, STVA • Dependent: Market to book value, ROA, ATO, ROE 	<p>Structural Capital (SC) is an important key driver in business performance in Hong Kong companies</p>

Author & Title	Variables, Indicators & Industry Sector	Results
Capital Performance on Business Performance	<ul style="list-style-type: none"> • Industry: Constituent companies of Hang Seng Index 	
Karol Śledzik (2012) The Intellectual Capital Performance of Polish Banks: An Application of VAIC™ Model	<ul style="list-style-type: none"> • Independent: VACA, VAHC, STVA • Dependent: Value of equity, net income, value of market capitalization ratio, ROE, ROA • Industry: Financial sector (Banks) 	Intellectual capital of domestic and Comparative banks are largely attributed to Human Capital Efficiency (HCE).
Davoud Khanhossini, Mohammad Nikoonesbati, Hamed KHeire, & Elahe Moazez (2013) Investigating of relationship between intellectual capital and financial performance in MAPNA group companies	<ul style="list-style-type: none"> • Independent: VACA, VAHC, STVA • Dependent: ROA, ROE, Basic Earning Power • Industry: MAPNA Group Companies 	Structural capital efficiency and effectiveness of capital employed are the most associated with the performance of MAPNA group companies

Source: Various

2.8. Differences in Research

The difference between those previous studies and this current research is on dependent variables. The independent variables are the same as previous studies because those three elements are used to calculate intellectual capital using VAIC™ Model. However, from a dependent variables perspective, this study uses both accounting value and market value measurement through 7 ratios in total. The industry that is used in this research is also different compared to previous studies. This study will evaluate the consumer products industry, while the majority of prior studies analyzed the financial industry such as banks and insurance companies.

2.9. Research Model and Hypothesis

The illustration shows the research model in this study. In order to assess Intellectual Capital, all three elements of Intellectual Capital should be evaluated without any exceptions. On the other hand, this research attempts to find the correlation between intellectual capital which is represented by VAIC towards accounting value which relates to book value and market value which relates to stock price of the firm to get the big picture how much it is worth in the market. In addition, financial ratios are used to determine the firm's performance because it is quantifiable, as tools to determine company's health, and also it is much easier to compare with previous years or other companies in same industries to evaluate the performance (Häcker, 2008).

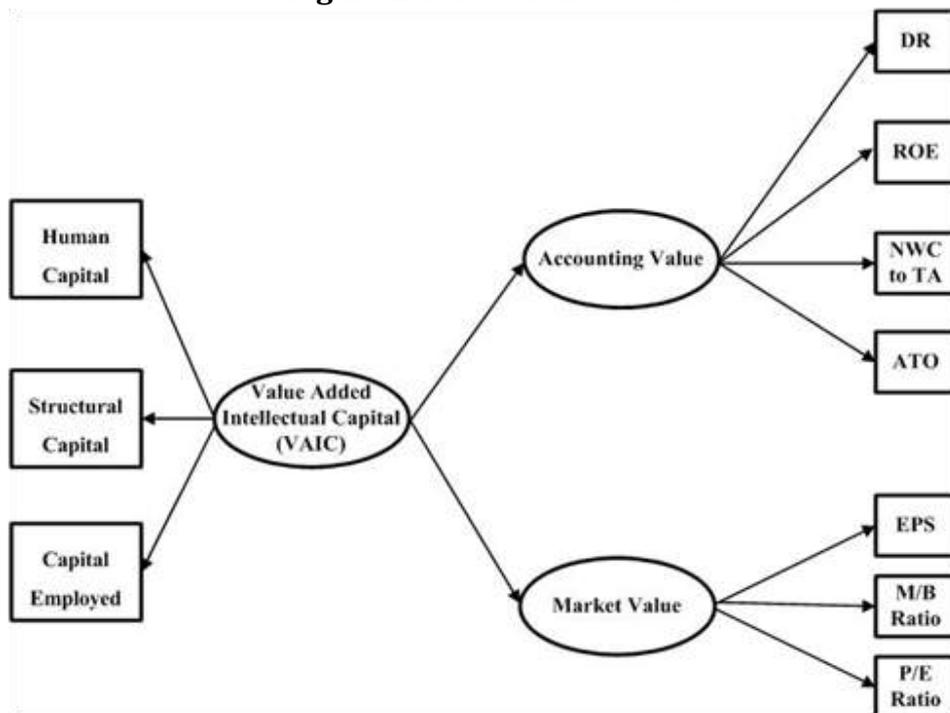
According to the following research method, this study attempts to investigate further on the following hypotheses:

H₁: Intellectual capital had a positive correlation towards accounting value in publicly-listed consumer product companies in BEI between the periods of 2008 – 2012

H₂: Intellectual capital had a positive correlation towards market value in publicly-listed consumer product companies in BEI between the periods of 2008 – 2012

P₁: In comparison to structural capital and capital employed, human capital had the highest correlation towards firm’s performance in publicly-listed consumer product companies in BEI between the periods of 2008 – 2012

Figure 2.4 Research Model

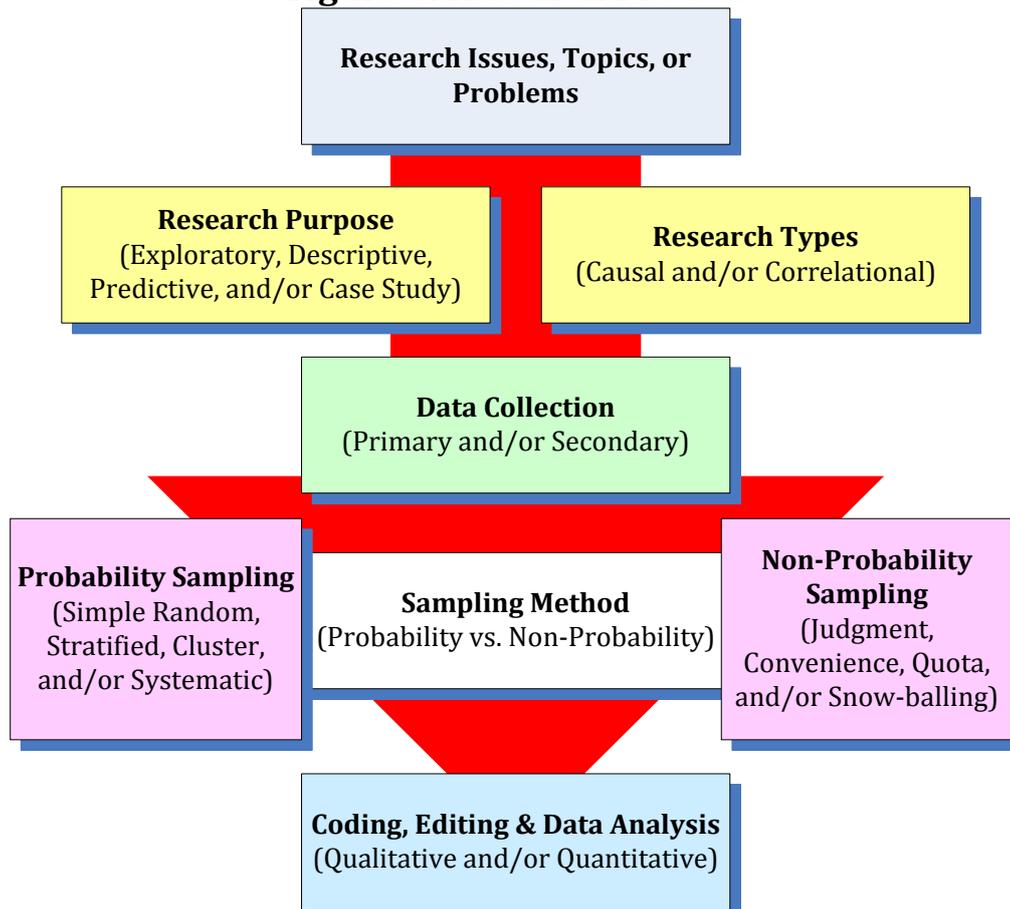


CHAPTER 3: RESEARCH METHOD

Chapter 3 of the research report focuses on how a researcher plans to conduct the actual research activities. The outline of the research method attempts to show the elements of the research, including data gathering processes and analysis. This chapter should also lay all the necessary details of the research variables and indicators, in accordance with the research model, which may have been formulated at the end of chapter 2.

To start, it may be necessary to lay-out the research processes. The illustration of the research processes should be kept as simple as possible since it is served to only portray the steps on how a researcher attempts to go about doing his/her research. Following an illustration of the research processes, it may be essential to provide a short narrative as a way to guide readers in having better understanding what the illustration is trying to show. A simple illustration on the research processes are shown below.

Figure 9: Research Process



As illustrated, the research process begins with identification of issues, problems, topics, or even phenomena. As previously discussed, the introduction (chapter 1), and the literature review (chapter 2), are both served as the foundation toward identification process. Once the issues or problems are identified, then, it may be followed with the discussions on the purpose of research that a researcher intends to conduct. The types of research may also be identified.

Data collection via gathering primary sources and/or secondary sources should also be noted to show the appropriate sources of data. It should be noted that primary data collection can be segregated also based on qualitative (such as; interview, observation, focus group discussions, and projection method) or quantitative primary data sources (such as; survey, and experiments). This is the stage that a researcher should start with close/open-ended questions, either via questionnaires and/or interviews. Measuring scales on questions or statements should also be decided based on nominal, ordinal, interval, ratio, or any combinations.

Following the data collection is, of course, the identification of a sampling method, which mainly covers either probability, or non-probability sampling method. As the names implied, probability sampling method means that the selected samples, or may be referred to as units (if a researcher plans to analyze certain products), or respondents (if a researcher plans to distribute questionnaires), are based on probability calculations. Non-probability sampling method means that the selected samples are not based on probability calculations.

Following the data collection and a choice on sampling method, data analysis should be discussed, either based on qualitative analysis or a combination of both qualitative and quantitative analysis approach. Since this book mainly focuses on scientific research with tips and tricks on how to conduct proper research, it is suggested that a combination of qualitative and quantitative analysis should always be well-considered. The reason is straightforward, undoubtedly. The nature of qualitative analysis tends to follow the subjective-based analysis. The value of research would likely increase with insertion of quantitative analysis, which have a tendency to follow the objective-based analysis. For an example, if one is asked “how are you”, the most common response may have been “I am fine”. The same is true if a manager is asked “how is business?” The most common response may have been “the business is fine”. Nonetheless, is it really true that the business is fine? The

company's financial reports, which are considered as the secondary data, may actually reveal the truth whether or not the business is fine, as the manager had previously proclaimed.

PURPOSES OF RESEARCH

As mentioned, there are common purposes of research that people can undertake. This section is dedicated to provide a simple overview on those purposes of research. In terms of systematic research, or what it is referred to as scientific research, there are several purposes of research to focus on; exploratory, descriptive, predictive, and case study.

1. **Exploratory research** is commonly conducted when researchers plan to find out more about particular issues, or when the surrounding situations on particular issues are relatively unknown. The unknown conditions may be due to limited information available in the market. The exploratory research aims to gain more understanding and familiarity on particular phenomena. Aside from those conditions, when facts are relatively known, but information may be lacking in the marketplaces, exploratory research becomes the perfect choice. This is the reason why some people refer to this purpose of research as a **reporting research**. In this instance, exploratory research may involve more on extensive interviews with people, who may have better understanding on details on particular issues, or phenomena. In addition to interviews, observations may also be involved to study the processes, which may be useful to uncover any hidden problems on the existing processes. The results of interviews and observations may lead to formulation of theories, or conformation on any available theories. Hypotheses, or some people refer to as propositions, may likely follow.
2. **Descriptive research** is commonly conducted to describe characteristics of variables in particular situations. While describing the characteristics, descriptive research may also aim to ensure that phenomena are really existed. Examples of characteristics may include various elements on demographics, such as; gender, age, education, income, and job status, to describe the inter-relatedness into organizational performance, or common managerial practices in certain companies/industries. Perhaps, a descriptive research is conducted to note the characteristics of employees, who may be best-fit with the decentralized managerial practices. The result of a descriptive research may be a simple profiling of employee's

characteristics, or other relevant aspects of individual's interests.

On the surface, a descriptive research may appear wider than the exploratory research. Though a descriptive research may also rely on interviews and observations, nonetheless, quantitative studies, such as; range of data to be calculated as means, standard deviations, or frequencies, are also necessary to support the intended descriptive research. For an example, a manager seeks to re-formulate the company's pricing scheme. To do this, information on competitors is needed, which are not limited to the production processes, product quality, distribution channel, packaging, advertising, online usage, and any promotional activities.

3. **Predictive research** is commonly conducted to examine the relationships among variables of interest, including their significant differences and influences. To do this, a predictive research relies on hypothesis testing. To have the ability to run the hypothesis testing, numerical data are required. With the help of various statistical software, the numerical data can be calculated and analyze to note the degrees of relationships. Referring to the above example, for instance, a manager seeks to study the likelihood of increase in sales if combinations of colors in the company's product packaging are modified and celebrity endorsements are incorporated in the advertisements. Or, relying on the Indonesian facts, for instance, the government considers the incorporation of ethical and moral training in companies would improve the workers' mentality.

In comparing this predictive research to exploratory and descriptive research, it is obvious that the main goal for the predictive research is to formulate substantial predictions among variables. When one variable is increased or improved, this predictive research is interested in examining whether other variables would increase or improve as well. The existence of the hypothesis testing in predictive research is simply another step beyond describing issues or phenomena, by actually noting the degrees of relationships, whether it is about the differences among variables, similarities, or influences.

4. **Case Study** is commonly conducted for in-depth analyses on issues similar to other organizations. Though a case study research may probe into problem-solving, however, it should be noted that the intentions on solving problems in particular organizations based on other organizational study, are difficult than it appears. Basically,

there are no companies with the same exact situations and conditions.

Upon comparison to the other purposes of research, as mentioned above, a case study research is categorized as a qualitative research. Nevertheless, a well-grasp comprehension of the situations and conditions of the organizations and successful implementations of solutions may lead to practical understanding on phenomena. Managers may likely engage in case studies as a way to solve problems, perhaps, via trials and errors.

As people can see, an actual research may include more than just a mere one purpose. Usually, a research is conducted to carry multiple purposes. Minimally, a particular research may aim to explore issues. However, in the attempt to explore issues, a research may also intend to describe the phenomena surrounding the issues. Also, a research may intend to examine the relationships among issues. In an example above, for instance, a manager, who seeks to re-formulate the pricing scheme, may not simply limit him or herself into a descriptive research surrounding the pricing structure, but to also note the degrees of influence of one issue to another, which is now including the predictive research. Since a manager works for a particular company, the research can also be considered as case study as he/she learns from other companies on how to deal with the issues on hand.

TYPES OF RESEARCH

Once the purpose of research is explained, it is now necessary to describe the types of research. Usually, the types of research are encircled around causal or correlational research.

As the name explicitly implies, a **causal research** is intended to examine the cause and effect relationships. It simply examines the existence of variable A causes variable B. To solve for variable B, variable A is removed. However, in organizations, since there are multiple issues across business units that may cause problems, managers may not be so interested in examining only the cause and effect relationships. Managers may prefer to examine the degrees of associations among variables. If this is so, the type of research becomes **correlational research**. It should be noted, however, that researchers may conduct correlational research first to establish causal research. Statistical approaches are often incorporated to do so, such as; regression analysis,

path analysis, cross-lagged correlations, structural equation modeling, or just a simple correlations and significance levels. The research questions may provide valuable hints whether a particular study is categorized as causal or correlational research. For causal research, the answer could have been as simple as “yes, it does”, or “no, it does not”. For correlational researches, the answers have to go beyond “yes” or “no” since the answers should indicate the strength of association, or degrees of influences. A simple illustration may help.

Table 4: Samples of Questions for Causal & Correlational Research

Samples of Questions on Causal Research	Samples of Questions on Correlational Research
Does employee diversity cause improvement on organizational performance	How strong does employee diversity influence organizational performance?
Do ethnicity, religion, educational background, income level, and gender cause improvement on organizational performance?	How strong do ethnicity, religion, education background, income level, and gender associated with organizational performance?
Do residents in California pay higher premium on earthquake insurance coverage because of the proximity of the San Andres fault?	How strong does the location of San Andres fault influence higher premium on earthquake insurance coverage for California residents?
Does the weakening of Rupiah cause lower imports for Indonesia?	How significant does the weakening of Rupiah impact Indonesia’s imports?

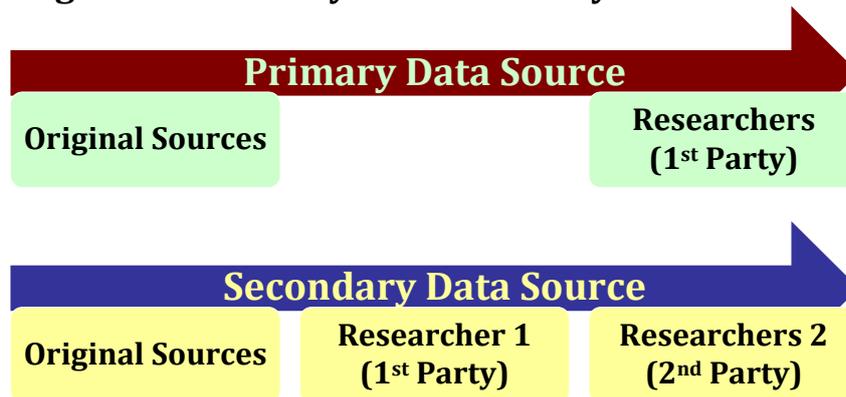
DATA COLLECTION

This section is to show how a researcher plans to collect data. The sources of data should also be explicitly stated. For instance, a researcher should state whether the data is sourced-out of primary or secondary sources.

By definition, **primary data** refers to any data that the researcher finds directly using various media/means. In this instance, a common media/means may be a set of statements in the forms of questionnaires. Since the researcher distributes the questionnaires directly to potential respondents, and the respondents may return the questionnaires directly to the researcher, the sources on such data collection processes are often

referred to as primary data. On the other hand, researchers can simply rely on available data in the marketplaces, including available data from the companies. There are countless available data in the market and/or companies, for examples; macro-economic data (such as; interest rates, exchange rates, gross domestic product, consumption rates, consumer price index, and inflation rates), product lines, company’s achievements, company’s awards/certifications, management decisions, annual reports, management plans, financial reports, ratio analysis, stock prices, management announcements on various projects/deals. The sources on such data collection processes, in these instances, are often called **secondary data**.

Figure 10: Primary and Secondary Data Sources



Though the sources of secondary data may be debated, however, the burden of proof relies on the researchers to ensure the credibility of the data, including the validity and reliability of data. The same is actually true for primary data. It is often questionable since the researchers may not have sufficient experience in performing research, and/or the researchers may not conform to the proper guidance, which are commonly acceptable and understood. Again, it is the responsibility of the researchers to examine the validity and reliability of the collected data. For the primary data, it is essential to assure that the proper processes have been performed, including the proper steps in selecting samples. In addition, it is also necessary to run separate tests on validity and reliability twice. One test is usually called the **pre-test**, is to approximately 30 samples to learn the level of validity and reliability from a handful of samples. This is the time to modify and revise should the levels of validity and reliability be considered insufficient, otherwise. Once the levels of validity and reliability are accepted, the second test is performed. This is usually called the **post-test**. The post-test is performing the calculations on validity and reliability to all selected samples.

For the secondary data, the researchers should note the sources/authors of the published data. For company's financial statements and reports, for instance, it may be beneficial to look for from the publicly-traded companies since their financial statements should have been independently audited by independent auditors, prior to publications, either online or offline. For annual reports, most companies may have also relied on the verifications from independent auditors, in addition to the management acknowledgment, prior to publications. Articles from newspapers and magazines can potentially be used as well as secondary data. Of course, the reputation of the newspapers/magazines, and the focus of the newspapers/magazines add the credibility. For instance, automotive newspapers and magazines may be regarded valid and reliable for automotive data/information. The use of automotive-based newspapers and magazines add the credibility. To just name a few, for instance, the American-based publications, such as; Business Week, The Wall Street Journal, and Harvard Business Review, and the Indonesian-based publications, such as; Kompas, Bisnis Indonesia, Kontan, and others, may be considered credible sources of secondary economic and business-related data/information. Data and information from associations are often beneficial in providing more details.

In addition to the above mentioned data and information, including data and information from associations, researchers should also aware that there are countless publicly-available data, journal articles, and publications from government agencies and private organizations. Depending on the types of data/information required, government agencies and private organizations have numerous websites with credible publications for researchers to look for. To name a few, there are; Kementerian Perdagangan Republik Indonesia (www.kemendag.go.id), Badan Pusat Statistik (www.bpd.go.id), Bursa Efek Indonesia (www.idx.co.id), Yayasan Lembaga Konsumen Indonesia (www.ylki.or.id), Yayasan Lembaga Bantuan Hukum Indonesia (www.ylbhi.or.id), Kamar Dagang dan Industri (www.kadin-indonesia.or.id), or Wahana Lingkungan Hidup Indonesia (www.walhi.or.id). From international organizations and government, the following websites are also available, such as; Central Intelligence Agency (www.cia.gov), International Labor Organization (www.ilo.org), The National Bureau of Economic Research (www.nber.org), The Social Science Research Network (www.ssrn.com), Google Scholar, public libraries, or AC Nielsen (www.nielsen.com).

INTERVIEW

Interview often represents the direct method of gathering information from individuals, either using structured or unstructured interviews to learn in greater details about individual's opinion and reason. The most important benefit of interview is the spontaneous responses.

With the presence of today's technology, interviews can be conducted without physical contacts, beyond the country's borders, and world's time zones. On one side, the presence of internet allows interviewers to connect and obtain immediate responses. On the other side, this surely enhances the interview possibilities with residents of other countries, who are most likely origins of different cultures and customs. Hence, opinions, tastes, and preferences can be examined more broadly.

In terms of interview, there are 2 common methods, either **structured interview**, or **unstructured interview**. The basic differences are in the specific formats and sets of questions that the researchers may have previously prepared prior to the actual meeting to conduct the interview.

STRUCTURED INTERVIEW

Structured interview means that the interviewers have formulated specific sets of questions. The interview process usually becomes structured following the pre-written questions.

UNSTRUCTURED INTERVIEW

In contrary to the above, unstructured interview means that the interviewers do not formulate specific sets of questions. In this case, the interview process usually becomes unstructured, which is not following any specific patterns and/or questions. The interviewers tend to ask relevant questions following previous responses with the expectation that eventually the responses are able to reveal individual's opinion and reason.

OBSERVATION

This method of data collection is essential in noting behaviors or particular sequences of processes pertinent to a particular issue in the natural setting. Observation is often conducted passively to allow the occurrence of natural behaviors or sequences. This means that the researchers are just passively observing without communicating and/or making any comments. Though may be less often, observation can also be conducted actively to see the spontaneous behaviors or sequences of processes to occur given a particular situation and condition. This means that the researchers are actively communicating and/or making comments on certain issues to examine the occurrence of behavioral modifications, or any instantaneous deviations, otherwise.

To successfully examine spontaneous behaviors, passive observations may usually involve installing hidden camera in peculiar spots. Though the purpose may have been focused to study behaviors, nevertheless, those hidden cameras may provoke ethical issues, mainly on invasion of individual privacy. To encounter this, stores rely on hidden cameras for the purpose of safe-guarding the store displays against thefts, while at the same time, studying consumer behaviors inside the stores, from the moment those people are considering a product, selecting a brand, to the actual purchase. Likewise, to successfully examine spontaneous behaviors, active observations may usually involve the physical presence of the researchers with video camera as well. In this instance, the maturity level of the people being observed is vital. Immaturity may likely lead to unnatural behaviors, which eventually lead to research failures. Perhaps, a simulation-based training, like the pilot simulation training, is best to illustrate the active observation. The person, who is doing the simulation, knows that he or she is being observed. However, the pilot should behave normally and respond naturally during the duration of the simulated training.

It is apparent that observation may assist researchers in uncovering insights about a particular issue/topic. Such insights may not be successfully uncovered via interviews and survey. For instance, researching about regular house-cleaning appears relatively impossible using interviews and surveys. Respondents may not be telling the whole truth about his or her regular house-cleaning. In fact, the respondents may likely state that he or she has always been cleaning the house

regularly. Also, the respondents may state that in his or her family, regular house-cleaning has become the family trademarks. This seems to be the perfect situation to install hidden cameras and examine the truth about regular house-cleaning. On the surface, hidden cameras may provide solutions. Nonetheless, researchers must be mindful with the ethical consequences, which are embedded in installing hidden cameras.

FOCUS GROUP DISCUSSION

Focus Group Discussions, or regularly abbreviated as FGD, relatively mirror the interviews. If interviews are commonly conducted individually, FGD invites knowledgeable people to be grouped together to discuss about a particular issue or topic. The invitees are expected to have sufficient understanding about the particular issue on hand so the researchers can gather valuable inputs, responses, comments, and ideas about a particular issue/topic. As a general rule of thumb, participants of FGD should be around 8 to 10 people. Too few people may lead to ineffective FGD as participants may not share ideas or making comments equally. Too many people may lead to chaotic FGD as participants may all try to share ideas or making comments at the same time. Also, too many people may likely prolong the time frame of FGD. This results in boredom.

In FGD, the role of researchers is modified to act as moderators. Instead of actively questioning participants of FGD on a particular issue/topic based on sets of questions, just like in interview processes, moderators should only facilitate the run-down of FGD and ensure that participants are actively sharing ideas, providing inputs, and making valuable comments onto the issue/topic on hand.

The presence of internet has also allowed FGD processes to be conducted across boundaries and without physical contacts anymore. This increases efficiency since transportation and accommodation costs are drastically minimized.

PROJECTION METHOD

The projection method attempts to transform difficult ideas and thoughts verbally. The target is to note feelings, motivation, attitude and beliefs.

For managers, it is important to undergo this projection method as a way to learn about individual emotion rather than rationality. Usual methods include; word associations, sentence completion, thematic apperception, and pictorial tests.

WORD ASSOCIATIONS

In **word associations**, respondents are asked to associate a particular word (or few words) with the first thing they can think of. The managers take notes of the responses and would attempt to develop a product/service positioning in accordance with the positive associations. For an example, the respondents are asked to quickly respond to the word “research”. The responses indicate what research means to individuals.

SENTENCE COMPLETION

Similar to the word associations, **sentence completion** is just a longer version. Of course, this method provokes respondents to complete a sentence. For an example, “research is”. Depending on the responses, researchers can learn the insights about individual’s feelings and attitudes toward research.

THEMATIC APPERCEPTION

In **thematic apperception**, respondents are asked to create a story around the illustrations shown. The illustration can be sets of pictures, colors, patterns, or designs. This method is beneficial to learn the insights about individual’s characteristics, including tastes and preferences. For an example, a researcher shows a picture of a rocky mountain. The respondents are asked to come-up with stories around it. Alternatively, sets of bright colors, patterns, or designs, can be shown and respondents are asked to create stories around them. Because of the nature of the thematic apperception, which is built around pictures, colors, patterns, or designs, thematic apperception is relatively synonymous to a **pictorial test**. During a packaging development process, a particular cartoon

character may be shown to note the feelings and attitudes of children, for instance. Of course, the cartoon character is used to attract the interests of children. If the responses from the children are positive, it is likely that the managers would use the cartoon characters on the company's product packaging.

SURVEY

Survey is often conducted to cover a large scope, in terms of area, demography, tastes, and preferences. Survey is commonly performed via distributions of sets of structured questionnaires. Though differences may be revealed, survey expects to have the generalization ability of its findings. It means that though the distribution of questionnaires may have been limited in only certain areas, for an example, the research results and findings are expected to be applicable in different organizations across locations.

INDIVIDUAL SURVEY

Individual survey may become the most common way of conducting survey. The researchers meet individually with the respondents to inquire responses based on the pre-set questions. Though this option is advantageous to study complex issues, where ideas and opinions are difficult to express, this individual survey tends to increase research cost significantly since the researchers may have to spend a great deal of time in inquiring responses, aside from the transportation cost to meet with the respondents. However, this individual survey is beneficial to obtain immediate responses and the increase the ability to examine non-verbal responses. This individual survey is considered the best option during the preliminary stages of research to reveal particular concepts or situations surrounding particular issues/topics.

INTERCEPTED SURVEY

A slight variation of the individual survey is the intercepted survey. This is usually conducted in public places by directly inquiring potential

respondents to participate in the survey. The actual interception of potential respondents in public places is based on certain qualifications that the researchers have previously developed. Those qualifications are varied from age, gender, physical appearance, possession of certain items, and others. For instance, a researcher is interested in studying the attractiveness of a particular shopping mall from the perspective of teenagers. The intercepted qualifications may include age (up to 19 years old), facial structure (for younger look/appearance), school uniform, and fashion styles (teenagers may dress differently than adults). Just like the individual survey, intercepted survey is beneficial to increase the rate of responses and observing non-verbal responses at the same time.

TELEPHONE SURVEY

Telephone survey is another option. Though this alternative reduces the transportation cost, however, it is heavily dependent on telephone lines, availability of the potential respondents, and willingness of the potential respondents to participate in the telephone survey. Other drawbacks of this alternative are the availability of phone numbers, such as from the white pages or yellow pages only, and the inability of examine the non-verbal responses. Nonetheless, the benefits of this telephone survey are the ability to cover more dispersed locations while reserving the ability to obtain immediate responses.

MAIL SURVEY

Mail survey via distribution of questionnaires is considered beneficial when researchers are looking for responses from numerous sets of questions. If the sets of questions are conducted via telephone survey, it takes up time. This may increase doubt from potential respondents in participating the survey willingly. It should be noted, however, mail survey has a tendency to have only a low response rate. Researchers should also be cautious about the responses, if the responses are similar, or significantly different, from the non-respondents. With the presence of internet, the mail survey is no longer conducted via postal mail delivery. Instead, it is now dependent on email and online survey to reach individuals anywhere around the globe. Undoubtedly, internet has substantially reduced the cost of conducting mail survey. The responses

are recorded online and save in a particular format that the researchers have previously chosen. This minimizes the needs of data entry.

EXPERIMENT

Experiment is powerful in manipulating situations and conditions to gauge the effect of those manipulation intentions. For some people, the word “experiment” appears closely related to laboratory researches than non-laboratory studies. Hence, business-related researches may not involve any laboratory activities. This may not be true since both inside or outside laboratories, experiments can be conducted for business-related and non-business-related researches. Perhaps, the only significant different between laboratory experiments and non-laboratory experiments is the type of validity that researchers can achieve. Laboratory experiments may secure internal validity since the research is conducted inside the laboratory where the situations and conditions are heavily controlled. Non-laboratory experiments may secure external validity since the research is conducted outside the laboratory where the situations and conditions may not be heavily controlled. Distortions may occur during the non-laboratory experiment.

For an example, a marketing research plans to study the public perception toward a new strawberry flavored soft-drink. Since there are other strawberry flavored soft drinks in the market, this research may be conducted using plain cups, which contain the new strawberry flavored soft drink and the existing strawberry flavored soft drinks. Using plain cups, say there are 4 cups, cup 1 is for new strawberry flavored soft drink, and cup 2, cup 3, and cup 4 are of the existing strawberry flavored soft drinks, invite the public to try and make comments, whether they prefer cup 1, cup 2, cup 3, or cup 4. In this case, it may be better to conduct a non-laboratory experiment to have the direct responses from the public, and to obtain the necessary external validity, which may be translated into a public acceptance. Considering this particular marketing research example, it is obvious that a laboratory experiment may not serve the purpose. Rather, the laboratory experiment becomes essential as the preliminary ground on mixing the ingredients to have a unique strawberry flavored soft drink. Once the mixtures of ingredients are believed to be acceptable, then it is the time to start conducting the non-laboratory experiment.

In terms of experiment’s internal validity, there are 7 items to be

considered; history, maturation, testing, instrumentation, selection, statistical regression, and experimental mortality.

- **History** refers to the presence of events, which may obscure the relationships among variables, and/or topics of studies. Comparisons between “before” and “after” studies are necessary to contrast the outputs. The variations of outputs represent the presence of events.
- **Maturation** concerns about the timeframes of studies. The longer the studies, maturation effects may emerge, such as; boredom, or hunger. When the participants are bored, for instance, the outputs may likely vary and become inconsistent over time.
- **Testing** takes account for similar repetition steps. If individuals have more experience in taking the lie-detectors, for instance, passing on the subsequent lie-detector tests become easier.
- **Instrumentation** emphasizes on the dangerous of relying on multiple observers and/or examiners for the same tests. Though objectivity can be achieved by introducing multiple observers and/or examiners, however, outputs/results may vary. This brings about the issue of inconsistency in the test processes.
- **Selection of objects** is another important issue to ponder in conducting experiments. Though differential selection in the experiments may show consistency in outputs/results, however, if the selections of objects are not random, results may show unfair tendency toward one-sided outputs/results only.
- **Statistical regression** provides early warning to researchers to not engaging in abnormalities of data and/or observations. If the high-abnormalities are selected, the sample means may increase. Vice versa, if the low-abnormalities are selected the sample means may decline.
- **Experimental mortality** focuses on the potentially altering the outputs/results due to changes in the compositions. The potentials of drop-outs in any experiments are relatively high. In terms of internal validity, the numbers of drop-outs may potentially alter the outputs/results of any experiments.

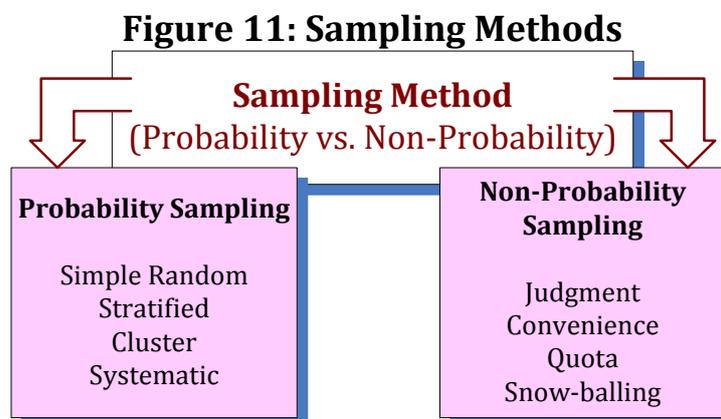
On the other hand, in terms of experiment’s external validity, whose intention is to secure generalization in public, there are 3 items to be considered; reactivity of testing, interaction of selection, and other

reactive factors.

- **Reactivity of testing** attempts to evaluate the various responses to stimulus. This usually combines the responses “before” and “after” any introductions of stimulus.
- **Interaction of selection** refers to particular selections of test subjects to participate in experiments. The results are expected to have the generalizability in the population.
- **Other reactive factors** denote any experimental settings, which may have the potentials in varying the likelihood of responses. If an individual knows that he/she participates in an experiment, he/she may have chosen to role-play the responses. Incentive-pay may also distort the responses for certain individuals in particular positions/jobs.

SAMPLING METHOD

In scientific research, the choice of sampling method matters. Inappropriate use of a sampling method may jeopardize the credibility of the research results and findings. In terms of scientific research, there are two possible choice on sampling method; either **probability sampling**, or **non-probability sampling**. Of course, a combination of both probability and non-probability sampling is also possible.



As a rule of thumb, researchers should note that if they plan to conduct a quantitative study, which may likely perform the data analysis based on parametric tests, the sampling method should rely on probability sampling method. In this case, the use of non-probability sampling method may be considered inappropriate. Hence, the credibility of the

research findings may slide. Likewise, for qualitative studies, which may likely perform the data analyses based on non-parametric tests, the use of non-probability sampling method is considered sufficient.

Before the discussion is continued into the sampling method, it is also important to note the reasons for sampling. Logically speaking, upon performing a research, it is obvious that collecting data from all members of the targeted population is relatively impossible, in terms of time, cost, and human resources. Data collection from all members of the targeted population is unnecessary. In fact, choosing only a subset of the population is considered adequate. For an example, a car manufacture is interested to study the length of time that automobile engines start breaking-down from its production plant. If no samples are taken, it means that every engine produced may have to be put into rigorous tests. When this is performed, there are no engines and cars to sell.

PROBABILITY SAMPLING

Just like the name implies, the probability sampling is based on calculations and/or considerations of probability. For sure, the use of probability sampling is often regarded more scientific due to the presence of specific calculations and/or consideration of probability. Generally, the category of probability sampling is divided into 4, which are; simple random, stratified, cluster, and systematic.

SIMPLE RANDOM SAMPLING

A simple random sampling method demands an equal chance of being selected. Though it is sounds simple, the actual realization of this method is relatively impractical. The researchers must ensure the equal chances of being selected. Hence, it means that all of the potential samples must be available at one time. Otherwise, the absence of any potential samples at one time may lead to unequal chances of being selected.

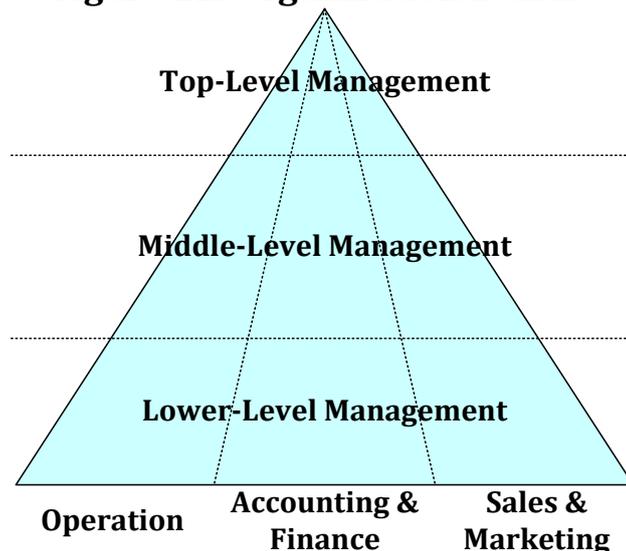
For an example, a researcher plans to focus on the students of a particular university. Based on the administrative records, the total numbers of students are 500. If the researcher intends to use a simple random sampling, he or she must ensure that all 500 students have the equal chance of being selected to become the respondents in the

research. On the day of the sample selection, there are 200 students absent for any reasons, such as; sick leaves, family matters, attending conferences, attending competitions, internships, or coming late to school, those 200 students do not have the equal chances of being selected. Hence, in this case, it becomes relatively inappropriate for the researcher to rely on a simple random sampling method. Mathematically, the initial chance of being selected is $1/500$, or 0.002 for each of the students. When 200 students are absent during the day of the sample selection, there are only 300 students present. The actual chance of being selected is now $1/300$, or 0.0033 for each of the students. This becomes unfair and non-random, undoubtedly.

STRATIFIED SAMPLING

Stratified sampling method relies on the formation of *stratas*, levels, or groups. This method demands an initial segregation of groups from the targeted populations. This method is beneficial to investigate the potential differences among groups.

Figure 12: Organizational Chart



A simple illustration is using the organizational charts, where employees are segregated based on their functions and managerial levels. From each of the managerial levels, for instance, employees are randomly selected to become the respondents. Alternatively, regardless of their managerial levels, employees are grouped into functions, or business units, or divisions, prior to be selected at random.

Referring to the organizational chart above, a researcher can focus on multi-layers (top management level to lower management level), or multi-functions (operation division, accounting & finance division, and/or sales & marketing division). Again, the target is to learn differences, if any, among management levels and functions.

Though this may appear straightforward, the application of this method may be confusing in larger organizations since the researchers must ensure that all employees are present and willing to participate. Nonetheless, despite the hurdles, stratified sampling method may be more practical than simple random sampling and/or systematic sampling.

CLUSTER SAMPLING

Cluster sampling method directs researchers to also segregate the targeted population into groups. For a cluster sampling, usually, the grouping formation relies on geographical proximities, such as; North, South, Jakarta, or Bandung, or demographic elements, such as; age, education, income, or experience. An illustration may help understanding this cluster sampling method.

From the illustration below, the clustering process focuses on geographical location. Say, that these are the locations of branch offices of Bank Sam, in the cities of A, B, C, and D. Based on the historical data, the performance of these branch offices are relatively similar, regardless of their location proximities. To minimize costs, and due to the similarities in customer characteristics, the management of Bank Sam may decide to just simply focus on one location. Say, in the city of D. As one can see, though the city of D has been selected, there are still too many people to be selected as samples. If the management decides to stop here, it is an example of a **single-stage cluster sampling method**.

Nevertheless, the management may decide to further focus on certain sub-branch offices within the city limit of D, and/or concentrate on particular locations within the city of D. This further reduces research costs without jeopardizing the generalizability of the research findings.

On the surface, cluster and stratified sampling method appears similar.

However, there are basic differences embedded in each of the method, as shown in the table.

This is an example of a **multi-stage cluster sampling method**.

Figure 13: Cluster Sampling Method

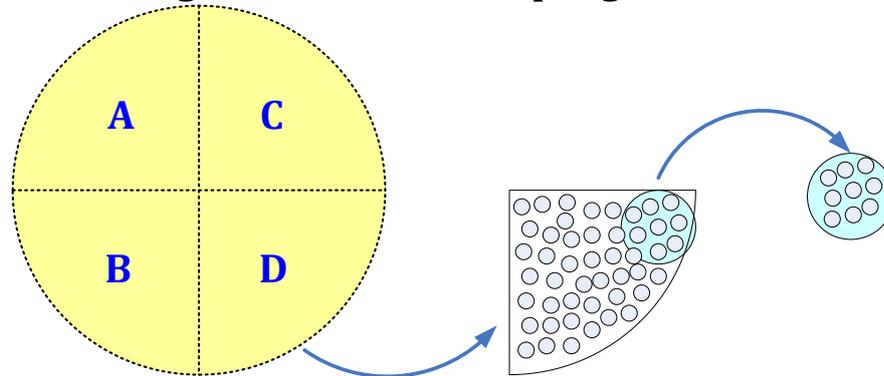


Table 5: Comparison Between Stratified and Cluster Sampling

	Stratified Sampling	Cluster Sampling
Sub-groups formation & selection	Few sub-groups Based on criterion related to the research variables	Many sub-groups Based on ease or availability in data collection
Numbers of elements in sub-groups	Many	Few
Target within sub-groups	Homogeneity	Heterogeneity
Target between sub-groups	Heterogeneity	Homogeneity
Actual action	Randomly choosing elements from within each of the sub-group	Randomly choosing elements from several sub-groups

SYSTEMATIC SAMPLING

Systematic sampling method follows a certain rule or pattern. The easiest reference is using the interval among potential samples. The use of interval ensures fairness that all potential samples have an equal chance of being selected.

A simple example is using the white pages of telephone directory, from A to Z. Say, the researcher has decided to use an interval of 20. The actual approximation of an interval of 20 is as follows; say, there are 10,000 people listed in the white pages. If the researcher plans to have only 500 respondents, the interval should be $10,000/500$, or 20. Relying on a random selection for the first pick, the researcher then starts counting for the 20th interval. It means that every 20th names from the list of the white pages will be selected.

Though it sounds systematic and relatively simple, however, it is considered impractical. Whoever the 20th names are, the researcher must get a hold of him or her to start the process of data collection. If every 20th names are able to be reached and they are willing to participate, the process of data collection becomes smooth. However, if there are people who cannot be reached, or they are unwilling to participate, the process of data collection becomes problematic. Also, the cost of contacting those 20th names may be expensive and pushes-up the cost of research.

NON-PROBABILITY SAMPLING

Just like the name implies, and to the contrary of the probability sampling, the non-probability sampling is not based on calculations and/or considerations of probability. This means that the actual process in conducting non-probability sampling refers to certain considerations, particularly easiness in carrying-out the process. As one can predict, this results in unequal chances of being selected for other members of the targeted population.

JUDGMENT SAMPLING

As the name implies, judgment sampling method relies on the researcher's certain considerations toward the members of the targeted population. This method is often used to ensure that the selected samples conform to specific requirements.

For an example, the management of Hotel A plans to investigate the level of customer satisfaction. To do this, the initial "screening" process is to immediately segregate people, who have been staying in Hotel A for at

least 3 nights within the year, and those, who have just stayed in Hotel A for the first time. To better study the level of customer satisfaction, perhaps, the management may focus on those people, who have stayed for at least 3 nights in Hotel A. This segregation automatically disregards fairness toward the first-timers. The limit of 3 nights may have been a mere managerial judgment without any supporting evidence, calculations, and probabilities. The same is true for employee satisfaction. The management may decide using the limit of at least 3 years of working experience with Hotel A. Again, the requirement of 3 years may have been a managerial judgment.

CONVENIENCE SAMPLING

Convenience sampling method aims for practicality. This means that researchers may likely target the population based on convenience, and thus, practicality. For sure, this reduces the costs associated with data collection processes.

For an example, to learn about perceptions of college students on the recent presidential election in Indonesia, a researcher may simply visit a nearby university and start approaching the students to participate in the study. To improve the comparability, perhaps the researcher can also visit other universities. The selected students from those universities fulfill the research requirement.

QUOTA SAMPLING

Quota sampling method stipulates for a proportion or category. This is the reason why this method is often referred to as proportional sampling as well. In this quota sampling method, the researchers decide on a certain quota for samples. The category is also formulated freely by the researchers.

For an example, a research in university attempts to investigate the student's satisfaction level on academic services. In terms of the category, the researcher can rely on gender, majors, or years in college. If the total registered students are 1,000, where female students are accounted for 600, and the researcher uses gender as the category, then

the above table can illustrate the quota sampling method.

Table 6: Quota Sampling (based on the targeted population)

	Male		Female		Total	
Business Major	197	49.25%	235	39.10%	432	43.20%
Engineering Major	105	26.25%	184	30.67%	289	28.90%
Arts Major	98	24.50%	181	30.17%	279	27.90%
Total	400	100%	600	100%	1,000	100%
Gender Percentage	40%		60%		100%	

If the researcher plans to take a total sample of 200 students, and knowing that the percentages of the student population in the university is 40% male and 60% female, the researchers must ensure the proper quota for each gender.

Table 7: Quota Sampling (based on predetermined sample quota)

	Male		Female		Total	
Business Major	39	49.25%	47	39.10%	86	43.20%
Engineering Major	21	26.25%	37	30.67%	58	28.90%
Arts Major	20	24.50%	36	30.17%	56	27.90%
Total	80	100%	120	100%	200	100%
Gender Percentage	40%		60%		100%	

In this instance, the researcher must have 80 male students, which are calculated from 200 students multiply by 40%, and 120 female students, which are calculated from 200 students multiply by 60%. Once the total numbers of male and female students have been determined, the researcher must now calculate the numbers of students for each of the majors, both for male and female students. For business major, 39 male students are required as respondents. This is calculated from 80 male students multiplied by the percentage of male students, who major in business, which is 49.25%. For engineering major, 26.25% multiply by 80 students, or 21 male students. For arts major, 24.5% multiply by 80 students, or 20 male students. The same calculations apply to female students. The details are shown in the table. Then, the researchers may conveniently select 80 male students from the population of 400 male students. Such a “convenient selection” represents the basic difference between the non-probability-based quota sampling method and the

probability-based stratified sampling method.

SNOW-BALL SAMPLING

The snow-ball sampling method represents the sampling process, which illustratively follows the formation of a snow-ball, from the top to the foot of the mountain, from small to a bigger-sized snow-ball. In this instance, a researcher initially selects a handful of respondents, who meet the pre-determined criteria. From a handful of respondents, the researcher inquires them to provide references of their family and friends to become the next respondents. Because of the references provided by the initial respondents, the snow-ball sampling is also known as a **referral sampling method**. Due to the individual-based network, the process of snow-ball sampling method lacks fairness on equal chances of being selected toward other people, who may not be included in someone's network.

SAMPLE SIZE

In scientific research, sample size is considered as an important element. A sample size is not about the total actual numbers of the sample used, but more to the statistical approximation toward generalization of the research findings. This means that a research with a bigger sample size does not always mean better than researches with a smaller sample size.

STATISTICAL APPROACH

A simple formula from Slovin can assist researchers to statistically calculate the appropriate sample size.

$$\begin{aligned} \text{Equation 1: Slovin Formula (Population Known)} \\ n &= \frac{N}{1 + Ne^2} = \frac{1000}{1 + (1000 * (0.05^2))} = \frac{1000}{1 + (1000 * 0.0025)} = \frac{1000}{3.5} \\ &= 285.71 \end{aligned}$$

This formula is based on the consideration on a confidence level and a standard error, with the following notes; "n" is for the numbers of

sample, “N” represents the total population, and “e” signifies the error tolerance that a researcher is willing to assume.

As shown in the example, if the targeted population is 1,000 people, and the researcher aims for 95% confidence, which means that the maximum tolerable errors are a mere 5%, the total sample size should be a minimum of 286 people. With a minimum of 286 people to be selected as respondents, it means that the research findings and results should only carry about 5% errors. As expected, a higher level of error tolerance leads to a smaller sample size.

However, the use of Slovin formula is highly dependent on knowing the total population. What if the total population is unknown? In this the situation where the population size is unknown, another formula is necessary, where “n” is for the total numbers of sample, “E” represents the margin of error, “p” signifies the proportion estimate, and “ $Z_{\alpha/2}$ ” defines the percentile of the standard normal distribution of $100 * (1 - \alpha/2)$.

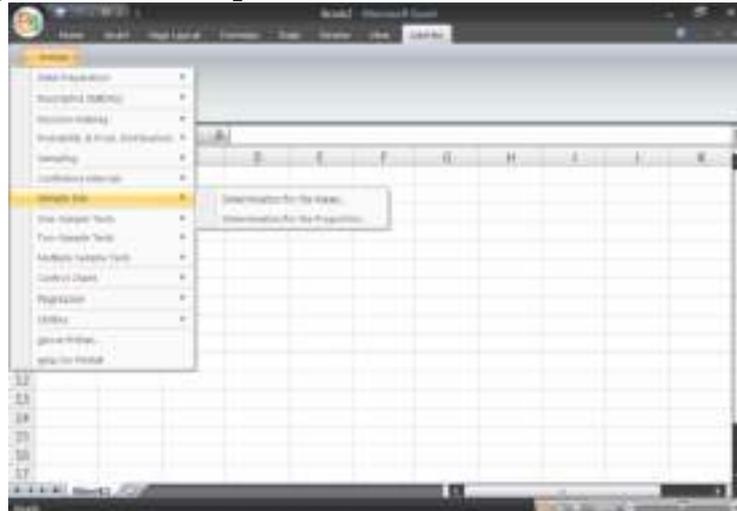
Equation 2: Sample Size Calculation (Population Unknown)

$$n = \frac{(Z_{\alpha/2})^2 p(1 - p)}{E^2} = \frac{qnorm(0.975)^2(0.5(1 - 0.5))}{(0.05^2)} = 384.15 \approx 385$$

For an example, a researcher is interested in knowing the proper sample size if he or she relies on a mere 50% proportion estimate (since a researcher only plans to study 1 gender only, either male or female employees), aims for 95% confidence, but only tolerates 5% error. From the calculation above, it is calculated that a minimum of 385 respondents are necessary. A lower numbers of respondents may lead to a higher error and a lower confidence level.

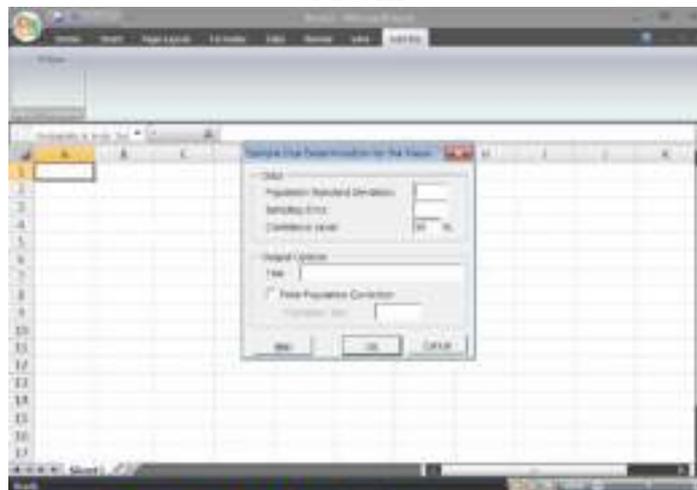
Available online, PHStat is a simple add-ins for Microsoft Excel to calculate the above formula easier. PHStat offers 2 possible choices to calculate the sample size, either based on the **population mean**, or **population proportion**. The following figure shows the snapshot of PHStat’s sample size determination.

Figure 14: A Snapshot of PHStat Add-Ins for Excel



- To calculate the sample size based on PHStat’s population mean, a researcher needs to know the population standard deviation, sampling error and confidence level. Just like the Slovin formula, as shown above, this option may appear beneficial only if the researchers know the total number of people in the population in order to calculate the population standard deviation. Though it may appear simple, nonetheless, it may not be appropriate in determining the sample size. Whenever the researchers are in doubts about the total number of people in the population, which may likely affect the calculation of the population standard deviation, this option may provide improper results on the approximation of the sample size.

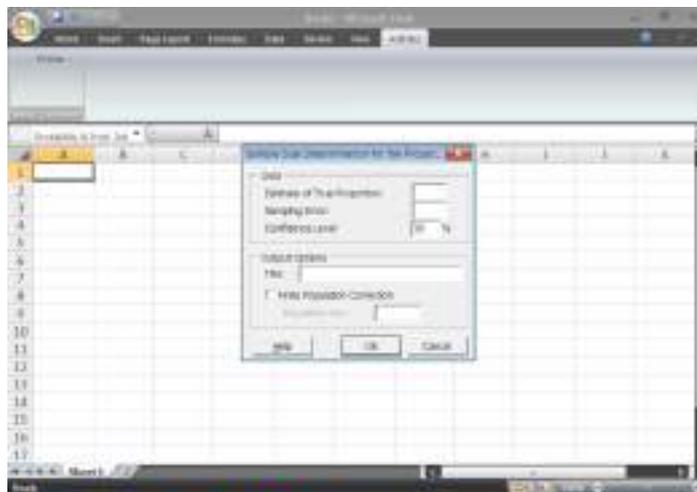
Figure 15: Snapshots of PHStat’s Sample Size Determination for the Mean



- To calculate the sample size based on PHStat’s proportion, a

researcher needs to provide the estimate true proportion out of the population, sampling error, and confidence level. This option is to accommodate the difficulties in calculating the standard deviation of the population, as required by the other choice mentioned above. Here, researchers may simply estimate a certain percentage out of the population, say 50%, to be expected as the “true representatives” of the real population to be used in the research, and can be used as samples. This mere guessing estimation is compensated with the lower tolerable sampling error, say 5%, and a higher confidence level, say 95%, or even 99%. When researchers use 50% true proportion, 10% sampling error, and 95% confidence level, the required minimum sampling size is 97. As the researchers increases accuracy by lowering the sampling error to 5%, the required minimum sampling size is 385.

Figure 16: Snapshots of PHStat’s Sample Size Determination for the Proportion



In addition to the above PHStat, the presence of internet has offered substantial simplicity for researchers. Instead of performing the above calculations manually, or even searching for PHStat add-ins to be downloaded, online calculators are now widely available. With a simple click and some numbers to be typed-in, such as; margin of error, confidence level, population size, and proportion estimate, researchers can have the immediate answers on the proper sample size.

Figure 17: Online Sample Size Calculator

Input Field	Value	Explanation
What margin of error can you accept?	5%	The margin of error is the amount of error that you can tolerate. If 90% of respondents answer yes, while 10% answer no, you may be able to tolerate a larger amount of error than if the respondents are split 50-50 or 45-55. Lower margin of error requires a larger sample size.
What confidence level do you need?	95%	The confidence level is the amount of uncertainty you can tolerate. Suppose that you take 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer yes would be more than the margin of error away from the true answer. The true answer is the percentage you would get if you absolutely interviewed everyone. Higher confidence levels require a larger sample size.
What is the population size?	200,000	How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000.
What is the response distribution?	50%	For each question, what do you expect the results will be? If the sample is skewed highly one way or the other, the population probability is, too. If you don't know, use 50%, which gives the largest sample size. See below under More Information if this is confusing.
Your recommended sample size is:	385	This is the researcher's recommended size of your survey. If you create a sample of this size of people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample where only a small percentage of the sample responds to your survey.

The above is just an example of a sample size calculator from Raosoft, Inc (www.raosoft.com/samplesize.html). Referring to the above example, 5% error, 95% confidence, and 50% proportion estimate, a manual calculation reveals that 385 samples are needed. Using the online calculator, the numbers of samples are also shown 385. Hence, determining the sample size and calculating the recommended sample size should not pose hurdles for researchers anymore.

NON-STATISTICAL APPROACH

If the statistical approach in determining the sample size is based on a confidence level and a standard error, the non-statistical approach focuses on certain considerations that the researchers attempt to do. Some of those considerations may be based on the sample size in the previous researches, which includes reflecting to the “norms” that other researchers have performed, and seek advises from experts.

DATA ANALYSIS

Before the researchers perform the data analysis, it is important to incorporate the appropriate coding in their studies. The coding stage is actually relevant to the data collection processes. Inappropriate coding may lead to perplexity during data entry and data analysis.

In essence, with regards to the research process and activities, coding

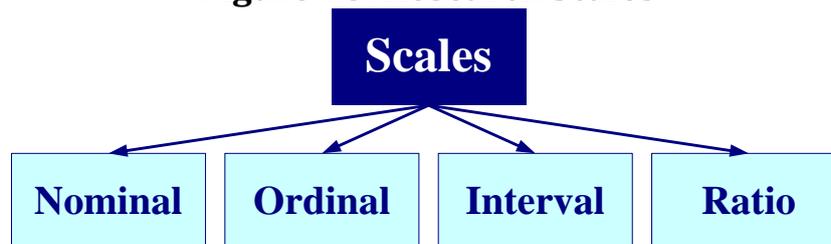
serves as categorization to reduce the possible variations in the data set. Via the appropriate groupings, as the results of coding, researchers can analyze the data easier.

SCALES

Scales denote sets of tools to differentiate one variable from another in a research activity. Without the use of scales, a researcher may have difficulties in measuring the responses. A particular scale can be as simple as grouping or categorizing responses, or identifying degrees of complexity.

For an example, in countries, where metric system is used, an individual weight is measured in kilogram, heights are measured in meter or centimeter, and distance is measured in kilometer. Otherwise, pounds, feet, or miles are used. Here is when the scales play an important role. Perhaps, a simple category formation for those subjects in similar kilogram, meter, or kilometer may be necessary. This means that any subjects with similar kilogram are grouped together, for instance.

Figure 18: Research Scales



In scientific research, there are 4 basic types of scales; nominal, ordinal, interval, and ratio. As a researcher uses different types of scale from nominal to ordinal, or from ordinal to interval, or from interval to ratio, the power to identify complexity and details increase.

NOMINAL SCALE

A nominal scale assigns subjects into groups or categories. The categories tend to be mutually exclusive and collectively exhausted since the subjects concerned must be assigned to one category only, and cannot be both at the same time.

Table 8: Nominal Scale

	1	2
Gender	Male	Female
Do you have a bank account?	Yes	No
Have you worked in hospitality industry before?	Yes	No

Gender is a perfect example to illustrate the nominal scale. Regardless of age, educational background, skills, residence, and many other individual characteristics, each person can only be assigned into either male or female. No other option is possible. Yes or no types of answers are also another example. In the case of gender, a researcher can use a code of “1” for male, and “2” for female. The application of these codes is only to label the subjects, and does not have any special meaning between the codes. In the example of male and female, for instance, it does not mean that code “2” is bigger than “1”, though it is true from the mathematical perspective. Likewise, in the case of “yes/no” answers, a researcher can use a code of “1” for yes, and “2” for no. Again, it does not mean that the answer “yes” (code “1”) is smaller than, or worse than, the answer “no” (code 2).

ORDINAL SCALE

An ordinal scale shows both the differences, and ranks the categories. This scale may be beneficial to study public preferences. For example, responses are categorized into first to last, or best to worst, with a number 1, 2, and so on. If rank 1 represents best, rank 2 is for the average, and rank 3 refers to the worst, this means that rank 1 is higher than rank 2, and rank 2 is higher than rank 3. It should be noted that statistically, the distances between rank 1, rank 2, and rank 3, are not the same. Preferences on types of books can also benefit from an ordinal scale, as shown in the following table.

Table 9: Ordinal Scale

Topics of Books	Rank	Meaning
Novel/Comics	4	Preference # 4
Sciences	5	Preference # 5 (the least preferred book topics)
Cooking	3	Preference # 3 (the respondents may be indifferent)

Topics of Books	Rank	Meaning
		between cooking, arts, novel/comics, and sciences)
Business/Management	1	Preference # 1 (this is the top preference/choice, and may represent the top of the mind topics)
Arts	2	Preference # 2

If the above table shows the averages from hundreds of respondents, on the surface, it can be concluded that books about business and management is highly preferred. The easy recommendation is that the book store may want to add more collections on business and management, and reduce the numbers of science books. Without the help of the ordinal scale, such conclusions may not be reached.

INTERVAL SCALE

If the nominal scale can put data into certain categories/groups, and the ordinal scale can rank the data, the interval scale can certainly do both; categorizing and ranking the data set. In addition to data grouping, and data ranking, just like chains, the interval scale has the same distance between categories. The same distance between categories allows researchers to calculate the arithmetic operations in the data set. Hence, interval scale is a more complete option relative to nominal scale and ordinal scale. As stated, interval scale has the ability to categorized data, ranks the order of data, and measures the degree of differences among categories of data.

It should be noted, however, that this interval scale has arbitrary original reference point. This means that the original reference point can be any numbers. The distance between categories, 1 to 2, is the same as the temperature distance between 10⁰ Celcius to 11⁰ Celcius.

Let us assume that the responses gathered from 200 respondents are summarized in the following table. For the first statement, “the ability to interact with others is very important for me”, this simply means that there are 2 respondents who strongly disagree, and on the extreme, there are 92 respondents who strongly agree with the statement.

Table 10: Interval Scale

	1	2	3	4	5
	strongly disagree	disagree	neutral	agree	strongly agree
1. The ability to interact with others is very important for me	2	3	34	69	92
2. The ability to work independently is very important for me	13	41	16	53	77

Since the distance between categories is the same, the arithmetic mean of responses in the first statement can be calculated.

Equation 3: Arithmetic Mean for Statement 1

$$\text{arithmetic mean} = AM = \sum_{a=1}^5 \frac{(\text{code}_a * \text{total responses}_a)}{\text{numbers of respondents}}$$

$$AM = \frac{(1 * 2) + (2 * 3) + (3 * 34) + (4 * 69) + (5 * 92)}{200}$$

$$AM = \frac{2 + 6 + 102 + 276 + 460}{200} = \frac{846}{200} = 4.23$$

Using the formula, the arithmetic mean for the first statement is 4.23, and 3.70 for the second statement. The first statement's arithmetic mean of 4.23 shows that on average, the respondents tend to minimally agree that the interaction with others is very important. Likewise, the second statement's arithmetic mean of 3.70 indicates that on average, the respondents tend to be indifferent on the ability to work independently. Further analysis can be performed, using one-sample t-test from PHStat, to determine whether 3.70 is statistically different from 4. If the result shows that 3.70 is statistically different from 4, it means that the arithmetic mean for the second statement cannot be categorized as "agree".

To use the PHStat appropriately in running the one-sample t-test, the sample standard deviation should be calculated. A simple formula to calculate standard deviation is as follows;

Equation 4: Standard Deviation for Statement 1

$$\text{standard deviation} = s = \frac{\text{average} \sum_{a=1}^5 (\text{code}_a * \text{total responses}_a)}{\text{numbers of respondents}}$$

$$s = \frac{\text{average}(2 + 6 + 102 + 276 + 460)}{200} = \frac{169}{200} = 0.846 \approx 0.85$$

Using the formula, the standard deviation on responses for the second statement can be calculated to be 0.74. Once the arithmetic mean and standard deviation are calculated, the researcher can use PHStat by simply use 4 as the null hypothesis (since this is the “target number” to be tested, which indicates “agree”), 5% as the level of significant, 200 as the sample size, 3.7 as the sample mean, and 0.74 as the sample standard deviation.

Table 11: One-Sample t-Test for Hypothesis of the Mean

Data	
Null Hypothesis $\mu =$	4
Level of Significance	0.05
Sample Size	200
Sample Mean	3.7
Sample Standard Deviation	0.74

Intermediate Calculations	
Standard Error of the Mean	0.052325902
Degrees of Freedom	199
t Test Statistic	-5.73329823

Two-Tail Test	
Lower Critical Value	-1.9719565
Upper Critical Value	1.971956498
p-Value	3.61307E-08
REJECT the null hypothesis	

From the results above, it is apparent that 3.70 is statistically different from 4. It means that the average of 3.70 is categorized within the indifferent region or “neutral”, or commonly referred to as “neither agree nor disagree”. This indicates that working independently may not be important. Or, it indicates that, on average, respondents prefer to work together with colleagues in handling tasks on-hand.

RATIO SCALE

Just like the interval scale, this ratio scale has the potential in increasing the ability to analyze the details. Unlike the arbitrary reference point embedded in interval scale, one main advantage of the ratio scale is that the ratio scale has the zero absolute value as its original reference point. This simply means that the more distance the responses from zero, the higher/bigger the value of those responses. Actual numbers are the examples of ratio scale, such as; income, age, years of education, numbers of children, sales, and many others.

The following table shows some examples and explanations to illustrate the unique elements of the ratio scale.

Table 12: Ratio Scales

Questions or Statements	Examples on Responses	Explanations
Years of Experience	Respondent 1: 5 years	Not only respondent 2 has more years of experience, but it is actually double from the years of experience of respondent 1. The ratio between respondent 1 and 2 equals to 1:2
	Respondent 2: 10 years	Hence, as it is well-understood by people, it is not a public secret that 0 years of experience means that respondents have no working experience at all.
Numbers of Children	Respondent 1: 2 children	Respondent 2 has more children than respondent 1. In fact, the numbers of children for respondent 2 it is exactly 1.5 times more than the numbers of children of respondent 1. The ratio between respondent 1 and 2 equals to 1: 1.5
	Respondent 2: 3 children	Hence, as it is well-understood by people, it is not a public secret that 0 numbers of children means that respondents may have been newly married, or may have planned delaying having children, or may

Questions or Statements	Examples on Responses	Explanations
		plan having children, but remain unsuccessful, or may have decided not having children at all.

Because of the zero-origin absolute reference point, the central tendency measurements of this ratio scale can be both be approximated by arithmetic mean and geometric mean. If an arithmetic mean works with values, the geometric mean concerns with percentages of the values. A simple formula for geometric mean is shown below, where “ a_1 ” refers to the first number in the data set, “ a_2 ” denotes to the second number in the data set, and “ a_n ” is the last number in the data set.

Equation 5: Geometric Mean

$$\text{geometric mean} = GM = \left(\sqrt[n]{a_1 * a_2 * a_3 * \dots * a_n} \right) - 1$$

Also due to the zero absolute reference point for the ratio scale, the measures of dispersion can be approximated by standard deviations and variance. If the standard deviation concerns with the dispersion of data away from the mean, the variance is the average squared differences of data away from the mean.

COMPARISONS ON THE 4 TYPES OF SCALES

With the uniqueness of the 4 scales, the following table provides the necessary comparisons for easier understanding and reference.

Table 13: Comparisons on Scales

Types of Scale	Function				Measures of Central Tendency	Measures of Dispersion	Tests of Significance
	Label	Order	Distance	Zero Absolute as Original Point			
Nominal	Yes	No	No	No	Mode	-	χ^2 (chi-square)
Ordinal	Yes	Yes	No	No	Median	Quartile	Correlations
Interval	Yes	Yes	Yes	No	Arithmetic Mean	Standard Deviation, Variance, or Coefficient of Variation	F-test t-test
Ratio	Yes	Yes	Yes	Yes	Arithmetic or Geometric Mean	Standard Deviation, Variance, or Coefficient of Variation	F-test t-test

Source: Cooper & Schindler (2014); Istijanto (2009); Sekaran (2009)

With those comparisons, it should also be noted that there are issues, which can be measured only in a certain type of scale, but there are issues, which can be measured in multiple types of scale. Gender, undoubtedly, can only be measured in nominal scale, either “1” as male, or “2” as female. Grades, particularly the university-level grade point average, say from 0 to 4, for instance, can be measured in multiple types of scale, such as; using the nominal scale (high/low), or ordinal scale (A/B/C/D/F, or high/medium/low), or interval scale (based on the actual

values of the grade where 1 is better than 0, 2 is better than 1, and so on), or ratio scale (also based on the actual values of the grade, where 0 becomes the original reference point). The same applies for temperature. In this instance, it is always recommended to always use the more powerful scale, whenever possible. This means that knowing the grade point average can be measured in multiple types of scale, researchers should always rely on the most powerful scale, which is at least the interval scale.

METHODS OF SCALING

The 4-types of scales discussed above are mainly used to measure the operations of elements of variables. Now, it is also important to know about the method of scaling, which simply means the activities on assigning numbers to extract the **attitudes of respondents** toward events, people, objects, or conditions. Such methods of scaling are commonly known as **attitudinal scales**, which are categorized into **ranking scale**, or also known as **comparative scale**, and **rating scale**, or also known as **non-comparative scale**.

RANKING SCALE

A ranking scale aims to make comparisons among events, people, objects, or conditions by noting the preferred choices/preferences, and put the necessary ranks among those events, people, objects, or conditions. This ranking scale may be used to expand the understanding under the preset categories of the nominal and ordinal scales.

Within the ranking scale, there are methods, such as; **paired-ranking comparisons**, **forced-ranking choice**, **comparative-ranking scale**, and the **constant-sum-ranking scale**.

The **paired-ranking comparison scale** is useful with small numbers of objects or events. The target of learning the preferences between 2 intentionally paired objects can be easily achieved. Nonetheless, as the numbers of objects or events increase, paired comparison scale may not be useful, as it increases the respondents' perplexities in making the necessary comparisons.

The following table shows the examples on paired comparison scale. As shown in the table, the more choices proposed, it becomes difficult and/or otherwise confusing for respondents.

Table 14: Paired-Ranking Comparison Scale

Among the available paired choices,		
• which color do you like best?	Blue ✓	Yellow
• which flavor of bubble gums do you like best?	Mint	Fruity ✓
• which taste do you like best?	Crispy	Chewy ✓

Slightly different than the paired comparison scale, and among the available choices provided, the **forced-ranking choice scale**, or also known as **rank-order scale**, requests respondents to rank objects or events relative to others. Similar to the paired comparison scale, the forced choice scale is useful only when the numbers of choices are limited. The larger the numbers of choices, the more difficult it becomes for respondents to provide their responses. The following table shows the potential complexity in noting the ranking. Certainly, ranking 10 items is more difficult than ranking 5 items. Hence, it is important to keep the numbers of choices small.

Table 15: Forced-Ranking Choice Scale

	Names of Fruits	Preference "1" for the most preferred, "2" for the second most preferred, and so on
Please rank the following fruit-flavored juice that you would like to buy in the order of preference	Orange	3
	Strawberry	4
	Banana	5
	Apple	1
	Grape	2

The **comparative-ranking scale** is useful in providing the necessary comparison, benchmark, or a particular point of reference in assessing the attitudes of respondents toward objects, events, people, or conditions.

For example, respondents are requested to respond to sets of questions. The available choices for responds are given from "1" to "5", to indicate "less useful", or "more useful". The following table clarifies the examples.

Table 16: Comparative-Ranking Scale

Questions	Less Useful-----More Useful				
	1	2	3	4	5
How useful is it to start making investment at younger age?					X
How useful is it to invest in stocks?			X		
How useful is it to invest in bonds?			X		
How useful is it to invest in mutual funds?				X	
How useful is it to buy investment-based insurance policy?				X	

The **constant-sum-ranking scale** seeks forced allocations of points among the available choices. For example, researchers are interested in knowing the attributes or features that people are looking for in cars, prior to their potential car purchases. The respondents are requested to allocate a total of 100 points among the following choices of car attributes or features.

Table 17: Constant-Sum-Ranking Scale

Attributes or Features	Points	Ranking
Brand	20	2
Price	25	1
Color	6	5
Design	7	4
Leather seat	5	6
Transmission	10	3
Fog lamps	5	6
Air bags	4	7
Stereo/Audio systems	5	6
Alloy wheel	7	4
Size of wheel	5	6
Family & friends recommendation	1	8
Advertising & promotions	0	9
Total	100	

RATING SCALE

Rating scale is useful in measuring behavioral concepts, particularly in certain objects of certain firms (such as; prices, packages, brands, or advertisements) without reference to other objects of different firms or competitors. This is the reason why this ranking scale is also known as **non-comparative scale**. The possible methods used within the rating scale include; **simple-rating category scale, multiple-choice/single-response scale, multiple-choice/multiple-response scale, Likert scale/summated-rating scale, Semantic differential scale, numerical scale, multiple-rating-list scale, constant-sum-rating scale, staple scale, and graphic-rating scale.**

Simple-rating category scale follows the understanding behind nominal scale as this scale simply puts data into certain categories. The most basic simple-rating category scale is often referred to as **dichotomous scale** as it emphasizes on “yes” or “no” answers only.

Table 18: Simple-Rating Category Scale

	1	2
Do you like salad?	Yes	No
I plan to purchase fruits on the way home tonight	Yes	No

Multiple-choice/single-response scale also follows the understanding behind nominal scale as this scale puts data into certain categories with multiple-choice possible answers, but only allows respondents to provide 1 answer.

Table 19: Multiple-Choice/Single-Response Scale

Which color do you like best? (pick only 1 answer)	<input type="radio"/> Yellow
	<input checked="" type="radio"/> Green
	<input type="radio"/> Blue
	<input type="radio"/> Black
	<input type="radio"/> Red
	<input type="radio"/> Others:

Similar to the above, **multiple-choice/multiple-response scale** follows the nominal scale by putting data into certain categories with multiple-choice possible answers, but allows respondents to provide multiple answers. Due to the multiple-responses, some people refer to as **checklist scale**. Though this scale may be beneficial in noting all the

possible responses, however, the actual coding for each of the questions becomes problematic. Say, for this question alone, one respondent only indicates 1 brands (perhaps, due to high loyalty), and another respondent indicates all 6 brands. The researchers must be careful in formulating and/or performing the data entry of this particular scale.

Table 20: Multiple-Choice/Multiple-Response Scale

Which brands do you have in your household? (pick all possible answers to best describe your response to the question)	• LG 
	• JVC
	• Sharp
	• Sony
	• Toshiba 
	• Samsung 
	• Others:

Likert scale/summated-rating scale, which is originally developed by a psychologist Rensis Likert in his 1932's dissertation at the University of Columbia, is a popular scale to gauge the strength of respondents' responses toward certain issues in accordance with each of the statements provided. The statements ask respondents to indicate the degree of attitudinal favorableness.

The Likert scale follows the interval scale whereby the differences among possible choices of responses, or points, are the same. This is also called a **summated-rating scale** since all responses can be sum-up for each of the respondents, or for each of the choice categories. The following table shows the examples. On the far right-hand side, the column "total" indicates the total responses for each of the questions. In the bottom, the row "total" indicates the total responses for each of the categories.

Table 21: Likert Scale

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
	1	2	3	4	5	
I like challenging tasks					X	5
I like my job				X		4
I like camping		X				2
Total	0	2	0	4	5	11

Semantic differential scale is beneficial in examining the psychological meaning of the respondents' attitudes on particular objects in bi-polar adjectives. Such attitudes are often called perception, as well.

Researchers often use this scale to study brand and institutional image. Since this scale also follows the interval scale, the distance among possible choices is the same.

Table 22: Semantic Differential Scale

What do you think about Toyota Auto 2000 Service Stations						
HIGH	5	4	3	2	1	LOW
Quality		X				Quality
Friendly	X					Unfriendly
Expensive	X					Cheap
Professional		X				Unprofessional

Examples of possible choices to use in the semantic differential scale are shown below.

Table 23: Examples of Rating Category

Evaluations	Potentials	Activities
Good – Bad	Hard – Soft	Active – Passive
Positive – Negative	Strong – Weak	Fast – Slow
Optimistic – Pessimistic	Heavy – Light	Hot – Cold
Complete – Incomplete	Masculine – Feminine	Happy – Sad

Within the category, the rating can be further detailed. From the “evaluation” category above, the details can be formulated as follows;

Table 24: Details on Evaluation Category

Sub-Categories of Evaluation			
Meek Goodness	Dynamic Goodness	Dependable Goodness	Hedonistic Goodness
Clean – Dirty	High – Low	True – False	Beautiful – Ugly
Harmonious - Dissonant	Important - Unimportant	Believing – Skeptical	Sociable – Unsociable
Light – Dark	Progressive - Regressive	Wise – Foolish	Meaningful – Meaningless

Similar to the Semantic Differential Scale, **numerical scale** follows the interval scale and has equal distance among the scale points. In this scale, respondents are asked to write a number from the scales.

Table 25: Numerical-Rating Scale

Extremely Favorable	5	4	3	2	1	Extremely Unfavorable
Please write the corresponding number in the column						
Employee's knowledge of tasks						4
Employee's cooperation in team						3
Employee's required skills to do tasks						5

Multiple-rating-list scale also follows the interval scale and is useful in providing the visualization of the responses.

Table 26: Multiple-Rating-List Scale

	Important Unimportant						
	7	6	5	4	3	2	1
Please indicate how important each of the service characteristics for you:							
Fast and reliable service	X						
Knowledgeable technicians		X					
Notifications of upgrades				X			
Extended Warranty		X					
Available stocks/parts		X					

Constant-sum-rating scale can also be categorized as the rating scale. Previously, this constant-sum scale is discussed as one of the tool within the ranking scale. In terms of rating scale, however, the constant-sum scale is perceived as the rating of certain attribute/feature to note which one is the highest rating or lowest rating. Using the previous example from the constant-sum-ranking scale, instead of using the responses to measure the ranking, now the points are used to measure the rating on each of the attributes or features.

Table 27: Constant-Sum-Rating Scale

Attributes or Features	Points	Ranking	Rating
Brand	20	2	High
Price	25	1	High
Color	6	5	Medium
Design	7	4	Medium
Leather seat	5	6	Medium Low
Transmission	10	3	Medium High
Fog lamps	5	6	Medium Low
Air bags	4	7	Low
Stereo/Audio systems	5	6	Medium Low

Attributes or Features	Points	Ranking	Rating
Alloy wheel	7	4	Medium
Size of wheel	5	6	Medium Low
Family & friends recommendation	1	8	Low
Advertising & promotions	0	9	Low
Total	100		

Staple scale was originally developed by Jan Stapel in 1950s. This rating scale follows the semantic differential rating scale with a significant different in the positive and negative scales. These positive and negative ranges attempt to measure the direction and intensity of responses.

Table 28: Staple-Rating Scale

Please rate your supervisor based on the following skills:		
+2	+2	+2
+1	+1	+1
Technical Skill	Conceptual Skill	Decision-making Skill
-1	-1	-1
-2	-2	-2

QUESTIONS DESIGN

Once the type of scale is decided, it is necessary for the researcher to develop the appropriate statements or questions on the questionnaire. Undoubtedly, those statements or questions should be formulated to mirror the indicators chosen in the study.

To make things a bit more systematic, it is recommended to organize the questions design into a table format, such as the following;

Table 29: An Example of Question Design

Variables, Definitions & Sources	Indicators	Questions (or Statements) on the Questionnaire	Scale
Traditional Marketing Mix	Products	1. The products are durable 2. The products are reliable	Likert 5-Scale
	Price	1. The price is reasonable 2. The price is competitive	Likert 5-Scale
The basic combination of activities to	Promotion	1. I have seen the promotion on the product	Likert 5-Scale

Variables, Definitions & Sources	Indicators	Questions (or Statements) on the Questionnaire	Scale
support marketing efforts		2. I buy this product because of the store promotion	
(Kotler & Armstrong, 2008; Kotler, Armstrong, Ang, Leong, Tan, & Tse, 2004)	Place of Distribution	1. The store location is easily accessible 2. The store facilities are attractive	Likert 5-Scale

The purpose of the table is make things easier in organizing the variables, indicators, potential statements/questions on the questionnaire, and the intended scale to use in the research. Once the table is fully completed, it serves also as a nice basis for re-checking the consistency on the variables and indicators used in the study. Also, it becomes the foundation on formulating the questionnaire.

Following this table, the researcher should start describing the sets of pre-test and post-test, including the final data analysis toward hypothesis test. Details steps on those data analyses are discussed in the following chapter.

SELECTED SAMPLES ON RESEARCH METHOD

SAMPLE # 1: LOGISTIC MANAGEMENT

The following research sample is based on the actual work of an undergraduate thesis in 2014, which was originally written by Anggita Fedyana^{xi} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is *“Influential Factors in Logistics Management: An Investigative Study in Customer’s Claims”*.

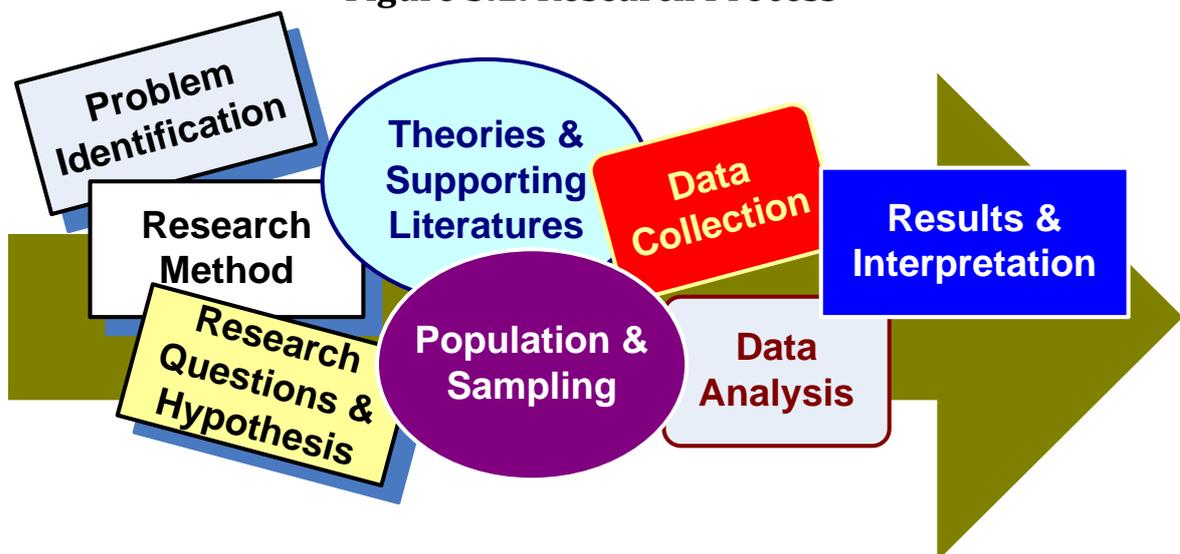
The approach used in this study was qualitative-based research, which mainly relied on document verifications and interviews with the members of management.

CHAPTER 3 – RESEARCH METHODS

3.1. Research Process

The research process can be generally illustrated as in the following figure.

Figure 3.1: Research Process



Source: (Sekaran & Bougie, Research Methods for Business, 2009)

The first step is the problem identification. It is needed in order to find the topic that will be discussed in this research, because its phenomenon will attract the readers. The second step is research methodology. Research methodology determines what method will be used in this research, and how the authors collect the data that is needed in the study. The third step is statement of research questions & hypothesis. Research questions and hypothesis are relevant to each other because the research questions give a clear understanding of what the authors will discuss in the study, then the hypothesis will give probability that will become the result in the study as

well. The fourth step is theories and supporting literature. It is to make a stronger statement of the background and content of the study. The fifth step is determining population and designing the samples, it is important to know the target of this study. Then, regulate the data collection to know either primary or secondary data that will be used in this study. The next consideration was collecting the data from the proper respondents. Furthermore, this data will be analyzed and interpreted to describe the result and findings of the research. The last but not least, the report will be prepared and presented.

3.2. Type of Research

The type of research in this thesis is exploratory research. Exploratory research is conducted to provide a better understanding of a situation. Exploratory research usually involves only a relatively small group of people. Exploratory is useful to develop the causes of changes that happened in the organization, and could help define the problem, in particular, the research problems that might be addressed. Exploratory research is also used to enhance researcher's familiarity with a problem (Singhania, 2011).

3.3. Type of Data

This research is using both primary and secondary data as the data collecting methods. Primary data will be gathered from the interview, and the secondary data consists about the information sources such as literature review by using several references (books, journals and articles on previous studies). The reports data from the logistics company already being observed in this thesis (DB Schenker) are also included. So qualitative is being used in this study.

3.4. Data Gathering

3.4.1. Primary Data Collection

The data will be gathered through guided interview. It will an open-ended questions, questions that allow the respondent to answer without presented or implied choices. The researcher will interview the respondents from all departments in DB Schenker. There are real advantages as well as clear limitations to surveys via personal interviews. The greatest value lies in the depth of information and detail that can be secured. It far exceeds the information secured from telephone and self-administered studies via mail or computer. The respondents can also do more thing to make a better quality of the information received (Cooper & Schlinder, Business Research Method, 2011).

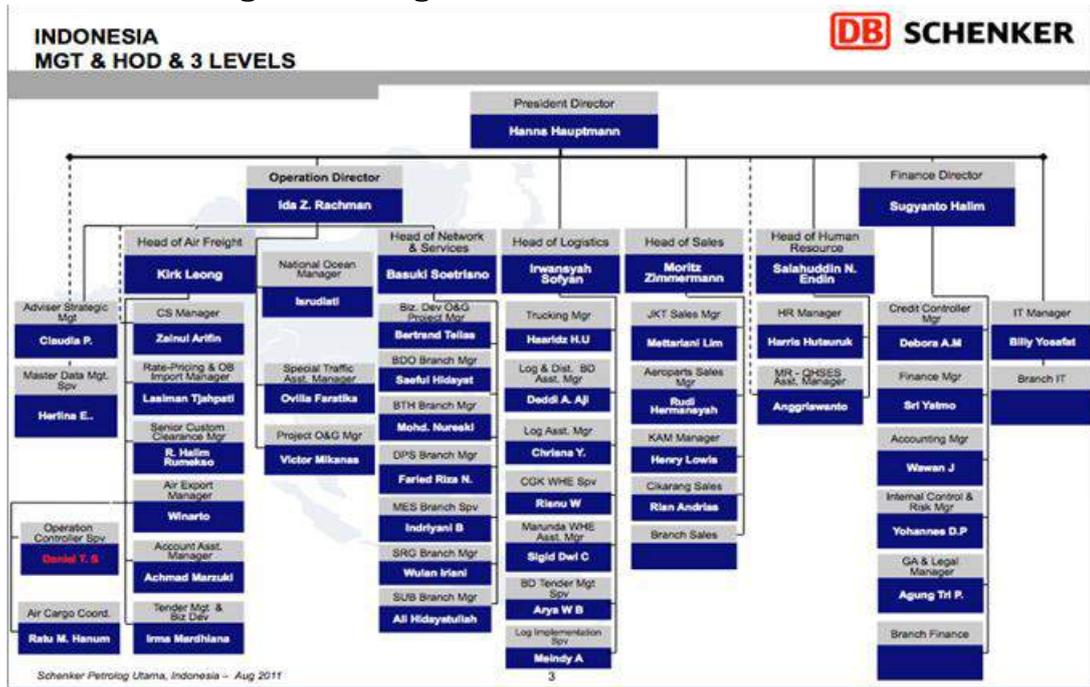
3.4.2. Secondary Data Collection

The data is collected from the annual report of logistics department in DB Schenker. Moreover, the secondary data will be gathered from the text book that is related to this research.

3.5. Population & Sample

Analysis unit being used would be the employees in DB Schenker, the samples in this research are the managers, supervisor, and head of logistics in DB Schenker that will be interviewed.

Figure 3.2: Organization Chart of DB Schenker



Source: Schenker Petrolog Utama, Indonesia

This is the organization chart of DB Schenker. The head, managers and supervisors that have relations with the process of logistics/supply chain management will be interviewed.

3.6. Validity & Reliability

The validity and reliability of this study are based on the interview and data from the company. So it could be assured that it is valid and reliable.

3.6.1. Data Analysis

These questions are for the interview that the researcher will conduct to the respondents:

Table 3.1: Variable & Questions

Variable & Definition	Indicator	Questions
Logistics Management, is the process of planning, implementing, and controlling the efficient, cost effective flow and storage of raw material, in-process inventory, finished goods and related information from	Delivery (Schroeder, Supply Chain Management, 2007)	How does this company manage the process of shipping to be on time delivery?
	Quality (Schroeder,	How is the feedback from customers about the quality of this company's service?

Variable & Definition	Indicator	Questions
<p>point of origin to point of consumption for the purpose of conforming to customer requirement</p> <p>(Tseng, Taylor, & Yue, 2005)</p>	<p>Supply Chain Management, 2007)</p>	
	<p>Time</p> <p>(Schroeder, Supply Chain Management, 2007)</p>	<p>Usually, how long does the product stay in the inventory?</p> <p>How long does the time frame for the payment?</p>
	<p>Flexibility</p> <p>(Schroeder, Supply Chain Management, 2007)</p>	<p>How flexible is this company can change the time delivery anytime?</p>
	<p>Cost</p> <p>(Schroeder, Supply Chain Management, 2007)</p>	<p>What is the biggest cost that occurs in this company?</p>
<p>Transportation, a good transportation system could lead to better logistics efficiency, reduce operation costs, and promote service quality</p> <p>(Tseng, Taylor, & Yue, 2005).</p>	<p>Labors</p> <p>(Tseng, Taylor, & Yue, 2005)</p>	<p>How this company trains the labors to manage all the shipping, handling, the goods?</p>
	<p>Time</p> <p>(Tseng, Taylor, & Yue, 2005)</p>	<p>How does this company manage the time management when it comes to delivering the goods?</p>
	<p>Containers</p> <p>(Tseng, Taylor, & Yue, 2005)</p>	<p>How is the containers' condition in this company?</p> <p>How to assure if they're safe?</p>
	<p>Pallets</p> <p>(Tseng, Taylor, & Yue, 2005)</p>	<p>How is the pallets' condition?</p> <p>Are the pallets safe to cover/fenced the goods?</p>
<p>Human error/failure is an action which was not intended, which involved a deviation from an accepted standard, and which led to an undesirable outcome</p> <p>(Health and Safety Executive, 2009).</p>	<p>Active failures</p> <p>(Health and Safety Executive, 2009).</p>	<p>How the drivers, control room, and operators communicate and give information while delivering the goods?</p>

Variable & Definition	Indicator	Questions
<p>Shipment, is the next functional area in the whole process when the shipper has done the order booking and by that a freight forwarder has been chosen to carry out the operation on representation of the shipper</p> <p>(Gupta, Pandey, & Shukla, 2009).</p>	<p>Destination</p> <p>(Gupta, Pandey, & Shukla, 2009)</p>	<p>Usually, how many destinations does one shipper deliver the goods?</p>
	<p>Consignee</p> <p>(Gupta, Pandey, & Shukla, 2009).</p>	<p>How do the shipper and the consignee communicate to each other?</p> <p>Do they give clear information to the shipment documents?</p>
	<p>Product Description</p> <p>(Gupta, Pandey, & Shukla, 2009)</p>	<p>How do the customers give the description of their goods?</p> <p>Is it clear enough?</p>
	<p>Quantity of the products</p> <p>(Gupta, Pandey, & Shukla, 2009).</p>	<p>In approximately, how many quantities does the shipper send the goods?</p>
<p>Speed, is to make sure the accuracy of the specific movement of goods</p> <p>(Bowersox, D.J, Closs, & Cooper, 2010)</p>	<p>Fast service</p> <p>(Bowersox, D.J, Closs, & Cooper, 2010).</p>	<p>How can this company give a fast service to the customers?</p> <p>What kind of transportation that can make a faster delivery?</p>
<p>Damages are considered as shortages, and other overages that comes from transportation/logistics systems</p> <p>(Ehie & Gilliland, 2010)</p>	<p>Accepted</p> <p>(Ehie & Gilliland, 2010)</p>	<p>What kinds of damage goods that are still considered to be accepted?</p>
	<p>Refused</p> <p>(Ehie & Gilliland, 2010)</p>	<p>What kind of damage goods that are still considered to be refused?</p>
<p>Claim, is the requirement of exchanging the loss due to the accident which causes the damage, degradation of quality, goods shortage, which become the responsible of the vendor that gives the service of delivery, or unloading service, or warehouse service in the time when it is received</p>	<p>Missing goods</p> <p>(Anwar, 2011).</p>	<p>What are the causes that often happened when there are some missing goods?</p> <p>What kind of claim that the customers demand?</p>
	<p>Damage goods</p> <p>(Anwar, 2011).</p>	<p>What are the causes that often happened when there are some damage goods?</p> <p>What kind of claim that the customers demand?</p>

Variable & Definition	Indicator	Questions
by the importer or consignee (Anwar, 2011)	Over carried cargo (Anwar, 2011).	What are the causes that often happened when there are some over carried cargo? What kind of claim that the customers demand?

SAMPLE # 2: ECONOMIC INDICATORS AND ORGANIZATIONAL PERFORMANCE

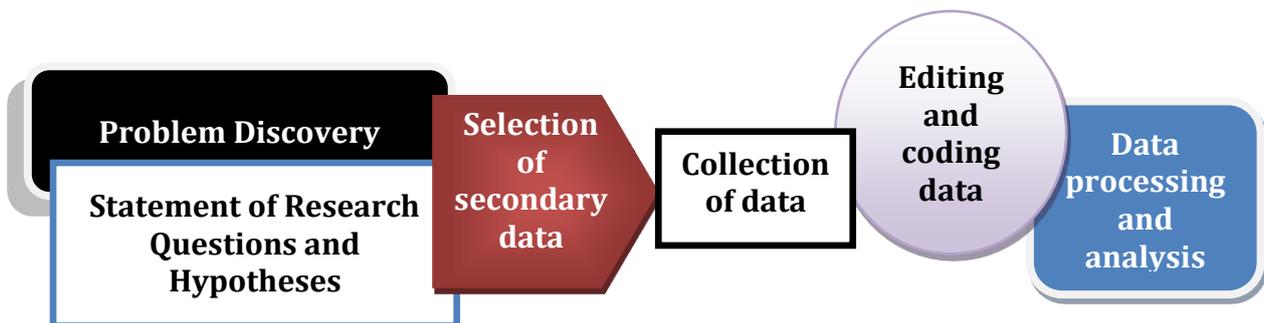
The following research sample is based on the actual work of an undergraduate thesis in 2009, which was originally written by Mayasari Sagita Soekasah from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*A Correlational Study Between Selected Indonesian Economic Indicators Towards the Revenue and Performance of PT. Fortune Indonesia, Tbk*”.

The approach used in this study was quantitative-based research, which mainly relied on questionnaire to evaluate the relationship among variables based on the economic indicators and organizational performance. Interviews were also conducted to learn the insights of the organization-wide impact of the economic indicators. Secondary data from financial statements of publicly-listed firms are also considered in-lieu of the managerial explanations and evidences on what the firms have attempted to do.

CHAPTER 3 – RESEARCH METHOD

This chapter contains of research method, which underlines the steps on performing research, from problem discovery to note the phenomenon to the data analysis.

Figure 3.1 Research Process Overview



Source: Zikmund, 2003

3.1. Introduction

This chapter will outline the research methodology implemented in this research paper. The author conducted the research in three segments which include data collection, data analysis and conclusion. Each segment will be explained further below:

1. In the first segment of the research, both quantitative and qualitative analysis will be used. Quantitative data will be collected by searching on the internet and by using annual reports provided by PTFI. As for the qualitative data, it will be gathered through performing interviews with PTFI's management staff.

2. The next segment covers the analysis of data collected in the first segment. To assist the author, SPSS and AMOS statistical programs will be used for solving the hypotheses and to help calculate the correlation value. The variables will cover the total revenue and performance aspect of the company.
3. Other variables that represent the economic condition as mentioned in chapter one include GDP, inflation, fluctuations in interest rates per Bank Indonesia and exchange rates of Rupiah towards US dollar. The author will also use the quantitative data from PTFI to calculate the ROE, ROA, ART, NPM, DER, DAR and the CR, all which represent the performance measurement of PTFI.
4. The last segment covers the conclusion and recommendations regarding the analysis results. The conclusion and recommendations will be based on the analysis in segment two as well as using researched data in chapter two.

3.2. Research Questions and Hypothesis

The primary purpose of the research is to discover if there is a correlation between selected economic indicators in Indonesia to the revenue and performance of PTFI. To receive a satisfactory result, there are 3 main questions and 2 main hypotheses that will be investigated. Hypotheses 1 and 2 are made to answer questions 1 and 2.

Question # 1: Do the Indonesian economic indicators, namely GDP, inflation, interest rates per Bank Indonesia, and the exchange rate of Rupiah against US Dollar, have a strong correlation towards PTFI's revenue during 2004 to 2008?

Hypothesis # 1: The Indonesian economic indicators have a weak correlation towards PTFI's revenue during 2004 to 2008.

Question # 2: Do the fluctuation in the Indonesia's GDP, as a dependent variable of inflation, interest rates per Bank Indonesia, and exchange rates of Rupiah against US Dollar, have a strong correlation to the performance of PTFI during 2004 to 2008?

Hypothesis # 2: Indonesia's GDP has a strong correlation towards the performance of PTFI during 2004 to 2008.

Questions # 3: How much contributions have PTFI's advertisement sales by media towards the advertisement sales by media of the advertising industry in Indonesia during 2004 to 2008?

3.3. Segment One: Data Collection

The sources of data collected were taken through both primary and secondary data. The primary data gathered were obtained directly from PTFI's management team. As for the secondary data, it was mainly collected through use of the internet. Additional secondary data was collected from course books relating to advertising, marketing, accounting and corporate finance.

3.3.1. Primary Data Collection

The primary data in this research is based on interview sessions. During the interview with PTFI's management staff, there are several questions that need to be answered;

1. How does PTFI maintain its performance during changing economic conditions?
2. Are there special strategies to survive the changing economic conditions?
3. What were the main factors contributing to the change in sales of PTFI for the last 5 years?
4. What were the most challenging obstacles in the last five years?
5. In order to increase sales, what kind of strategies that PTFI uses to attract customers?

3.3.2. Secondary Data Collection

The data that are used in this study are obtained through secondary sources. The data includes financial reports as the main source for analysis. Other secondary data such as earlier textbooks about advertising, finance, accounting, marketing and business essentials were also used.

3.4. Segment Two: Data Analysis

3.4.1. Financial Statement Analysis

In the analysis of secondary data provided by PTFI, a basic understanding of financial statements is necessary. Financial statements are records that a company holds to review their previous and recent financial activities and also used for auditing purposes. Financial statements show a business' financial position in both short term and long term. There are two main types of financial statements that are analyzed in this thesis;

1. Income statement shows a company's revenues and its expenses. Once both values are subtracted, a single sum or net income will show how much the company made after paying off all of their expenses.
2. Balance sheet shows a company's financial standing or position. It also shows what the company owns (assets), what they owe (liabilities) and changes in owner's capital (net equity) of a given period in time.

3.4.2. Profitability, Leverage, Efficiency and Liquidity Measurement

The data analysis of this research paper uses financial ratios of PTFI and compares them with the data from the past performances. The explanation regarding the ratios used will be as follows (Ross, et al, 2008):

Equation 1. Debt to Equity Ratio

$$DER = \frac{\text{Total Debts}}{\text{Total Equity}}$$

..... (1)

Source: Ross, et al, 2008

Equation 2. Debt to Asset Ratio

$$\text{DAR} = \frac{\text{Total Debts}}{\text{Total Assets}}$$

..... (2)

Source: Ross, et al, 2008

Equation 3. Return on Equity

$$\text{ROE} = \frac{\text{Net Income}}{\text{Average Common Shareholder's equity}}$$

..... (3)

Source: Ross, et al, 2008

Equation 4. Return on Asset

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}}$$

..... (4)

Source: Ross, et al, 2008

Equation 5. Net Profit Margin

$$\text{NPM} = \frac{\text{Net Income}}{\text{Net Sales}}$$

..... (5)

Source: Ross, et al, 2008

Equation 6. Account Receivable Turnover

$$\text{ART} = \frac{\text{Credit Sales}}{\text{Average Accounts Receivable}}$$

..... (6)

Source: Ross, et al, 2008

Equation 7. Current Ratio

$$\text{CR} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

..... (7)

Source: Ross, et al, 2008

3.4.3. Significant Test

Regression is a statistical measure that tries to determine the relation between one

dependent variable with other independent variables. There are two basic types of regression which are linear regression and multiple regressions. The main difference between the two regressions is that linear regression only uses one independent variable, while multiple regressions use more than one independent variable. The basic form for linear and multiple regressions are:

Equation 8. Simple Linear Regression

Linear Regression: $Y = \beta_0 + \beta_1X + \varepsilon$ (8)

Source: Levine, et al, 2005

Where:

- Y = the variable that we are trying to predict (dependent variable)
- X = the variable that we are using to predict Y (independent variable)
- β_0 = the intercept (value of Y when X is 0)
- β_1 = the slope of regression line
- ε = the regression residual or random error

The multiple regression models are basically an extended version of the linear regression model. In this model users are can input several independent variables instead of one. The basic model of multiple regressions is explained below.

Equation 9. Multiple Regression

Multiple Regression: $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \dots + \beta_nX_n + \varepsilon$ (9)

Source: Levine, et al, 2005

Where:

- Y = the dependent variable (response variable)
- X_i = i^{th} independent variable (predictor variable)
- β_0 = intercept (the value of Y when X is 0)
- β_1 = coefficient of the i^{th} independent variable
- ε = the regression residual or random error

3.5. AMOS and SPSS

3.5.1. Structural Equation Modeling

Structural equation modeling (“SEM”) is a technique used by combining multiple regression and factor analysis to estimate the interrelated dependent relationships (Santoso, 2009). When using SEM, the model itself must be tested for its validity. A model must have a minimum requirement level of fit. In this research, RMSEA, RMR, GFI and AGFI will be used to test the validity of the measurement model and the structural model.

While testing for the reliability and validity of variables used, several methods can be used. In this research, reliability testing using SPSS will be used. To measure the reliability of a certain variable, measuring the value of r is required (Levine, et al, 2005). Depending on the level of df (degrees of freedom), the value of r is then compared to the critical values of r for the Pearson correlation coefficient found in

appendix 14. If the calculated value of r is higher than the critical value of r in the table, then it means that the r value is significant. In other words, the variable is reliable to be used.

Other than testing the reliability of data, the validity of the model used must also be tested. In order to do so, the software AMOS will be used. Validity testing will be divided into two separate phases. Firstly, testing the SEM's measurement model will be conducted. Once the model is concluded to be reliable, the structural model will be tested. Detailed steps regarding the validity test of the SEM will be shown in chapter 4.

3.5.2. Root Mean Squared Error of Approximation (RMSEA)

RMSEA is used to determine whether the data that will be use in the SEM is fit. An SEM is within acceptable levels when the value of RMSEA is bellow 1 (Santoso, 2009)

3.5.3. Root Mean Residual (RMR)

RMR is used to calculate the residual or the difference between sample, covariance and estimate covariance. In this case an SEM is considered fit when the value of RMR is closer to 0. In short, the smaller the value the more fit the model is.

3.5.4. Goodness of Fit Index (GFI)

GFI is used to test how suitable the model fits the data. The value of GFI is a non-statistical measure used to calculate the data samples which value ranges from 0 (bad fit) to 1 (good fit). A higher value of GFI indicates that the model fits the data. However, when the value of GFI is 0, then the model is not fit.

3.5.5. Pearson "Product Moment" Correlation Coefficient

To measure if two sets of variables are co-related to each other, the Pearson "Product Moment" Correlation Coefficient or Pearson r method can be used. This method allows a user to calculate the linear relation (correlation) between two different variables (Levine, et al, 2005). The value r represents the correlation between variables. Although there are many methods of calculating r , in this research the author will leave all the calculation to the software used.

SAMPLE # 3: JOB SATISFACTION & ORGANIZATIONAL CITIZENSHIP BEHAVIOR

The following research sample is based on the actual work of an undergraduate thesis in 2013, which was originally written by Arif Budiman^{xii} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is *“Job Satisfaction as an Influence Factor of Organizational Citizenship Behavior: A Case Study of Four Star Hotel in Jakarta”*.

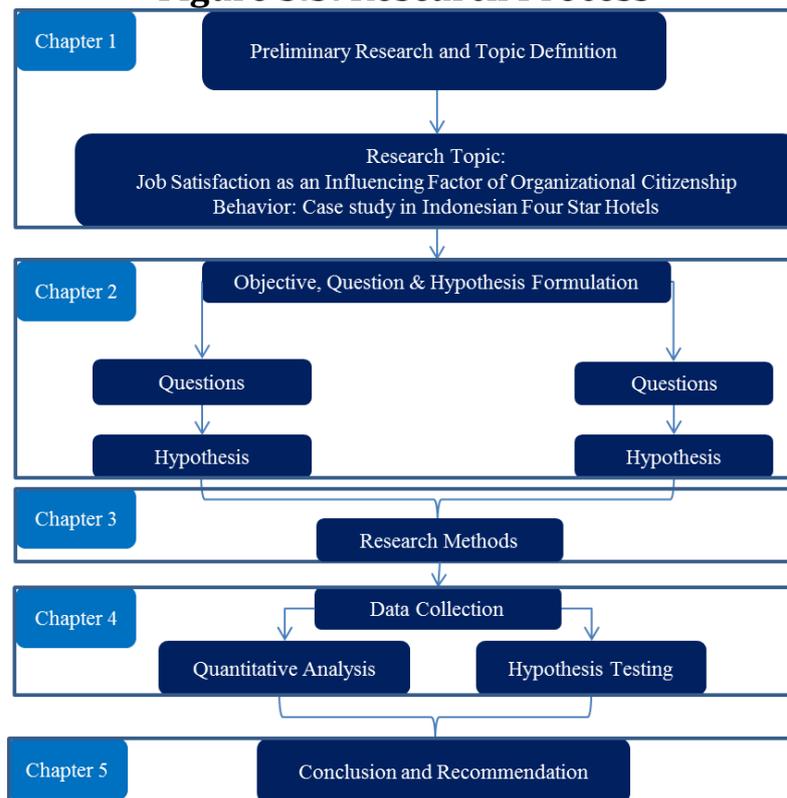
The approach used in this study was quantitative-based research, which mainly relied on questionnaire in evaluating the relationship among variables and indicators used in the research model. Structural equation Modeling is used to note the degree of associations.

CHAPTER 3 - METHODOLOGY

3.1. Research Process

The process or workflow that is utilized in this research will be shown in the figure below. Beginning with problem identification, where the background information of the topic is discussed up to conclusions and recommendations where the results will then be presented and discussed thoroughly.

Figure 3.3: Research Process



Problem identification and selection of research methods has been the main focus of this research's chapter 1. Determining the research question and hypothesis is a part chapter 2. Chapter 2 focuses on the support factors required forming the research questions and hypothesis which includes literature background of the variables discussed. The results and relationship between the variables will be discussed in chapter 4 and recommendations in chapter 5. Research methods, which include population criteria, sampling method, research design, research instrument, data analysis and testing, will be discussed in this chapter.

3.2. Type of Study

A descriptive study is one that aims to provide information on certain variables in certain conditions (Afiff & Anantadjaya, 2013). This research seeks to provide information on the two main variables Job Satisfaction and OCB with their respective indicators. The relationship between two main variables and several indicators will be explored and described in detail. It is therefore, both quantitative and descriptive.

3.3. Type and Source of Data

Quite a bit of research has been focused on OCB. However, due to the human factor and dependent nature of the data, primary data collection would be more preferable on a research in this topic. In this research, the method of primary data collection to be utilized will be by questionnaire.

3.3.1. Primary Data

Primary data is considered the most up to date data as it is usually gathered from the subjects directly by means of survey, questionnaire or interview. Due to the nature of the researched variables, up to date data is preferred.

3.4. Population and Sample

3.4.1. Population

The population for this research will be the employees of the hotels in Jakarta that are four stars. Effective measurement of OCB depends on the presence of several of its predictors such as a supportive organizational culture, high organizational commitment and high job satisfaction. A four star hotel is an organization with standards that can be assumed to have all the predictors of OCB present. The effects of OCB may seem small at small organizations; however, it makes a big difference in large ones. Listed below are the steps taken in selecting the hotels for the research along with their brief explanations:

- Four Star Hotels in Jakarta

Due to the unavailability of an official listing of Jakarta's four star hotels, information on the research population was gathered by other methods. For example, the total number of four star establishments in Jakarta listed by Agoda Company Pte. Ltd. (2013), is 55. However, this number includes four star apartments, suites and boutique establishments. Therefore, for further clarification, this list was cross-checked with lists obtained from online booking agents and travel agents. The new list has a total of 23 four star hotels spread across Jakarta. Listed in the table below are the numbers of four star hotels per region of Jakarta:

Table 3.2: Hotel Population by Region

Area	Number of Hotels
North Jakarta	2
West Jakarta	5
South Jakarta	3
Central Jakarta	11
Total Number of Hotels	23

Sources: Agoda Company Pte. Ltd., 2013; Booking.com B.V., 2013; Hotels.com L.P., 2013; P.T. Bali Kumala Sari Ltd., 2013; TripAdvisor LLC, 2013

- Hotels in Central Jakarta

As shown on the table above, Central Jakarta makes up almost 50% of the total four star hotel population. The high population density of the central region indicates high level of business activity for four star hotels, making it the perfect region to focus on.

- Hotels with more than 350 rooms

Hotels with more than 350 rooms have been set as the target population of this research as they are able to cater to more guests per day and therefore have the potential to be the hotels with most activity and development. The steps taken will be outlined in the table below:

Table 3.3: Population Selection

Criteria	Number of Hotels
Total number of Four Star hotels in Jakarta	23
Not in Central Jakarta	11
Hotels with < 350 rooms	8
Remaining hotels	3

3.4.2. Sample Size

Unfortunately, various barriers to entry for surveying in Jakarta's hotels exist. Most of these barriers stem from the hotels not wanting to divulge any organizational information, including their labor force. Due to the unknown nature of the population due to lack of data, the number of samples for this research will be calculated using PHStat.

The steps listed below are the ones used in PHStat to measure the sample size needed:

1. Open PHStat in MS Excel.
2. Click the "Add ins" tab on the menu bar at the top. It should be next to view.
3. Click on the new "PHStat" icon on the top left side of the screen.
4. Highlight "Sample Size" and click "Determination for the Proportion". This is chosen since the actual numbers of population, in terms of the total numbers of 4-star hotels in Jakarta are considered unknown due to unknown official listing of the 4-star hotel in Jakarta.
5. In the new window, fill-in the boxes with (a) proportion: 0.5, (b) error: 0.1, and (c) confidence level: 95%
6. Click "Ok"

Table 3.4: Sample Size

Data	
Estimate of True Proportion	0.5
Sampling Error	0.1
Confidence Level	95%

Intermediate Calculations	
Z Value	-1.96
Calculated Sample Size	96.0365
Sample Size Needed	97

Source: PHStat

3.4.3. Sampling Method

Before moving on to an explanation on the sampling method, extra parameters for sampling representation will be discussed. Stratified sampling will be employed in this research. The criteria or “strata” will be the hotel departments that are standard in all four star hotels. The table below will outline the specific strata:

Table 3.5: Revised Sample

Strata	Label	Sampling Size (Rounded)	Error Allowance	Revised Sampling Size
1	Front Office	17	5	22
2	Housekeeping	17	5	22
3	F&B	17	5	22
4	Marketing & Sales	17	5	22
5	Human Resources	17	5	22
6	Other	17	5	22
Total Sample				132

Therefore the required sample size for this research will be 132 respondents.

3.5. Research Instrument

The data collection instrument for this research will be in the form of a questionnaire. The questionnaire itself is categorized into three parts:

Table 3.6: Questionnaire Outline

Category	Source
Demographics	General Questions
Organizational Citizenship Behavior	20 item OCB Checklist (Öztürk, 2010)
Job Satisfaction	Job Description Index (Intaraprasong, Dityen, Krugkrunit, & Subhadrabandhu, 2012)
	Job Satisfaction Survey (Ramirez, 2012)

Source: Öztürk, 2010; Intaraprasong et al., 2012; Ramirez, 2012

The questionnaire has been edited as per the indicators and variables required and used the sources listed above as a base. Questions regarding OCB and Job Satisfaction will utilize the Likert scale. The scale itself is defined as an instrument used to measure social responses towards certain variables.

3.5. Question Design/Operational Variables

Table 3.7: Question Design

Variables & Definition	Indicators & Sub-Variables	Sample Questions	Scale
<p><u>Job Satisfaction</u> Job satisfaction is an emotional feeling of gratification that is experienced by an employee due to situational covering factors such as: the job itself, pay, promotion opportunities, working conditions and co-workers</p>	Pay	1 I feel satisfied with my current salary	Likert
		2 Raises are too few and far between.	
		3 I feel unappreciated by the organization when I think about what they pay me.	
		4 I feel satisfied with my chances for salary increases.	
	Co-Workers	1 I like the people I work with	Likert
		2 I find I have to work harder at my job because of the incompetence of people I work with.	
		3 I enjoy my coworkers.	
		4 There is too much bickering and fighting at work.	
	Promotion	1 There is little chance of being promotion	Likert
		2 Those who do well on the job stand a fair chance of being promoted.	
		3 People get ahead as fast here as they do in other places.	
		4 I am satisfied with my chances for promotion.	
	Supervision	1 My supervisor is competent at his job.	Likert
		2 My supervisor is unfair to me.	
		3 My supervisor shows too little interest in the feelings of subordinates.	
		4 I like my supervisor	

Variables & Definition	Indicators & Sub-Variables	Sample Questions	Scale
<p><u>Organizational Citizenship Behavior</u> Work-related, discretionary behaviors with positive beneficiary effect for the organization, divided into 3 dimensions: civic virtue, conscientiousness and sportsmanship</p>	Nature of Work	1 I sometimes feel my job is meaningless.	Likert
		2 I like doing the things I do at work.	
		3 I feel a sense of pride in doing my job.	
		4 My job is enjoyable.	
	Civic Virtue	1 I attend functions that are not required but help the company's image.	Likert
		2 I attend training and information sessions that I am encouraged to, but not required to attend	
		3 I attend and actively participate in company meetings.	
		4 I attend and actively participate in company's events and gathering	
	Conscientiousness	1 Rarely takes long lunches or breaks	Likert
		2 Does not take unnecessary time off work.	
		3 Obeys company rules and regulations even when no one is watching	
		4 Attendance at work is above the norm.	
Sportsmanship	1 Consumes a lot of time complaining about trivial matters.	Likert	
	2 Tends to make problems bigger than they are.		
	3 Always finds fault with what the company is doing.		
	4 Always focuses on what's wrong with his/her situation, rather than the positive side.		

Source: Mohammad et al., 2011; Narang & Dwivedi, 2010; Özturk, 2010.

The questionnaires for Job Satisfaction was adapted from (Wang & Baum, 2008),

which had five sub-sections and Organizational Citizenship Behavior was adapted from (Ramirez, 2012) which consisted of 20 sub-sections.

3.6. Validity and Reliability

3.6.1. Validity

Validity testing is a tool to measure whether the data collected can be used in the research. It determines whether the relationship that the research aims to present can be depicted from the data collected using the questionnaire. A valid questionnaire is one where the relationship to be measured is significant. Measurements of validity can be done using several methods. The one employed in this research will be the KMO test using SPSS software. The steps for the validity test are as follows:

1. Hover the cursor over “File” and pick “Dimension Reduction”, “Factors”.
2. In the pop up box, move all the variables from the left to the right side.
3. Click “ Descriptive”, check all the options available and click “Continue”
4. Click “Extraction”, check “Factors to Extract” and change the value to 2.
5. Change number of iterations to 100 and click “Continue”
6. Click “Ok”
7. On the output screen, scroll down to the section titled “KMO & Bartlett’s Test”. Value above 0.5 is considered as valid (Sarwono, Metode Riset Skripsi Pendekatan Kuantitatif Menggunakan Prosedur SPSS, 2012).

3.6.2. Reliability

Reliability is the degree to which measurements and results using a research instrument are consistent and yield low level of errors (Hartopo, Analysis of Brand Loyalty in Hotels: A Case Study in 5-Star Business Hotels in Jakarta, Undergraduate Thesis, Bachelor-degree Program in the Faculty of Business Administration and Humanities, majoring in Hotel and Tourism Management, 2012). The approach taken to measure the reliability of the research instrument for pretesting in this research will utilize the method of Cronbach alpha. The explanation below will outline the steps taken while using SPSS to calculate reliability of the research instrument:

1. On the menu bar, highlight “Analyze”, scroll down to “scale” and click “Reliability Analysis.
2. On the new pop up, make sure that it is set for model “Alpha” and move all variables from the left box to the right.
3. Click on the “Statistic” box and check “Item”, “Scale”, “Scale if item deleted”, and click continue.
4. Click “OK” and the results will be displayed in the output window.
5. Scroll down to the section with the header “Reliability Statistics”. The reliability value is the under “Cronbach Alpha of Standard” items. Value greater than 0.7 is considered as reliable (Sarwono, Metode Riset Skripsi Pendekatan Kuantitatif Menggunakan Prosedur SPSS, 2012).

3.7. Data Analysis Method

For further analysis, this research will utilize the statistics software, AMOS, to develop a path diagram from the data collected. The results will be compared with the criteria set in the table above to ensure that the data is acceptable. Even though the research model is simple, however, AMOS has been chosen as the data processing medium due to the benefits that it provides:

- Easier Model Testing: less time consuming because determination of model

goodness of fit would be provided in the output window.

- Graphically Simplified: Regression influence in standardized at the click of a button and depicted graphically for better presentation and understanding (Mustafa & Wijaya, 2012).
- Less time consuming: only one test is required to be performed to attain all the data required for model fit and hypothesis testing (Mustafa & Wijaya, 2012).

3.8. Goodness of Fit Criteria

The results of SEM models are usually measured against several set criteria to see if the data fits the model (Mustafa & Wijaya, 2012). A good model fit indicates that most of the criteria have been met. Listed on the table below are the criteria that will be used to measure the model fit of this research.

Table 3.8: Goodness of Fit Criteria

Criteria	According to Schumaker and Lomax, 2004; Wijaya, 2009	According to Ghozali, 2004; Santoso, 2009
χ^2 (likelihood ratio chi square statistic) as a testing tool to check the overall fitness of the model	Smaller x^2 value from a model = better	Smaller x^2 value from a model = better
p-value	p-value ≥ 0.05 = better	Bigger p-value = better
CMIN/df (normed chi-square)	CMIN/df ≤ 2 = better	CMIN/df ≤ 5 = better
RMSEA (root mean square error of approximation)	RMSEA ≤ 0.08 = better	RMSEA ≤ 5 = better
GFI (goodness of fit index)	GFI value closer to 1 = better	GFI value closer to 1 = better
AGFI (adjusted goodness of fit index)	AGFI value closer to 1 = better	AGFI ≥ 0.09 = better
TLI (tucker-lewis index)	TLI value closer to 1 = better	TLI ≥ 0.09 = better
CFI (comparative fit index)	CFI value closer to 1 = better	CFI value closer to 1 = better
NFI (normal fit index)	-	NFI ≥ 0.09 = better
PNFI (parsimonious normal fit index)	-	Higher PNFI value = better
PGFI (parsimonious goodness of fit index)	-	Higher PGFI value = better
RMR (root mean squared residual)	RMR ≤ 0.05 = better	RMR ≤ 0.05 = better
Reliability	Reliability ≥ 0.70 = better	Reliability ≥ 0.70 = better

Source: Indra & Anantadjaya, 2011; Schumacker & Lomax, 2004; Wijaya, 2009, Ghozali, 2004; Santoso, 2009

The hypothesis testing will be done by comparing values processed through the statistics software. Results will be presented in the form of a path analysis model.

SAMPLE # 4: CONSUMER BEHAVIOR FOR FOOD RETAILERS

The following research sample is based on the actual work of an undergraduate thesis in 2011, which was originally written by Federica Setiawan from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is *“Analyzing Consumer Behavior in Small Food Retailers: Empirical Study in BSD City”*.

The approach used in this study was quantitative-based research, which mainly relied on questionnaires to evaluate the relationships among variables in this study.

CHAPTER 3 – METHODOLOGY

This chapter discussed type of study, type of data, source of data, question, design, scale, and analysis tool, population and sampling method, validity test, reliability test, and time frame of study.

3.1. Type of Study

The purpose of this thesis is to analyze consumer buying behavior of BSD City community in small food retailers. The second purpose is to find out what type of products offered by small food retailers that BSD City’s consumers prefer. The method used in this research is descriptive research method with deductive research approach.

3.2. Type of Data

There are two types of data used in this research. They are primary data and secondary data. Primary data is gathered by distributing questionnaire to customers in Giant and ITC BSD areas and to find out the consumer behavior in small food retailers. The secondary data will be gathered through literature and internet journal to find out about BSD City area and location of small food retailers and theory that can support this research. The data collected consists of quantitative data therefore this research is also called quantitative research.

3.3. Source of Data

Source of data will be consumers located around the area of Giant and ITC BSD in BSD City. Quantitative data will be gathered by distributing questionnaire to customer regarding their food preference and qualitative data will be gathered from secondary data analysis from literature and internet journal.

3.4 Question, Design, Scale, Analysis Tool

Questionnaire for food retailers’ customers is designed to find out consumers buying behavior based on influence of their demographic, perception, belief and attitude, social groups and culture (sub-culture) factors. The questions of questionnaire are close ended question using Likert Scale method. The questionnaire sample is located

in appendix. Data gathered from questionnaire will be analyzed using AMOS and SPSS program for correlation analysis.

3.4.1. Question Design

Below is question design which is structured for the purpose to gain information about consumers buying behavior and its relation to consumer preference and buying intention.

Table 3.1. Question Design

Variables	Sub Variables	Indicators	Questions
Consumer Behavior	Personal	Gender	Are you male or female?
		Age	How old are you?
		Occupation	What is your occupation?
	Psychological	Reason to eat	What makes you love to eat at that place?
		Frequency eat out	How often do you eat there?
	Cultural	Religion	What is your religion?
		Race	What is your race?
	Social	Social group	Who or what influence you to eat at this establishment?
Consumer Preference	Food variety	Menu variety	How do you rate the variety of menu at this establishment?
		Cuisine	When you go to food court at shopping mall, what type of food do you eat most frequently?
		Menu Pricing	Do you agree that food price offered by this establishment is value for money?
			Do you agree that food price offered by this establishment could be compared to other food retailers with same or similar product?
	Food quality	Quality of food	How much do you spend per month on that establishment?
		Quality of service	How do you rate the quality of food at this establishment?
		Food safety	How do you rate the quality of service at this establishment?
	Physical Attributes	Location	Are you living in BSD City?
			How do you rate the accessibility from main road to this establishment?

Variables	Sub Variables	Indicators	Questions
		Design	How do you rate interior appearance of this establishment? How do you rate exterior appearance of this establishment?
		Sanitation and Hygiene	How do you rate the cleanliness of this establishment?

3.6. Population and Sampling Method

This study used non probability sampling method particularly convenience sampling method. This method involves getting sample from part of population which is convenient to the researcher. Number of questionnaire respondent is expected to be 100 respondents.

3.7. Validity Test and Reliability Test

Validity test is conducted using data analysis KMO and Bartlett's test of sphericity using SPSS program. KMO and Bartlett's test is a test which conducted using factor of dimensional reduction data analysis. Reliability test is conducted using SPSS to find out Cronbach's alpha value which signifies the reliability of this research.

SAMPLE # 5: SCREENING AND MONITORING

The following research sample is based on the actual work of an undergraduate thesis in 2011, which was originally written by Wynne Frederica from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is *“The Roles of Screening and Monitoring Functions in Bank Loans: An Industrial Analysis on Firm’s Value in Indonesian Publicly-Listed Manufacturing Firms”*.

The approach used in this study followed a quantitative-based research, which mainly relied on secondary data to evaluate the relationships among variables based on the research model. Secondary data from macro-economic indicators and financial statements of publicly-listed firms are also incorporated to provide managerial analysis, explanation and evidence on the role of screening and monitoring in bank loans.

CHAPTER 3 – METHODOLOGY

3.1. Research Workflow

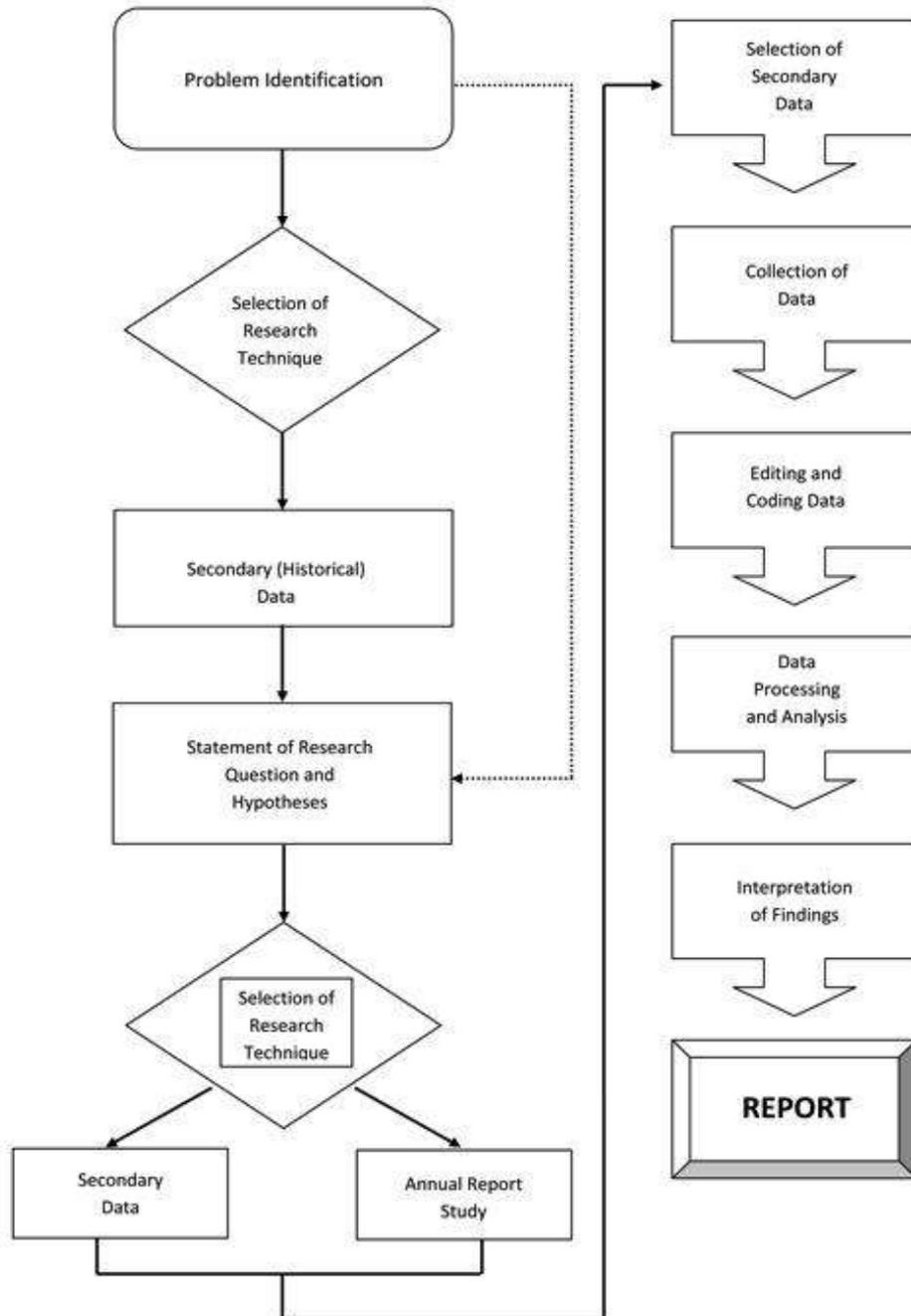
This chapter will outline the research methodology implemented in this study, which emphasizes on three sections, data collection, data analysis, and conclusion. Each section will be explained further below:

- a. The initial section of the study uses the quantitative analysis. Quantitative data was collected by using publicly listed manufacturing company annual report on Jakarta Stock Exchange. In Indonesia Stock Exchange there are 446 publicly listed companies by the end of 31 December 2010, which 127 of the company are manufacturing companies. Since this study is focus on the company during 2005-2010, there are only 99 publicly listed manufacturing company recorded in Indonesia Stock Exchange since 2005.
- b. The next section will discuss about data that are collected in the first section. The study uses SPSS and AMOS student version in order to calculate and process the correlation of the independent and dependent variables.
- c. As the previous chapters mentioned, the variables that will be analyzed in this study are; company age, sales, and profitability (to represent screening); tangible asset and market-to-book value (to represent monitoring); and GDP, interest rate, and inflation (to represent the macroeconomic conditions).
- d. All of the data that have been discussed and analyze in previous section will conclude in this section. In addition the recommendation for firm value analysis of current study and recommendation for the next study for the other researcher will be written in this section.

The following illustration shows the research process that this study attempts to

follow through.

Figure 3.1: Research Work Process Overview



Source: Zikmund, 2003

3.2. Data Sources

The source of the data which is the secondary data was collected through Fakultas Ekonomi at Universitas Indonesia's routers data system, and Indonesia Capital Market Directory. Theories are collected from books and journals in relation to the

screening and monitoring functions, macroeconomic conditions, and firm's value.

3.3. Data Collection

Based on the Jakarta Stock Exchange Industrial Classifications (JASICA), there are 127 publicly-listed manufacturing firms as of December 31, 2010. Nonetheless, only 99 firms are used as sample in this study since the remaining 28 firms do not meet the criteria of having financial statements and annual reports for the period of 2005-2010. All these 99 firms are incorporated into this study.

In addition to the financial statements and annual reports of those 99 publicly-listed manufacturing firms, macroeconomic indicators are also extracted from www.bi.go.id and www.bps.go.id, particularly for GDP, inflation, and interest rate.

3.4. Data Analysis

With the help of SPSS and AMOS software, the 5 years' data from 99 publicly-listed manufacturing firms are analyzed for statistical inferences.

Table 3.1 Operations of Variables

VARIABLES	SUB VARIABLES	DEFINITION	FORMULA	SCALE
Macro economic Conditions (Hooks, 2003)	GDP (Hooks, 2003)	The total market value of all final goods and services produces within a nation borders in a given time period (Schiller, 2006).	GDP = Consumption + Investment + Government Services + Net Exports	Interval
	Inflation (Hooks, 2003)	An increase in the average level of price of goods and services (Schiller, 2006)	$[(\text{Today Consumer Price Index} - \text{Preceding Consumer Price Index}) / \text{Today Consumer Price Index}] \times 100\%$	Interval
	Interest Rate (Hooks, 2003)	The amount charged, express as a percentage of principal by the lender to the borrower for the use of asset (investopedia.com, 2011)	Simple Interest Rate = P (Principal) \times I (Annual Interest Rate) \times N (Year) Compound Interest Rate	Interval
Screening (Hooks, 2003)	Sales Growth (Hooks, 2003)	A derived amount of a company, based on its sales as a comparison from previous and in a certain period of time,	Sales growth of net sales each period during the study period	interval

VARIABLES	SUB VARIABLES	DEFINITION	FORMULA	SCALE
		which it sales later exceeds the former. (investopedia.com, 2011).		
	Company Age (Hooks, 2003)	The period of time of a company since its very first existence until present time (Hooks, 2003).	The natural logarithm of the number of years since the company was founded	Ordinal
	Profitability (Hooks, 2003)	The measurement of a company whether it generates profits or losses. (Wild et. al 2005)	Net Income divided by total assets	Ratio
Monitoring (Hooks, 2003)	Tangible Asset (Hooks, 2003)	A tangible property that is use for the company's production activities which considered as part of the company's asset that is usually not changing into a form of cash or liquid asset and usually it last until minimum a year (Wild et. al, 2005).	Plant, Property, and Equipment divided by total assets	Interval
	MTB (Rizki, 2010)	The ratio that is used by the company to compare the market value with the book value. Book value is based from the company historical cost and accounting value, where, the market value is based on the share value of the company in the market capitalization (Wild et. al, 2005).	The Book Value Liabilities plus the Market Capitalization minus Net Cash divided by Total Assets minus Intangible Assets	Ratio
Firm Value (Damodaran, 2006)	EV/EBITDA (Damodaran, 2006)	Ratio in which indicates the ability of companion generating the firm value, measured by its multiple earning	EV/EBITDA = Enterprise Value divided by EBITDA	Ratio

VARIABLES	SUB VARIABLES	DEFINITION	FORMULA	SCALE
		(Damodaran, 2006)		
	PER (Damodaran, 2006)	Ratio in which indicates the ability of generating earning in stock price, measure by its multiple earning (Damodaran, 2006)	PER = Market Price per Share divided by Market Earning per Share	Interval
	PEG (Damodaran, 2006)	Ratio of the PER in generating growth in the future (Damodaran, 2006)	PEG = PER divided by Earning Growth	Interval
	PBV (Damodaran, 2006)	Ratio of a comparison between market value to its book value (Damodaran, 2006)	PBV = Market Capitalization divided by Book Value	Interval

3.4.1. Structural Equation Modeling

Structural Equation Modeling (“SEM”) is a statistical technique that combines the multiple regressions and factor analysis in order to describe the correlation of independent variables with dependent variables (Santoso, 2007). In some cases, like in this study, the independent variables are referred to as latent variables. Latent variables are variables that cannot be measured directly. Hence, latent variables require manifested variables to represent the latent variable. As indicated in the research model, the latent variables in this study are; screening, monitoring and macro economic conditions. The manifested variables to measure screening are; sales growth, company age, and profitability. The manifested variables to measure monitoring are; tangible assets, and market-to-book value. The manifested variables to measure macroeconomic conditions are; GDP, interest rate and inflation. Moreover, SEM must be tested for its validity, which has to have a minimum requirement of fit level. Hence, this study will use several methods to test the validity of the measurement and structural model (Ghauri and Gronhaug, 2005)

To measure the reliability and validity of variables used in this study, SPSS student version is incorporated. The value of r is required to measure the reliability of a certain variable (Levine, et al, 2005). The value of r is to be compared with the critical values of r (Pearson correlation coefficient) and it is dependent on the level of df (degrees of freedom). The r value will be significant if the calculated value of r is higher than the critical value of r , which can be compared in the table; hence, the variable is reliable to be used.

To test the validity of the variables used in this study, AMOS is incorporated. The first phases is testing SEM’s measurement model. If it is considered reliable, then the structural model will be tested (Santoso, 2007). The details of the validity test of the SEM are shown in the Chapter 4.

Table 3.2 The Criteria of Goodness of Fit

INDEX SIZE CRITERIA	REFERENCE VALUE
Chi Square Statistic (X^2)	As low as possible
P-Value	≥ 0.05
CIMN/df	≤ 2.00
RMSEA	≥ 0.08
GFI	Close to 1

Source: Wijaya, 2009

In any structural equation model, a model has an acceptable level of fit if there are others alternatives models with the same level of model fit. In this research, CMIN/DF, RMSEA, and GFI will be used as the measurement model fit to test validity.

3.4.1.1. CMIN/DF

CMIN represents the minimum value of the discrepancy while DF is the degree of freedom. According to Wijaya (2009), the model could be accepted if the CMIN/DF is ≤ 2.00 .

3.4.1.2. Root Mean Squared Error of Approximation

Root Mean Squared Error of Approximation (“RMSEA”) is used to examine whether the data will be used in the research model fit. A model can be accepted if the value of RMSEA is smaller than 0.08 (≤ 0.08). If the value of RMSEA is more than 0.1, the model is not acceptable (Hair, 2006).

3.4.1.3. Goodness of Fit Index

Goodness of Fit Index (“GFI”) measures how well the model fits the data. It is a non-statistical measure used to calculate the data samples ranging in value from 0 (poor fit) to 1.0 (perfect fit). Higher GFI value indicates better fit. If the value of the GFI is 0, the model is considered as not fit. However, if the value of the GFI is 1, then the model is considered as perfectly fit (Hair, 2006)

3.4.1.4. Pearson “Product Moment” Correlation Coefficient

The Pearson “product moment” correlation coefficient can be used to measure if the two variables are related to each other or not. This Pearson r method calculates the linear relation between two different variables (Levine, et al, 2005). The r value represents the variables correlation. This study uses the software to calculate the r where there are many methods of calculating r in this world.

The formula to calculate the coefficient of correlation is:

$$r = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^n (X_i - \bar{X})^2} \sqrt{\sum_{i=1}^n (Y_i - \bar{Y})^2}} = \frac{\text{cov}(X, Y)}{S_x S_y} \dots\dots\dots (3.9)$$

This relationship between coefficient range and strength of association can be viewed in this following table:

Table 3.3 Rules of Thumb of Degree of Correlation

COEFFICIENT RANGE	STRENGTHS OF ASSOCIATION
± 0.81 to ± 1.00	Strong
± 0.61 to ± 0.80	Moderate
± 0.41 to ± 0.60	Weak
± 0.21 to ± 0.40	Very Weak
± 0.00 to ± 0.20	None

Source: Zikmund, 2003

3.4.2. Tools

This research will be used statistical software to assist the calculations. SPSS and AMOS are statistical software that used to analyze the co-relational. SEM can be used to test the correlation level between two variables properly. The steps:

1. Input all the data into Excel
2. Transferred the data into SPSS software
3. Input the SPSS data into AMOS software
4. Create Structural Equation Model by using AMOS.

Within the result, several variables will be reviewed; those are CMIN, Root Mean Residual, Goodness of Fit index and other variables.

3.4.3. Path Diagram

According to Hair (2006), path diagram is a visual representation of a model and the complete set of relationships among the model's construct. Path diagram is used for studying the direct and indirect effects of variables hypothesized as causes of variables treated as effects. Path diagram is the relationship structure between the exogenous and endogenous variables. The independent (X) variables are called exogenous variables. The dependent (Y) variables are called endogenous variables.

Amos builds models that realistically reflect complex relationship with the ability to use observed variables such as survey data or latent variables like consumers' perceived value, customer satisfaction, brand image and customer expectation that could influence customer loyalty. SEM sometimes called path analysis to gain additional insight into causal models and strength of variable relationship.

SAMPLE # 6: ACCOUNTING INFORMATION SYSTEMS & KNOWLEDGE MANAGEMENT

The following research sample is based on the actual work of an undergraduate thesis in 2013, which was originally written by Yovanni FY Silalahi^{xiii} from the School of Accounting at Harapan Bangsa Business School, Bandung, Indonesia. The title of this study is “*The Influence of Characteristics of Management Accounting Information Systems & Knowledge Management Capability on Company’s Performance*”.

The approach used in this study followed a quantitative-based research, which mainly relied on secondary data to evaluate the relationships among variables based on the research model.

Chapter III - Research Method

3.1. Research Method

This research is using primary data collection. The data is collected by questionnaires that distributed to top level management in selected branch offices of *PT. Bank Rakyat Indonesia, Tbk* . Furthermore, the data that has been collected will be done the analysis to describe the state of the object of research. The relationship that happened could be causal relationship or interconnectedness of existing variables. Therefore, this research can be categorized in descriptive statistic. Descriptive statistics are statistics that describe the phenomena or characteristics of the data (Jogiyanto, 2007).

3.2. Selection and Data Collection

This research as with previous researches examines the effect of the application of an accounting management information system on organizational performance (Herdiansyah, 2012; Ratnawati & Setyaningsih, 2011; Nurpriandyni & Suwarti, 2010). Population of this research is all managers for every selected bank branch offices of *PT. Bank Rakyat Indonesia. Tbk* in Bandung.

Determination of sample is using purposive sampling which is a sampling technique that is based on specific criteria established in accordance with the purpose of the study researcher (Jogiyanto, 2007). The criteria of the sample data is manager or head-manager of BRI’s branch-offices who has served more than 2 years and considered to have adapted to their environment.

The city of Bandung is chosen for the research area because of the progress in financial is good. It is showed from the financial activity in the past 3 years. Research data was collected by questionnaire. Questionnaires were distributed in BRI’s branch offices have chosen in Bandung city. The questionnaire used in this research was the same questionnaire belonging to Juli Ratnawati in her research (Ratnawati & Setyaningsih, 2011). Some changes were made regarding the Likert scale used to be 5 numbers. Changes made to avoid neutral responses of respondents

without compromising the validity of the questionnaire.

Table 3.9 Bank's Financial Activity in Bandung

Year	Financial Activity (Rp. Millions)
2010	119,183,244
2011	137,011,050
2012	138,176,640

Source: (Kelompok Statistik dan Survei Kantor Bank Indonesia Bandung, 2012)

3.3. Sample Data

The sample data for this research is every top management for branch offices of BRI:

Table 3.10 Sample Data

1	KC Naripan 1	20	KU Ciroyom
2	KC Naripan 2	21	KU Dalem Kaum
3	KU Abdul Muis	22	KU Dipatiukur
4	KU Bandung Lautan Api	23	KU Jamika
5	KU Cibadak	24	KU Kosambi
6	KU Dulatip	25	KU Taman Sari
7	KU Karapitan	26	KU Setiabudi
8	KU Lodaya	27	KCP Sumber Sari
9	KU Pagarsih	28	KCP Cibaduyut
10	KU Padjajaran	29	KCP TKI 1
11	KU Pasir Kaliki	30	KCP TKI 2
12	KU Pasir Koja	31	KU Bandung Selatan
13	KU Cangkuang	32	KU Caringin
14	KU Peta	33	KU Cibaduyut
15	KU Sudirman	34	KU Leuwi Panjang
16	KU Suka Mulya	35	KU Sumber Sari
17	KU Astana Anyar	36	KU Suka Menak
18	KU Banceuy	37	KU Sayuran
19	KU Cigondewah	38	KU Kopo Elok

Source: BRI

3.4. Operational Variable Definition

This research uses AMOS, then the term of independent and dependent variables are changed into exogenous and endogenous variables.

3.4.1. Exogenous Variable

Exogenous variable is a variable which have no explicit cause of in the diagram there are no arrows leading to it. The term exogenous variable is just like independent variable in SPSS. In this research, Knowledge Management Capability is the exogenous variable.

3.4.2. Endogenous Variable

Endogenous variable is a variable that there are arrows leading to it. The term endogenous variable is like dependent variable in SPSS. In this research, the managerial performance is the endogenous variable. The instrument to measure the managerial performance adapted from developed instrument in the previous research (Ratnawati & Setyaningsih, 2011). The instrument contains 10 questions using Likert scale, number 1 (disagree) until number 5 (agree).

In this research, the instrument of accounting management information system is in order to measure the ability of the information support the performance of the company especially the in banking industry. The measurement of accounting management information system is built divided into 4 characteristics, broad-scope, aggregation, integration and timeliness (Solechan & Setiawati, 2009).

Broad-scope characteristics are divided into three dimensions, focus, quantification and time. Focus related to external and internal information. Quantification related with financial and non-financial information. Time related with the estimation of future events. The questionnaire has 3 questions using the Likert scale, number 1 (not provided) until number 5 (provided).

Aggregation characteristic is gathered information based on function, time period and decision model. The aggregation characteristic provides information that is more concise with precise targets without reducing the value of the information itself. The questionnaire will be in 2 questions using Likert scale, number 1 (not provided) until number 5 (provided).

Integration characteristic coordinated information for decision making process by the manager. The questionnaire will be in 3 questions using Likert scale, number 1 (not provided) until number 5 (provided)

Timeliness characteristic showed the timeliness in obtaining information about an event. The questionnaire will be in 2 questions using Likert scale, number 1 (not provided) until number 5 (provided).

Likert scale is developed by Rensis Likert and has the rating scale that is most frequently used. End of the rating scale is a question stating pleasant and unpleasant attitude of the object being observed

Table 3.11 Operationalization of Variables

	Variables	Indicators	Measurement
X	Knowledge Management Capability	1. Creating expertise and operational knowledge, research and development that can be used across business units	Likert Scale 5 numbers
		2. Transfer operational knowledge, research and relevant development	
		3. Combining operational knowledge, research and development to create new products	

	Variables	Indicators	Measurement
		4. Creating marketing skills and knowledge that can be used across business units	
		5. Transfer knowledge of the needs, preferences and buying behaviors of customers	
		6. Combines the relevant knowledge of customer business units to gain new customer insights	
Y	Company's Performance	1. Productivity performance	Likert Scale 5 numbers
		2. Understanding of the duties and function	
		3. Personnel development	
		4. Responsibility of duty	
		5. Time effectiveness and maximum results	
		6. The resistance of the data collection	
		7. The resistance of the data processing	
		8. Obedience of standard procedure	
		9. Communication factor in company's environment	
		10. Effectiveness of performance	
Z	Characteristics of AMIS -Broad-scope -Timeliness -Aggregation -Integration	1. Availability of external information	Likert Scale 5 numbers
		2. Availability of non external information	
		3. Availability of future information	
		4. Availability information periodically	
		5. Availability information timely	
		6. Information is integrated between units	
		7. Format of information is support the decision	
		8. Information is support the analyzes each unit	
		9. Speed the availability of information	

3.5. Validity Test

Validity indicates the extent of a test or a set of operations to measure what should be measured thus defined as the extent of the accuracy and precision of a measuring instrument in performing the measuring function. Further suggests that the validity information shows the levels of an ability to achieve the target (Jogiyanto, 2007). In this research, validity test is used to determine whether the questionnaire can reveal data on the study variables appropriately (Ratnawati & Setyaningsih, 2011). In determining whether or not an item to be used, the correlation coefficient significance test at a significance level of 0.05, meaning that an item is considered valid if the total score correlated significantly. Or if you make a direct assessment of the correlation coefficient, can be used limit the minimum value of the correlation 0.30 and when it reaches a minimum correlation coefficient of 0.30 is considered satisfactory distinguishing power.

To perform validity test using SPSS software, first click “Analyze-Scale-

Reliability Analysis” and click all the variables and put them into the items box. Click “Statistics” and on the “Descriptive for” click “Scale if item deleted”. Click “Continue” then click “OK”.

3.6. Reliability Test

Reliability is a gauge that indicates the stability and consistency of an instrument that measures a concept defined as well as the consistency between consecutive measurements (Jogiyanto, 2007). In this research, reliability test is a degree of precision, thoroughness, or accuracy shown by measurement instruments (Ratnawati & Setyaningsih, 2011). This reliability test is performed by Internal Consistency method using the Cronbach’s Alpha coefficient. Reliability concept for this approach is consistency between questions in an instrument and the association level to measure and to show the level of reliability of certain construct (Nurlis, 2008). Cronbach’s Alpha is a coefficient that developed by Cronbach as a general measure of the consistency of multi-item scales (Hendry, 2012).

Reliability test can be done at once with all the questions. If the value of Cronbach’s Alpha $> 0,70$ then it is reliable, if the value of Cronbach’s Alpha $< 0,70$ then it’s not. To perform reliability test using SPSS software, click “Analyze-Scale” then click “Reliability Analysis” and check the items, then click “OK”.

3.7. Correlation Test

3.7.1. AMOS Testing

This research will also use AMOS statistic tool to do path analysis. The results will be used to calculate the correlation analysis in the research and AMOS software is used through path analysis to get the result. To perform the calculation draw path diagram using AMOS software accordance with research model. Determine input matrix whether correlation or covariance. Next, click “Analyze” à “Calculate Estimates”, choose the data that is going to be processed from Microsoft Excel or SPSS. Make sure that the “View Output path diagram” has changed into red color. Next, click “View Output path diagram” and choose “standardized estimates” to get the standardized correlation that is shown on path diagram. For details, click “View” à “Text Output” and choose “Model Fit Summary”. To interpret the result, there are some criteria that will be used:

Table 3.12 Goodness of Fit Criteria

Criteria	Recommended Standard Value	
	According to Schumaker and Lomax, 2004; Wijaya, 2009	According to Ghozali, 2004; Santoso, 2009
χ^2 (likelihood ratio chi square statistic) as a testing tool to check the overall fitness of a model	Smaller χ^2 value from a model = better	Smaller χ^2 value from a model = better
p-value	p-value ≥ 0.05 = better	Bigger p-value = better
CMIN/df (normed chi square)	CMIN/df ≤ 2 =better	CMIN/df ≤ 5 = better

Criteria	Recommended Standard Value	
	According to Schumaker and Lomax, 2004; Wijaya, 2009	According to Ghozali, 2004; Santoso, 2009
RMSEA (root mean square error of approximation)	RMSEA \leq 0.08 = better	RMSEA \leq 5 = better
GFI (goodness of fit index)	GFI value closer to 1 = better	GFI value closer to 1 = better
AGFI (adjusted goodness of fit index)	AGFI value closer to 1 = better	AGFI \geq 0.90 = better
TLI (tucker-lewis index)	TLI value closer to 1 = better	TLI \geq 0.90 = better
CFI (comparative fit index)	CFI value closer to 1 = better	CFI value closer to 1 = better
NFI (normed fit index)	—	NFI \geq 0.90 = better
PNFI (parsimonious normal fit index)	—	Higher PNFI value = better
PGFI (parsimonious goodness of fit index)	—	Higher PGFI value = better
RMR (root mean squared residual)	RMR \leq 0.05 = better	RMR \leq 0.05 = better
Reliability	reliability \geq 0.70 = better	reliability \geq 0.70 = better

Source: Various

CHAPTER 4: DATA ANALYSIS

As mentioned earlier, the method of analysis represents the researchers' actions to transform data into useful information. The information is vital to answer the reasons on undergoing the research in the first place. Generally, data analyses are performed either qualitatively, or quantitatively. As a simple rule of thumb, exploratory researches tend to follow the norms in qualitative analysis. For descriptive and causal researches, however, quantitative analysis is used.

The main objectives in performing data analysis are covering the general sense/feeling of the available data, testing the general goodness/fitness of the available data, and potentially testing the hypotheses. In this section, brief explanations on the 2 major types of data analysis are discussed. The details are discussed in the following chapter.

QUALITATIVE ANALYSIS

One of the methods of analysis to obtain and analyze data is qualitative analysis. In qualitative analysis, it means that the research may lack of the statistical calculations on measuring the degrees of association among variables. Perhaps, one of the best way to describe this qualitative analysis is an **investigative study**, which may look only for substantial evidences to qualitatively connect the variables. Others may refer this qualitative analysis as the **evidence study** to collect all possible proof concerning variables and indicators, which researchers may have chosen in the beginning.

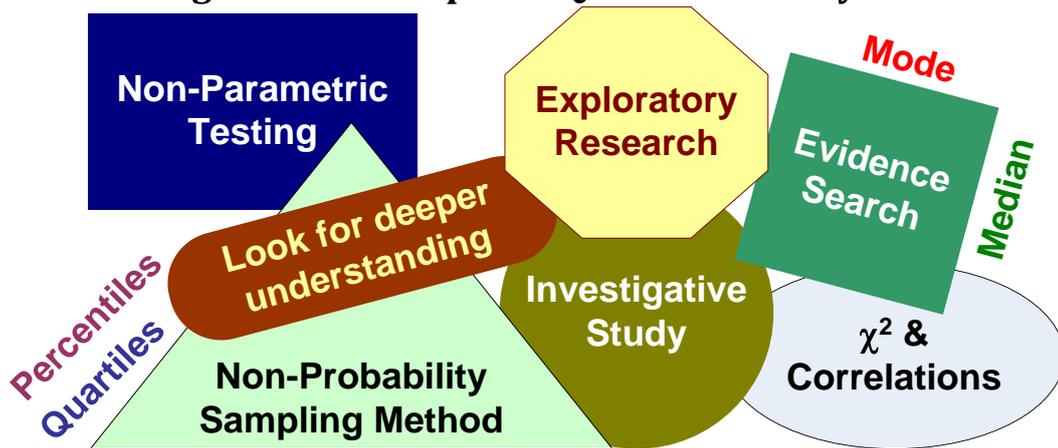
Referring to the explanation above, qualitative analysis attempts to search for clues to enable researchers, managers, and/or decision makers to understand the insights of the topic of research. Hence, it is not a surprise that the qualitative analysis is based on exploratory research, which may not look impact and/or relationships among variables, but simply focuses in finding evidence. This channels qualitative analysis in the same path of interviews, FGD, and projection techniques, as the data gathering tools.

The various responses in terms of words and sentences are grouped and analyze to reveal the importance and relevance. The presence of technology has pushed for the availability of qualitative software in the market today to assist researchers with their qualitative analysis. Examples of those software are;

- Nvivo is similar to mirror the Microsoft Office Suites with capabilities in performing textual analysis, multi-language interface, and multiple output formats. This software is able to group verbal responses to form particular variables that researchers can later connect them via interactive nodes.
- ATLAS is a PC-based software that emphasizes on intuitive interface, data management, visualization, coding, and concept search,
- MaxQDA is designed for textual analysis, coding, data management, and mixed methods analysis,
- Dedoose is a web-based application, which emphasizes on visualization and data coding tree structure,
- QDAMiner is a PC-based software, which includes textual analysis, coding, multi-language interface, and multiple output formats,
- QDAP, which stands for “Qualitative Data Analysis Program”, has the ability to provide coding/labeling on textual analytical process. It is a government-funded project to the University of Massachusetts at Amherst to provide accurate and reliable annotated text data analysis,
- CAT, which stands for “Coding Analysis Toolkit” is designed to use keystrokes, and have won the Best Research Software award from the Information Technology & Politics in the American Political Science Association in 2008,
- Aquad is a German-based program that supports text, audio, video, and images,
- Compendium is an application to visualize the connection between information and ideas,
- RQDA, which requires R Project plug-ins, is designed to work with various data analysis software, or
- Weft QDA is originated as a student-based project, which may be best used to analyze text.

The following illustration shows the concepts, which consist of words and terms, which are closely related to the qualitative analysis.

Figure 19: Concepts on Qualitative Analysis



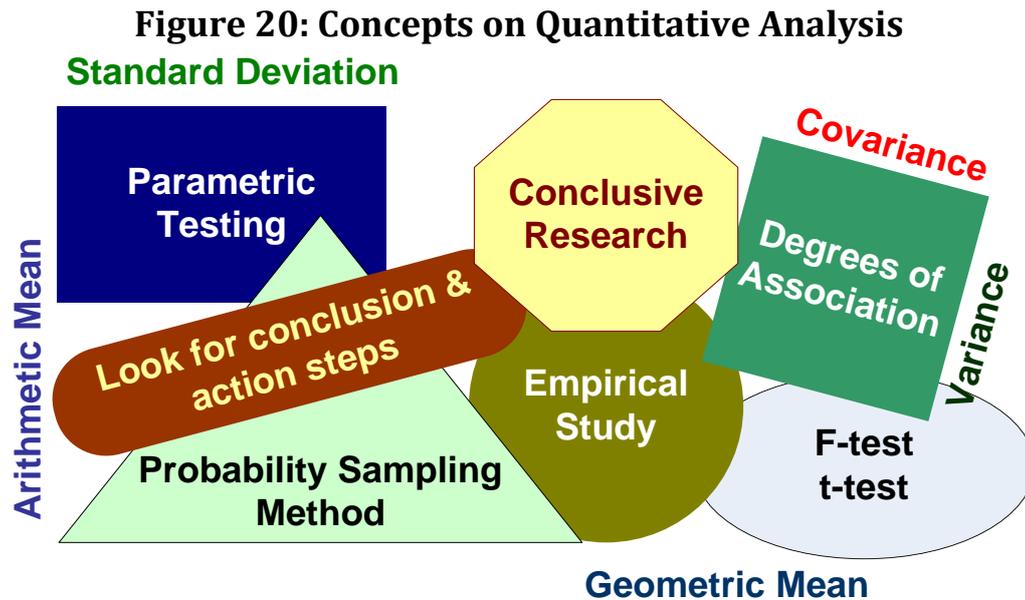
QUANTITATIVE ANALYSIS

Beside the qualitative analysis, undoubtedly quantitative analysis is just another method in data analysis. In quantitative analysis, it means that the research may rely more on the statistical calculations on measuring the degrees of association among variables. **Empirical studies** may best explain the quantitative analysis since those empirical studies calculate the degree of association and relationships among variables, including noting the explanatory power of the indicators used. Others may refer this quantitative analysis as the **conclusive study** to collect all possible numerical data concerning the indicators, which researchers may have chosen in the beginning, to calculate the relationships and formulate the action steps.

Referring to the explanation above, quantitative analysis attempts to search for conclusions to enable researchers, managers, and/or decision makers to formulate action steps in trying to solve problems. Hence, it is not a surprise that the quantitative analysis is based on conclusive research, which may likely look for impact, influence, and/or relationships among variables. This channels quantitative analysis in the path of questionnaires, and various numerical-based document analysis, as the data gathering tools. The likelihood of using interval and ratio scales becomes higher for the quantitative analysis since those scales allow more measurements on central tendency (arithmetic or geometric means), dispersion (standard deviation, variance, and covariance), and significance (F-test and t-test).

The following illustration shows the concepts, which consist of words

and terms, which are closely related to the quantitative analysis.



Quantitative and qualitative researches are fundamentally different, particularly on the quantification of data, which leads to the ability to generalize the results to the population of interest. Software to perform the quantitative data analysis are abundantly available. Examples of such software include the following, but not limited to;

- SPSS, which stands for “Statistical Package for the Social Science”, may be considered as the most popular statistical software in the field of social science for individual researchers due to its simplicity.
- SAS, which stands for “Statistical Analysis System”, may be considered as the most popular statistical software for experienced researchers, particularly those with moderate knowledge of programming syntax language. SAS has the ability to provide guidance on report writing, forecasting, business planning, and project management. This software is powerful in handling large amount of data to perform complex data analysis.
- STATA is a comprehensive and interactive data analysis, particularly in generating graphs and various types of data and results in 4 windows (command, review, result, and variable windows).
- As previously mentioned above, ATLAS is a PC-based software that emphasizes on intuitive interface, data management, visualization, coding, and concept search. Though ATLAS is predominantly qualitative, however, this software is powerful and sufficiently flexible

in exporting data to universal open XML data format.

- LIMDEP, FAME, EViews, and Gretl are the relatively comprehensive statistical software, which may be better suited for time-series analysis, particularly for econometric analysis.
- LISREL and AMOS are the relatively comprehensive statistical software, which may be better suited for simultaneous analysis on variables and indicators to conform to the structural equation modeling.
- OpenEpi is a web-based software, which operates independent series of programs on JavaScript and HTML languages.
- OpenMX focuses on structural equation modeling, which is running on R-platform.
- Mondrian is a tool in data analysis using interactive statistical graphics.
- DotPlot emphasizes on data visualization for the statistical analysis.
- DAP, which stands for “Data Analysis Program”, may be an alternative for the proprietary-based SAS. For the qualitative analysis, QDAP is available, as previously mentioned.
- PSPP, may serve as an alternative for the proprietary-based IBM SPSS Statistics.
- Statistics101 is a freeware statistical package, which focuses on re-sampling, bootstrapping, and running Monte Carlo simulation programs.
- WinBUGS is a freeware statistical package, which focuses on Bayesian hierarchical analysis using Markov Chain Monte Carlo methods.
- JAGS, which stands for “Just Another Gibbs Sampler”, is similar to WinBUGS.
- As the extensions of SciPy, which are the python library for scientific computing, Scikit-Learn mainly focuses on classification, clustering, and regression, and StatModels highlights the statistical models and tests, such as; regression, plotting, datasets, ANOVA, ARMA, VAR, non-

parametric statistics, generalized linear model, and time-series analysis.

- StatXact is a proprietary-based software for exact non-parametric and parametric statistics.
- Statistica, Systat, S-Plus, UniStat, MathLab, Octave, Mathematics, Maple, and Minitab, may be considered as the alternatives for the popular SPSS. These are PC-based general statistical software, which may require some knowledge on programming languages.

DESCRIPTIVE ANALYSIS

The biggest purpose for descriptive analysis is to somehow transform the raw data into something more easily understood and manageable. Following the distribution of questionnaire, for instance, there are hundreds of responses to provide meaning for. However, providing individual meaning to those hundreds of responses may become so difficult to interpret. Instead, trying to determine the centralized values to represent the whole raw data may prove beneficial for interpretation.

The following table shows a glimpse on the available descriptive statistics to provide a clear overview on the data set.

Table 30: Examples on Descriptive Statistics

	N	Mean	Std. Dev	Var	Skewness		Kurtosis	
	Stat	Stat	Stat	Stat	Stat	Std. Error	Stat	Std. Error
EMP	97	1.54	.830	.689	1.613	.245	2.000	.485
SAL	97	3.01	1.335	1.781	-.073	.245	-1.154	.485

Frequency Table, Percentage & Charts

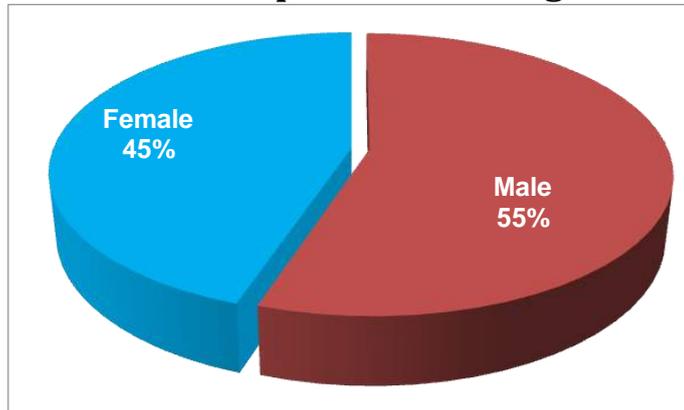
It is trying to note the number of times various categories occur in the data set. A simple example on gender category, for instance, is able to show the role of frequency in trying to make sense of the data set.

From the following table, it is obvious that there are 125 respondents. Of those 125 respondents, 69 respondents are male, which makes up about 55% of the sample, and 56 respondents are female, which makes up about 45% of the sample.

Table 31: Frequency Distribution

Gender	Frequency (total numbers of respondents)	Percentage	Cumulative Percentage
Male	69	55.2%	55.2%
Female	56	44.8%	100.0%
Total	125	100.0%	

The use of percentages makes it easier to read the composition of the data set. The same is true for pie charts. A graphical illustration is helpful in understanding the data set, indeed.

Figure 21: An Example on Percentage & Pie Chart

Of course, instead of using only pie charts, other types of charts are also available, depending on the types of data and/or the intention of the researchers in showing the graphical illustrations. For example, pie charts are powerful in showing categorical data. For data trends, however, bar charts or line charts are much better in showing the fluctuations over time.

Mean

As one of the measures of central tendency, mean is an average of all responses pertinent to particular variables. It is basically a total sum of all observations in the data set, and divided by the total numbers of those observations. The formula is as follows;

Equation 6: Mean (Population & Sample)

$$\text{Population Mean} = \mu = \frac{\sum X}{N}$$

$$\text{Sample Mean} = \bar{X} = \frac{\sum X}{n}$$

Where;

- μ or \bar{X} is the average of all observations in population or sample,
- $\sum X$ represents the total sum of all observation, and
- N or n refers to the total numbers of observations in population or sample

For example, a restaurant manager is interested to know about the restaurant performance. A particular statement on the potentially distributed questionnaire is targeted to obtain the general satisfaction on the customers' dining experience. The sentence is "*I have a positive dining experience at this restaurant*". Upon distribution, the responses are received as noted in the following table. As shown, the mean is 4.2, which can be concluded that customers do have positive dining experience at the restaurant.

Table 32: Examples on Observations

Respondents	1	2	3	4	5
	Strongly Disagree	Disagree	Neutral (No Opinion)	Agree	Strongly Agree
1			X		
2					X
3				X	
4				X	
5				X	
6				X	
7					X
8				X	
9					X
10				X	
Frequency	0	0	1	6	3
Total Sum			1 * 3 = 3	6 * 4 = 24	3 * 5 = 15
Mean			3 + 24 + 15 = 42		
			42/10 = 4.2		

Mode

As a measure of central tendency, mode refers to the most frequent value of responses out of the total sum of all observations. From the example on the above table, it can be concluded that the modus is "4", or "agree"

since there are 6 respondents, who have indicated their agreeableness toward the statement of “*I have a positive dining experience at this restaurant*”.

Median

As a measure of central tendency, median is intended to calculate the central value, or frequently referred to as “midpoint”, by putting the data set into sequence from the smallest to the largest. This central value is the same as the 50th percentile in the data array. Using the same example, as shown in the above table, the data array is 3, 5, 4, 4, 4, 4, 5, 4, 5, 4. The median is 4

Range

As a measure of dispersion on data set, range refers to the distance between the smallest to the largest value in the data set. The larger the range may lead a lower accuracy. Referring to the above Likert 5-scale, for instance, since the smallest response is “neutral”, and the largest response is “strongly agree”, the range is 2, which is calculated from 5-3.

Variance

As one of the measures of dispersion of data, variance shows the degrees of variability in the data set. Undoubtedly, larger variances lead to higher fluctuations. For managers, larger fluctuations mean more difficulties in making decisions. The formulas for variance are as follows;

Equation 7: Variance (Population & Sample)

$$\sigma^2 = \frac{\sum(X - \mu)^2}{N}$$

$$s^2 = \frac{\sum(X - \bar{X})^2}{n - 1}$$

Where;

- σ^2 or s^2 denotes the population variance or sample variance,
- μ or \bar{X} is the mean of all observations in population or sample,
- $\sum X$ represents the total sum of all observation, and
- X signifies the value of each observation in either population or sample
- N or n refers to the total numbers of observations in population or

sample

Standard Deviation

As one of the measures in dispersion, standard deviation attempts to measure deviations of data from the central value, or mean. Of course, the larger the deviations from the mean lead to higher the degree of variation. This means the fluctuations of data is relatively large, which may lead to lower degree of validity and/or reliability on the overall sets of data. The formulas for standard deviation are basically the squared-root of variance, as follows;

Equation 8: Standard Deviation (Population & Sample)

$$\sigma = \sqrt{\frac{\sum(X - \mu)^2}{N}}$$

$$s = \sqrt{\frac{\sum(X - \bar{X})^2}{n - 1}}$$

The combination of noting both mean and standard deviation is the most common descriptive statistics that researchers may concentrate. This has to do with the normal distribution understanding of the statistical common ground, which are;

1. Statistically, about 99.7% all responses or observations lay within 3 standard deviations of the mean.
2. About 95% of all responses or observations lay within 2 standard deviation of the mean.
3. About 68% of all responses or observations lay within 1 standard deviation of the mean.

Index

It is used to rank customers' preferences. Say that for people are asked on their bread preferences; chocolate, cheese, beef, chicken, and tuna. The following lists are the responses and the corresponding frequency on their ranks;

Table 33: Index and Ranking

Respondents	Chocolate	Cheese	Beef	Chicken	Tuna
1	1	2	3	4	5
2	2	3	4	5	1
3	3	4	5	1	2
4	4	5	1	3	2
5	5	4	3	2	1
6	4	2	3	1	5
7	4	5	3	2	1
8	3	1	5	4	2
9	2	5	1	4	3
10	1	3	2	5	4

From the above responses, the next step is to tally all of those responses to see the rankings, as shown in the following table;

Table 34: Tally Ranking

	Chocolate	Cheese	Beef	Chicken	Tuna
As ranking 1	2	1	2	2	3
As ranking 2	2	2	1	2	3
As ranking 3	2	2	4	1	1
As ranking 4	3	2	1	3	1
As ranking 5	1	3	2	2	2

Once the ranking is established, as shown above, it is now the time to put weight on those ranks. Say that for ranking 1, the weight is "5", ranking 2, the weight is "4", ranking 3, the weight is "3", ranking 4, the weight is "2", and ranking 5, the weight is "1". The following table shows the necessary calculations with the corresponding weights.

Table 35: Weighted Ranking

	Chocolate	Cheese	Beef	Chicken	Tuna
As ranking 1 (weight = 5)	$2*5=10$	$1*5=5$	$2*5=10$	$2*5=10$	$3*5=15$
As ranking 2 (weight = 4)	$2*4=8$	$2*4=8$	$1*4=4$	$2*4=8$	$3*4=12$
As ranking 3 (weight = 3)	$2*3=6$	$2*3=6$	$4*3=12$	$1*3=3$	$1*3=3$
As ranking 4 (weight = 2)	$3*2=6$	$2*2=4$	$1*2=2$	$3*2=6$	$1*2=2$
As ranking 5 (weight = 1)	$1*1=1$	$3*1=3$	$2*1=2$	$2*1=2$	$2*1=2$
Total	31	26	30	29	34

	Chocolate	Cheese	Beef	Chicken	Tuna
Ranking	# 2	# 5	# 3	# 4	# 1

From the above table, the ranking can be established. At the first ranking is tuna, which is followed subsequently with chocolate, beef, chicken, and cheese.

INFERENTIAL ANALYSIS

This type of analysis becomes essential when researchers are trying to evaluate the following;

1. The relationships between variables
2. How would the variables explain the variance in the research model
3. The potential differences in variables among specific distinctions, such as; gender, social status, and/or other characteristics
4. The level of significance of the findings in comparison to a previously specified target, or other data sets.

All of those intentions are mainly targeted into testing empirically the applicability of variables and indicators in the real-case scenario. The empirical test becomes the foundation toward generalization of the results into different situations and conditions.

Correlation

This is to learn the degree of relatedness among variables, including the nature, direction, and level of significance. The Pearson correlation is considered fit for interval and ratio-based data. The Spearman Rank and Kendall's Tau coefficients are considered fit for ordinal-scaled data.

Relying on Pearson correlation matrix, and assuming that the correlation is significant, for instance, a positive correlation simply means that the variables are moving into the same direction. When variable A increases, variable B goes up as well. Likewise, a negative correlation signals the opposite direction between variable A and B. Hence, when variable A increases, variable B drops. If this relationship occurs among the independent variables, further analysis may have to be carefully considered, particularly on determining the hypotheses tests among variables. The term "independent variables" mean that those variables

should be independent among each other. The level of their relatedness should be relatively minimal, or insignificant, otherwise.

One Sample t-Test

This is an inferential statistical test to determine the level of significance of sample mean against a particular test value. This type of inferential statistic test is relevant for interval and nominal-based data.

Using the previous example on dining experience, the overall mean of 4.2 can be statistically tested against the scale value of “4”, which indicates “agree”. Of course, from the mathematical perspective, the calculated mean of 4.2 is certainly higher than 4. This means that the mean of 4.2 is regarded “agree”. Nonetheless, though from mathematical point of view that the average dining experience is satisfactory, statistically, the value of 4.2 may well be significantly different from 4.

To properly run this test, the hypotheses should be first formulated, as follows;

Table 36: Hypothesis Test on One Sample t-Test

		In Statistical Notation	In Sentence Format
H_0	:	$\mu = 4$	The overall average on dining experience is equal to 4
H_1	:	$\mu \neq 4$	The overall average on dining experience is different than 4

Independent Sample t-Test

As one of the statistical tools on comparison analysis, the independent sample t-test is trying to evaluate the significant differences between 2 different samples. This type of inferential comparison statistic test is relevant for interval and ratio-based data.

For example, comparing taste between male and female, teenagers and adults, or residents of Indonesia and Malaysia. Say that the level of satisfaction for male is 4, and 3.8 for female. Mathematically, it is obvious that males are more satisfied than females. However, the results of 3.8 and 4 may not be statistically different. If this is the case, the conclusion is that the level of satisfaction is the same for both male and female.

To properly run this test, the hypotheses should be first formulated, as

follows;

Table 37: Hypothesis Test on Independent Sample t-Test

		In Statistical Notation	In Sentence Format
H_0	:	$\mu_1 = \mu_2$	The level of satisfaction between male and female are the same
H_1	:	$\mu_1 \neq \mu_2$	The level of satisfaction between male and female are different

Paired Sample t-Test

As another statistical tool on comparison analysis, the paired sample t-test aims to test the level of significance on 2 responses, which are based on 2 different questions. Similar to the above, this paired sample t-test is useful for interval and ratio-based data. For example, a researcher attempts to evaluate whether diners are satisfied with the tastes and ambience of the restaurant. The paired sample t-test is used to evaluate whether those diners, who are satisfied with the taste of the food and/or beverages, are also satisfied with the ambience of the restaurant.

To properly run this test, the hypotheses should be first formulated, as follows;

Table 38: Hypothesis Test on Paired Sample t-Test

		In Statistical Notation	In Sentence Format
H_0	:	$\mu_1 = \mu_1$	Diners are satisfied with the taste of food and beverages at restaurant A
H_1	:	$\mu_1 \neq \mu_2$	Diners are not satisfied with the ambience at restaurant A

Analysis of Variance (ANOVA)

It is used to evaluate the level of significant difference between 2 samples, or more samples. The most appropriate scales to appropriately run ANOVA are internal and ratio. For example, a researcher attempts to determine the significant difference in the level of dining satisfaction for teenagers (3.5), adults (3.2), and elderly people (3.8).

To properly run this test, the hypotheses should be first formulated, as follows;

Table 39: Hypothesis Test on ANOVA

		In Statistical Notation	In Sentence Format
H ₀	:	$\mu_1 = \mu_2 = \mu_3$	The level of dining satisfaction are the same for teenagers, adults, and elderly people at restaurant A
H ₁	:	$\mu_1 \neq \mu_2 \neq \mu_3$	The level of dining satisfaction are different for teenagers, adults, and elderly people at restaurant A

The following table provides the summary on statistical techniques and tests to be used in relation to both parametric and nonparametric tests;

Table 40: Statistical Techniques & Tests (1)

			Criterion Variables					
			One			Two or More		
			Nominal	Ordinal	Interval	Nominal	Ordinal	Interval
Variances	One	Nominal	Chi-square test for independence Cochran Q test Fisher exact probability	Sign test Median test Mann-Whitney U test Kruskal-Wallis one-way ANOVA	ANOVA			Multiple discriminant analysis
		Ordinal		Spearman's rank correlation Kendall's rank correlation	ANOVA with trend analysis			

Table 41: Statistical Techniques & Tests (2)

		Criterion Variables					
		One			Two or More		
		Nominal	Ordinal	Interval	Nominal	Ordinal	Interval
Variances	Two or More	Interval	ANOVA		Regression analysis	ANOVA	Multiple regression analysis
		Nominal		Friedman two-way ANOVA	ANOVA (factorial design)		ANOVA
		Ordinal					
		Interval	Multiple discriminant analysis		Multiple regression analysis		Multiple discriminant analysis

The results of ANOVA, which are shown in F statistics, should indicate the degrees of significant differences among multiple sample variances, or from the same population. However, in the case that there are significant differences among multiple sample variances, it should be noted that F statistics cannot really show where the differences occur²; between sample A and B, or between sample B and C, and so forth. Hence, testing more than 2 groups simultaneously lowers the confidence level on the results. From the original 95% confidence level, for instance, performing a simultaneous test on 4 different groups drops the confidence level to a mere 81.45%³.

Cross Tabulation

As a statistical tool to measure the degree of association or interdependency between 2 variables, a cross-tabulation is the most

² Scheffe’s test, Duncan multiple range test, Tukey’s test, and Student-Newman-Keul’s test are available for use to appropriately detect where the mean differences really occur. For a nonparametric test, when the dependent variable is based on ordinal, and the independent variable is nominal, the Kruskal-Wallis one-way ANOVA is available also for use (Sekaran, Research Methods for Business: A Skill Building Approach, 2009 Reprints).

³ It is found by relying on a simple calculation: $(0.95)^4 = 0.8145$ (Sekaran, Research Methods for Business: A Skill Building Approach, 2009 Reprints).

common among researchers. A cross-tabulation, or a cross-tab for short, is basically a table that organizes data into groups or categories to allow researchers to make comparisons, as shown in the following table;

Table 42: Example on Cross Tabulation

	Dining Satisfaction		
	Yes	No	Total
Male	15	35	50
Female	10	40	50
Total	25	75	100

Assuming that the normality of data cannot be assumed, and the data sets are based on either nominal or ordinal, the chi-square test is calculated as shown in the following formula;

Equation 9: Chi-Square Test

$$\chi^2 = \sum \frac{(O_i - E)^2}{E_i}$$

Where;

- χ^2 is the chi-square statistic
- O_i is the observed frequency of the i^{th} cell
- E_i is the expected frequency

SELECTED SAMPLES

SAMPLE # 1: ECONOMIC INDICATORS AND ORGANIZATIONAL PERFORMANCE

The following research sample is based on the actual work of an undergraduate thesis in 2009, which was originally written by Mayasari Sagita Soekasah from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*A Correlational Study Between Selected Indonesian Economic Indicators Towards the Revenue and Performance of PT. Fortune Indonesia, Tbk*”.

The approach used in this study was quantitative-based research, which mainly relied on questionnaire to evaluate the relationship among variables based on the economic indicators and organizational performance. Interviews were also conducted to learn the insights of the organization-wide impact of the economic indicators. Secondary data from financial statements of publicly-listed firms are also considered in-lieu of the managerial explanations and evidences on what the firms have attempted to do.

CHAPTER 4 – RESULTS & DISCUSSIONS

4.1. Company Profile

“Presenting the Communication Galaxy”, is the strong motto of an advertising agency which creates a phenomenon in the advertising industry especially in Indonesia. The company’s former name was PT. Fortune Indonesia Advertising Company which is now known as PT. Fortune Indonesia Tbk. PTFI was first established in May 1970 by Mochtar Lubis and Abdullah Hafil Sutan Hidayat in order to cooperate with one of the biggest advertising agencies in Australia, Fortune International. PTFI is the first and the only public advertising company in Indonesia, and is now fully recognized as one of the country foremost and leading marketing communication companies.

Starting as a full-service advertising agency in 1970, PTFI then expanded by adding design and exhibition services in 1982 followed by public relation and social marketing services in 1986. In the same year, Mr. Indra Abidin was appointed President Director and was re-appointed as President Director when the company successfully went public in 2002 until now. He is also a founding member of the Asian Federation of Advertising Associations and is the World President and Chairman elect of the International Advertising Association (“IAA”).

As a publicly listed company, PTFI automatically became an international player since it must adhere to follow strict international rules which include; good corporate governance, transparency, accountability and professionalism. With around 230 total

employees, its mission was to become one of the top three most outstanding integrated marketing communications consultants in Indonesia. Its second mission was maintaining the world-class standard which was already achieved.

In 2008, the company has two new clients which are Honda Motor Company and Bank Mandiri. The former clients which the company continues to serve include: PT Carrefour Indonesia, PT Djarum, PT Agung Podomoro Group, *Direktorat Jendral Pajak*, PT Sari Agrotama Persada, PT Campina Ice Cream Industry, PT Gula Putih Mataram, and Tupperware Indonesia.



Figure 4.1 Advertisements by Fortune Indonesia

Source: PTFI Annual report, 2008

According to PTFI's annual report (2008), the company's gross profit increased almost 27%. Despite this exceptional performance, its business actually fell short of achieving the target in 2008. Target achievement was slightly above 80%. The revenue growth was only less than 9% compared to the year 2007 which was almost 39%. The main reason for this short coming was due to factors beyond the company's control, the global economic crisis.

PTFI growth has been developing from time to time. It is shown in appendix 6 where the total revenue and the gross profit have risen significantly where as it also shows that the operating income and the net income have been fluctuating and reached its lowest in the year 2006.

To become a preferred company where people want to invest, do business with, and even pursue a career; a company must be supported by professionalism which results in business growth that increases the quality of human life. Running a company based on professionalism has always been PTFI's corporate mission. Without a doubt with their winning formula, PTFI has proven itself that the company deserves to be qualified as one of the big three finalists for the *Daun Muda Award (Citra Pariwara)* 2008. The Inauguration of Indra Abidin as Chairman and World President of

International Advertising Association on April 2008 also proves that PTFI can be a place to build a career.

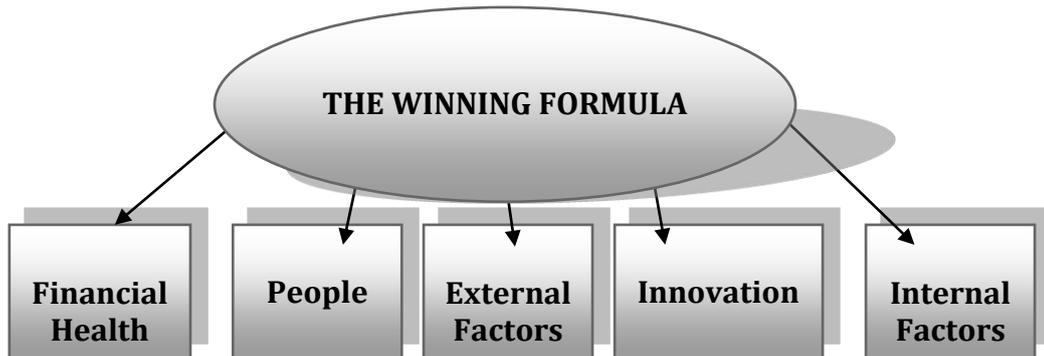


Figure 4.2 PTFI's Winning Formula
Source: PTFI Annual Report, 2008

As it was mentioned above, PTFI is the first and only advertising public company in Indonesia. Thus, in order to achieve this PTFI should always develop itself as a company that works as a team and succeeds as a team. However, there is always a question of balance. This can be accomplished by applying strategies for “The Winning Formula” which give strategic direction to the company. The five strategies are shown in figure 4.2.

1. **Financial Health:** to ensure that PTFI remains the best place to invest in, offering sustained returns over the long-term achieved with acceptable level of risk
2. **People:** the need to develop PTFI's own people to create a persistent culture that rewards the talent pool.
3. **External factors:** finding the best solutions for PTFI's partners that include PTFI's suppliers, customers and stake holders who play an integral role in insuring PTFI's success.
4. **Innovation:** PTFI can only survive if their work has a greater meaning. Innovations and new creative methods keep the Group moving, growing and achieve its goals.
5. **Internal factors:** this stems from the need to create an atmosphere that is conducive to the creative process.

The following figure represents the general scope of services offered by PTFI. It can be seen that PTFI focuses their efforts into 5 main areas, each requiring a certain level of professionalism and expertise.

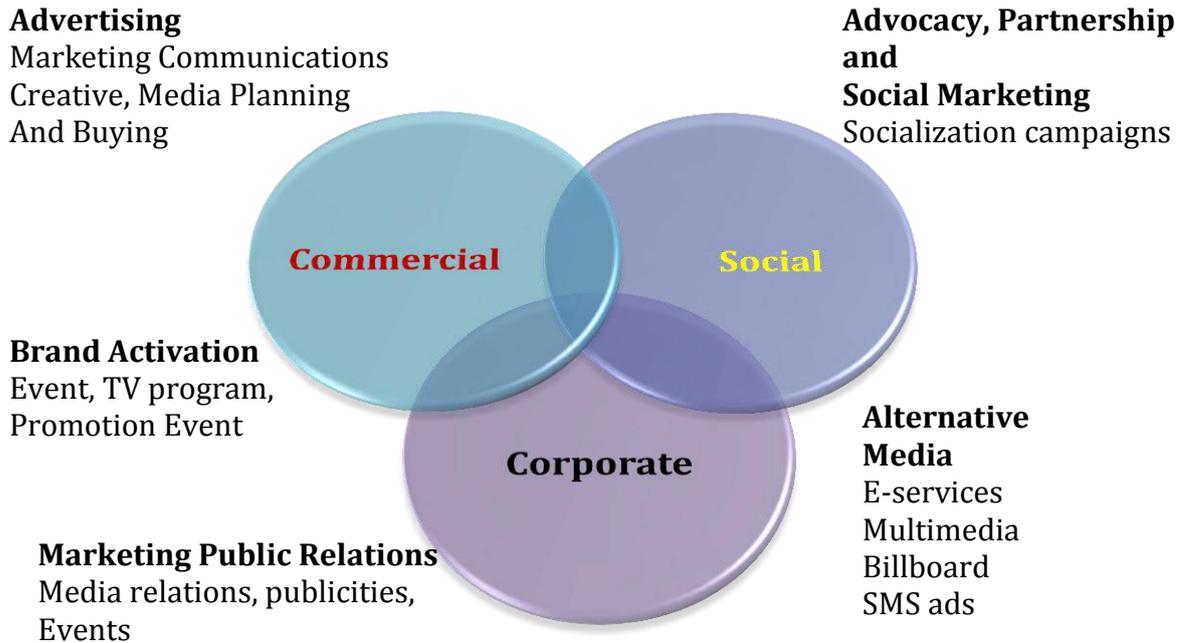


Figure 4.3 PTFI Scope of Service
 Source: PT. Fortune Indonesia, Tbk. Annual Report 2006

4.2. Hypothesis Testing Using AMOS and SPSS Software

4.2.1. Selected Economic Indicators Toward Revenue Analysis

As mentioned before, the main purpose of this research is to discover the correlation between Indonesia’s selected economic indicators towards PTFI’s revenue. In order to do so, an analysis using SEM is needed to find the correlation between the significant variables. This section of the research is dedicated to test all hypotheses previously mentioned in chapter 3. To properly test the hypotheses, a pre-test must be taken to determine whether all variables and data are in fact valid and reliable. The first hypothesis that will be tested is as follows:

Hypothesis # 1: The Indonesian economic indicators have a weak correlation towards PTFI’s revenue during 2004 to 2008.

Before testing the first hypothesis, every variable must be examined to determine their reliability and validity. In the first hypothesis, there are twelve observed variables that are used. Observed variables are the main focus of the test. It is the values of the observed variables that will determine if they are reliable or valid. The observed variables for economic indicators and PTFI’s revenue are listed below in a table form.

Variables for Selected Economic Indicators	Variables for PTFI’s Revenue
GDP, BI Rate, Exchange Rate, Inflation Rate	Advertising Production, Graphic Design, Ticket Sales, Public Relations, Travel, Television, Newspapers, and Radio

Table 4.1 List of variables used for hypothesis 1
 Source: AMOS

As mentioned before, there are twelve observed variables in hypothesis 1. However, there are also other variables that must be considered when calculating with AMOS. Those other variables are the degree of errors. Each observed variable will have some degree of error associated with it. The degree of error represents the external factors that may affect the value of that variable, which will not be discussed in this research. To provide a better understanding of where each variable is placed, a model is created by using the software AMOS. The table below shows the preliminary result from creating the model.

Variable counts (Group number 1)

Number of variables in your model:	26
Number of observed variables:	12
Number of unobserved variables:	14
Number of exogenous variables:	13
Number of endogenous variables:	13

Table 4.2 Preliminary result of AMOS input for hypothesis 1

Source: AMOS

As shown in table 4.2 there is a total of 26 variables used in the default model, this value is calculated by adding the number of observed variables with the number of unobserved variables. Unobserved variables are represented by the degree of errors associated with all observed variables (listed in table 4.1) with the addition of revenue. The actual model created in AMOS is shown below.

As shown in the illustration, there are a total of 26 variables in the model for hypothesis 1. To proceed with testing the first hypothesis, each observed variables must be tested for their reliability and validity. In order to properly test the observed variables, data from revenue of PTFI and the economic indicators in Indonesia. The sample size for each observed variable shown in both appendices is 20; the samples represent the values of each variable for every quarter in 5 years from 2004 – 2008. The process of testing the reliability and validity of the variables will be shown next.

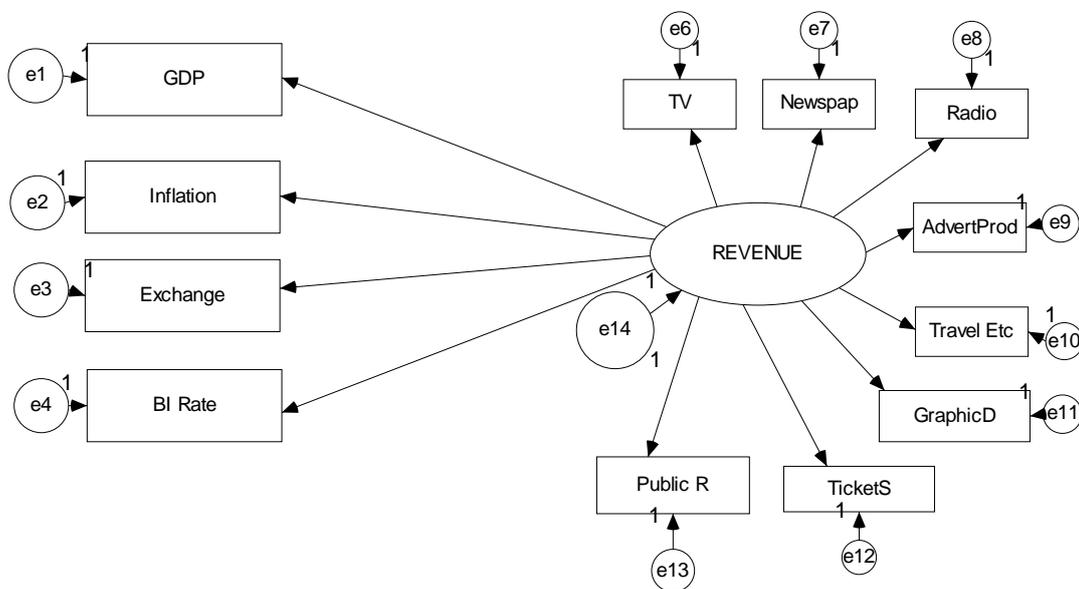


Figure 4.4 Default model for hypothesis 1

Source: Amos

4.2.1.1 Reliability Testing

A reliability test is done by inputting the data into SPSS. The reliability test result can be seen by looking at the corrected item total correlation shown in table 4.4. Variables that are tested will have different values for *r*, which is represented by the corrected item-total correlation value. For the observed variable to be significant or reliable, each value of *r* must meet a certain minimum. In the first hypothesis there are 26 total variables, after processing the data in AMOS it shows that hypothesis 1 has a degree of freedom value of 54. The actual result for the value of degree of freedom is shown in red below.

Computation of degrees of freedom (Default model)

Number of distinct sample moments: 78
 Number of distinct parameters to be estimated: 24
 Degrees of freedom (78 - 24): **54**

Result (Default model)

Minimum was achieved
 Chi-square = 161.879
 Degrees of freedom = **54**
 Probability level = .000

Table 4.3 Degree of freedom for hypothesis 1
 Source: AMOS

The *df* value is used to refer to the Pearson *r* table in appendix 14. The Pearson *r* table shows that the critical value of *r* is 0.273, for *df* = 54, and p-value of 0.05. The table below shows a detailed result from reliability testing by using SPSS.

Since all observed variables have a higher *r* value than 0.273, this means that it is reliable to be used. To explain further, a value of *r* higher than the Pearson *r* table means that the variable has sufficient correlation to be used to test the hypothesis.

Indicator Variables	Corrected Item-Total Correlation (<i>r</i>)	
Newspaper	0.885	✓
TV	0.683	✓
Radio	0.283	✓
Advertising Production	0.763	✓
Graphic Design	0.748	✓
Ticket Sales	0.934	✓
Public Relation	0.614	✓
Travel, Etc	0.538	✓
GDP	0.484	✓
BI Rate	0.297	✓
Exchange	0.529	✓
Inflation	0.281	✓

Table 4.4 Reliability Test economic indicators towards revenue
 Source: SPSS

4.2.1.2. Validity Testing

Validity testing is done by using the method of model fit test. The overall model that will be used to test the hypothesis will be processed in AMOS. Validity testing itself will be divided into two phases. The first phase will be testing the validity of the measurement model. This is done to determine how well each exogenous variable can represent the endogenous variable (Santoso, 2009). The second phase in validity testing is to test the overall model structure. The table below is the results from AMOS and it will be used to test the validity of the model.

Model	RMR	GFI	AGFI	PGFI
Default model	.013	.520	.307	.360
Saturated model	.000	1.000		
Independence model	.032	.294	.166	.249
Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0.324	.268	.382	.000
Independence model	.419	.370	.470	.000

Table 4.5 RMR, GFI, AGFI and RMSEA
Source: AMOS

From the result of the data analysis using AMOS version 16, it shows that the model fit Root-Mean-Square Error of Approximation ("RMSEA") of 0.324. According to Santoso (2009), RMSEA value of lower than 1 is a sign that the measurement model is valid. On the other hand, the value of goodness of-fit index model ("GFI") shows a result of 0.520 or $0 < GFI < 1$. Goodness of-Fit index model is acceptable as long as it is between 0 and 1. Another indicator to test the fitness of the model is by looking at the Root Mean Residual ("RMR"), which in this case is 0.013, generally the smaller the result for RMR the more fit the model is (Santoso, 2009). The Adjusted Goodness of-Fit Index ("AGFI") can be used as well. A value of 0.307 is considered acceptable since it is still between zero and one.

Since the measurement model has been declared valid, the next phase of validity testing can start. Now the structural model will be tested. The structure of the model needs to be tested to make sure that each exogenous variable indeed affect their endogenous variables. Basically, it is to see if every variable is placed in the right position. In the model shown in figure 4.3, the exogenous variables include GDP, inflation, BI rate, exchange, TV, newspaper, radio, advertising production, travel, graphic design, ticket revenue and public relation. On the other hand, endogenous variables are revenue and economic indicators. Every variable is accompanied by a degree of error next to it. These errors represent external factors that affect the value of that particular variable.

The following table represents the regression weights of each exogenous variable towards their endogenous variable, this will show if the variables have any relation to each other.

			Estimate	S.E.	C.R.	P
TV	<---	REVENUE	1.308	.401	3.264	.001
Newspap	<---	REVENUE	1.582	.427	3.709	***
Radio	<---	REVENUE	.368	.318	1.156	.248
AdvertProd	<---	REVENUE	1.322	.406	3.254	.001
TravelEtc	<---	REVENUE	.737	.327	2.251	.024
GraphicDesign	<---	REVENUE	1.109	.329	3.367	***
TicketSales	<---	REVENUE	1.456	.387	3.758	***
PublicR	<---	REVENUE	1.000			
GDP	<---	REVENUE	.887	.394	2.254	.024
Inflation	<---	REVENUE	.333	.378	.880	.379
Exchange	<---	REVENUE	.633	.310	2.041	.041
Interest	<---	REVENUE	.455	.390	1.169	.243
TV	<---	REVENUE	1.308	.401	3.264	.001

Table 4.6 Regression Weights

Source: AMOS

From the table 4.6, it can be seen that there is a real relation between the exogenous variables and endogenous variables. This can be seen by looking at the P value. Since there are no negative numbers this means that all exogenous variables are correctly placed in relation to their endogenous variable since there is a relation between them. P values with *** means that the relation between variables is significant.

4.2.1.3. Interpretation of Path Analysis

The final step in testing hypothesis 1 is analyzing the path diagram created from processing data using AMOS. Figure 4.4 shows the overall model used in testing hypothesis number 1. Figure 4.4 shows that every latent independent variable is formed by the each indicator variables. Meaning that revenue is formed by the eight exogenous variables, and economic indicators are formed by the four exogenous variables.

From figure 4.5, it shows that the economic indicators are represented by GDP, inflation, interest rates per Bank Indonesia, and the exchange rate of Rupiah against US Dollar. These four indicator variables have a correlation to the revenue of PTFI. The correlation percentage value of each indicator is also shown above. The highest correlation value is represented by GDP towards revenue which is 0.54. This value is called the standard regression weights (R). From this value, the squared multiple correlation value can be calculated by squaring the correlation value. The squared multiple correlation (R^2) value of GDP is 0.54^2 or 29.16%. This means that out of the four economic indicators, GDP has the highest correlation towards revenue. Theoretically, an increase in a country's overall output or performance will have an influence towards service sales, which is why GDP has the highest correlation value to economic indicator which has a correlation towards revenue.

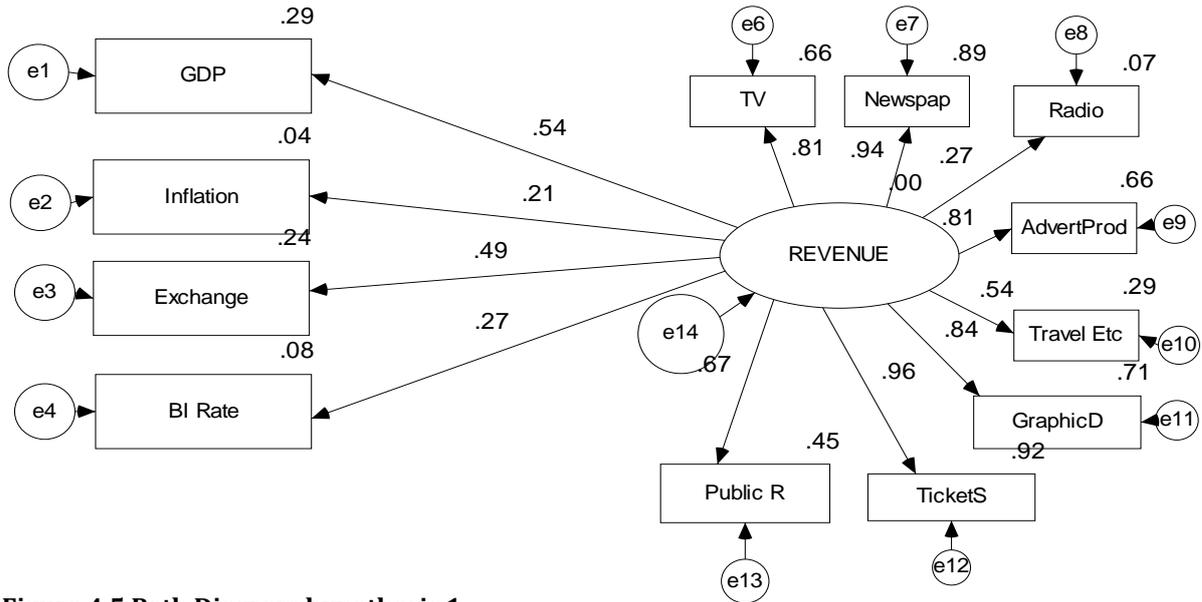


Figure 4.5 Path Diagram hypothesis 1
 Source: AMOS

Tables 4.7 and 4.8 will show the standard regression weights and the squared multiple correlation value of each indicator variables to its latent independent variable. Data processing will always have calculation errors which are represented by the “e#” sign that can be seen next to every variable. This can be calculated by using the equation shown below.

Equation 10. Error calculation

$$e = \sqrt{(1 - R^2)} \dots\dots\dots(10)$$

Source: Santoso, 2009

For instance, to calculate the degree of error for GDP, the value for R² for GDP is 0.2916 (table 4.7). By inputting the R² value of GDP to equation 10 found above, the degree of error is 0.84. This number represents the external factors that may affect the GDP.

Indicators	Standard Regression Weights (R)	Squared Multiple Correlation Value (R ²)
GDP	0.54	29.16%
Inflation	0.21	4.41%
Exchange	0.49	24.01%
BI Rate	0.27	7.29%

Table 4.7 Economic indicator Correlation value
 Source: AMOS

By reviewing the values in table 4.8, it can be proven that ticket sales has the highest correlation value towards revenue which is 92%, compared to the other seven indicator variables where radio has the lowest correlation value of 7%.

Indicator Variable	Standard Regression Weights (R)	Squared Multiple Correlation Value (R ²)
TV	0.81	66%
Newspaper	0.94	89%
Radio	0.27	7%
Advertising Production	0.81	66%
Travel, etc.	0.54	29%
Graphic Design	0.84	71%
Ticket Sales	0.96	92%
Public Relations	0.67	45%

Table 4.8 Revenue Correlation values

Source: AMOS

Based on the result, GDP has the highest correlation to revenue compared to the other three selected economic indicators. The value of GDP is 29.16%, whereas the weakest correlation is inflation which is 4.41%. Overall, the correlation values of all four selected economic indicators are weak because it is under 50%.

Based on the results shown above, statistically H_0 has been accepted. It can be concluded that the correlation is almost non-existent for inflation and interest rate per Bank Indonesia. Therefore, it can be said that statistically the fluctuation in selected economic indicators in Indonesia, indicated by GDP, inflation, interest rates per Bank Indonesia and exchange rates of Rupiah value towards US dollar has little impact towards the revenue of PTFI.

4.2.2. Economic Indicators Toward Performance Analysis

Similar to the previous hypothesis testing, reliability and validity testing will be conducted. However, unlike the previous hypothesis, all sixteen indicator variables will be used in this section. The reason for that is to analyze the impacts of economic indicators towards both performance including sales. The result of the analysis will be used to test hypotheses two. The second hypothesis is as follows:

Hypothesis # 2: Indonesia's GDP has a strong correlation towards the performance of PTFI during 2004 to 2008.

Before proceeding, a list of variables that will be used to test hypothesis 2, will be listed below.

Variables for General Economy condition in Indonesia	Variables for PTFI's Performance	
GDP	TV	Travel, etc
	Newspaper	ROE
	Radio	ROA
	Advertising Production	NPM
	Graphic Design	DER
	Ticket sales	DAR

Variables for General Economy condition in Indonesia	Variables for PTFI's Performance	
	Public relation	CR

Table 4.9 Variables used for hypothesis 2

Source: AMOS

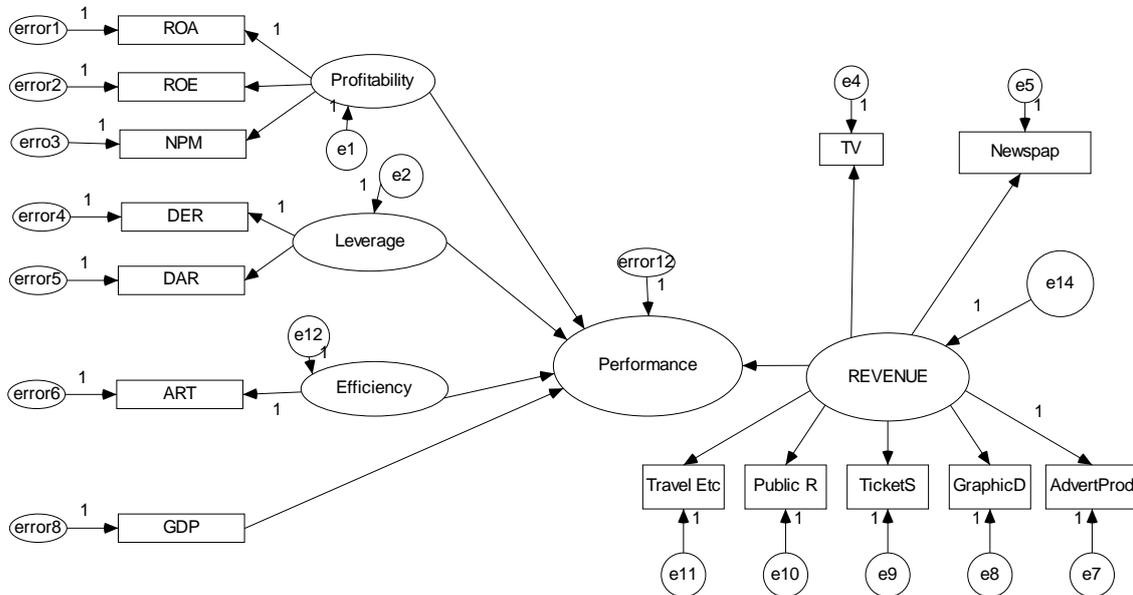


Figure 4.6 Path Diagram hypothesis 2

Source: Amos

Similar to hypothesis 1, there is also a sample size of 20 for every variable used in this model.

The reason of choosing GDP as the observed variable for the general economic condition in Indonesia is simply due to the fact that GDP is often used to measure the performance of an economy (Ebert and Griffin, 2005). Therefore, the relation between the performance of Indonesia (GDP) and the performance of PTFI will be analyzed. The result should be more reliable compared to if all economic indicators; inflation, interest rates per Bank Indonesia and exchange rates of Rupiah towards US dollar were included as observed variables. Instead, the three economic indicators will be included into GDP as the performance measurement of Indonesia's economy. Comparing performance to performance should provide a higher correlation value. The next step will be testing the GDP and the other crisis indicators to determine their correlation with each other.

		GDP	BI Rate	Exchange	Inflation
Pearson Correlation	GDP	1	0.204	0.183	0.193
	BI Rate	0.204	1	0.357	0.819
	Exchange	0.183	0.357	1	0.424
	Inflation	0.193	0.819	0.424	1
Sig. (1-tailed)	GDP	.	0.194	0.221	0.208
	BI Rate	0.194	.	0.061	0

		GDP	BI Rate	Exchange	Inflation
	Exchange	0.221	0.061	.	0.031
	Inflation	0.208	0	0.031	.

Table 4.10 Correlation of economic indicators

Source: AMOS

From the table above, many conclusions can be made. By judging from the level of correlation between GDP and exchange, it can be concluded that the value of Rupiah (exchange) will increase by 0.183 every time GDP increases by 1%. The same goes for GDP, whenever the value of Rupiah increases by 1%, GDP will also show an increase of 0.183. However, when considering the level of significance, the correlation of GDP and exchange rate, may not be adequately significant. By reviewing table 4.10, the next step would be to test the correlation between all economic indicators with GDP as the dependent variable.

Model		Inflation	Exchange	BI Rate	
1	Correlations	Inflation	1	-0.246	-0.789
		Exchange	-0.246	1	-0.018
		BI Rate	-0.789	-0.018	1
	Covariances	Inflation	0.196	-0.037	-0.146
		Exchange	-0.037	0.115	-0.003
		BI Rate	-0.146	-0.003	0.175

a. Dependent Variable: GDP

Table 4.11 Coefficient Correlations

Source: SPSS

After inputting GDP as the dependent variable, it can be seen that there is a difference in correlation values between table 4.10 and 4.11. The correlations between variables are clearer in this table. As an example, when the prices of goods in Indonesia (inflation) increase by 1%, the value of Rupiah will drop by 0.246. This logically makes sense since high inflation will usually result in lowered currency value. This can be determined only because the GDP was made to be the dependent variable or the constant. All negative values above means that they have a negative correlation, meaning that if one variable increases the other will most likely decrease. After further processing, a new equation that represents economic indicators has been found where GDP acts as the dependent variable.

Equation 11. GDP equation

$$GDP = 0.334 + 0.135X_1 + 0.153X_2 + 0.030X_3$$

.....(11)

Source: SPSS for Un-standardized Coefficients

Where:

- 0.334 = Intercept (the value of GDP when X equals 0)
- X₁ = Bank Indonesia Interest Rate
- X₂ = Currency Exchange Rate (US dollar to Rupiah)
- X₃ = Indonesian Inflation Rate

The values shown in the equation comes from the B value of Un-standardized Coefficients (marked in red) shown in the table below.

Model		Un-standardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	0.334	0.173		1.934	0.071
	BI Rate	0.135	0.418	0.137	0.323	0.751
	Exchange	0.153	0.339	0.121	0.452	0.657
	Inflation	0.03	0.443	0.029	0.068	0.947

a. Dependent Variable: GDP

Table 4.12 Coefficient for economic indicator

Source: SPSS

Though the above regression equation appears appropriate and/or otherwise acceptable, in terms of business sense, such an equation may need a slightly different approach and explanation. For managerial explanations, it may be easier to refer to the standardized coefficients since “percentage” can be used to explain the relationships. For instance, the standardized coefficient of 0.137 for BI rate can be simply explained that for every 1% increase in BI Rate, the GDP increases by 13.7%. Other coefficients can also be explained in the similar fashion. Nonetheless, the level of significance should also be noted to conclude whether or not the coefficients play considerable roles in the relationships.

Variable counts (Group number 1)

Number of variables in your model:	38
Number of observed variables:	14
Number of unobserved variables:	24
Number of exogenous variables:	19
Number of endogenous variables:	19

Table 4.13 Preliminary result of AMOS Input

Source: AMOS

After inputting all of the data into the model, a preliminary result of the level of degree of freedom is given. The actual result from AMOS is shown below.

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	105
Number of distinct parameters to be estimated:	33
Degrees of freedom (105 - 33):	72

Table 4.14 Degree of freedom for hypothesis 2

Source: AMOS

4.2.2.1 Reliability Test

Following the previous process, a test involving all 19 variables will be conducted.

From the result, it can be concluded that not all variables are reliable to be used in this model. Radio did not pass the validity test because each variable failed to meet the minimum critical value for r with a df value of 72 which is 0.232.

Indicators	Corrected Item-Total Correlation
TV	0.772
Newspaper	0.905
Radio	0.221
Advertising Production	0.853
Graphic Design	0.783
Ticket Sales	0.897
Public Relation	0.553
Travel, Etc	0.577
GDP	0.499
ROA	0.702
ROE	0.755
NPM	0.544
ART	0.595
DER	0.738
DAR	0.724
CR	-0.765

Table 4.15 Validity test result

Source: SPSS

4.2.1.2. Validity Test

From the result below it can be seen that the new model is fit to be used.

The RMR value is quite low which means that the model is valid. By judging from the GFI value of 0.469, it is still fit to be used since the value still falls under the set range of $0 < \text{GFI} < 1$. The RMSEA value is also good since it is below 1. Therefore it can be concluded that the model is valid.

Model	RMR	GFI	AGFI	PGFI
Default model	.035	.471	.305	.358
Saturated model	.000	1.000		
Independence model	.044	.183	.058	.159

Table 4.16 RMR and GFI

Source: AMOS

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0.335	0.29	0.384	0
Independence model	0.525	0.484	0.567	0
Independence model	0.044	0.183	0.058	0.159

Table 4.17 RMSEA

Source: AMOS

4.2.1.3. Interpretation of Path Analysis

From figure 4.5, it shows that the economic indicators are represented by GDP alone; this is because GDP has already been calculated as the dependent variable. GDP has already included exchange rate, inflation and BI rate. The correlation value of each variable is also shown above. The highest correlation value towards revenue is once again ticket sales, which is 94%. As for profitability, the most correlation is shown from ROA which is a high value of 102%. This shows the value of ROA plays a major role in contributing to the profitability of PTFI.

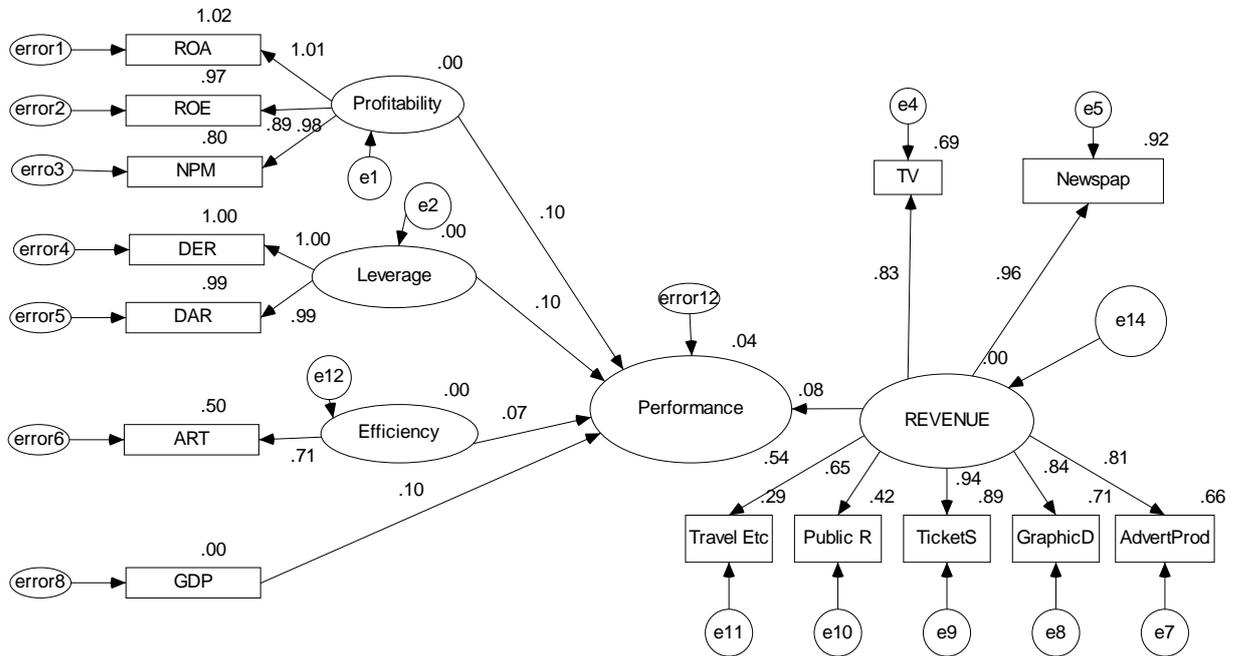


Figure 4.7 Path Diagram for hypothesis 2
Source: AMOS

For further detail, the table below shows the correlations among all indicators and variables.

Indicators	Standard Regression Weights (R)	Squared Multiple Correlation Value (R ²)
Profitability	0.1	1%
ROA	1.01	102%
ROE	0.89	97%
NPM	0.98	80%
Leverage	0.1	1%
DER	1.00	100%
DAR	1.00	99%
Efficiency	0.07	0.4%
ART	0.71	50%
GDP	0.10	1%

Indicators	Standard Regression Weights (R)	Squared Multiple Correlation Value (R ²)
Revenue	0.08	0.6%
TV	0.83	69%
Newspaper	0.96	92%
Travel, etc	0.54	29%
Public Relation	0.65	42%
Ticket Sales	0.94	89%
Graphic Design	0.84	71%
Advertising Production	0.81	66%

Table 4.18 Profitability, Leverage, Efficiency, Economic indicators and Revenue
Source: AMOS

Based on the results shown above, statistically H_0 should be rejected. The correlation between GDP and performance of PTFI is only 1% which can be concluded that the correlation is relatively weak.

4.3. Additional Research Question

This study is also attempting to investigate “how much contribution did PTFI have towards the revenue of the advertising industry in Indonesia during 2004 – 2008?” In order to appropriately addressing this query, the following analyses are conducted.

Measured in million of Rupiah

Year	PT. Fortune Indonesia, Tbk. Sales	Advertising Industry Sales
2004	173,002	28,489,579
2005	176,071	33,184,003
2006	193,231	38,580,221
2007	262,365	43,362,106
2008	266,231	50,008,428

Table 4.19 Total Advertisement
Source: PPPI, 2008

Figure 4.6 shows that PTFI has contributed over 0.7% of Indonesia’s advertising industries’ totals advertisement sales. Even though it is seems like a small numbers but there are a lot of advertising agencies in Indonesia. Some of those agencies are international agencies based in other countries such as Japan, America and France. Below is a list of top advertising agencies in Indonesia.

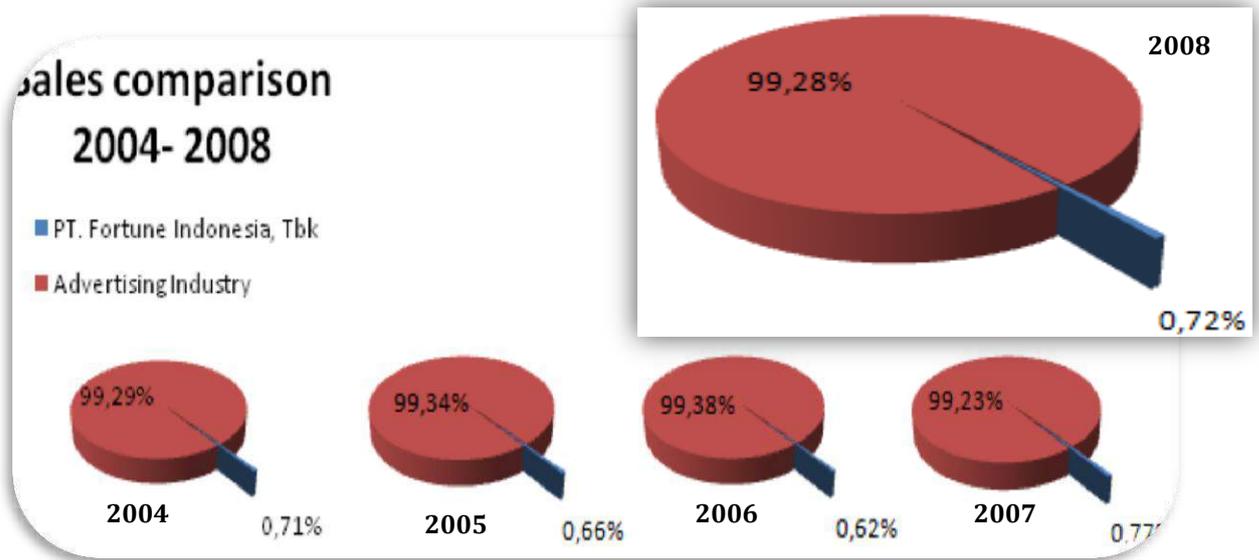


Figure: 4.8 Advertisement Revenues: PTFI and Advertising Industry
 Source: PTFI annual report, 2009

Agency Name	Origin
Dentsu	Japan
Ogilvy & Mather	USA
BBDO	USA
McKann Erickson	USA
JWT - J. Walter Thompson	USA
DDB	USA
Lowe	USA
Publicis	France
Fortune	Indonesia
Matari	Indonesia
Cabe Rawit	Indonesia
Hot Line	Indonesia

Table 4.20 List of Agencies in Indonesia
 Source: PTFI, 2009

Media Specialists are agencies that specialized in the media planning and buying. Generally, the agencies listed below are owned by the same agencies listed above. Fortune also offers the media specialist service. Other agencies that also offer media specialization are;

Agency Name
WPP, Quantum, Initiative, Asia Media Network, Dwi Sapta, Dentsu, Arteks, Totalindo Group, Zenith, Mediate, Mega Group, Starcom Group, Optima Media, Tri Ad

Table 4.21 Media Specialists in Indonesia
 Source: PTFI, 2009

There is no accurate data regarding the agencies previously listed since the Enron Case. Multinational agencies, particularly American agencies do not disclose their annual reports anymore (interview result).

4.4. Interview Results

Based on the interview with PTFI's President Director Mr. Indra Abidin, the changing economic condition pushes PTFI to create a special strategy. *"In order to be the best place to invest in, to apply the talents, knowledge and competence of our people for the public good, to maximize efforts to provide the best business solutions for our partners"* (interview result) are PTFI's motto of doing business. Fortune's success originates from offering commercial marketing, social marketing and corporate services. This has awarded Fortune the trust of various government and private sector clients.

Fortune was awarded various blue chip accounts including the most successful General Elections and Presidential Elections (*Pemilu 2004*), Carrefour, HONDA Motor, Campina, Djarum, Bank Mandiri, the BKPM Investment promotion Activities in the international markets, World Expo 2004 Nagoya Japan and World Expo Zaragoza Spain 2008.

According to Mr. Indra Abidin, the challenges that PTFI faced during the last five years include the restructuring of the advertising industry that began in 2000. The presence of small companies and the pressure from international agencies all have created a tighter competitive environment for PTFI. Other obstacles that PTFI commonly face are unhealthy competition in pricing policies and decreasing profit margins which also creates an obstacle for investments in new business tools and research facilities.

SAMPLE # 2: BALANCED SCORECARD AND ORGANIZATIONAL PERFORMANCE

The following research sample is based on the actual work of an undergraduate thesis in 2010, which was originally written by Pacifico Shorea Rotaria from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*The Implementation of Balanced Scorecard in Assessing The Strategic Performance: A Case Study on Publicly Listed Companies in Indonesian Cosmetics and Household Industry*”.

The approach used in this study was quantitative-based research, which mainly relied on questionnaire to evaluate the relationship among variables based on the research model. Secondary data from financial statements of publicly-listed firms are also incorporated to provide managerial explanation and evidence on what the firms have attempted to do.

CHAPTER 4 – RESULT & DISCUSSION

This chapter reviews and discusses the data that have been gathered from BEI. Based on the previous chapters, this chapter focuses more on the result of the research. The research is conducted by analyzing the publicly listed companies in the Indonesian cosmetics and household industry.

4.1. Company Overview

4.1.1. PT. Unilever Indonesia Tbk

4.1.1.1. Company Profile

UNVR was established on 5th July 1933. The main activities of UNVR are providing customer products are included food and ice cream; and home and personal products. In 1981, it's the first time UNVR offered its shares to the public. After that on 11th January 1982, the company's shares have been listed on BEI officially. Unilever has two subsidiary companies: PT. Anugrah Lever which is 100% owned subsidiary (in liquidity and previously a joint venture marketing company for soy sauce), and PT. Technopia Lever, which is 51% owned subsidiary, and work on distribution, export, and import of product under Domestos Nomos trademark.

Yet, total numbers of employees are more than 3,900 people throughout Indonesia. Currently, UNVR has six factories in Jababeka Industrial Estate, Cikarang, Bekasi, and two factories in Rungut Industrial Estate, Surabaya, East Java, and a head office in Jakarta. UNVR has already produced 32 major brands and 700 Stock Keeping Units (“SKUs”) which sold through around 370 independent distributors, which cover hundreds of thousands of outlets throughout Indonesia. All of UNVR products are distributed through its own central distribution centers, additional warehouses, depots, and other facilities.

From all of activities that have been done by Unilever, the company has Social Responsibility (“CSR”) program. There are four aspects of its programs, such as, Environment, Nutrition, Hygiene, and Sustainable Agriculture. For instance, Hand Washing Campaign with Soap (Lifebuoy), Dental and Oral Health Education Program (Pepsodent), Traditional Food Conservation Program (Bango), and Campaign to Fight Hunger and Malnutrition to help malnourished Indonesia children (Blue Band).

The objectives of UNVR are to create the better future every day; help people feel good and enjoy their life with brands and services that are good for them and good for others; inspire people to take small actions everyday and those actions can sum up to make a big difference for the whole world; develop the new ways of running business with the possibility to grow and reduce environmental impact. (Annual Report of UNVR, 2009)

4.1.1.2. Company Value, Vision, and Mission

4.1.1.2.1. Company Value

There are several values that are being applied by UNVR: *Customer, consumer, and community focus; Teamwork; Integrity; Making things happen; Sharing of joy; and Excellence* (Annual Report of UNVR, 2009).

4.1.1.2.2. Vision

Unilever’s vision sets out the long-term objectives for the company (Annual Report of UNVR, 2009):

- *We work to create a better future every day*
- *We help people feel good, look good and get more out of life with brands and services that good for them and good for others.*
- *We inspire people to take small everyday actions that can add up a big difference for the world*
- *We will develop new ways of doing business that will allow us to double the size of our company while reducing our environmental impact.*

4.1.1.2.3. Mission

The mission of UNVR is: *“Unilever’s mission is to add vitality to life”*.

According to Annual Report of UNVR (2009), the mission means that the company provides the products that meet to the customer expectation. The company maintains a strong relationship with the customers by using international expertise of service to the customer. While in organization success, UNVR commit with a standard of total performance, productivity, and innovation for the employee, communities, and the environment. Those statements assist the company in achieving a sustainable, profitable, and long-term value for the shareholder, management, and business partners.

4.1.1.3. UNVR Products

Based on Annual Report of UNVR (2009), the product that UNVR produce is divided into two types of product, which are, home and personal care; and food and ice cream products.

Table 4.1 UNVR products

UNVR		
Home & Personal Care		Food & Ice Cream
Axe	Pepsodent	Bango
Citra	Ponds	Blue Band
Clear	Rexona	Buavita
Close up	Rinso	Lipton
Domestos Nomos	Sunlight	Royco
Dove	Sunsilk	Sariwangi
Lifebouy	Super Pell	Skippy
Lux	Surf	Taro
Molto	Vaseline	Walls

Source: Annual Report of UNVR (2009)

4.1.1.4. Organizational Structure of UNVR

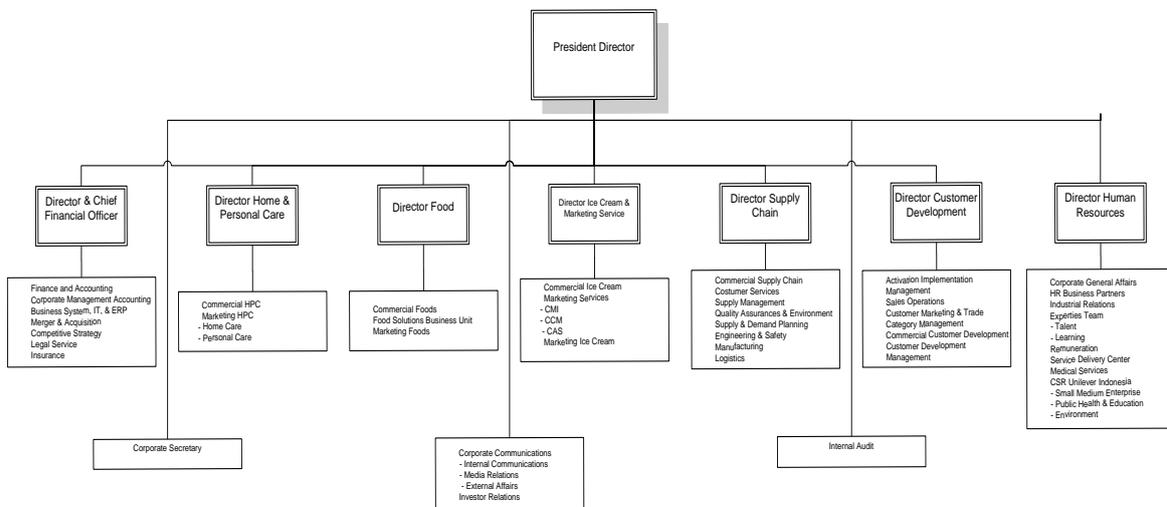


Figure 4.1 Organizational structure of UNVR

Source: Annual report of UNVR (2009)

4.1.2. PT. Mustika Ratu Tbk

4.1.2.1. Company Profile

MRAT was established in 1975 by utilizing the garage of BRA Mooryati Soedibyo's house. After that, the company started its business commercially in 1978. The first products that company produced were tonics, which were distributed in Jakarta, Semarang, Surabaya, Bandung, and Medan. The company began to develop various kinds of traditional cosmetics in 1980. On 8 April 1981, MRAT began to operate its factory in Ciracas, East Jakarta. The company was publicly listed at BEI in 1995.

Since 1996, the company started to apply international standard of ISO 9001 on quality system management and ISO 14001 on environmental management system. The company has also received a certificate of Good Manufacturing Practices ("GMP") in 1995. This certification is used as the standard in some of developed countries and to ensure the customer of environment friendly product quality. The company's activities include fabrication, trade and distribution of tonic, traditional cosmetics,

healthy drink and other related business activities. Currently, the head office of MRAT is located on Jalan Gatot Subroto Kav. 74-75, Jakarta (Annual Report of MRAT, 2008)

4.1.2.2. Vision, Mission, and Culture

4.1.2.2.1. Vision

According to Annual Report of MRAT (2008), the vision of the company is: *“Making the tradition legacy of the ancestor family as a basis for the health care and holistic wellness beauty industry by a sustainable technology modernization process yet in nature still relies on the natural plants.”*

4.1.2.2.2. Mission

Based on Annual Report of MRAT (2008), the mission of company is: *“The philosophy of health and holistic wellness beauty which has been abandoned since a long time by people is re-dug by a Palace Princess as a royal heritage to be spread to the world as the God’s gift in the form of knowledge which shall be maintained and preserved.”*

4.1.2.2.3. Culture

The culture that company’s hold, are (Annual Report of MRAT, 2008):

- *To give priority to customer satisfaction improvement*
- *To work with familiar and intimacy culture*
- *To respect high integrity and professionalism*
- *To support cooperation and mutual cooperation in achieving collective purpose*

4.1.2.3. MRAT Products

According to Annual Report of MRAT (2008), some brands of the company, include Mustika Ratu by BRA Mooryati Soedibyo, Mustika Puteri, Bask for Men, Biocell, Ratu Mas, Taman Sari Royal Heritage Spa, and Moor’s Professional Make-up. Each brand in MRAT is also divided into some product, as follow;

1. Mustika Ratu by BRA Mooryati Soedibyo is consists of two type of products, which are Traditional Herbal Medicine and Personal Care and Cosmetics.
 - a. Traditional Herbal Medicine are traditional medicines which are used by most of Indonesian people as their health care. MRAT produces some health care that are divided into herbs care, oral and dental health care, and herbal drink.
 - b. Personal Care and Cosmetics are the daily needs products used by both of women and men. MRAT produces many types of products which involve in personal care and cosmetics, such as, hair care, facial care, body care, basic make-up, decorative, and whitening series.
2. Mustika Puteri products are focused on the needs of teenagers. The product includes mist cologne, talcum Powder, body splash, roll on, white reflect, hand and body lotion, and others.
3. Bask For Men is a men products which includes splash cologne, spray cologne, deo roll-on, and other.
4. Biocell is the product which has a function to overcome the problem of adult women. There are three types of products, such as, 25+ Biocell Sunflower Anti

Wrinkle, 40+ Biocell Algae Revitalizing, Biocell Basic Make Up.

5. Ratu Mas is the body scrub product that consists of two variances, such as Seruni body scrub and Sri Gading body scrub.
6. Taman Sari Royal Heritage Spa offers many treatments, such as, Hair Treatments, Body Treatments, Bust Treatments, Intimacy Care, Foot Treatments, Massage & Essential Oil, and Papaya Series.
7. Moor's Professional Make-Up is for the customer who needs a perfect and long lasting make-up product. This brand is usually used by artist in some of television channel or magazine. There are many products of Moor's professional make-up, such as, Foundations, Powder, Decorative, Concealer, Face & Body Shimmer, and Anti Shine Powder.

4.1.2.4. Organizational Structure of MRAT

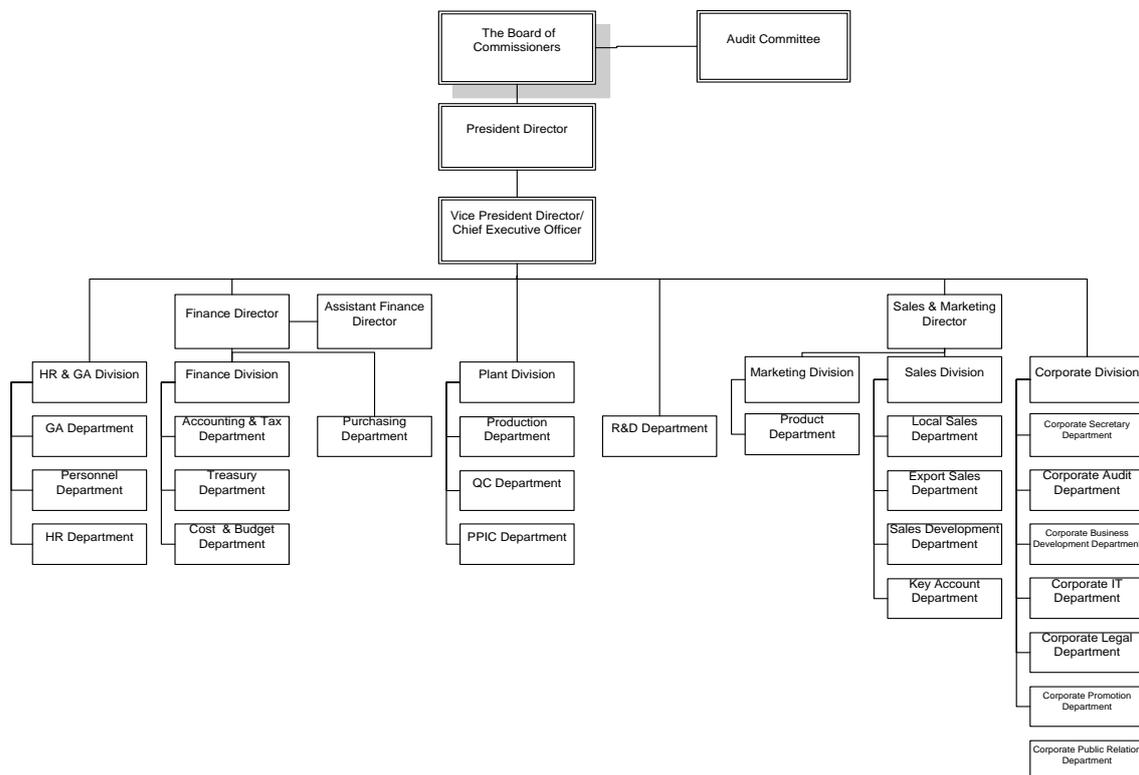


Figure 4.2 Organizational Structure of MRAT

Source: Annual report of MRAT (2007)

4.1.3. PT. Mandom Indonesia Tbk

4.1.3.1. Company Profile

PT. Mandom Indonesia Tbk was established in 1971 where it initially produced hair care products, which then developed to fragrances and cosmetics. This company is a joint venture company between Mandom Corporation, Japan, and PT. City Factory. Formerly, the company was using the name PT. Tancho Indonesia and in 2001 the name was changed to PT. Mandom Indonesia Tbk.

In 1993, the company would become the 167th company and 11th Japanese joint

venture company which were listing its share in BEI. The main brands of this company are Gatsby, Pixy, and Pucelle. The company also produces other brands, such as, Tancho, Mandom, Spalding, Lovillea, Miratone, and other export brands. The company has two factories, which are located in Sunter and Cibitung. In Sunter, the main activities of the factory are producing the whole cosmetic product lines while the Cibitung factory concentrates on plastic packaging, and also serves as the logistic center for the company.

The company distributes their product to domestic market and international market. The domestic market covers all regimes in Indonesia. The company also exports its products to some international countries, such as, United Emirates Arab ("UEA"), Japan, India, Malaysia, and Thailand. Through UAE, the company's are re-exported to some countries in Africa, Middle East, and Eastern Europe (Annual Report of TCID, 2008).

4.1.3.2. Company Mission and Values

4.1.3.2.1. Mission

According to Annual Report of TCID (2008), the mission is: *"Aiming to provide a comfortable lifestyle supported by health and beauty"*.

4.1.3.2.2. Values

According to Annual Report of TCID (2009), are:

- *Creating lifestyle value with consumers, for consumers*
In creating lifestyle value, TCID provide the products that meet to the customers' need.
- *Active Employee Participation*
The active employee participation means that the employee can bring out their creativity in as form of discussion in order to enhance the value of employee and organization for future growth.
- *Social Responsibility and Sustainability*
In build a good relationship among stakeholder, the company tries to establish mutual communication and responds as quickly as possible to the demand. The objective of the company dedicates to the social development.

4.1.3.3. TCID Products

Based on Annual Report of TCID (2008), TCID's products are made for men and women. The products are divided into some types of products, such as, Men's Toiletries, Ladies' Toiletries, Ladies' Cosmetics, General Product, and Export products.

5. Men's Toiletries, such as; Mandom, Spalding, Splash Cologne, and Gatsby
6. Ladies' Toiletries, such as: Pucelle, Miratone, Pixy, and Lovillea
7. Ladies' Cosmetics are under the brand Pixy, which are divided into several types, such as; Pixy UV Whitening (for facial wash), Pixy Color of Delight (for lipstick, eye liners, mascara, nail polisher), and Pixy Acne Brite (for cleansing, and powder).
8. General Products, such as; Johny Andrean (shampoo, styling gel, conditioner), and Tancho (for hair dyes).

9. Export Products, such as; Fresh 'n Fresh, Axya, Style Up, Tancho, and Oxxo

4.1.3.4. Organizational Structure of TCID

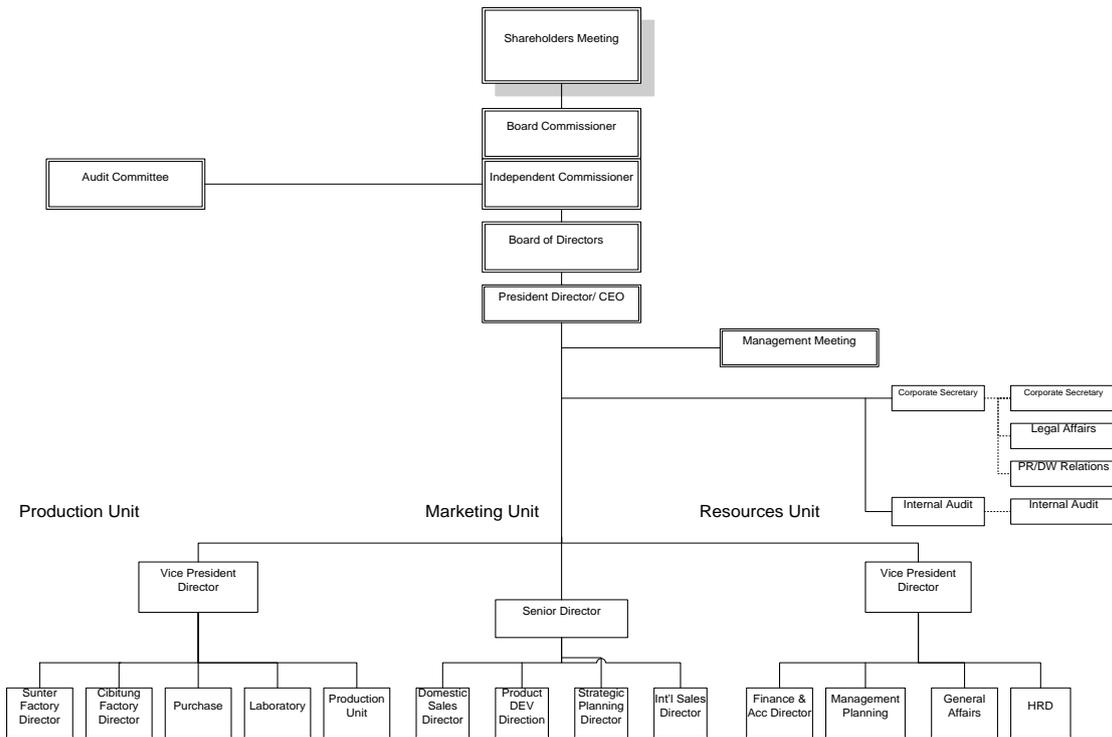


Figure 4.3 Organizational Structure of TCID

Source: Annual report of TCID (2006)

4.1. External Environment Analysis

Before the company decides its strategy, the company has to analyze its external environment. Since the external environment is one of the indicators that influence the key stakeholders in making decision. This research focuses on the external environment for Indonesian Cosmetic and Household Industry in span time of 2004 – 2008.

The condition of Indonesia currently is fluctuated and it can be seen from year to year. First, year 2004 was a political transition process which president and parliament election was being held. Macroeconomic condition was stable that the Gross Domestic Product (“GDP”) level reach to 5% and the inflation rate is 6.4% (Annual Report of UNVR, 2004). In May 2004, the exchange rate of Rupiah against Dollar weakened into Rp. 9,000 per US\$ until the end of the year (Annual Report of MRAT, 2004). In social aspect, Indonesia faced the tsunami attacked Aceh and North Sumatra by the end of the year.

During 2005, the global economics condition faced an obstacle where the price of world’s fuel reached to US\$ 70 per barrel and subsequently the world economy decreased by 3.1% than the previous year. The increasing world price also effected to the economic condition in Indonesia, which experienced a growth rate of only 5.4% (Annual Report of MRAT, 2005). Furthermore, the Indonesia’s currency exchange declined from Rp. 9,750 in April to Rp.10,800 per US\$ in September. This condition

has certainly impacted the demand of domestic customers.

During 2006, the economic performance in Indonesia was improving with an inflation rate of lower than 10%, or 6.6% by the end of the year. Through 2006, the exchange rate of Rupiah against US\$ was strengthened to the level of Rp. 9,020 per US\$. Indonesian government planned to issue three policy packages which were intended to attract the private investment in Indonesia. The three policy packages were financial sector policy package, infrastructure acceleration policy package, and package of investment climate improvement policy (Annual Report of MRAT, 2006). However, the buying power of the customer toward the secondary needs product remained weak particularly due to the substantial like in domestic oil price since 2005.

The general economic condition in Indonesia during 2007 was increased as compared to 2006, which are 6.3% from 5.5%. In the other hand, the supreme mortgage crisis was faced by United States and the world's fuels price increased rapidly more than US\$ 100 per barrel. It caused the inflation rate would become 6.59% in Indonesia and the Indonesia currency exchange was depreciated into Rp. 9,419 compared to last year which is Rp. 9,020. (Annual Report of TCID, 2007)

Year 2008 was the harder year than the last five year and full of challenge globally. It showed by increasing the price of world's fuel of US\$ 147 per barrel. The impact of the rise in world's fuel price to the Indonesia economics condition is the exchange rate reached Rp. 13,000/US\$. Furthermore, the inflation rates of Indonesia increase to 11.9% in order reducing fuel subsidies by Government.

In conclusion, the demands of customer toward the firm's products are dependent on the condition in particular country. When the condition of the country is not good enough, the buying power is effected. Meanwhile, the company has to identify its organization performance in order to attract its customer and improve its capabilities and resources. The method that appropriate in analyzing the organization performance is BSC.

4.2. Analyzing Organization Performance

In analyzing organization performance, each company has to pay attention to the four perspectives which include in BSC. However, most of companies are still focusing on financial aspect. The four perspectives are important to help the company to analyze its organization performance. The objective of organization is to perform better than its competitors.

4.3.1. Balanced Scorecard

4.3.1.1. Financial Perspective

In assessing the financial perspective, the company could use ratios. The ratios that are used in research are more focus on liquidity ratio and profitability ratio. The three companies would calculate its ratio within the period of five years, from 2004-2008.

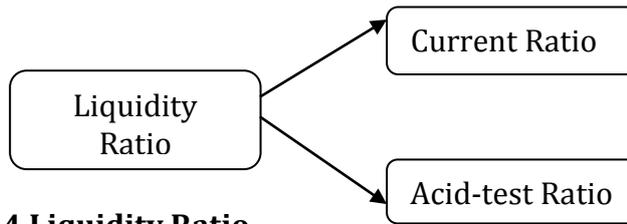


Figure 4.4 Liquidity Ratio

Source: Ross, et al (2008)

1. Liquidity Ratio

- a. CR can be counted by dividing the total current asset by current liabilities. It is used in order to measure the ability of the company in paying its current debt.

Table 4.2 CR of Companies in Cosmetics and Household Industry

Current Ratio						
Company	2004	2005	2006	2007	2008	Average
UNVR	1.62	1.35	1.27	1.11	1.00	1.27
MRAT	5.16	7.02	9.25	7.68	6.31	7.08
TCID	4.29	4.42	8.78	17.61	8.10	8.64

Source: Financial Statements, modified

Table 4.2 shows that the ability of the companies in covering its short-term liabilities during 2004 – 2008. In average of CR, TCID has a highest level than two other companies. The total average of TCID is 8.64. Thus, it indicates TCID could cover its current debts better than others.

- b. ATR is about the ability of the company in paying its debt without calculating the inventory which requires a longer time to convert into cash. The formula of this ratio is by adding cash equivalent, short-term investment, and receivable (net) then dividing to current liabilities.

Table 4.3 ATR of Companies in Cosmetics and Household Industry

Acid -test (Quick) Ratio						
Company	2004	2005	2006	2007	2008	Average
UNVR	1.11	0.84	0.89	0.79	0.59	0.84
MRAT	4.14	5.63	7.41	6.10	5.23	5.70
TCID	2.13	2.04	4.58	10.22	4.35	4.67

Source: Financial Statements, modified

The table above illustrates that the results of ATR in UNVR, MRAT, and TCID. In the data above, the rates of ATR were constantly decreased during five years. The highest rate of ATR was obtained by TCID in 2007 with the level of 10.22. However, the highest average rate of ATR was gathered by MRAT.

2. Profitability Ratio

- a. PM is used to measure the profitability or the income of the company in a given period of time. PM can be counted by dividing net income by net

sales.

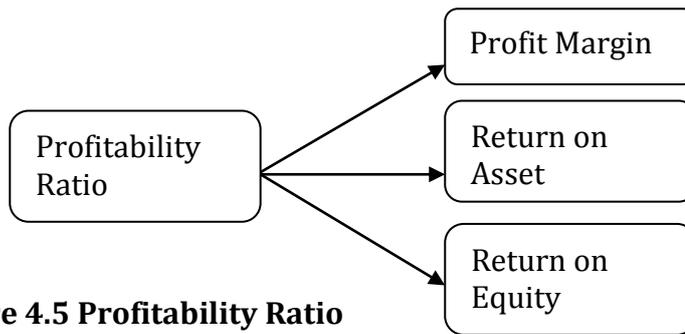


Figure 4.5 Profitability Ratio

Source: Ross, et al (2008)

Table 4.4 PM of Companies in Cosmetics and Household Industry

Profit Margin						
Company	2004	2005	2006	2007	2008	Average
UNVR	0.16	0.14	0.15	0.16	0.15	0.15
MRAT	0.05	0.04	0.04	0.04	0.07	0.05
TCID	0.10	0.10	0.11	0.11	0.10	0.10

Source: Financial Statements, modified

Table 4.4 indicates that the PM of all companies has slightly changed in span time of five years. By calculating PM, UNVR has the highest average level of PM among others, with the average rate of 0.15. It means that UNVR is relatively more profitable than other competitors.

- b. ROA is an indicator to measure how profitable the company’s asset in generating the revenue. ROA can be calculated by dividing net income by asset.

Table 4.5 ROA of Companies in Cosmetics and Household Industry

ROA						
Company	2004	2005	2006	2007	2008	Average
UNVR	0.40	0.37	0.37	0.37	0.37	0.38
MRAT	0.04	0.03	0.03	0.04	0.06	0.04
TCID	0.17	0.17	0.15	0.15	0.13	0.16

Source: Financial Statements, modified

The table above indicates the rate of ROA of UNVR were significantly differences among others. The average ROA of UNVR is 0.38. However, MRAT has 0.04 and TCID has 0.16 in average ROA. It can be concluded that UNVR was able to generate more returns on its assets than the competitors.

- c. ROE is used to measure the company’s profitability equity. ROE is computed by dividing net income by equity.

Table 4.6 ROE of Companies in Cosmetics and Household Industry

ROE						
Company	2004	2005	2006	2007	2008	Average
UNVR	0.64	0.66	0.73	0.73	0.78	0.71
MRAT	0.05	0.03	0.03	0.04	0.07	0.04
TCID	0.21	0.20	0.16	0.17	0.14	0.18

Source: Financial Statements, modified

Table 4.6 shows the ROE in UNVR were increasing during five years, with the average level of 0.72. Meanwhile, the average level of MRAT and TCID were significantly difference than UNVR. It indicates UNVR was able to generate more returns on its equities than the competitors.

4.3.1.2. Customer Perspective

Customer perspective is used to identify customer and market segment that company decide to compete. The company measure the customer by assessing core customer outcomes includes satisfaction, loyalty, retention, acquisition, and profitability. It can be analyze through questionnaire that distributed personally and emailed to the respondents. The questionnaires have distributed to 150 respondents.

4.3.1.2.1. Respondent Profile

The respondent profile in questionnaire is divided into several categories, such as:

Table 4.7 Respondent profile

No.	Respondent Profile	Frequency	Percentage	
1	Gender:	Male	41	27.33%
		Female	109	72.67%
2	Age:	≤ 18	16	10.67%
		19 - 22.9	19	12.67%
		23 - 30.9	23	15.33%
		31 - 30.9	45	30.00%
		≥ 40	47	31.33%
3	Residence:	Jakarta	29	19.33%
		Bogor	20	13.33%
		Tangerang	90	60.00%
		Bekasi	9	6.00%
		Others	2	1.33%
4	Marital Status:	Married	86	57.33%
		Single	60	40.00%
		Widow	1	0.67%
		Widower	3	2.00%
		Others	0	0.00%
5	Last Education Background:	Senior High School	78	52.00%
		Diploma	10	6.67%
		Bachelor	45	30.00%
		Master	8	5.33%

No.	Respondent Profile	Frequency	Percentage	
	Others	9	6.00%	
6	Occupation:	Civil Employee	38	25.33%
		Private Employee	37	24.67%
		Housewife	27	18.00%
		Entrepreneur	18	12.00%
		Others	30	20.00%
7	Expenses for Buying Cosmetics and Household Product:	≤ Rp. 50,000	43	28.67%
		Rp. 50,100 - Rp. 100,000	42	28.00%
		Rp. 100,100 - Rp. 150,000	34	22.67%
		Rp. 150,100 - Rp.200,000	16	10.67%
		≥ Rp. 200,000	15	10.00%

Source: Questionnaire

4.3.1.2.2. Data Analysis

The questionnaire distribution consists of two stages, which are a pre-test questionnaires and post-test questionnaires.

Table 4.8 Questionnaire distribution and data collection stage

Description	<i>Pre-test</i>	<i>Post-Test</i>
Number of sample	30	150
Number of questionnaire distributed	30	150
Number of questionnaire collected	30	150
Uncompleted questionnaire	0	0
Number of proceed questionnaires	30	150
Percentage	100%	100%

Source: Questionnaire

The questionnaire was distributed during weekend and weekdays to the researchers' neighbors and customer of the supermarket in Tangerang and Jakarta areas. 30 questionnaires were conducted for pre-test and 150 questionnaires are conducted for post test questionnaire distribution.

4.3.1.2.3. Reliability Test

Reliability test is a method to measure the internal consistency reliability of variable in the questionnaire. In examining reliability, SPSS student version used Cronbach's Alpha by determining the internal consistency of a test. To get reliable outcome in variable, the Cronbach's Alpha in reliability test should be greater than 0.7 ($\alpha \geq 0.7$). And if the Cronbach's Alpha is less than 0.7 ($\alpha \leq 0.7$), the variable can be considered as not reliable.

Furthermore, the corrected item-total correlation for each question has to be excess than the critical value of r for the Pearson Correlation Coefficient accordance with the number of respondents. The critical value of r for the Pearson Correlation Coefficient of 30 respondents (30 respondents - 1 = 29) is 0.355. While the critical value of r for the Pearson Correlation Coefficient of 150 respondents (150 respondents - 1 = 149) is 0.174.

1. Reliability Test for 30 Respondents (Pre-test)

Table 4.9 Companies in cosmetics & household industry reliability test N=30

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.981	98

Source: SPSS Software

Based on the tables above, the publicly listed company in cosmetic and household industry reliability test for 30 respondents shows that Cronbach's Alpha values for 98 questions is 0.981. It indicates the all question are reliable due to the Cronbach's Alpha is greater than 0.7 ($\alpha \geq 0.7$).

Table 4.10 Companies in cosmetics & household industry item total statistics N=30

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
A1	365.87	5010.878	.580	.981
A2	367.07	4897.582	.697	.981
A3	365.90	5017.197	.488	.981
A4	366.17	4970.075	.638	.981
A5	366.23	4978.875	.517	.981
A6	367.27	4939.168	.559	.981
A7	367.17	4912.351	.686	.981
A8	366.97	4902.516	.738	.981
A9	367.13	4902.878	.744	.981
A10	366.83	4914.695	.690	.981
A11	366.63	5022.378	.176	.981
A12	366.47	4971.706	.486	.981
A13	366.47	4954.189	.552	.981
A14	366.40	4953.076	.601	.981

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
B1	365.93	5024.340	.387	.981
B2	367.13	4902.533	.687	.981
B3	365.97	5002.516	.514	.981
B4	366.13	4991.844	.507	.981
B5	366.10	4983.128	.576	.981
B6	367.57	4943.702	.571	.981
B7	367.63	4910.930	.655	.981
B8	367.30	4904.424	.682	.981
B9	367.20	4893.614	.784	.981
B10	366.77	4912.323	.706	.981
B11	366.50	5020.052	.211	.981
B12	366.53	4953.706	.570	.981
B13	366.40	4929.559	.728	.981
B14	366.47	4950.257	.588	.981
C1	365.93	5010.547	.580	.981
C2	367.03	4905.206	.642	.981
C3	365.93	5005.857	.572	.981
C4	366.13	4975.154	.650	.981
C5	366.10	4976.852	.629	.981
C6	367.27	4946.754	.512	.981
C7	367.27	4885.375	.793	.981
C8	367.03	4910.516	.676	.981
C9	367.03	4899.413	.719	.981
C10	366.63	4921.689	.695	.981
C11	366.33	4996.161	.380	.981
C12	366.43	4952.461	.597	.981
C13	366.40	4928.386	.735	.981
C14	366.33	4928.644	.736	.981
D1	365.90	5022.369	.416	.981
D2	367.17	4906.489	.681	.981
D3	365.90	5017.679	.427	.981
D4	366.13	4981.430	.596	.981
D5	366.07	4988.685	.526	.981
D6	367.23	4921.495	.657	.981
D7	367.57	4926.323	.640	.981
D8	367.20	4907.752	.688	.981

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
D9	367.10	4899.817	.709	.981
D10	366.73	4925.995	.662	.981
D11	366.33	5002.437	.307	.981
D12	366.57	4959.082	.546	.981
D13	366.40	4932.455	.711	.981
D14	366.40	4934.179	.718	.981
E1	366.00	5030.276	.226	.981
E2	367.03	4906.033	.698	.981
E3	365.90	5024.852	.338	.981
E4	366.07	4982.064	.581	.981
E5	366.13	4995.913	.414	.981
E6	367.30	4923.114	.613	.981
E7	367.57	4916.530	.656	.981
E8	367.27	4909.375	.646	.981
E9	367.17	4905.178	.677	.981
E10	366.77	4935.082	.623	.981
E11	366.50	5012.121	.223	.981
E12	366.40	4955.214	.573	.981
E13	366.33	4936.368	.727	.981
E14	366.30	4936.769	.737	.981
F1	366.00	4999.793	.544	.981
F2	367.07	4918.340	.649	.981
F3	366.00	4995.103	.553	.981
F4	366.10	4980.024	.603	.981
F5	366.07	4981.720	.584	.981
F6	367.37	4943.551	.539	.981
F7	367.47	4906.395	.686	.981
F8	367.27	4897.857	.732	.981
F9	367.20	4899.752	.716	.981
F10	366.73	4922.754	.679	.981
F11	366.67	4992.368	.317	.981
F12	366.67	4926.230	.680	.981
F13	366.47	4922.464	.736	.981
F14	366.57	4929.909	.646	.981
G1	366.07	5002.685	.430	.981
G2	367.13	4930.189	.584	.981

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
G3	366.07	4997.995	.448	.981
G4	366.23	4982.254	.532	.981
G5	366.30	4973.390	.549	.981
G6	367.50	4955.569	.454	.981
G7	367.60	4923.490	.580	.981
G8	367.33	4916.161	.612	.981
G9	367.13	4903.568	.704	.981
G10	366.70	4928.769	.677	.981
G11	366.80	5005.200	.266	.981
G12	366.80	4952.993	.504	.981
G13	366.63	4949.344	.545	.981
G14	366.60	4943.007	.622	.981

Source: SPSS Software

The table shows the total corrected item correlation for question A11, B11, D11, E1, E3, E11, F11, G11 are smaller than the Pearson Critical Value of r for degree of freedom 29 which is 0.355. Thus, it can be concluded those questions should be eliminated due to not reliable enough in this model.

2. Reliability Test for 150 Respondents (Post-test)

Table 4.11 Companies in cosmetics & household industry reliability test N=150

Case Processing Summary

		N	%
Cases	Valid	150	100.0
	Excluded ^a	0	.0
	Total	150	100.0

^a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.986	98

Source: SPSS Software

From the three companies in cosmetics and household industry, the reliability test for 150 respondents shows the Cronbach's Alpha value for 98 indicator questions is 0.986. It point out that the all indicator questions are reliable with the Cronbach's

Alpha which is greater than 0.7 ($\alpha \geq 0.7$).

**Table 4.12 Companies in cosmetics & household industry item total statistics
N=150**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
A1	351.33	6081.687	.463	.986
A2	352.12	6005.032	.581	.986
A3	351.42	6069.681	.515	.986
A4	351.72	6032.418	.585	.986
A5	351.44	6082.114	.388	.986
A6	352.57	6006.032	.593	.986
A7	352.70	5993.943	.649	.986
A8	352.54	5973.123	.747	.986
A9	352.71	5989.833	.657	.986
A10	352.45	5964.343	.796	.986
A11	352.40	5984.148	.653	.986
A12	352.29	5976.743	.707	.986
A13	352.37	5961.095	.764	.986
A14	352.23	5980.982	.713	.986
B1	351.41	6075.639	.516	.986
B2	352.11	6004.839	.574	.986
B3	351.47	6061.164	.520	.986
B4	351.71	6045.524	.548	.986
B5	351.46	6066.357	.534	.986
B6	352.76	6004.023	.617	.986
B7	352.86	5978.390	.704	.986
B8	352.57	5985.657	.665	.986
B9	352.77	5970.945	.739	.986
B10	352.43	5959.415	.796	.986
B11	352.48	5990.547	.651	.986
B12	352.35	5984.926	.696	.986
B13	352.40	5965.074	.804	.986
B14	352.23	5979.774	.749	.986
C1	351.49	6073.728	.467	.986
C2	352.15	5993.043	.618	.986
C3	351.45	6064.047	.527	.986
C4	351.72	6033.129	.581	.986

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
C5	351.60	6046.872	.560	.986
C6	352.60	5990.470	.667	.986
C7	352.72	5967.572	.753	.986
C8	352.51	5977.084	.731	.986
C9	352.63	5982.006	.707	.986
C10	352.33	5959.591	.834	.986
C11	352.43	5989.106	.687	.986
C12	352.27	5983.163	.729	.986
C13	352.37	5966.464	.806	.986
C14	352.24	5975.888	.771	.986
D1	351.45	6063.645	.480	.986
D2	352.12	5990.173	.631	.986
D3	351.46	6054.586	.581	.986
D4	351.74	6035.536	.560	.986
D5	351.49	6062.587	.496	.986
D6	352.59	5992.995	.687	.986
D7	352.77	5989.425	.702	.986
D8	352.55	5985.189	.723	.986
D9	352.72	5973.237	.721	.986
D10	352.31	5982.093	.733	.986
D11	352.43	5999.387	.633	.986
D12	352.36	5988.608	.715	.986
D13	352.27	5972.133	.785	.986
D14	352.31	5975.854	.772	.986
E1	351.56	6065.470	.449	.986
E2	352.15	6001.401	.625	.986
E3	351.55	6055.994	.553	.986
E4	351.81	6036.623	.559	.986
E5	351.53	6072.089	.450	.986
E6	352.56	5993.953	.668	.986
E7	352.71	5985.323	.697	.986
E8	352.51	5991.742	.672	.986
E9	352.63	6005.819	.616	.986
E10	352.33	5983.013	.744	.986
E11	352.44	6001.590	.605	.986
E12	352.25	6003.986	.674	.986

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
E13	352.31	5979.465	.729	.986
E14	352.21	5987.038	.731	.986
F1	351.43	6071.227	.496	.986
F2	352.11	5993.720	.614	.986
F3	351.46	6054.612	.587	.986
F4	351.77	6027.509	.576	.986
F5	351.49	6059.554	.529	.986
F6	352.65	5993.839	.656	.986
F7	352.76	5977.553	.725	.986
F8	352.59	5973.276	.743	.986
F9	352.73	5979.365	.728	.986
F10	352.32	5958.246	.831	.986
F11	352.59	5992.310	.636	.986
F12	352.47	5983.579	.722	.986
F13	352.47	5966.882	.776	.986
F14	352.35	5971.854	.763	.986
G1	351.71	6056.890	.457	.986
G2	352.27	5996.536	.627	.986
G3	351.67	6048.358	.507	.986
G4	352.02	6027.550	.540	.986
G5	351.79	6056.944	.438	.986
G6	352.97	6009.106	.586	.986
G7	352.96	6006.441	.586	.986
G8	352.79	6002.827	.589	.986
G9	352.75	5972.244	.746	.986
G10	352.49	5983.795	.716	.986
G11	352.70	6030.064	.485	.986
G12	352.57	5994.837	.659	.986
G13	352.55	5981.847	.689	.986
G14	352.44	5980.973	.720	.986

Source: SPSS Software

The total corrected item correlation for the all indicator questions are greater than the Pearson Critical Value of r for degree freedom 125 is 0.174. The result is the all indicator questions are reliable for this model.

4.3.1.2.4. Validity Test

In examine the validity test, it can use model fit testing after creating the SEM. There

are two stages of validity testing in AMOS, such as, test how fit each exogenous variable explain the endogenous variable and then test the overall model structure.

Each table of AMOS consists of several models, which are default model, saturated model, and independence model. Default model is the actual model which that created with no exceptions or special cases. Saturated model is a model with zero degree of freedom and more parameters. Whereas, independence model is a model that assumed the observed variable is not be correlated with each other and expected to provide a poor fit to any set of data. In this research, it focuses on the default model.

Table 4.13 Goodness of fit index

Goodness of fit index	Standard of value to be perfect	Analysis result	Evaluation
Chi Square	Nearly 0	1.902	Marginal
GFI	≥ 0.90	0.998	Very Good
NFI	≥ 0.90	0.997	Very Good

Source: AMOS Software

Chi-Square or CMIN is statistic that compares the tested model and independence model with the saturated model. The table above shows that Chi-Square is fit, because the rate between saturated model (0.000) and the independence model (0.1902). Whereas, GFI is the proportion of the variance in the sample variance-covariance matrix is accounted by the model. The GFI in the table above are very good because the level is more than 0.90, which is 0.998. Lastly, NFI model is the difference between the two models of chi-square divided to chi-square for independence model. From the data above, NFI is very good because level of NFI is excess than 0.90, which is 0.997.

4.3.1.2.5. Path Diagram

This research is using AMOS to find the overall impact of customer satisfaction, customer retention, and customer acquisition to customer profitability and market share. On path model above, path coefficient is a standardized regression coefficient demonstrating the direct effect of an independent variable on a dependent variable.

From the following figure, it illustrate that customer satisfaction is the most influence variable for customer acquisition and customer retention with the correlation value is 1.00. It indicates that most of customers in companies of cosmetic and household industry satisfy to the products that are provided by the companies. Customer profitability is influenced by customer satisfaction, customer acquisition, and customer retention. Customer satisfaction and customer retention influence customer profitability with the level of 0.33. While customer acquisition influence the customer profitability with the level of 0.34. The customer acquisition and customer retention also influence to the market share with the level 0.57 and 0.43.

**The Implementation of Balanced Scorecard in Assessing Strategic Performance:
A Case Study on Publicly Listed Companies in Cosmetic and Household Industry
By Pacifico Shorea Rotaria**

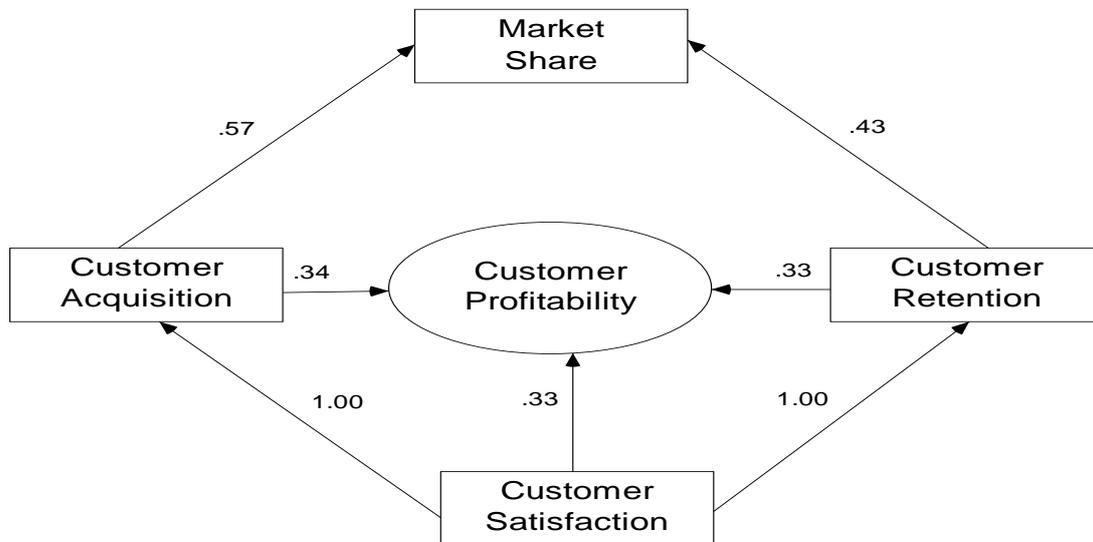


Figure 4.6 Cosmetics and household industry path diagram and path coefficients

Source: AMOS Software

4.3.1.3. Internal Business Process Perspective

Internal business process is used by the organization to fulfill the shareholder and targeted customer expectation. In measuring internal business process, BSC suggests that the organization classify a comprehensive internal value chain. This internal business value chain is divided into three stages, such as, innovation, operation process, and post-sales service. Internal business process can be identified financially and from the important events in particular periods.

4.3.1.3.1. Innovation

Innovation process is consists of two major processes, which are, identify the new market to acquire the new customers and come up the hidden need of existing customers. Then, the organization continues to create the product in order to satisfy and fulfill the customers' expectation. In analyzing the internal business process, this research would identify some sections in annual report and financial report which is reliable sources of the companies. The companies include UNVR, MRAT, and TCID.

1. UNVR

In 2004, UNVR has done some programs that were divided into Home Care Division, Personal Care Division, Foods Division, and Ice Cream Division. For home care products, the company has re-launched the whole products of this division, such as, Rinso, Lux, Lifebuoy, Molto, other home care product on schedule. The re-launching has done by using advertisement and more efficient promotion in order to achieve the bottom line targeted. For Personal Care product, Pond's re-launched its products successfully. Pepsodent launched the new variance, named Pepsodent Complete Care Toothpaste. The new variance of Sunsilk was also launched which is Sunsilk Clean

and Fresh, it produced to fulfill the need of women who used headscarf. Axe pulse was also launched as the new variance of Axe deodorants. From Food Division, the UNVR converted Sari Wangi from tea packet (teh seduh) to teabags (teh celup) as the new innovation.

During 2005, there were some innovations that have been conducted by UNVR. From Home Care and Hygiene Division, the innovation that has been done by UNVR, such as, re-launching Surf product through program that demonstrated how the way to wash clothes correctly. Molto were also contributed to innovation of UNVR by re-launching Molto softener in forty modern markets with theme of "Negeri Awan Peri Molto". In Personal Care Division, the new breakthrough came from some products. For instance, Dove extended its products from skin care to hair care. Pond's was launched the new series of oil control. Moreover, Lux also launched the limited edition of Lux bar soaps. In Food Division, Taro was introduced the new flavor of product. From Ice Cream Division, a big new came from new product named Walls Moo that targeted to kids segment. For the teens, Walls added ice cream product with new flavor and packaging, was called as Conello Cup.

During 2006, the innovation has been done by Hygiene division of UNVR involve in launching two variances of Pepsodent (Pepsodent Sensitive and Pepsodent Whitening). In Personal Care Division, UNVR re-launched Citra n Lifebuoy product to the customer. From Ice cream Division, Walls conducted the new innovation. The new innovation were conducted include the Magilika and re-launched Conello with the focus of Teenagers.

In year 2007, each division in UNVR has conducted new innovations to improve sales of the products. In Home and Personal Care, Sunlight has launched the small packaging with size of 90ml. UNVR also launched the new product that is called Molto Ultra. Pond's has done some promotion program and launched the new product in Face Care categories of whitening, anti-aging, and Cleanser. The new products were introduced to the customers, such as, Rexona Deo Lotion and Rexona Teens. Clear Men Shampoo was introduced to the market. From Foods & Ice Cream, Blue Band launched new packaging and "Grow Great Kids" campaign. Walls re-launched Paddle Pop Cyberion with theme of "Everybody Wins" and gave the free gift. Walls Vienetta introduced the new variant of the products, namely Vienetta Kurma.

Year 2008, UNVR also conducted some innovations involve in Home & Personal Care and Food & Ice Cream Division. From Home and Personal Care Division, Molto has launched the new improvement by Molto One-Rinse. Pond's also introduced two technologies from Pond's institutes, which are, Lycopene and Retinol Booster. For advertising campaign, Pond's started to create an advertisement in episodic film in order to promote the UNVR mission that meet to the customer need and inspiration. For example, the Pond's Flawless White episodic films featuring Bunga Citra Lestari and her Husband. The new innovations were also conducted in several products in Home and Personal Care, such as, re-launching Sunsilk and Pond's on May 2008. In additional, Lux launched the new packaging design and fragrances with Rachel Weiss as the brand ambassador. From Food and Ice Cream divisions, there are some innovations that have been conducted. First, Royco has re-launched its product series and introduced the new advertising campaign in order to increase Royco

consumption in popular vegetable soup category. Sari Wangi introduced Gold selection of tea in a better quality of tea. The innovation of Blue band was being launched in 17 mini stick sachets. Moreover, Walls launched the Mini Cornetto with a small packaging and re-launched the current products, such as, Moo, Paddle Pop, and Conello.

Overall, the whole divisions were conducted some promotions through events, advertisement, or printed media in order to acquire and retain the customers. Other than that, UNVR was also some activities and campaigns directly to customers that would contribute to the sales.

According to the explanation above, the innovation of the products can be analyzed financially. It would be explained through the table, as follows.

Table 4.14 Advertising, promotion, and research expense of UNVR

Expenses of UNVR					
	2004	2005	2006	2007	2008
Advertising, Promotion, and Research Expense	1,413,801	1,569,777	1,588,419	1,796,760	2,020,274

Source: Financial Statement of UNVR, Modified

The table shows the increasing amount of advertising, promotion, and research expense. The increasing amount of those expenses, it is caused of the company programs along 2004 to 2008 which is explained before. From that table, it can analyze the impact on those expenses to the sales because the objective of promotion, research, and advertising is to increase the sales of the products. The result of innovation program to the sales would be explained in detailed, as follows.

From the table above, it can be concluded the sales of the product was continuously increasing during 2004 to 2008. The sales of the product in UNVR would be divided into two segments of market, such as domestic and international market. The biggest contribution was obtained from domestic marker rather than international market.

Table 4.15 Total sales of UNVR

Total Sales (Net) of UNVR					
	2004	2005	2006	2007	2008
Domestic	8,441,183	9,443,867	10,842,673	12,073,571	14,859,059
International	543,639	548,268	492,568	471,330	718,752
Net Sales	8,984,822	9,992,135	11,335,241	12,554,901	15,577,811

Source: Financial Statement of UNVR, Modified

Each segment is consists of the sales to related parties and third parties. The tables below would be about the detail sales in domestic and international market, which are:

Table 4.16 Total sales in Domestic market of UNVR

Total Sales in Domestic Market					
	2004	2005	2006	2007	2008
Related Parties	0	2,491	5,586	6,758	5,667
Third Parties	8,441,183	9,441,376	10,837,087	12,066,813	14,853,392
Total Sales	8,441,183	9,443,867	10,842,673	12,073,571	14,859,059

Source: Financial Statement of UNVR, Modified

In domestic market above, it can be seen that the biggest contribution of the sales was from third parties. Moreover, the sales to the third parties were increasing every year. While the sales of the products to the related parties were also increasing from year to year, except in 2008.

Table 4.17 Total sales in International market of UNVR

Total Sales in International Market					
	2004	2005	2006	2007	2008
Related Parties	421,248	359,032	331,001	371,521	622,206
Third Parties	122,391	189,236	161,567	99,809	96,546
Total Sales	543,639	548,268	492,568	471,330	718,752

Source: Financial Statement of UNVR, Modified

Whereas in international market, the sales of the UNVR product to related parties and third parties had increased from 2004 to 2005. After that, the sales of the third parties dropped slowly to 2008 with the amount of Rp. 96,546. The sales to related parties were also decreasing in 2006 with the amount of Rp. 331,001, and then increased again from 2007 to 2008 with the amount of Rp. 371,521 and Rp. 622,206. In international market, the biggest contribution of sales in products was from related parties. Overall, the total sales (net) of UNVR products were increasing from year to year even though the market in domestic and international had fluctuated.

2. MRAT

There are some activities that company has done to attract the new customers and retain its current customers. The activities are consist of designing the new product and re-launch the existing products by change its packaging or improve its formula which was targeted to domestic and international market.

In 2004, the company has produced various categories of main product from several brands for domestic market. From cosmetics section, Mustika Ratu product series launched Cahya Buwana 2005 color trend and re-launched some products by changing its design and packaging. The products are cleanser and toner, moisturizers, and foundations. For Puteri brand, the company launched the new products of aromatherapy body shower and body milk, and then re-launched the talcum powder and roll on. While for medical herbs category, there are three new products which are kaplet usir angin, kaplet angsari, and godog bugar perkasa. For male product, the company re-launched Bask Body Cologne. From advertisement section, the company focused on category of product which has unique selling point and high competition capacity. The company has done promotion through television, radio, directly to the

customers, or other media. The company also opened new outlet of TSRH in four different areas: Bintan, Anyer, Cengkareng, and Tangerang. TSRH also produce the products, lulur, body mask, aromatherapy, essential oil, carrier oil, bath range, home spa, salt bath, body soap, etc. For international market, MRAT exports its product to Malaysia, Russia, Saudi Arabia, Singapore, Brunei Darussalam, Hongkong, Canada, Japan, Czech Republic, Germany, and Middle East.

In 2005, MRAT has launched several categories of products for Domestic Market, such as; Mustika Ratu series launched Color Trend 2005 “Swarna Puspa Swarga”, and Mustika Puteri Series “Uniquely You” that focused on Teenagers. Company also created the new packages for some products in economic-size and has conducted some type promotions such as, above the line and below the line. Above the line is the promotion through electronic media advertisement and printed media. Below the line is the promotion via beauty contest in MRAT counter and promoted directly to the customers. Meanwhile, MRAT expanded its product to some international market, as follows; China (Mainland) and Pakistan. For the future growth, the company plans to exports its product to several countries, such as, Nigeria, Philippine, and Thailand. The same as domestic market, the company also encouraged promotion activities of above the line and below the line in international market. Furthermore, the company improved the strategy for international market. For instance, the company exported Ginteh product in Saudi Arabia, Ayudara serial product in Russia. While the company applied the Pareto Product system in order to control its supply product and increase its level of services.

During 2006, MRAT has applied a campaign to re-launch the complete care product of Mustika Ratu, which was called by 5P campaign (Pembersih, Penyegar, Penipisan, Pemijatan, Peremajaan, or otherwise known as cleansing, refreshing, peeling, massage, and rejuvenation). Its campaign was promoted through television advertising, print ad in female magazine, and infotainment tabloid. For Mustika Puteri, MRAT used Agnes Monica as the new brand Endorser in commercial television. It is aimed to introduce Puteri image as a brand for dynamic and smart girl. Furthermore, Puteri launched some variance of products. To improve the sales of Slimming Tea products, MRAT replaced the model image to Nadine Chandrawinata and created the new tagline socialization “saya minum 3x sehari” and “makan tetap enak tubuh tetap langsing”. Slimming Tea also launched the new variance of product, which is Slimming Tea with Honey and Lime. From make-up category, MRAT launched Oxy Series which is consists of Triple Action Cake, Moisturizer, Base Powder, and Strew Powder. There are some events sponsored by MRAT, such as, Hero Fresh Female, Gadis Sampul, Cosmo Fun Fearless Female, The Election of Putri Indonesia 2006, as well as sponsorship in activities at Junior High School, and Extracurricular Activity Cosmo Girl Summer Camp 2006). In the end of 2006, MRAT launched Smara Bumi 2007 color trend series.

In 2007, MRAT updated the new website in order to represent the products which were not advertised in electronic or printed media. The new innovation of Mustika Puteri by launching “Luminous Love Series” in form of Body Mist and Hand & Body Lotion Orange Burst and Cranberry Crush. MRAT renewed Bayam Shampoo advertisement, and making of advertisement of Lulur Kocok and Susuk Perut. Model image of Slimming Tea was also replaced. Furthermore, MRAT made the Print ad

Susuk Perut with model image Rahma M Landy. This year, MRAT was still as the sponsorship on beauty contests, such as, Gadis Sampul, Election of Puteri Indonesia 2007, and some school activities as below the line activities. TSRH has launched the new innovation for face treatment with concept of Nano Technology named Biolift Advance Lifting Serum. To support that treatment, MRAT used Harum Sari Herbal Massage as the product. The promotion that was used in order to support the increasing sales, the company gave the banded free gift with certain nominal of selling in MRAT's counters. End of the year, the company was launched the color trend with the theme "Sembagi Wungu 2008".

Year 2008 was started with launching the Mustika Ratu Slimming Gel (Slimming and Anti Cellulite Gel). Some products of MRAT were also being renewed in advertisement, packaging, or improving in formulation, such as, Puteri Body Splash Cologne, Puteri Whitening Complex Series, Mustika Ratu Hair Care Series, and Medicinal Herbs for adult & Pasak Buwono Ceng. There were several below the line activities, which are, as a sponsorship in some big events of Panasonic Award, Vina Panduwinata Concert, Election of Putri Indonesia 2008, School Event, and Beauty & Health seminar road shows. While MRAT was also launched the new color trend called "Prada Prameswari 2009".

Based on the marketing program above, those activities would influence to the accounting section especially in sales, advertising and promotion expenses. Moreover, sales and expense would explain in detailed, as follows.

Table 4.18 Total sales and expense of MRAT

Sales and Expenses of MRAT					
	2004	2005	2006	2007	2008
Net Sales	243,879	208,097	226,386	252,122	307,804
Advertising and promotion Expense	43,498	38,781	43,222	65,960	52,110

Source: Financial Statement of MRAT, Modified

From the table above, it can be conclude that the net sales were computed by adding the sales of cosmetics, traditional medicines, health drinks, and others. The whole net sales are obtained from Domestic and International Sales. While advertising & promotion expenses were combined as a part of selling expenses. Overall, the highest amount of net sales was derived by MRAT in 2008 with the amount of 307,804. Whereas, the highest amount of advertising & promotion expenses were released by the company during 2007 with the total amount of 65,960. Thus, the increasing of sales didn't necessarily only come from the lower amount of advertising & promotion expenses. There are many other factors would be impacted to the increasing of the sales.

3. TCID

In 2004, the company creates some innovations of the products. The innovations include launching the new variance of Gatsby which is Gatsby Styling Wax in a small packaging, adding two fragrance of Pucelle Mist Cologne, and two color of Miratone Conditioning Cream. The company was also developing new category product for men, such as, Spalding Body Care and Gatsby Body Lotion. In women cosmetics

product, the company was applying scrap and build strategy in order to improve the brand equity particularly in Pixy Color of Delight and Pixy Light 'n Natural. The total products which were produced in domestic market reached to 127 items during 2004. On the other hand, the company exported the products which have a bigger contribution to the sales, especially in hair care and body fragrance products. TCID expanded its products to Dubai. There were eight items of new products which have been launched in Dubai under the name of OEM "Treajar".

Year 2005, there were many product that have been launched or re-launched. For men product, the company launched the new category of Gatsby, which was called Gatsby Cologne Gel. The company also created new breakthroughs for women products, such as, re-launching Pucelle Splash Cologne; creating new Pucelle Cologne Spray product in size of 75ml; and re-making Pixy Color of Delight and Pixy Light n' Natural. Other than that, the company were renewal some products that were profitable. For international market, TCID exported 67 items of new products to various countries and one of them which the sales increased significantly was Lovillea Gelly Cologne. Overall, the company has launched 129 new products during 2005.

During 2006, TCID was conducted the promotion program which was focused to distributors and gave a free gift for the customer in domestic market. For men products, the company has launched the new variance of Gatsby Wax, named Gatsby Styling Wax Tough & Shine. The company has also launched the new sachet packaging for Gatsby Water Gloss, Styling Wax and Treatment Hair Cream. For women product, TCID re-launched Pixy UV Whitening. The new variance of Pucelle also launched in a series of Magical Cologne. The total of products that has launched in domestic market was 108 SKUs (51 new items and 57 renewal products). For international market, Treajar was introduced to Middle East and Africa. The company was also launched Gatsby Styling Gel with three SKUs to ASEAN countries. The total new products which has launched in international market were 25 SKUs.

In 2007, the promotion programs in domestic market that were applied display contest for the retail stores participants, gave bonus to the distributors in certain volume of purchasing, enhanced in-store-share by increasing the priorities to the main products, and gave a free gift to the customer. For men products, the Gatsby re-launched Gatsby Water gloss; introduced new "Airy Cologne" fragrance series of Gatsby; and launched Gatsby Facial Care "Oil Control" series. For women products, Pucelle series gave a free gift; Pixy UV Whitening launched the new advertising TV and introduced Pixy Color Gloss & Nutri Rich Lipstick; and Lovillea launched new "Mist Cologne Spa Sensation" fragrance. In international market, the company exported and developed Gatsby product to India. The development was adjusted to the taste of Indian people. Thus, the company has succeeded product 97 SKUs (new products: 54 SKUs, renewal products: 43 SKUs) in domestic market, and 44 SKUs (new products: 31 SKUs, renewals: 13 SKUs) in international market.

There were some activities applied by TCID during 2008 to create new innovations in domestic market. First, the company added two units of Tissue Filling Machines as the replacement of the old ones. In Men products, Gatsby launched Bar Soap with deodorant function; Hair color with some various items, such as, Bleach & Color, Natural Bleach, and Color Remake; and Hyper Solid in Hair Styling category. In

Women products, Pucelle re-launched three variance of Body Milk in Body Care Category and launched a new Mist Cologne Japanese Season with four various Japanese scents. Whereas, Pixy Lady's Cosmetics introduced the new packaging of Lip Conditioner and Lip Color Conditioner from Color of Delight series; and added three color for Nail Color and Eight color for Moisture Lipstick. Moreover, Lovillea introduced the new five variances of Bar Soap and three variances for Body Scrub in Spa Aromatherapy concept. Meanwhile in international market, Gatsby launched five fragrance variances of Deodorant Perfume Spray particularly for India. As the results, there are 69 SKUs (new products: 47 SKUs, renewals: 22 SKUs) products in domestic market and 81 SKUs (new products: 32 SKUs and renewals: 49 SKUs) in international market.

Since 2004, the company has conducted the advertising and promotion program through television, printed media, as sponsorship in school event and competition, sales fair in malls, and directly approaches to the customers. The table below is used to analyze the impact of activities that company has done before in accounting aspect, as follows.

Table 4.19 Total Expense of TCID

Expenses of TCID					
	2004	2005	2006	2007	2008
Advertising and Promotion Expense	109,833	114,636	131,348	140,410	145,118

Source: Financial Statement of TCID, Modified

From the table above, it can be seen the amount of money that company spent to apply the promotion and advertising program. From year 2004 to 2008, the advertising and promotion expense of the company are increasing continuously.

Table 4.20 Total sales of TCID

Total Sales (Net) of TCID					
	2004	2005	2006	2007	2008
Domestic	624,173	703,835	753,504	781,999	915,394
International	176,438	200,928	198,126	236,334	324,380
Total Sales	800,611	904,763	951,630	1,018,333	1,239,775

Source: Financial Statement of TCID, Modified

The table illustrates the sales of company in span time of 2004 to 2008. The increasing sales occurred in domestic and international market, though sales declined in international market in 2006.

4.3.1.3.2. Operation

After identified customers' need, then the organizations builds the products and deliver the product to the customer. In analyzing operations process, it can be computed by using asset utilization.

1. Asset Utilization measures how good the company utilize its asset to generate sales. In measuring the asset utilization, the ratio that is used, are:

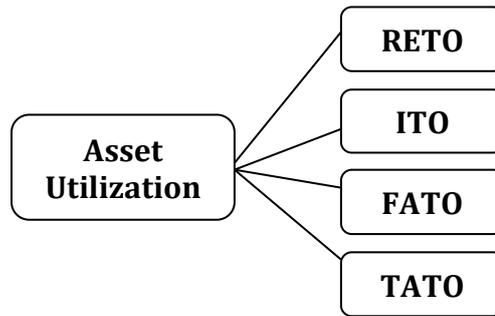


Figure 4.15 Asset utilization measurements

Source: Ross, et al (2008)

- a. RETO is a ratio that used to measure how fast the company collects credit sales. The ratio can be calculated by dividing net sales by its A/R.

Table 4.21 RETO of companies in cosmetics and household industry

Receivable Turnover						
Company	2004	2005	2006	2007	2008	Average
UNVR	18.15	21.86	17.35	17.11	16.30	18.15
MRAT	3.60	2.85	2.86	2.93	2.90	3.03
TCID	6.89	7.05	6.50	8.62	7.96	7.40

Source: Financial Statements, Modified

The table illustrates the significant differences in average of RETO among the three companies. The highest average RETO is obtained by UNVR, which is 18.15 times. However, the lowest average RETO is gathered by MRAT.

- b. ITO can be computed by dividing COGS into inventory. By calculating ITO, the company can identify how fast the inventory is created and sold in a given period of time. As the result, the lower turnover rate may indicates that overstocking, obsolescence, or defective products, and vice versa.

Table 4.22 ITO of companies in cosmetics and household industry

Inventory Turnover						
Company	2004	2005	2006	2007	2008	Average
UNVR	6.86	6.61	7.47	7.29	6.19	6.89
MRAT	2.63	2.23	2.34	2.31	2.90	2.48
TCID	3.87	3.63	3.41	3.70	3.42	3.61

Source: Financial Statements, Modified

The table shows that total ITO during 2004-2008. In average, UNVR has the highest rate ITO than other competitors. It can be concluded that the company with high inventory turnover manage the inventory efficiently.

- c. FATO is used by the company in measuring the ability to generate the sales from investment in fixed assets. To compute FATO, the company is dividing sales into net fixed asset.

Table 4.23 FATO of companies in cosmetics and household industry

Fixed Asset Turnover						
Company	2004	2005	2006	2007	2008	Average
UNVR	6.66	6.68	6.57	5.70	6.09	6.34
MRAT	4.50	3.92	4.33	4.74	5.26	4.55
TCID	3.77	3.75	3.14	3.25	3.20	3.42

Source: Financial Statements, Modified

Generally, the highest rate of FATO is obtained UNVR and the lower rate of FATO is derived by TCID. The point is UNVR is investing fixed asset effectively in order to generate the sales as compared to the competitors.

- d. TATO is the ratio to measure the ability of the company in utilizing total asset to generate the sales. Thus, TATO can be counted by dividing sales by total asset.

Table 4.24 TATO of Companies in Cosmetics and Household Industry

Total Asset Turnover						
Company	2004	2005	2006	2007	2008	Average
UNVR	2.45	2.60	2.45	2.35	2.39	2.45
MRAT	0.83	0.72	0.78	0.80	0.87	0.80
TCID	1.69	1.66	1.42	1.40	1.36	1.51

Source: Financial Statements, Modified

The table shows that UNVR has the highest rate of average TATO than the two competitors. The high rate of average TATO indicates the company uses its total asset effectively in generating the sales.

4.3.1.3.3. Post-sales Service

Post-sales service is the service that companies offer to the customer in order to creating the value of targeted customers and meet the customers' expectation. Post-sales service includes warranty, repairmen activities, return of defective product, and the processing of payment. Due to the limitation of data, this section focuses on the processing of payment.

The previous process was reviewing about how the companies utilize its assets. One part of asset utilization is about the return of the receivable in credit sales. When the company collects its receivable, the company could assume that the debtor have not the ability to pay its debt, which is called allowance for doubtful account ("AFDA") in accounting section. AFDA can be determined based on a review status of the individual A/R at the end of the year.

Table 4.25 AFDA of Companies in Cosmetics and Household Industry

UNVR					
	2004	2005	2006	2007	2008
Sales (net)	8,984,822	9,992,135	11,335,241	12,544,901	15,577,811
A/R	495,047	457,147	653,207	733,359	955,775

UNVR					
	2004	2005	2006	2007	2008
AFDA	6,118	4,998	1,350	2,742	1,510

MRAT					
	2004	2005	2006	2007	2008
Sales (net)	243,879	208,097	226,386	252,122	307,804
A/R	79,666	73,027	79,132	86,080	106,183
AFDA	2,422	2,422	2,422	2,802	3,124

TCID					
	2004	2005	2006	2007	2008
Sales (net)	800,611	904,763	951,630	1,018,333	1,239,775
A/R	166,321	128,246	146,424	118,194	155,722
AFDA	0	0	0	0	0

Source: Financial Statements, Modified

Each table shows the amount of Sales, A/R, and AFTA of UNVR, MRAT, and TCID. In UNVR table, the sales of the company were increasing every year. However, A/R has declined in year 2005. AFDA also decreased during five year except in 2007. Based on the three accounts, it can be concluded A/R can be collected correctly by UNVR.

In MRAT, the sales of the company also increased each year except in 2005. In A/R section, the increasing of sales was followed by increasing of A/R. for AFTA, is remained the same in first three year with the amount of 2,422 and slightly increased in 2007 and 2008. However, the company could collect the A/R correctly.

The total sales of TCID were also increasing during five year. A/R was also increasing every year except in 2005 and 2007. The company has no AFDA during five year, due to the assumption that the all parties were able to pay it liabilities.

Overall, the each AFDA of the three companies were adequate enough to cover possible of losses that occurred from uncollectible of A/R. All processes of payments have been conducted well.

4.3.1.4. Learning and Growth Perspective

Learning and Growth is the driver that influences the other three perspectives. The good learning and growth may lead a good outcome in financial, customer, and internal business perspective. Employee capabilities are the driver that contributes to the company. There are several factors that support learning and growth perspective, as follows.

4.3.1.4.1. Employee Satisfaction

Employee satisfaction can be measured by identifying from the expense that company spent to satisfy its employees.

1. UNVR

UNVR realize that the employees give big contribution and have responsible for

reputation of the company. Hence, the company commits to enhance each employee skills and capabilities. The company is also maintaining a good communication with its employees through consultation process and corporate-based information.

Table 4.26 Education & training expense and remuneration of UNVR

UNVR					
	2004	2005	2006	2007	2008
Education & Training Expense	14,896	14,392	7,979	14,013	10,269
Remuneration	54,474	72,684	86,946	100,862	108,713

Source: Financial Statement of UNVR, Modified

From the table above, the total amount of remuneration that company spent each year was increasing. The increasing of remunerations may be impact to the increasing of the total of employees. However in education and training account, the expense of company was decreasing during five year. In 2006, the education and training expenses were significantly decrease than the previous year.

2. MRAT

In improving the employees' satisfaction, MRAT is always maintaining security and pleasure in working for the employees. As well as UNVR, MRAT realizes that the success of the organization is influenced by the employees. Due to the competition among companies in cosmetics and household industry, MRAT develop training and seminars to improve the employee skills.

Table 4.27 Education & Training Expense and Salaries of MRAT

MRAT					
	2004	2005	2006	2007	2008
Education & Training Expense	51	63	53	133	121
Salaries, wages, and employees benefits	17,672	14,841	14,088	15,511	17,571

Source: Financial Statement of MRAT, Modified

The table illustrates the increasing expense of education and training during 2004 – 2007, but the education and training expense slightly decreased in 2008. The increasing amount of education and training expense were caused by the crisis global and the tighter competition. The fluctuation amount was happened in salaries, wages, and employees benefit. The fluctuation amount was determined by the total of employees. For instance, if the numbers of employees increase, it would impact on the increasing of salaries expense, and vice versa.

3. TCID

Due to the limitation data of employee, it cannot be concluded about education and training as well as the other two companies. According to annual report and financial Statement, there is no information about the expense in order to satisfy the employee other than about the employee expense. The employee expense was increasing from 2004-2005, it may be caused by the increasing of activities to improve the employee satisfaction.

Table 4.28 Employee expense of TCID

TCID					
	2004	2005	2006	2007	2008
Employees Expense	45,842	49,651	55,628	61,338	73,995

Source: Financial Statement of TCID, Modified

4.3.1.4.2. Employee Retention

In measuring the employee benefit, it can identify through analyzing the employee benefit. Employee benefits include the benefit that employee take from the company program.

1. UNVR

There are several programs that company applied in order to retain its employees, as follows: Pension Benefit obligation, Post-employment medical benefit obligations, Other post-employment and long-term benefit obligation, Bonus Scheme, and Share Matching Plan

Table 4.29 Total employee benefit obligation of UNVR

UNVR					
	2004	2005	2006	2007	2008
Total Employee Benefit Obligation	92,645	39,817	71,647	74,342	74,047

Source: Financial Statement of UNVR, Modified

The table illustrates the total employee benefit obligation. From 2004 to 2005, there was a significant difference of the amount. The significant difference of those total employee benefit due to of the decreasing amount in pension benefit and post-employee medical benefit. In the last three year, the amounts of employees were slightly changing.

2. MRAT

Due to the regulation, MRAT provide pension benefit to the employees as their right. The employees entitle this benefit when they reach the retirement age of 55.

Table 4.30 Total employee benefit obligation of MRAT

MRAT					
	2004	2005	2006	2007	2008
Total Employee Benefit Obligation	1,273	1,850	2,215	2,215	2,799

Source: Financial Statement of MRAT, Modified

Based in the table above, the total employee benefit obligations were increasing every year. It may show that the numbers of employees who retire were not significantly increased.

3. TCID

According to labor law, TCID provides post-employment benefit to the permanent employees. The programs which were applied by the company, such as: Defined Benefit Pension Plan, Other Post-employment Benefit based on Labor Law, Other Post-employment Benefit for Directors and Commissioners based on Company's regulation.

Table 4.31 Post - employment benefit of TCID

TCID					
	2004	2005	2006	2007	2008
Post-employment Benefit	4,062	5,034	6,631	6,636	7,948

Source: Financial Statement of TCID, Modified

The table above illustrates the increasing expense of post-employment benefit that was provided by the company. The increasing amount may be caused by the retirement employee were also increased.

4.3.1.4.3. Employee Productivity

The company productivity is the outcome from improving the employee skill, internal process, and satisfying its customers. There are many ways in computing employee productivity. This research would measure employee productivity by dividing Sales (net), COGS, and Total Fixed Assets into the numbers of employees.

1. UNVR

The table illustrates the employee productivity based on the output that can be generated per employee in sales. The result of the calculation shows the increasing amount during five years. The increasing amount of the sales per employee, due to of the increasing amount of sales and number of employees. Thus, it can be concluded the productivity of employees always increased every year.

Table 4.32 Sales/Numbers of Employee of UNVR

Sales/ Numbers of Employee					
	2004	2005	2006	2007	2008
Sales	8,984,822	9,992,135	11,335,241	12,544,901	15,577,811
Number of Employee	3,013	3,041	3,137	3,164	3,308
Sales/ Number of Employee	2,082.02	3,285.81	3,613.41	3,964.89	4,709.13

Source: Financial Statement of UNVR, Modified

Table 4.33 COGS/Numbers of Employee of UNVR

COGS/ Numbers of Employees					
	2004	2005	2006	2007	2008
COGS	4,315,329	5,066,362	5,704,438	6,247,189	7,946,674
Number of Employee	3,013	3,041	3,137	3,164	3,308
COGS/ Number of Employee	1,432.24	1,666.02	1,818.44	1,974.46	2,402.26

Source: Financial Statement of UNVR, Modified

The table shows the increasing amount of COGS and number of employees in the span time of five years. The calculation of COGS which was divided into numbers of employees generated output. The result of the calculation was pointed out the productivity of the employees were effective.

Table 4.34 Fixed Assets/Numbers of Employee of UNVR

Fixed Asset/ Numbers of Employees					
	2004	2005	2006	2007	2008
Fixed Asset	1,348,402	1,495,659	1,724,663	2,199,810	2,559,875
Number of Employee	3,013	3,041	3,137	3,164	3,308
Fixed Asset/ Number of Employee	447.53	491.83	549.78	695.26	773.84

Source: Financial Statement of UNVR, Modified

The employee productivity was also effective in the result of fixed asset which was divided by number of employee. It was proven by the total fixed asset of company were increasing during five years and it followed by the increasing number of the employee and it would lead to an effective productivity.

2. MRAT

Generally, the employees have applied the effective productivity each year. However, there were the declining numbers of employees which impacted to the sales in 2005. The decreasing numbers of the employees were also happened in 2006 to 2007, but there were no impact on the sales. It was proven by rising amount of the sales in the last three year. Moreover, it can be concluded that the employee productivity were effective.

Table 4.35 Sales/Numbers of Employee of MRAT

Sales/ Number of Employee					
	2004	2005	2006	2007	2008
Sales	243,879	208,097	226,386	252,122	307,804
Number of Employee	2,826	2,614	2,462	2,432	2,472
Sales/ Number of Employee	86.30	79.61	91.95	103.67	124.52

Source: Financial Statement of MRAT, Modified

Table 4.36 COGS/Numbers of Employee of MRAT

COGS/ Numbers of Employees					
	2004	2005	2006	2007	2008
COGS	111,954	93,234	99,694	111,987	136,448
Number of Employee	2,826	2,614	2,462	2,432	2,472

COGS/ Numbers of Employees					
	2004	2005	2006	2007	2008
COGS/ Number of Employee	39.62	35.67	40.50	46.05	55.20

Source: Financial Statement of MRAT, Modified

The table illustrate the number of employees were declining over the year, expect in 2008. The reduction of the employee would effect to the COGS only in 2005. While in other year, even though the total of employees were decreasing but the COGS were increasing. Thus, the reduction in number of employee would impact to the increasing of COGS.

Table 4.37 Fixed Asset/Numbers of Employee of MRAT

Fixed Asset/ Numbers of Employees					
	2004	2005	2006	2007	2008
Fixed Asset	54,257	53,033	52,281	53,235	58,481
Number of Employee	2,826	2,614	2,462	2,432	2,472
Fixed Asset/ Number of Employee	19.20	20.30	21.24	21.89	23.66

Source: Financial Statement of MRAT, Modified

The table above can be concluded the decreasing number of employees would be impacted to the declining amount of fixed asset. However in 2007 where the numbers of employees was also decreased but it was not followed by the decreasing in fixed asset. Due to the increasing of fixed asset, the productivity of the employees was no effective enough that in other year.

3. TCID

The table illustrate the increasing the amount result sales per employee which indicate the effective of employee productivity. In 2006 to 2007, there were the decreasing numbers of employee. However, the sales were continuously increasing in those years.

Table 4.38 Sales/Numbers of Employee of TCID

Sales/ Number of Employee					
	2004	2005	2006	2007	2008
Sales	800,611	904,763	951,630	1,018,333	1,239,775
Number of Employee	3,927	4,085	3,888	3,804	3,871
Sales/ Number of Employee	203.87	221.48	244.76	267.70	302.27

Source: Financial Statement of TCID, Modified

Table 4.39 COGS/Numbers of Employee of TCID

COGS/ Numbers of Employee					
	2004	2005	2006	2007	2008
COGS	481,974	568,598	579,537	615,240	786,192
Number of Employee	3,927	4,085	3,888	3,804	3,871

COGS/ Numbers of Employee					
	2004	2005	2006	2007	2008
COGS	481,974	568,598	579,537	615,240	786,192
COGS/ Number of Employee	122.73	139.19	149.06	161.74	203.10

Source: Financial Statement of TCID, Modified

The increasing amount of COGS per employee was happened over the five year. Although there was reduction numbers of employee in 2005 up to 2006, the COGS were increasing from year to year. It would point out that the effective of COGS per employee were good enough among the other years.

Table 4.40 Fixed Asset/Numbers of Employee of TCID

Fixed Asset/ Numbers of Employee					
	2004	2005	2006	2007	2008
Fixed Asset	212,217	240,981	303,086	312,970	386,987
Number of Employee	3,927	4,085	3,888	3,804	3,871
Fixed Asset/ Number of Employee	54.04	59.00	78,00	82.27	100,00

Source: Financial Statement of TCID, Modified

As well as the previous explanations that numbers of employee were decreasing in 2007 and 2006, it would have no impact on fixed asset and fixed asset per employee. The increasing fixed assets were not followed by the increasing numbers of employee. This leads to diminishing level of productivity in 2006 and 2007.

SAMPLE # 3: CONSUMER BEHAVIOR FOR FOOD RETAILERS

The following research sample is based on the actual work of an undergraduate thesis in 2011, which was originally written by Federica Setiawan from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*Analyzing Consumer Behavior in Small Food Retailers: Empirical Study in BSD City*”.

The approach used in this study was quantitative-based research, which mainly relied on questionnaires to evaluate the relationships among variables in this study.

CHAPTER 4 – RESULT AND DISCUSSION

This study’s main purpose is to analyze the consumer buying behavior of BSD City food court specifically in Giant and ITC BSD. Questionnaires have been distributed and have obtained 116 respondents from Giant and ITC BSD’s food court located in BSD City. From this questionnaire, consumers’ profile and their preferences can be defined through the questions based on question design located in chapter 3. In this section, consumers’ profiles of Giant and ITC BSD food court and their food preferences are shown and analyzed using AMOS SPSS.

4.1. Respondent Profile

In this section, Giant and ITC BSD food courts’ respondents’ profiles are shown based on their gender, age, occupation, religion, and race.

4.1.1. Gender of Respondent

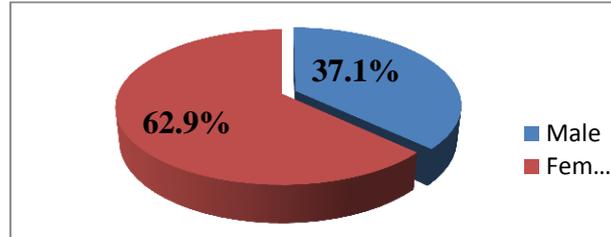
Table and figure 4.1 show that out of 116 consumers who eat at Giant and ITC BSD, 62.9% are female and 37.1% are male consumers. This figure shows that there are more female consumers that choose to eat at food court than male consumers.

Table 4.1. Gender of Giant and ITC BSD food court’s consumers

Gender	Respondent	Percentage
Male	43	37.1%
Female	73	62.9%
Total Respondent	116	100%

Source: Questionnaire

Figure 4.1. Gender of Giant and ITC BSD food court’s consumers



Source: Questionnaire

4.1.2. Age of Respondent

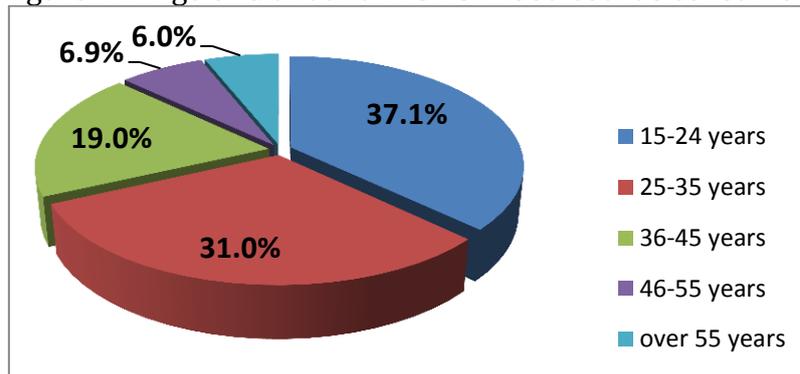
Table and figure 4.2 show that out of 116 consumers that eat in food court at Giant and ITC BSD, two largest age group are 15-24 years old consumers with 37.1% and 25-35 years old consumers with 31.0%. The chart shows that the largest consumers who usually come to eat at food court are teenager and young adult.

Table 4.2. Age of Giant and ITC BSD food court’s consumers

Age	Respondent	Percentage
15-24 years old	43	37.1%
25-35 years old	36	31.0%
36-45 years old	22	19.0%
46-55 years old	8	6.9%
Over 55 years old	7	6.0%
Total respondent	116	100%

Source: Questionnaire

Figure 4.2. Age of Giant and ITC BSD food court’s consumers



Source: Questionnaire

4.1.3. Occupation of Respondent

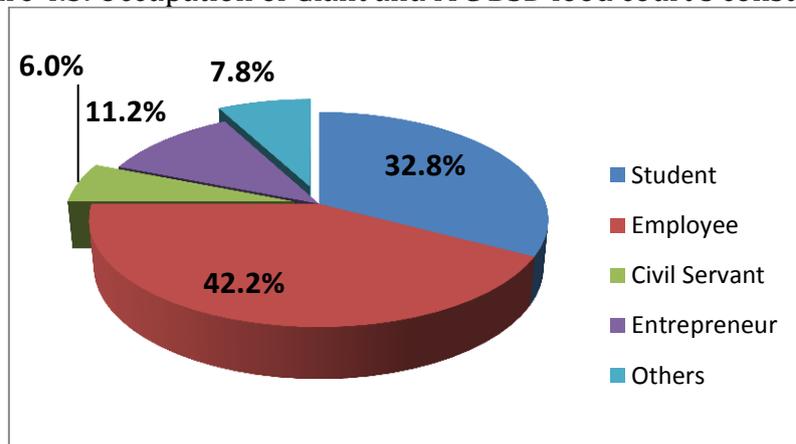
Figure 4.3 shows that out of 116 consumers that eat food in food court at Giant and ITC BSD, the majority are employees with 42.2% and students with 32.8%. This shows that students and employees are the most frequent consumers of food court in Giant and ITC BSD.

Table 4.3. Occupation of Giant and ITC BSD food court’s consumers

Occupation	Respondent	Percentage
Student	38	32.8%
Employee	49	42.2%
Civil Servant	7	6.0%
Entrepreneur	13	11.2%
Others	9	7.8%
Total Respondent	116	100%

Source: Questionnaire

Figure 4.3. Occupation of Giant and ITC BSD food court’s consumers



Source: Questionnaire

4.1.4. Respondent’s Religion

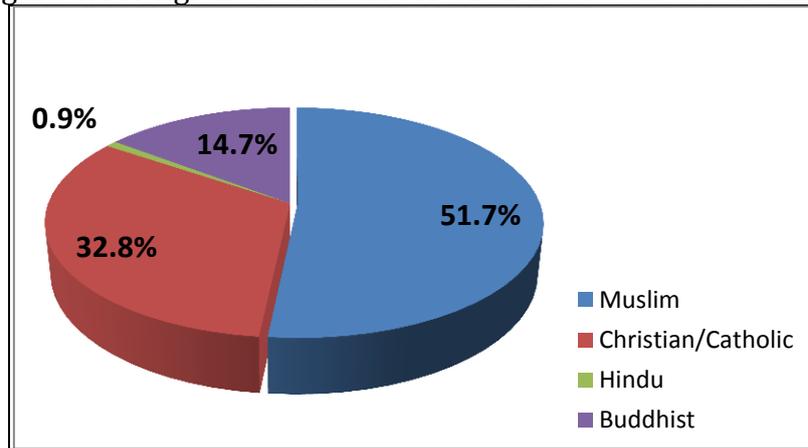
Table and figure 4.4 show that 51.7% of 116 consumers who eat in Giant and ITC BSD food court are Muslim. This shows that more than half consumers of Giant and ITC BSD food court tend to be Muslim which is not surprising as the majority of Indonesian people are Muslim.

Table 4.4 Religion of Giant and ITC BSD food court’s consumers

Religion	Respondent	Percentage
Muslim	60	51.7%
Christian/Catholic	38	32.8%
Hindu	1	0.9%
Buddhist	17	14.7%
Others	0	0%
Total Respondent	116	100%

Source: Questionnaire

Figure 4.4 Religion of Giant and ITC BSD food court’s consumers



Source: Questionnaire

4.1.5. Respondent’s Race

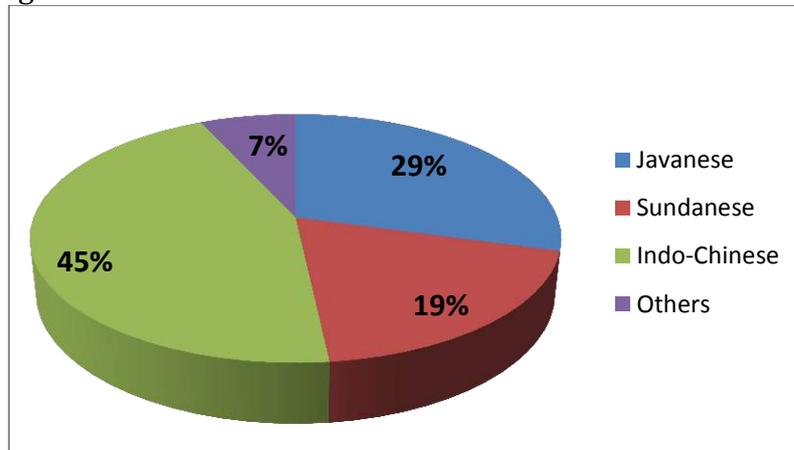
Table and figure 4.5 show that out of 116 consumers 45% are Indo –Chinese and 29.3% are Javanese which are two majority race of consumers who eat in Giant and ITC BSD food court.

Table 4.5. Race of Giant and ITC BSD food court’s consumers

Race	Respondent	Percentage
Javanese	34	29.3%
Sundanese	22	19.0%
Indo-Chinese	52	44.8%
Others	8	6.9%
Total Respondent	116	100%

Source: Questionnaire

Figure 4.5 Race of Giant and ITC BSD food court’s consumers



Source: Questionnaire

4.2. Consumer Preference

In this section, respondents’ food preference are shown based on their food variety preference, motivation to eat there, frequency of visit to food court, food expense per

month and social group which has most influence to respondents.

4.2.1. Type of cuisine preferred by respondent

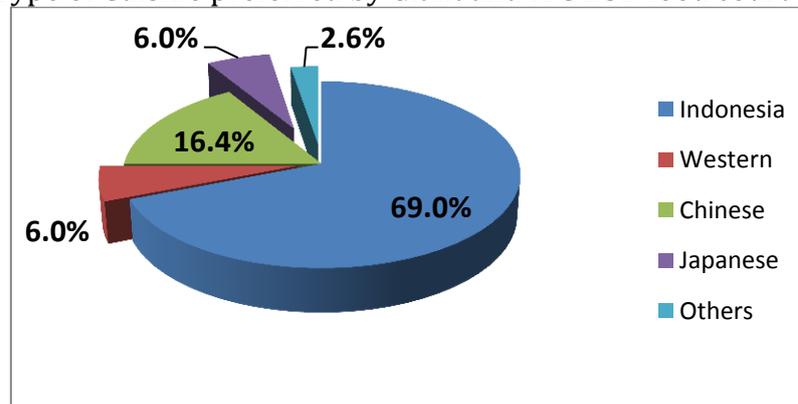
Table and figure 4.6 show that out of 116 consumers of food court at Giant and ITC BSD, 69.0% prefer Indonesian food. This shows that consumers of food court in Giant and ITC BSD have high preference of Indonesian food. Based on observation, high preference of Indonesian food and Chinese food can be seen from number of Indonesian and food outlets in Giant and ITC BSD. The example of Chinese and Indonesian food menu in these food courts are located in appendix # 3.

Table 4.6. Type of Cuisine preferred by Giant and ITC BSD food court's consumers.

Type of Cuisine preferred	Respondent	Percentage
Indonesian food	80	69.0%
Western food	7	6.0%
Chinese food	19	16.4%
Japanese food	7	6.0%
Other food	3	2.6%
Total respondent	116	100%

Source: Questionnaire

Figure 4.6 Type of Cuisine preferred by Giant and ITC BSD food court's consumers.



Source: Questionnaire

4.2.2. Respondent motivation to eat at food court

Table and figure 4.7 show that 41.4% of 116 consumers eat at food court because of convenience, 31.9% eat at food court because of food quality. Consumers who eat because of price and other reason are respectively 25.0% and 1.7%. There is no respondent who choose service quality as their reason to eat at food court.

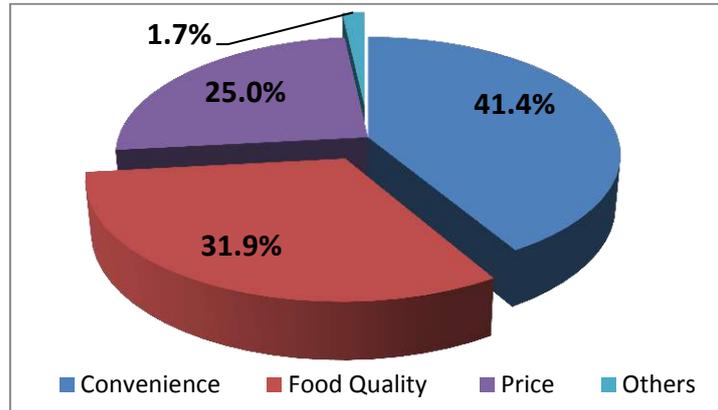
Table 4.2. Consumer's motivation to eat at Giant and ITC BSD food court

Motivation to eat at food court	Respondent	Percentage
Convenience	48	41.4%
Food Quality	37	31.9%
Service Quality	0	0%
Price	29	25.0%
Others	2	1.7%

Motivation to eat at food court	Respondent	Percentage
Total Respondent	116	100%

Source: Questionnaire

Figure 4.7. Consumer's motivation to eat at Giant and ITC BSD food court



Source: Questionnaire

4.2.3. Frequency of visit to food court

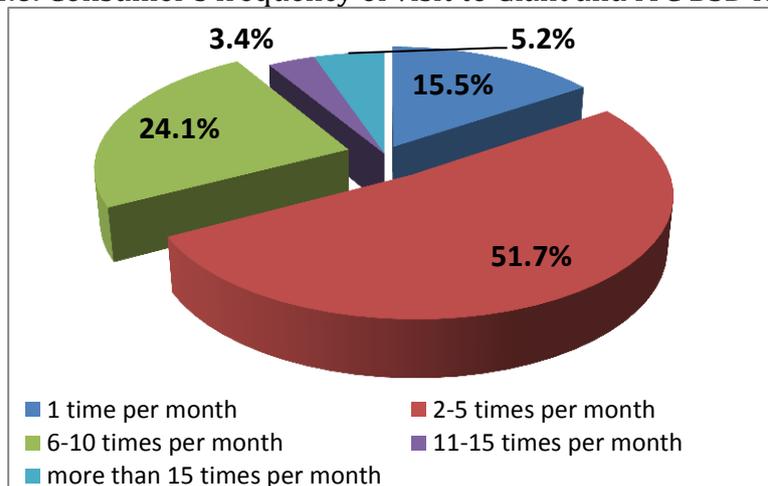
Table and figure 4.8 show that 51.7% of 116 consumers who eat in food court at Giant and ITC BSD come 2-5 times per month. This means that majority of consumers frequently come 2-5 times per month.

Table 4.8. Consumer's frequency of visit to Giant and ITC BSD food court

Frequency of visit	Respondent	Percentage
1 time per month	18	15.5%
2-5 times per month	60	51.7%
6-10 times per month	28	24.1%
11-15 times per month	4	3.4%
Over 15 times per month	6	5.2%
Total Respondent	116	100%

Source: Questionnaire

Figure 4.8. Consumer's frequency of visit to Giant and ITC BSD food court



Source: Questionnaire

4.2.4. Food Expense spent per month

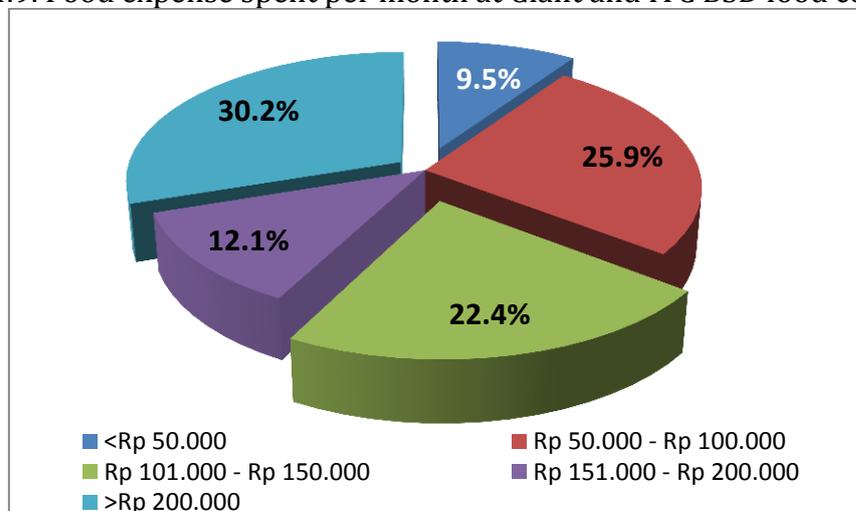
Figure 4.9 shows that out of 116 consumers who eat in food court at Giant and ITC BSD, 30.2% spend over Rp 200.000 per month, This shows that majority of consumers who eat in food court at Giant and ITC BSD spend over Rp 200.000 per month.

Table 4.9. Food expense per month at Giant and ITC BSD food court

Food expense	Respondent	Percentage
< Rp 50.000	11	9.5%
Rp 50.000 - Rp 100.000	30	25.9%
Rp 101.000 – Rp 150.000	26	22.4%
Rp 151.000 – Rp 200.000	14	12.1%
>Rp 200.000	35	30.2%
Total Respondent	116	100%

Source: Questionnaire

Figure 4.9. Food expense spent per month at Giant and ITC BSD food court



Source: Questionnaire

4.2.5. Social Group which has the most influence to respondents

Table and figure 4.10 shows that out of 116 consumers who eat in food court at Giant and ITC BSD, 49.1% make their own decision without being influenced by social group. This number represents the majority of consumers. This shows that advertisement and promotion of small restaurant in food court have not any influence to their consumers.

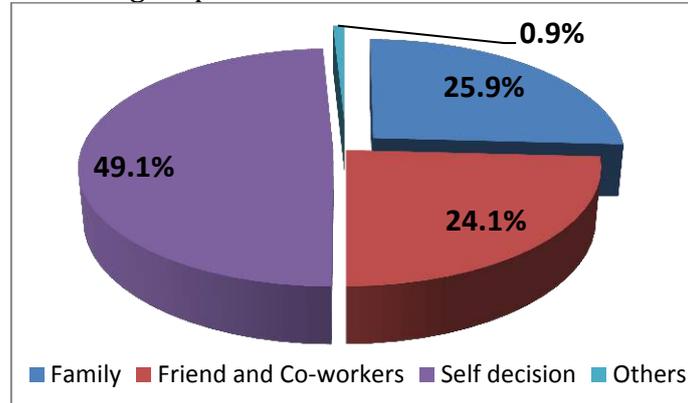
Table 4.10. Social group of Giant and ITC BSD food court’s consumers

Social group influence	Respondent	Percentage
Family	30	25.9%
Friend and co-workers	28	24.1%
Media (TV, Magazine, others)	0	0%
Self decision	57	49.1%

Social group influence	Respondent	Percentage
Others	1	0.9%
Total Respondent	116	100%

Source: Questionnaire

Figure 4.10 Social group of Giant and ITC BSD food court's consumers



Source: Questionnaire

4.3. Validity Test and Result

The questionnaires have been designed and distributed. The questions were tested whether they are valid or not. Validity test are done using SPSS software program with KMO and Bartlett's Test.

Table 4.11. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.523
Bartlett's Test of Sphericity	Approx. Chi-Square	104.627
	Df	45
	Sig.	.000

Source: SPSS

Based on this test, the validity of this research is 52.3% for each question. The KMO measures the sampling adequacy which should be greater than 0.5 for a satisfactory factor analysis to proceed (Lee, 2006; Hinton and Brownlow, 2004)

4.4. Reliability Test and Result

The data is first tested through validity test and then followed by reliability test. Reliability test done using SPSS software with Cronbach's alpha to measure internal consistency. The data is considered reliable if Cronbach's alpha value is 0.70 or higher (Zikmund, 2003).

Table 4.12. Reliability Test

		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Cronbach's Alpha	N of Items
.747	10

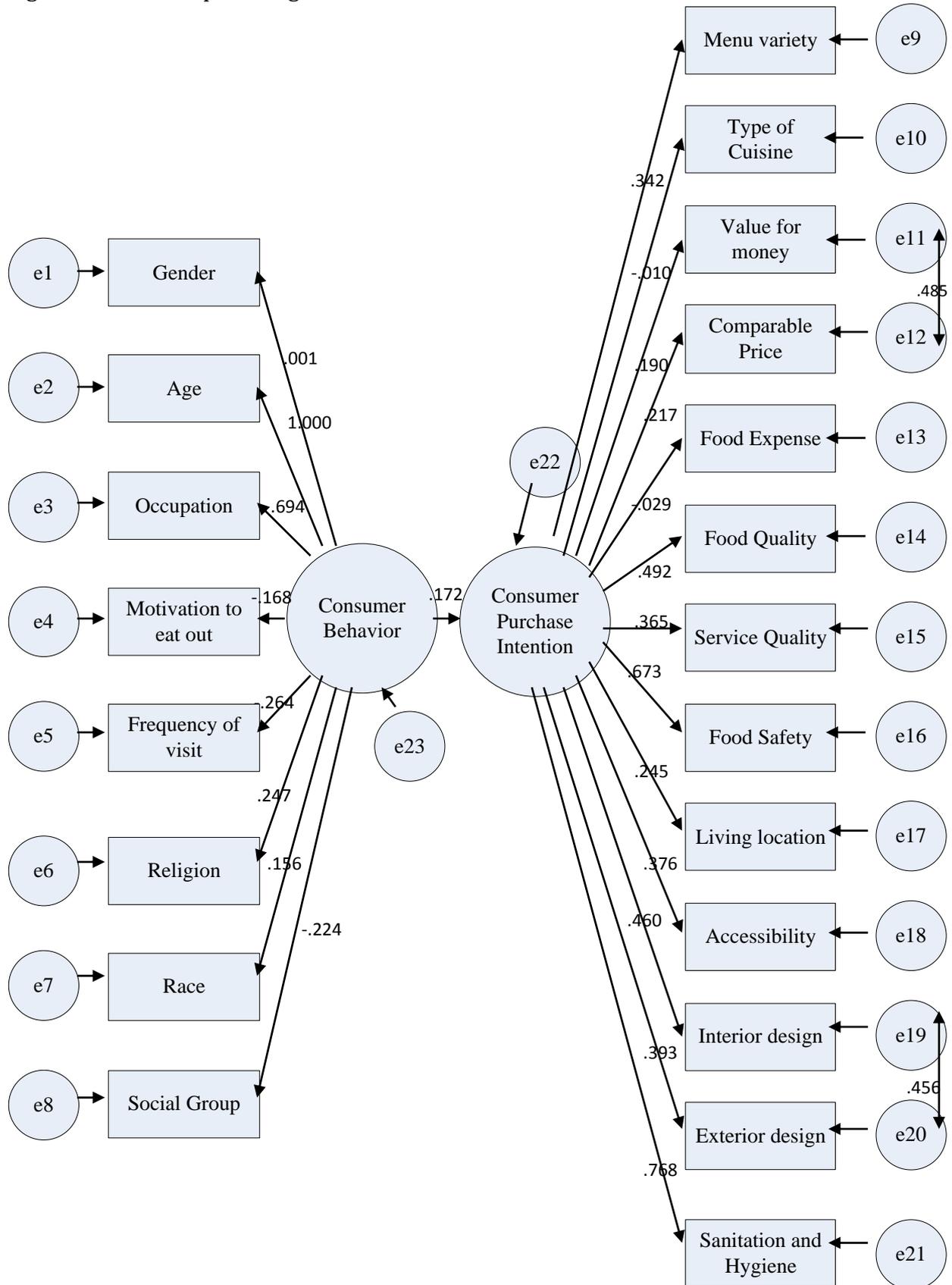
Source: SPSS

Cronbach's Alpha value above is .747, which means that according to Zikmund (2003) the data is reliable.

4.5. Result from AMOS

The figure shows the correlation between consumer behavior and consumer purchase intention.

Figure 4.11. AMOS path diagram



Source: AMOS

Consumer behavior is influenced by consumers' gender, age, occupation, motivation

(reason), frequency of visit, religion, race, and social group, while consumer purchase intention is influenced by menu variety, type of cuisine, value for money, comparable price, food experience, food quality, service quality, food safety, living location (resident), restaurant’s accessibility, interior and exterior design and sanitation. The circle shapes with e symbols are degree of error which represents unobserved external factors that have possibility to influence the variable.

4.5.1. Validity testing

The result of AMOS is measured by goodness of fit model to find out whether the expected values of model’s variables fit well with observed variables. The goodness of fit criteria being measured is CMIN.

Based on AMOS output, CMIN/DF value is 6.86. CMIN value represents minimum value of discrepancy, while DF represents degree of freedom. DF has value of 187. By multiplying CMIN/DF value and DF value, CMIN value is known. CMIN value is 1282.82.

There are two kinds of theories to see the fitness of model based on CMIN/DF value. According to Schumacker and Lomax (2004) and Wijaya (2009), CMIN/DF value which is less than or equal 2 has a better fit while CMIN/DF value based on Ghozali (2004) and Santoso (2009), CMIN/DF value which is less than or equal 5 has a better fit. Based on AMOS output, CMIN/DF of this model is 6.86 which mean that according of those two theories the model is considered to be marginal fit.

4.6. Discussion

The following table provides the details of the coefficients among variables and indicators used in the structural equation model of this study.

Table 4.13. Standard regression weight

			Estimate
Consumer Purchase Intention	<---	Consumer Behavior	.172
Gender	<---	Consumer Behavior	.001
Age	<---	Consumer Behavior	1.000
Occupation	<---	Consumer Behavior	.694
Motivation to eat out	<---	Consumer Behavior	-.168
Frequency of visit	<---	Consumer Behavior	-.264
Religion	<---	Consumer Behavior	.247
Race	<---	Consumer Behavior	.156
Social group	<---	Consumer Behavior	-.224
Menu variety	<---	Consumer Purchase Intention	.342
Type of cuisine	<---	Consumer Purchase Intention	-.010
Value for money	<---	Consumer Purchase Intention	.190
Comparable price	<---	Consumer Purchase Intention	.217
Food expense	<---	Consumer Purchase Intention	-.029
Food quality	<---	Consumer Purchase Intention	.492

			Estimate
Service quality	<---	Consumer Purchase Intention	.365
Food safety	<---	Consumer Purchase Intention	.673
Living location	<---	Consumer Purchase Intention	.245
Accessibility	<---	Consumer Purchase Intention	.376
Interior design	<---	Consumer Purchase Intention	.460
Exterior design	<---	Consumer Purchase Intention	.393
Sanitation and Hygiene	<---	Consumer Purchase Intention	.768

Source: Amos output

According of Burns and Bush (2006), correlation coefficient size rule of thumb is as below

Table 4.14 Correlation coefficient size rule of thumb

Coefficient range	Strength of association
± 0.81 to ± 1.00	Strong
± 0.61 to ± 0.80	Moderate
± 0.41 to ± 0.60	Weak
± 0.21 to ± 0.40	Very weak
± 0.00 to ± 0.20	None

Source: Burns and Bush, 2006

Several values from standardized regression weight table above show the level of correlation between variable. The strongest level of correlation in consumer behavior that could be seen is between consumer behavior and age of respondent which is 1.000. This shows that hypothesis # 1 that says age is the factor that has most influence to the consumer behavior of BSD City is true and can be accepted.

The second highest is moderate level of correlation between consumer behavior and occupation of respondent which is 0.694. The other variables in consumer behavior have very weak to none level of correlation. Factors such as gender, religion, and race respectively have value of 0.001, 0.247 and 0.156.

There are inadmissible model parameter estimates in consumer behavior by some factors that have negative variance estimates such as motivation to eat out, frequency of visit and social group which respectively have value of -0.168, -0.264, and -0.224. Motivation to eat out has no negative correlation level to consumer behavior while frequencies of visit and social group have very weak negative correlation level to consumer behavior.

The correlation value between consumer behavior and consumer purchase intention is 0.172 shows no strength in correlation level. This shows that hypothesis # 2 that says consumer behavior of BSD City in small food retailers correlates strongly with consumer's purchase intention is untrue and cannot be accepted.

The highest value of correlation in consumer purchase intention is sanitation which is 0.768 that has moderate level of correlation. This shows that hypothesis # 3 that says food quality is the variable that most influence BSD City's consumer purchase

intention is untrue and cannot be accepted. Food safety has second highest estimation value of 0.673 or moderate correlation level with consumer purchase intention.

Food quality variable has the third highest estimation value of 0.492 or weak correlation level with consumer purchase intention. Another variable which has weak correlation level in consumer purchase intention is interior design with value of 0.460. Other variables have very weak to none level of correlation. They are menu variety, value for money, comparable price, service quality, living location, accessibility and exterior design which respectively have values of 0.342, 0.190, 0.217, 0.365, 0.245, 0.376 and 0.393.

There are also inadmissible model parameter estimates in consumer purchase intention by some factors that have negative variance estimates such as cuisine and food expense that respectively have values of -0.010 and -0.029. Cuisine has no negative correlation level to consumer purchase intention while food expense has very weak negative correlation level to consumer purchase intention.

The analysis of data gathered shows a surprising result as 2 of 3 hypothesis proved to be wrong. The conclusion and recommendation of this research are explained in next chapter of conclusion and recommendation.

SAMPLE # 4: SCREENING & MONITORING

The following research sample is based on the actual work of an undergraduate thesis in 2011, which was originally written by Wynne Frederica from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*The Roles of Screening and Monitoring Functions in Bank Loans: An Industrial Analysis on Firm’s Value in Indonesian Publicly-Listed Manufacturing Firms*”.

The approach used in this study followed a quantitative-based research, which mainly relied on secondary data to evaluate the relationships among variables based on the research model. Secondary data from macro-economic indicators and financial statements of publicly-listed firms are also incorporated to provide managerial analysis, explanation and evidence on the role of screening and monitoring in bank loans.

CHAPTER 4 - RESULT AND DISCUSSION

4.1. Industry Overview

Manufacturing industry, which is one of the nine industry categories in Indonesia according to JASICA, is the industry that this study focuses on. From 127 manufacturing companies that listed in BEI by the end of 31 December 2010, only 99 companies which have the required data for this study.

According to gbgindonesia.com (2010) the Indonesian manufacturing sectors is a major sources for the Indonesia economic environment for its role as it employs 14.4 million employees as per end of 2010. Unfortunately, the manufacturing industry in Indonesia now is in its slow pace due to AFTA and CAFTA. The manufacturing industry faces the competition; hence, it has to advance its technology and maximize the human resources of Indonesia. For that reason, the manufacturing industry is looking for more investors whether local or international.

Manufacturing industry in Indonesia seems attractive for foreign direct investment. It can be seen from the fact that the investment rose by 12 % in 2010 from 2009 and 5-6 % in a half year of 2011 (gbgindonesia.com, 2010). Under the Coordinating Ministry for Economic Affairs, the government prepares to boost the export by establishing the manufacturing bases in Indonesia. One of the incentives is by providing tax holiday for some essentials sector in manufacturing such as textile and garments. A major disadvantage for the manufacturing industry is tax import that charge on the raw material for manufacturing processes. The raw material such as chemical that needed for the pharmaceuticals and textile production plays an important role for Indonesia to reach its 8% target growth in the manufacturing industry in 2014. The incentive made by the government hope will attract more investors to invest their money in

manufacturing industry. However, there are still lots of incentive that need to be address in developing and revitalizing the inadequate manufacturing industry condition.

The introducing of China Free Trade Agreement in January 2010 gives a negative impact on manufacturing industry. There are pros and cons in CAFTA. The cost of importing the raw material will be much lower, since there is a tax exemption. In contrast, the flow of Chinese made goods such as electronics, garments, foods, and cosmetics are uncontrollable and heavily penetrate the Indonesian market. Therefore, the competitions between Indonesian and Chinese goods are stiff. One of Indonesia strength in competing with Chinese goods is the labor incentive. One of the examples, the garment factory in China compare with Indonesian garment factory is almost the same in terms of labor cost. The labor cost in Indonesia could be considered as same as cost in China. However, some part in Indonesia has become the main option for investor to invest in, since the labor cost is cheaper than in China. For example, Nike opened its factory in Tangerang, Indonesia. Yet, there still one part that plays an essential role in competing with Chinese goods, the technology itself (gbgindonesia.com, 2010).

The technology in China is more advanced than in Indonesia, and that has become their advantage on competing with Indonesian products. The importance of research and development on factories are immensely needed. It will improve the factory's efficiency and product's quality. As a comparison with other emerging market countries, Brazil, China, and India have grown 25% on their medium and high technology industries, while in Indonesia only grows 15% (oecd.org, 2010).

As a result, the support of financing the manufacturing sector is strongly necessity. Therefore, banks should support the manufacturing company as what they did to the mining sector. As a comparison, according to Bank Indonesia, the loans to the manufacturing sectors has decreased 13.1% and the loans to the mining sectors has increased 40%. The lending rate to this sector is still higher than other countries, where banks in Indonesia lending rate at 12%-15%, and other countries still 5%-6%. Moreover, Indonesia's net interest margin stands at 5.8%, which has been lower from 6.75%, while other ASEAN countries are 2.3 - 4.5% (Bank Indonesia, 2010). The lack of lending also shown in Indonesia loan to GDP ratio which is only at 26.1%, while 90% for Vietnam and 78% for Thailand. The loan to GDP ratio shows the percentage of loan compare to GDP. The more loan to GDP ratio shows that the financial intermediaries in that country operate its function more effectively. Therefore, Bank Indonesia sets the manufacturing sectors as the priority for the country's banks to give their lending on.

The banks in Indonesia argue that the high rate of lending rate is because Indonesia is one of the highest ratios of operational cost to operational revenue among the ASEAN 5 largest economies (gbgindonesia.com, 2010). When that ratio stands for 31.7-73.1% for other ASEAN 5 and it stands 50-60% for developed economies, the Indonesia's ratio of operational cost to operational revenue stands at 81.6% for 2010. The cost for Indonesia banks has been slightly increased since 2004 until 2010 by 17.7% due to operational cost. The process of screening and monitoring the borrower need a cost, which is called operational cost. In addition, the high risk premium in

Indonesia is due to the political and social condition in Indonesia which is as unpredictable as the real estate and commodity price. The ironic side is, the banks in Indonesia cannot effectively run its function as financial intermediaries because they like to take advantages from the high NIM profit margin.

In order to reach the target of 20-30% credit increase in 2011, the banks in Indonesia have to low its NIM and impose penalties for banks that have loan to deposit ratio lower than (LDR) 78% (gbgindonesia.com, 2010). Even though the Indonesian interest rate is higher compare to any other ASEAN countries, the lending rate increased by 20.46% from 2009 to 2010. In addition, the working capital loan increased by 21% and investment loan increased by 18.4%.

It takes time in order to achieve the target, which is to increase the rate of bank loan for companies in Indonesia (bbc.co.uk, 2011), especially a slow growth sector such as manufacturing and textile sector. The government expecting the GDP growth of 6.7% for 2011, which require a significant support from bank by increasing the landing rate for large scale product.

4.2. Reliability and Validity Testing

As the process of searching for the answers regarding to the topic problem, it is commonly that the researcher come across several information that may parallel to each other. But still, there are also some information that may contradict each other. These problems create confusion for the researcher on finding the answers. That is why there is a need of validity and reliability on this study's information.

4.2.1. Reliability Testing

After inputting the data into the SPSS software under AMOS menu, the reliability test needs to be conducted. "Reliability refers to the extent to which the data collection techniques or analysis procedures will yield consistent findings" (Saunders et al, 2007). According to Robson (2002) *Observer bias* is completely the ability of the researcher's interpretation that is questioned. Therefore, there is a need of full understanding on the case that the researcher's face and the answers of the question problems.

In this study, after input the data into the SPSS software, the reliability test is executed.

Table 4.1 NPAR and CMIN

Model	NPAR	CMIN
Default Model	23	24005.247

Source: SPSS

From the table above, it appears that the manifest variable can be use to demonstrate the unobserved variable. There are three possibilities output in showing the CMIN, which are default model, saturated model and independence model. Saturated model is when the CMIN output is 0, where independence model is assumed that manifest variable and the observed variable do not have any correlation and usually the output of the CMIN is higher than in default model. Furthermore, the most suitable model is

when the output is between saturated and independence model (Santoso, 2007). Since the output for this study is default model; hence, it already tested that the manifest variable is appropriate to be the indicator for the unobserved variable. Moreover, the NPAR or *df* (degree of freedom) has to be positive. The table shows that NPAR is 23, that is the reason why CMIN is obtained.

4.2.2. Validity Testing

The validity testing is needed to ascertain whether the variables are appropriate to indicate the firm value or not. It needs to use fit test model to test the validity of the data. In order to test the hypothesis, AMOS student version will process all of the model. Moreover, according to Wisker (2008) validity is absolutely central to the whole issue of the cohesion in the work between conceptual framework methods, questions and findings. Therefore, the study's methods, approach on the case and also the theory that applied to the case have to be connected with the findings in the field. With the appropriate theory that is used to the case, the answer of the problem can be solved by the researcher.

Table 4.2 GFI

Model	GFI
Default Model	.864

Source: SPSS

Based on the criteria of Goodness of Fit, the value of the GFI must be close to 1.00. The result shows that the value of GFI is 0.864, which means it close to 1.00. it shows that the data in this study is fit.

4.3. Path Diagram Analysis

All of the necessary data that will be process in this study need to be converted in SPSS format. Those variables are:

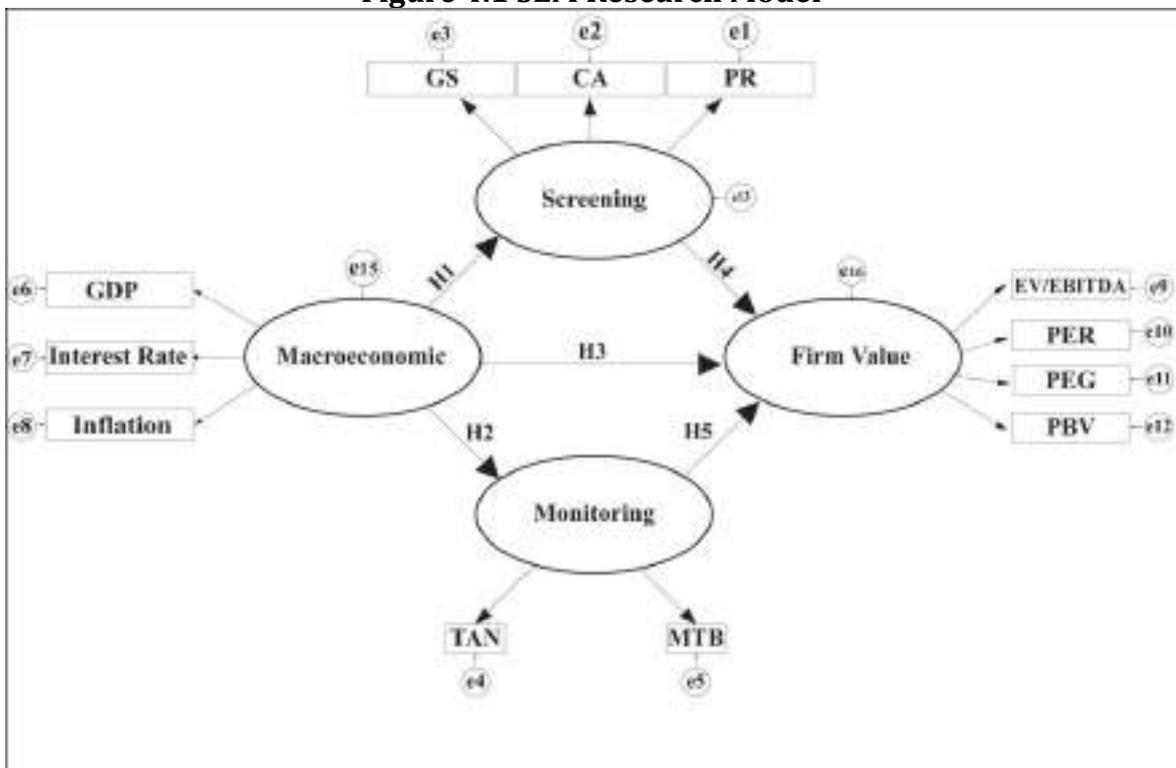
Table 4.3 Independent and Dependent Variables

No	Independent Variables	Dependent Variables
Macroeconomic Variables		Firm Value
1.	GDP	EV/EBITDA
2.	Interest Rate	
3.	Inflation	
Screening Variables		PEG
4.	Company Age	PER
5.	Profitability	
5.	Sales	
Monitoring Variables		PBV
6.	Tangible Asset	
7.	Intangible Asset	

The proxies of macroeconomic conditions, screening and monitoring tool elucidate the relationship between those proxies and the firm value, which represent from four

kinds of method. The analysis helps to emphasize which variable is the most identifiable variable as indicators of the firm value. After knowing the most identifiable variables in terms of macroeconomic condition, screening and monitoring tools, those variables can be used as a consideration in choosing firm with a more value. The firm value itself represents from the EV/EBITDA, PER, PEG, and PBV. Those indicators are not only determining firm's value, but also one of those indicators will prevail as the most decisive indicator toward firm's value.

Figure 4.1 SEM Research Model



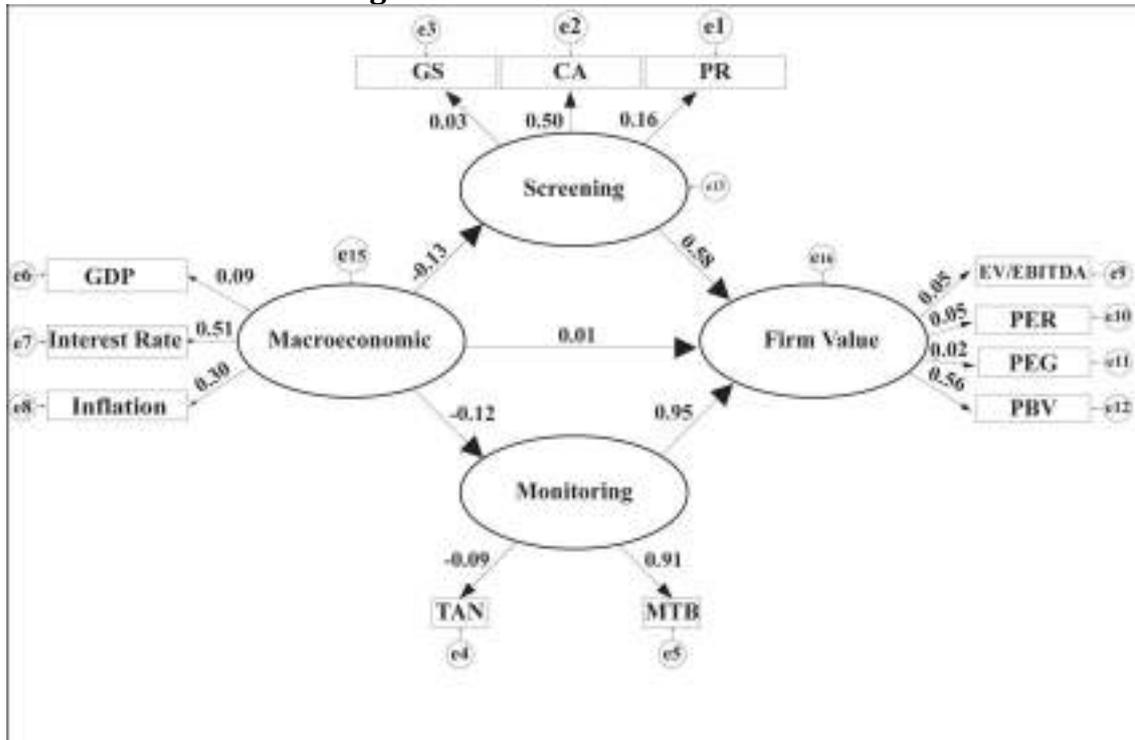
After input the SPSS data into the Amos software, there is the output shown in figure 4.1, whom called SEM model. There are degrees of error in every variable that stand for the possibility of external factor in effecting particular variables.

4.4. Interpretation of Path Diagram

For this study, the data that have been process in SPSS generates the result, which is the Figure 4.2. Figure 4.2 explains every relationship between each of the variable that needed to be analyzed. In order to answer the research objective, there will be a further analytical approach to the problem.

The figure 4.2 shows the correlation of macroeconomic to the screening and monitoring variables and the firm value. The figure shows that macroeconomic has a negative relation towards screening and monitoring variables but have a positive relation to the firm value. In means that when the GDP, Inflation, and Interest Rate increase the screening and monitoring variables decrease. On the other hand, the increasing numbers of GDP, Inflation, and Interest Rate give impact to the increasing value of the firm.

Figure 4.2 SEM Research Model



4.4.1. Analysis Path Diagram of Macroeconomic Variables to the Screening and Monitoring Variables

Due to the objective of the study, which are to analyze the relationship between macroeconomic condition and screening and also analyze the relationship between macroeconomic condition and monitoring, the discussion of the figure 4.3 and figure 4.4 are needed. The figure 4.3 will deeply explore about the relationship between macroeconomic and screening. As the discussion at figure 4.3, figure 4.4 will examine the relationship between macroeconomic and monitoring.

Figure 4.3 Path Coefficients of Macroeconomic Variable for the Screening

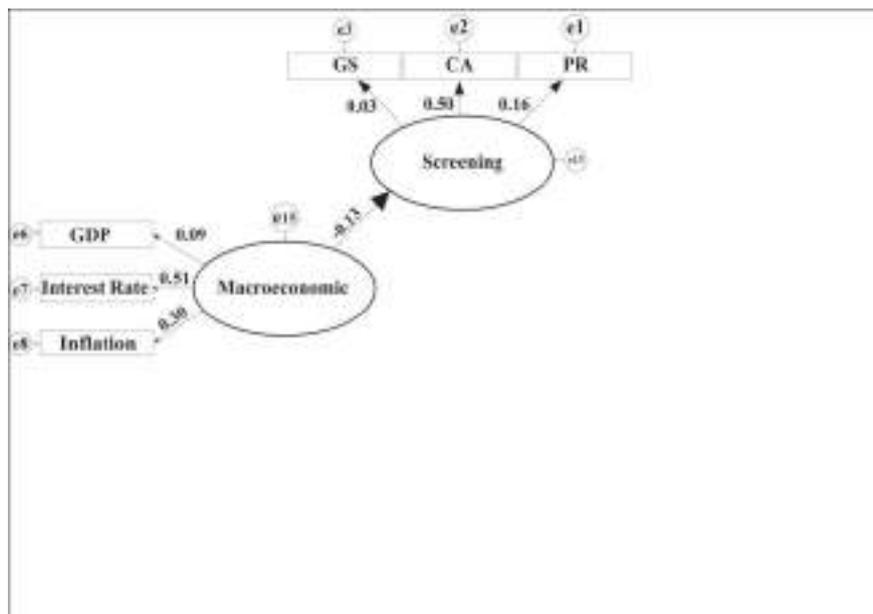


Figure 4.3 describes the answer of the first question and hypothesis in this study, which are:

Question 1: How strong does the influence of macroeconomic conditions to screening?

Hypothesis 1: The macroeconomic conditions have a strong influence to screening.

The results of SEM model in figure 4.3 are:

1. Macroeconomic has a negative relationship to the screening with the coefficient correlation -0.13. It means that the changing condition of macroeconomic will only influence the screening function by 1.69%. The negative relationship between macroeconomic condition and screening function means, when the condition of the economy in a country is more desirable, bank will screen the potential company less rigorously. It does not mean that the bank will loose its regulation to the company who what utilizing the bank loan. However, in the unattractive condition of macroeconomic, bank will screen the company more strictly.

Table 4.4 Coefficient Correlations of Macroeconomic Proxies

The Macroeconomic Indicators	Coefficient Correlation (r)	Coefficient Determination (r²)
GDP	0.09	0.81%
Interest Rate	0.51	26.01%
Inflation	0.30	9%

Indicators of macroeconomic conditions are shown in the above table. Those indicators all have positive relationships toward the macroeconomic conditions. The figure 4.3 shows that interest rate is the strongest indicator that influences the macroeconomic conditions at 0.51 correlation ($r^2 = 26,01\%$). As a comparison, GDP and Inflation only affect the condition of macroeconomic by 0.81% and 9%. In addition, based on the statistical result, the difference between correlation values of each variable is quite significant since the difference between the highest and the lowest correlation determination (r^2) value is only 25.2%.

Table 4.5 Coefficient Correlations of Screening Proxies

Proxy of the Screening	Coefficient Correlation (r)	Coefficient Determination (r²)
Sales Growth	0.03	0.09%
Company Age	0.50	25%
Profitability	0.16	2.56%

2. From the above table, it can be seen that in screening function, banks will look at the company age as the first consideration. It can be shown by its 0.50 coefficient correlation ($r^2 = 25\%$). The second consideration in screening the company is by looking at its profitability, which in this study it shown from its 0.16 coefficient correlation. This study tells the last concern in screening the company is the growth sales of the company. The result shows growth sale of

the company only affect the screening function by 0.09%.

Figure 4.4 Path Coefficients of Macroeconomic Variable for the Monitoring

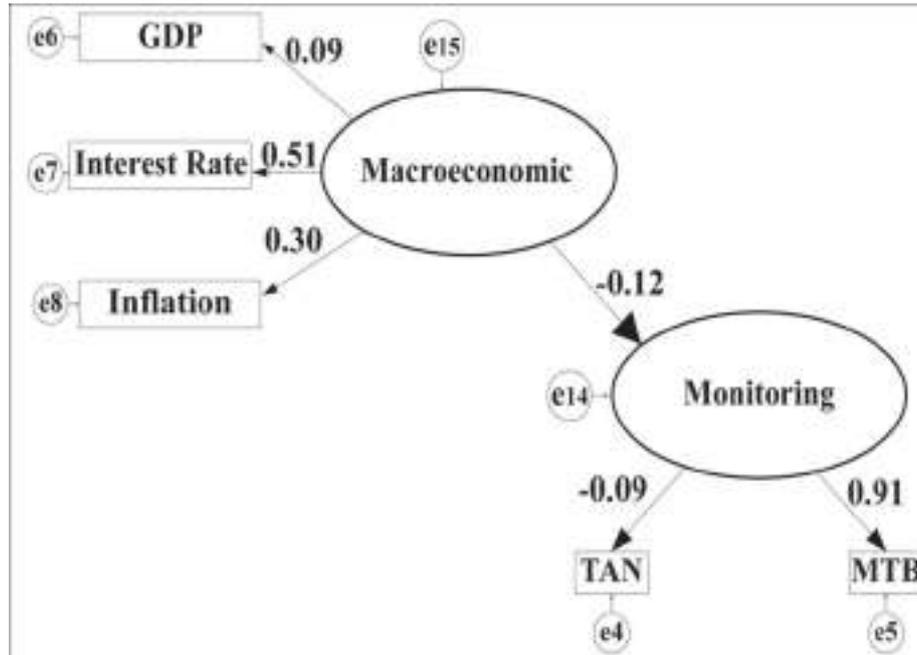


Figure 4.4 explains the answer second question and hypothesis in this study, which are:

Question 2: How strong does the influence of macroeconomic conditions to monitoring?

Hypothesis 2: The macroeconomic conditions have a strong influence to monitoring.

The SEM model generates the result for the relationship between macroeconomic condition and monitoring variables as follows:

- Figure 4.4 show the relationships between macroeconomic to monitoring. The value shows how strong is the relation of macroeconomic condition to the monitoring activities. As the relationship to the screening, the macroeconomic condition has a negative relationship to monitoring activities. It means that when the macroeconomic is the undesirable condition, bank will monitor its company more strictly. Macroeconomic has a relationship with the monitoring with -0.13 coefficient correlation.

Table 4.6 Coefficient Correlations of Monitoring Proxies

Monitoring Indicators	Coefficient Correlation (r)	Coefficient Determination (r ²)
Tangible Asset	-0.09	0.81%
Market to Book Value	0.91	82.81%

As unobserved variable, the monitoring needs its manifest variable which are tangible asset and market to book value as an indicator for the intangible asset. It can be seen that market to book value has a close relationship to the monitoring activities with 0.91 coefficient correlation. When, market to Book

value as monitoring proxy has a positive relationship for the monitoring variable, Tangible Asset has a negative relationship with the -0.09 coefficient correlation, Tangible Asset has a negative relationship with the -0.09 coefficient correlation. For monitoring activity the most influencing variable is Market to Book Value which has 0.91² or 82.81% of the squared multiple correlation value (coefficient determination). It means that Market to Book Value is the main concern for the bank in monitoring the company rather than monitor its Tangible Asset.

Table 4.2 shows summarize the relationship between macroeconomic and the screening and the monitoring.

Table 4.7 Coefficient Correlations of Macroeconomic Towards Screening and Monitoring

Correlation to	Coefficient Correlation (r)	Coefficient Determination (r ²)
Screening	-0.13	1.69%
Monitoring	-0.12	1.44%

From the table above, it can be seen that even though there is a relationship between macroeconomic condition and screening and monitoring process, the influence is not that significant. The table shows that macroeconomic have an effect on the screening process by only 1.69% and 1.44% on the monitoring method. Regardless, its negative or positive relation, the macroeconomic conditions have no big impact on screening and monitoring process.

4.4.2. Analysis Path Diagram of Macroeconomic, Screening, and Monitoring Variables Towards Firm Value

The objective of the study in this study also has the intention to analyze the relationship between macroeconomic and the firm value, macroeconomic and screening and macroeconomic and monitoring. At point 4.4.1 the discussion is only the relationship between macroeconomic and the screening and monitoring. Since the aim of this study also need to recognize each of those variable directly to the firm value, the further discussion is needed.

Figure 4.5 Path Coefficients of Macroeconomic Variable for the Firm Value

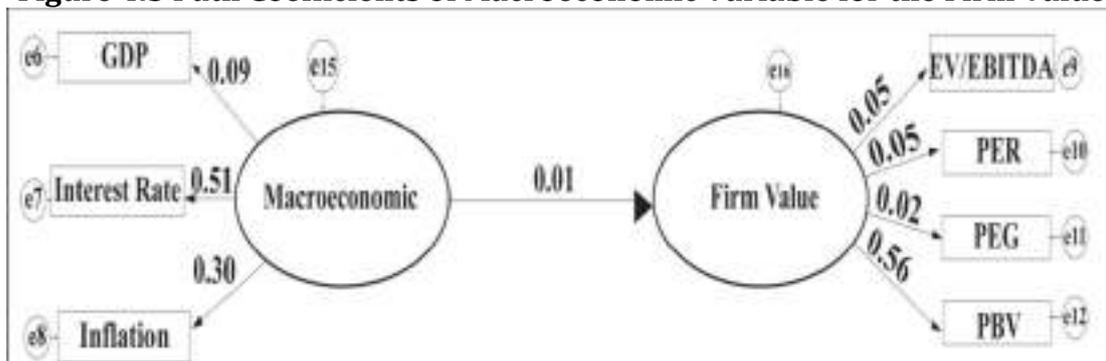


Figure 4.5 shows the relationship between macroeconomic and the firm value. The result above, can answer the third question and hypothesis in this study, which are:

Question 3: How strong does the influence of macroeconomic conditions to firm's value?

Hypothesis 3: The macroeconomic conditions have a strong influence to firm's value.

The result from SEM model generates a positive relationship between macroeconomic condition and monitoring variables. However, the relationship shows insignificantly since the coefficient correlation only 0.01. It means that in order to preserve the value of the company, the company not much considers the macroeconomic.

Figure 4.6 Path Coefficients of Screening Towards Firm Value

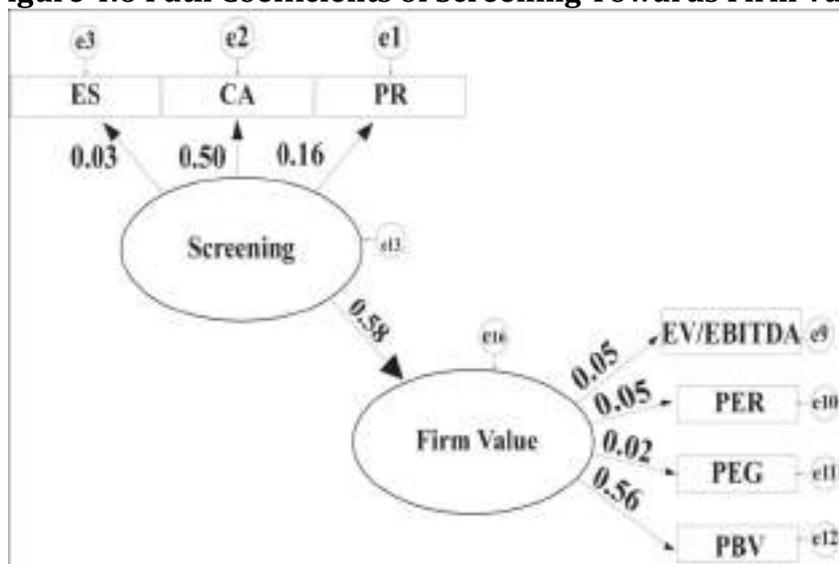
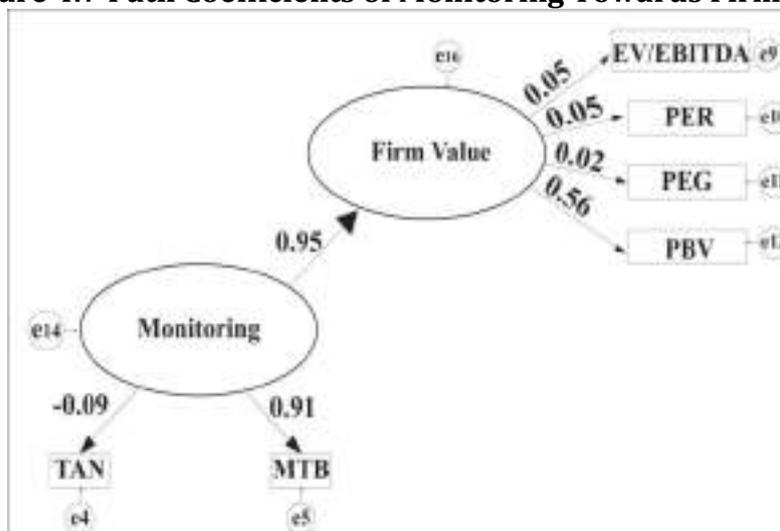


Figure 4.6 shows the relationship between screening and firm's value. Screening give a positive affect to firm's value as much as 33.64%. It can be a positive signal for the market that company that has been screened by the bank shows the increasing value with the 0.58 coefficient correlation.

Figure 4.7 Path Coefficients of Monitoring Towards Firm Value



The relationship between monitoring and firm’s value can be shown from the figure 4.7. The figure tells as the relationship between screening and the firm value, the relationship between monitoring and firm value also indicates the positive relationship. Even, this relationship is significantly closer than screening and firm value relationship. The 0.95 coefficient correlation shows how close this relationship is.

Table 4.8 Coefficient Correlations of Macroeconomic, Screening and Monitoring Towards Firm Value

Variables	Coefficient Correlation (r)	Coefficient Determination (r ²)
Macroeconomic Conditions	0.01	0.01%
Screening	0.58	33.64%
Monitoring	0.95	90.25%

In conclusion, as the result shown at figure 4.5, figure 4.6, and figure 4.7, it is obvious that macroeconomic condition has the least influence for the value of the company. It can be said that whether the macroeconomic are in a good or bad condition, it does not give a significant effect for the firm value. On the other hand, it is clear that monitoring activities give an advantage for the company. The result shows that monitoring activity has a positive relation to the firm value in the amount of 90.25%. In addition, screening process also give a positive impact for the firm value as much as 33.64%. It can be said that firms that screened and monitored by the bank have the more value than the firms that are not screened and monitored.

4.4.3. Analysis Path Diagram of the Firm Value

The above discussions analyze the relationship between macroeconomic, screening, and monitoring and the firm value. Each manifest variable for macroeconomic, screening and monitoring also have been discussed. Since all macroeconomic, screening and monitoring come down to the firm value, there is a need to discuss the manifest variable of firm value that can be shown from figure 4.8.

Figure 4.8 Path Coefficient of Firm Value

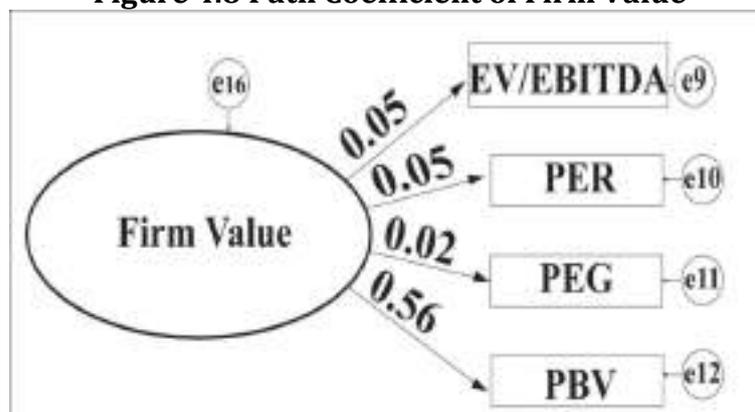


Figure 4.8 explains firm’s value, which can be seen from its EV/EBITDA, PER, PEG, and PBV. Each indicators has its own calculation in claiming or illustrating the firm

value. The figure says that the firm's value has a positive relationship to all of the indicators. It means that whenever one of the indicators increases, firm's value rises.

Table 4.9 The Coefficient Correlations of Firm Value Proxies

The Firm Value Proxy	Coefficient Correlation (r)	Coefficient Determination (r²)
EV/EBITDA	0.05	0.25%
PER	0.05	0.25%
PEG	0.02	0.04%
PBV	0.56	31.36%

The table 4.5 shows that EV/EBITDA and PER have the same relationship to the firm value, which only by 0.05 coefficient correlation or 0.25% coefficient determination. Moreover, the least effecting on firm value is PEG, which only contribute 0.04% in determining the firm value. In contrast, PBV plays a part in measuring the value of the firm. In can be said that there is a significant relationship of each proxy to the firm value due the significance differences between the highest and the lowest proxy by 31.32%. PBV can possibly represent value of the firm since it show the comparison of the book price and the market price.

SAMPLE # 5: ORDER PICKING SYSTEMS

The following research sample is based on the actual work of an undergraduate thesis in 2015, which was originally written by Muhammad Irhamsyah^{xiv} from the Faculty of Business Administration & Humanities at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*Analysis of Order Picking Systems on Warehouse Performance: A Case Study on PT. Armada Johnson Control*”.

The approach used in this study followed a quantitative-based research, which mainly relied on secondary data to analyze the implementation of the order picking systems on the company’s warehouse performance. Though lots of calculations were involved, this research relied on the use of relatively simple statistical calculations on operation management and operation research to provide the solid evidence on the warehouse performance.

CHAPTER 4 – RESULTS AND DISCUSSIONS

4.1 Company Overview

PT. Armada Johnson Control (AJC)

Armada Johnson Control (AJC) is a joint venture company between APM Armada Autoparts (AAA) and Johnson Controls Inc. (JCI). Armada Johnson Control has a strong leadership team coming from multinational background, ably supported by Johnson Controls Inc. and APM Armada Autoparts.

○ **Johnson Controls Inc. (JCI)**

Johnson Controls is a global diversified technology and industrial leader serving customers in more than 150 countries. Johnson Control’s 170,000 employees create quality products, services and solutions to optimize energy and operational efficiencies of buildings; lead-acid automotive batteries and advanced batteries for hybrid and electric vehicles; and interior systems for automobiles.

Johnson Control’s commitment to sustainability dates back to this company roots in 1885, with the invention of the first electric room thermostat. Through company’s growth strategies and by increasing market share Johnson Control are committed to delivering value to shareholders and making this company’s customers successful (Johnson Controls, 2015). Johnson Controls is a global diversified company in the building and automotive industries. Johnson Control serve these markets through three business units:

- Building Efficiency is a leading provider of equipment, controls and services for heating, ventilating, air-conditioning, refrigeration and security systems.
- Automotive Experience is a global leader in automotive seating, overhead systems, floor consoles, door panels and instrument panels.

- Power Solutions is the global leader in lead-acid automotive batteries and advanced batteries for Start-Stop, hybrid and electric vehicles.
- Global Workplace Solutions is a leading provider of facilities, corporate real estate and energy management for many of the world's largest companies (Johnson Controls, 2015).

- **APM Armada Autoparts (AAA)**

PT. APM Armada Autoparts operates as a subsidiary of Auto Parts Holdings Sdn Bhd. Auto Parts Holdings Sdn Bhd manufactures and distributes automotive bus and train seating products. The company was incorporated in 1985 and is based in Kuala Lumpur, Malaysia. Auto Parts Holdings Sdn Bhd is a subsidiary of APM Automotive Holdings Bhd.

Armada Johnson Control (AJC)

AJC has over 700 engaged employees spread across multiple functions. AJC is committed to a workplace where employees are engaged and leaders are effective. This commitment is reflected in our company values and employee training and development initiatives.

All the plants of AJC are TS-Certified and are in the process of awarded ISO 14000 environmental award. With high-level of delivery and quality performance, AJC periodically receives customer recognitions.

AJC follows JCI's global process and initiatives to continuously improve employee engagement. These initiatives include:

- Technical and leadership training.
- Workplace safety improvements.
- Annual employee engagement survey.
- Periodic employee communication.
- Employee get together.

AJC has 2 world class strategically located seating plants close to the AJC customer's facilities.

The plants are TS-Certified and are in the process of awarded ISO 14000 health and environmental certification. With high-level of delivery and quality performance, AJC periodically receives customer recognitions (Johnson Controls, 2015).

- **Cikampek Plant**

AJC's Cikampek plant is situated in Kota Bukit Indah Cikampek Purwakarta industrial area, close to major OEMs. The facility has foam plant, metal plant and seat assembly plant making it a large integrated seating complex consisting of:

- State of art techno conveyor which can produce multiple products in single conveyor.
- 100% robotic welding metal plant with fully "Poke Yoked" fixtures.
- 32 carrier "Hennecke" PU foam line with JCI proprietary Multi Blending

Technology.

- **Tambun Plant**

Tambun facility of AJC is strategically located to support the OEM's in Bekasi Industrial area. This facility currently houses a metal plant, seat trim plant and complete seat assembly capability. AJC's support function like: Engineering, Business Development, Quality Assurance and Finance and Human Resources are located in Tambun facility (Johnson Controls, 2015).

PT. Armada Johnson Control Operations

- **METAL**

Seat frames provide strength, rigidity and shape to the automotive seating system. Due to its safety requirement, manufacturing of seat frames need high precision, consistency and automation. AJC has invested in state of the art, welding robots, POKE-YOKE welding fixture and environmental friendly and safe welding stations. Having In-House seat frame welding capability shows quality, flexibility and low inventory level.

- **FOAM & TRIM**

Automotive seating foam provides comfort to the passenger for long and short drives. Seating foams are made by mixing ISOCYANATE and POLYOL with multiple catalyst. In terms of investment and technology, this PU foam manufacturing ranks high.

AJC has 32 carrier robotic pouring facility and fully automated chemical blending. This facility utilizes JCI's proprietary blending technology to produce high quality seating foams. Trim provides aesthetic to the automotive seating system. Depending on the class of vehicle, multiple trim materials are used by AJC. These include laminated fabric, PVC and leather.

AJC in house trim manufacturing capability consist of trim lay out development software, microprocessor control fabric cutting to maximize utilization and world class sewing facility capable of sewing leather and fabric. AJC's engineering division develops trim patterns for all new developments.

- **ASSEMBLY**

AJC's seat assembly facility combines high productivity, flexibility and POKE-YOKE to assure highest quality. Each assembly line has both in process and end of the line inspection capability. AJC has as a part of final product validation, anechoic chamber for noise checking, 3D mannequin and mobile Farro arm to check the hip point of seat assembly.

- **PRODUCT AND PROCESS DEVELOPMENT**

AJC has experienced and well-trained product and process development engineers to support new OEMs program and for continuous VA/VE exercise. The product development department has 3D software and access to engineering data and information from JCI's global engineering facility around the world.

The process development department has capability to develop all in house manufacturing processes as well as supports AJC's supply base. JCI's regional teams of

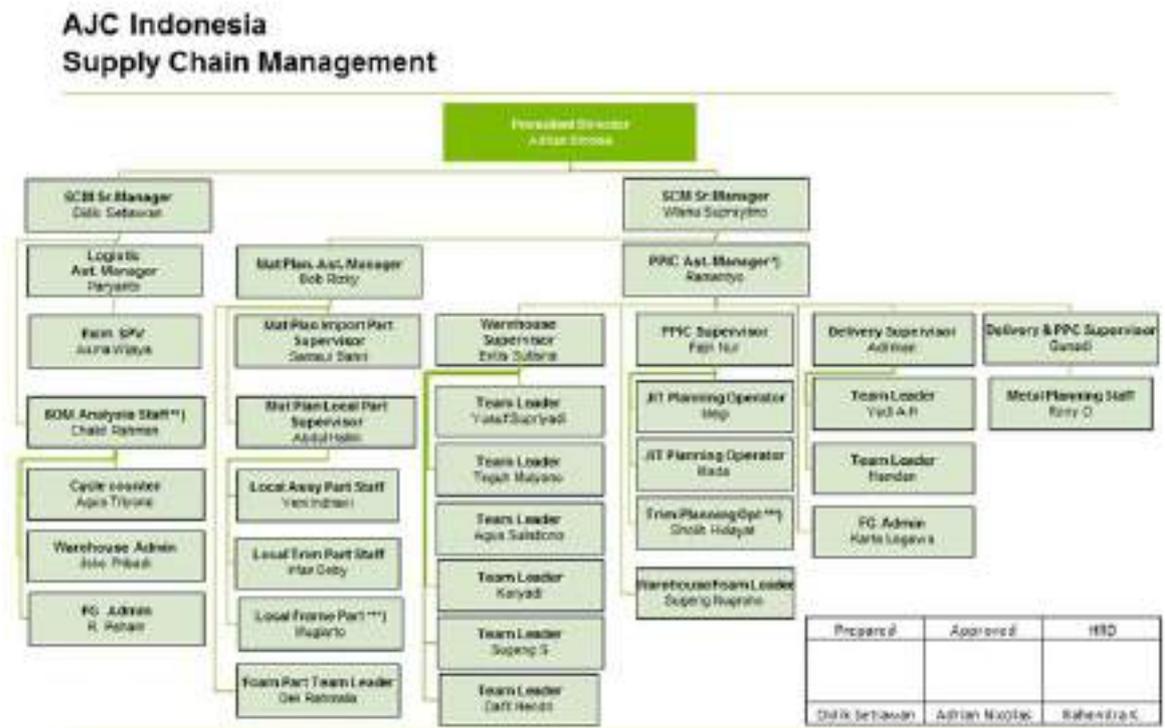
experts in multiple functions provide continuous support and training to AJC employees (PT. Armada Johnson Control Indonesia, 2013).

4.2 Respondent's Characteristics

The respondents in this study are from the logistic and the warehouse department. The name of the people are as follows:

1. Logistic Assistant Manager (Paryanto)
2. Warehouse Supervisor (Entis Sutisna)

Figure 22: AJC Indonesia Supply Chain Management Structure



Source: (PT. Armada Johnson Control Indonesia, 2013)

This is the organization chart of PT. Armada Johnson Control. The warehouse department especially Logistic Assistant Manager and warehouse supervisor will be interviewed.

4.3 Internal Data Analysis

4.3.1 Warehouse Management System

Warehouse management system that PT. Armada Johnson Control implement is a MFG/PRO software. MFG/PRO is a fully loaded ERP system, which is used by thousands of manufacturing companies for many years. First release of MFG/PRO has been introduced by QAD Inc. In 1986 and since then, the new version of this software is released every 18 months.

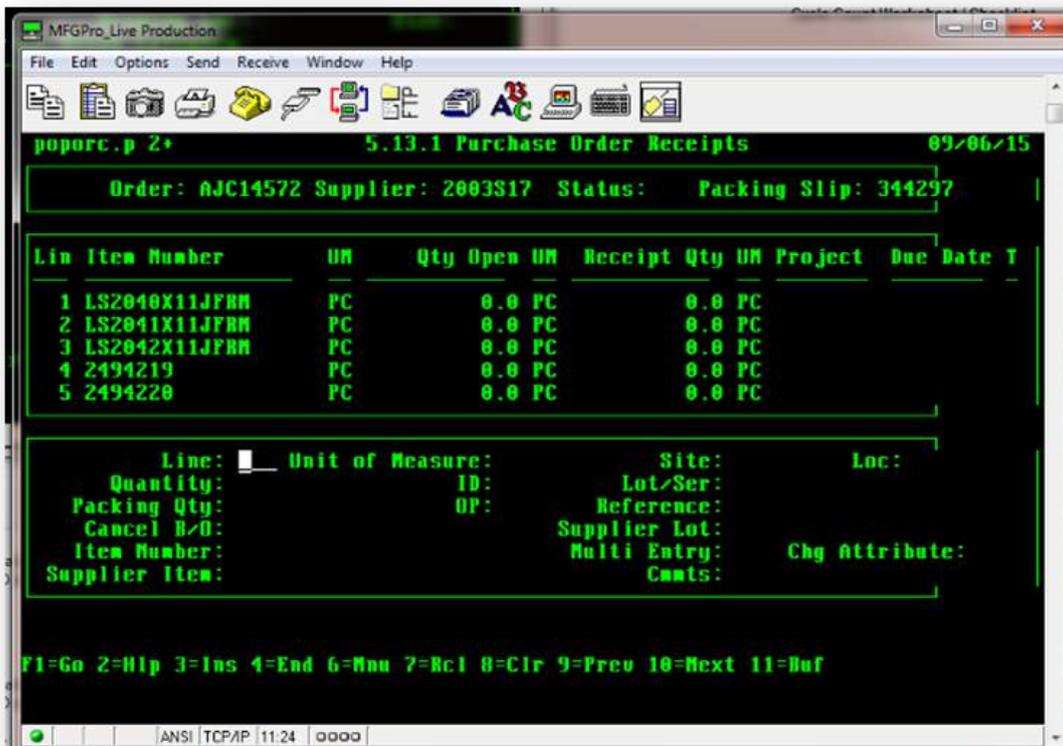
Over the last 20 years the system functionality was improved significantly, while general “look-and-feel”, as well as the general structure is still the same.

The system consists of groups of related business activities called ‘modules’. In some

cases two related activities are combined in one module (Items/Sites for example). Some of the modules are distribution, manufacturing, financial, service support, master files, and supply chain.

PT. Armada Johnson control using this software because of this software, is the basic standard software that Johnson Control Inc. globally uses. The advantage using this software mentioned in interview section is that it helps linkage process of the warehouse to finance department, the record of purchasing, inventory level and others are transfer accurately and very efficient.

Picture 1: MFG/PRO AJC (A)



Source: (PT. Armada Johnson Control Indonesia, 2013)

In picture 11 and 12 shows the MFG/PRO software of the warehouse at PT Armada Johnson Control.

According to the result of the interview, in the process of managing the warehouse at PT. Armada Johnson Control it is assume that this program have less effective and efficient. Thus now, starting to plan the implementation and using the more comprehensive software for warehouse management system. For example, PRONTO-Xi Warehouse Management System (WMS) fully integrates within the PRONTO-Xi ERP suite to fine tune for warehouse and deliver optimum performance.

Picture 2: MFG/PRO AJC (B)

Quantity In	Quantity Out	Inventory	Effective Date	TT	Tran Nbr
		41.0			
0.0	-288.0	41.0	27/05/15	ISS-WO	3312735
288.0	0.0	329.0	27/05/15	RCT-TR	3312734
0.0	-384.0	41.0	19/05/15	ISS-WO	3279218
384.0	0.0	425.0	19/05/15	RCT-TR	3279217
41.0	0.0	41.0	08/05/15	RCT-PO	3245044
0.0	-5,190.0	0.0	08/05/15	ISS-TR	3241052
170.0	0.0	5,190.0	05/05/15	RCT-PO	3229013
300.0	0.0	5,012.0	04/05/15	RCT-PO	3227906
0.0	-288.0	4,712.0	30/04/15	ISS-WO	3224091
288.0	0.0	5,000.0	30/04/15	RCT-TR	3224090
255.0	0.0	4,712.0	29/04/15	RCT-PO	3220173

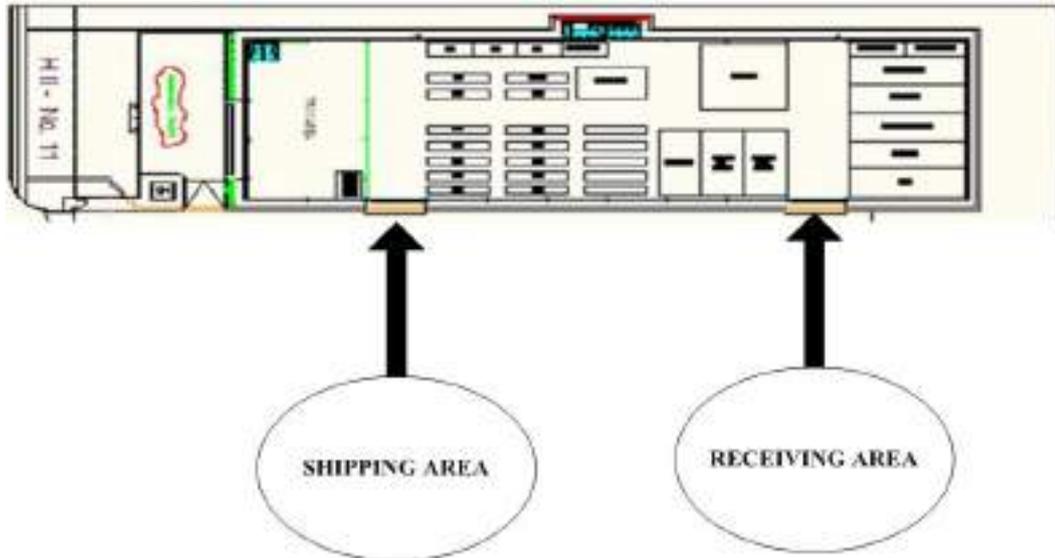
Source: (PT. Armada Johnson Control Indonesia, 2013)

With the more comprehensive WMS, it can reduce labor costs, minimize inventory, increase productivity, optimize space utilization, improve customer service and increase operational control.

4.3.2 Layout of the Pick Area

PT. Armada Johnson Control is using first in first out method in order to maximize the circulation of the stock, least of put-away stock which can lead to better supply and production control. The first in first out warehouse using more than one door, at least the warehouse have two door which are the receiving area (where the products or stock come into storage), and the shipping area (where the products or stock out from storage). This method is used in order to maintain the quality of stock, like the phenomenon of the warehouse in Krakatau Steel "after company interpret the first in first out using more than one door, this lead them to the first in first out and using order picking system, now the operation of receiving, handling good, and the supply or shipping process become more efficient than before" (Rahmi, 2015).

Figure 23: Warehouse PT. Armada Johnson Control



Source: (PT. Armada Johnson Control Indonesia, 2013)

From the figure 12 above, it is the evidence that showing PT. Armada Johnson control using the first in first out method of the warehouse layout of pick area. Unloading material/goods that arrived proceed using forklift, after unloading material/goods, forklift put the material/goods in checking area to be process further.

Process further like in the system operation procedure PT. Armada Johnson Control, there the labeling the first in first out, and then coding the materials and after that storage the material into racking or on floor based on its weight and material, is it consumable or not.

Picture 3: Receiving Area & Picture 4: Shipping Area



Source: (PT. Armada Johnson Control Indonesia, 2013)

The picture 13 and 14 showing the actual layout and actual picture of the area on the

warehouse of PT. Armada Johnson Control. This evidence showing the validity information that receive from interview that mention about using first in first out method for the warehouse in PT. Armada Johnson Control. Moving from the position and number of door that showing the method of layout of pick area, warehouse at PT. Armada Johnson control considered the aisle of the warehouse. Aisle is the open space in front of a shelf or between rows of shelving that allows space for a user to add, remove, or rearrange stock-keeping units.

Based on the interview, the aisles of the warehouse has calculated so that the maneuver of trolley and forklift would not be obstruct. The width of the picking aisles also influences picking performance.

In a narrow aisles, blocking can occur when pickers cannot pass each other. Even in a wide aisles, blocking may also happen at a pick location when two or more pickers need to pick at the same pick location. Picker blocking will negatively impact the throughput and the mean order throughput time in a pick-and-pass order picking system.

Picture 5: Aisle Forklift AJC & Picture 6: Aisle Trolley AJC



Source: (PT. Armada Johnson Control Indonesia, 2013)

The picture 15 and 16 above shows that the aisles in the warehouse of PT. Armada Johnson Control is enough to do the maneuver of trolley and forklift. Based on interview and already calculated from warehouse department, the width of the aisle is around 3 meters, and the width of forklift and trolley in PT. Armada Johnson is 2 meters long.

This shows that the aisle in warehouse at PT. Armada Johnson Control indeed have calculated in order to improve picking performance. So there is evidence of Order picking system in layout of pick area and the condition of aisle in warehouse at PT. Armada Johnson Control.

4.3.3 Zoning

The zoning of the warehouse at PT. Armada Johnson Control is divide the total order picking area into smaller units. Order pickers only retrieve products located in the zone. Zone sizes and the number of order pickers per zone have large impact on the performance of a pick-and-pass system, pick stations of larger size will increase the service time due to longer travel time, and the fewer number of stations tends to increase the utilization of pick stations due to higher order arrival rates.

Picture 7: Brand Zoning (A)



Source: (PT. Armada Johnson Control Indonesia, 2013)

Therefore, it led to an increase of the mean order throughput time in the system. But on the other hand, fewer number of stations leads to fewer station visits of an order (Koster & Yu, 2008). This believed to be the best method for company in order to ease the picker to pick parts of particular brand, another word to minimize human error on pick and pass operation. PT. Armada Johnson Control divide zoning to two method, there are: Brand zoning and Position zoning.

Brand zoning that PT. Armada Johnson Control using is by coding for example "XP" is belong to Honda products and "XQ" refer to Nissan, this implementation uses to differentiate the brands of the costumer to ease the pickers to operate order picking, in order to manage the human error of order picking process. The picture below shows the evidence of brand zoning at the warehouse.

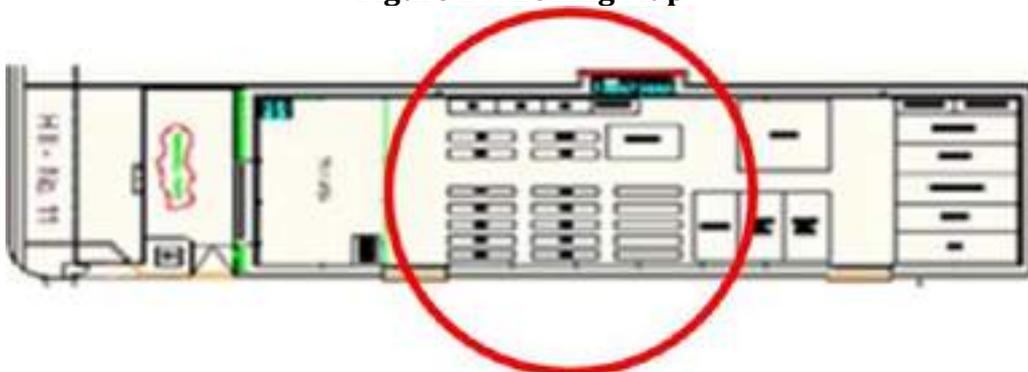
Picture 8: Brand Zoning (B)



Source: (PT. Armada Johnson Control Indonesia, 2013)

Based on the interview brand zoning used so that picker can know exactly where to go and less picker needed on order picking process. The picture 19 and figure 13 showing the evidence of zoning that organize based on brand zoning method. The figure 14 of zoning evidence the clear looks of zoning in the area warehouse at PT. Armada Johnson Control. The evidence of flow pickers on picking also shown in the figure.

Figure 24: Zoning Map



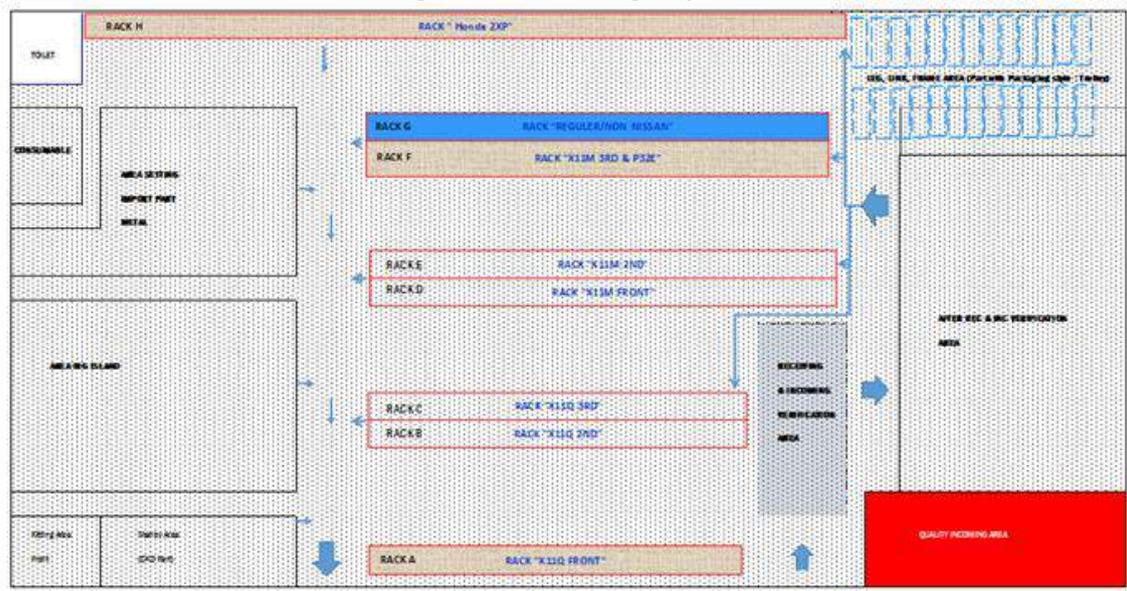
Source: (PT. Armada Johnson Control Indonesia, 2013)

Picture 9: Zoning



Source: (PT. Armada Johnson Control Indonesia, 2013)

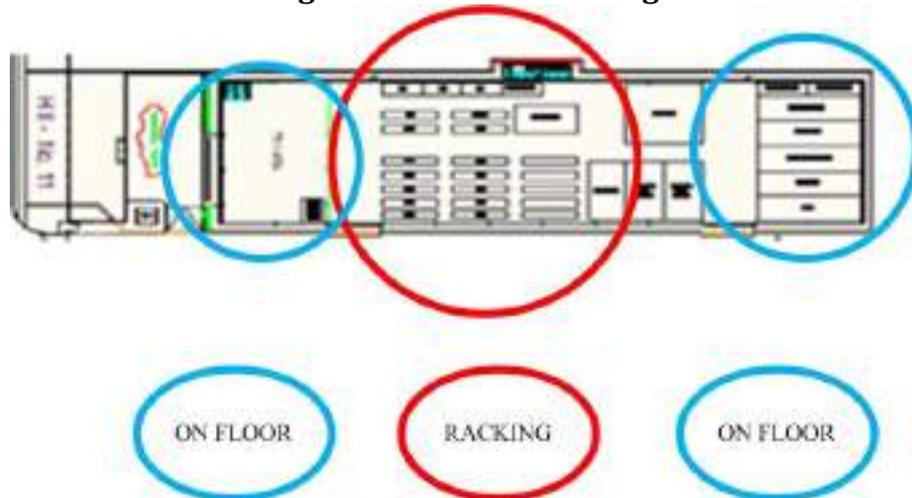
Figure 25: Zoning Layout



Source: (PT. Armada Johnson Control Indonesia, 2013)

Racking and on floor zoning is the position zoning that mention before, this zoning used in order to maintain material/goods by the weight. The weight of materials is different based on the function and further process on production. Figure 15 below showing the position zoning.

Figure 26: Position Zoning



Source: (PT. Armada Johnson Control Indonesia, 2013)

Picture 10: On Floor



Source: (PT. Armada Johnson Control Indonesia, 2013)

Picture 11: Racking



Source: (PT. Armada Johnson Control Indonesia, 2013)

Pictures 20 and 21 above shows zoning on warehouse in PT. Armada Johnson Control, the different between on floor and racking zoning is important in order to maintain with the particular weight of each part. On floor used to heavy weight part, and racking used to lighter part. This method used in order to ease picker to move the stock and minimize the human error of the picker. This evidence showing that PT. Armada Johnson Control choose zoning as the commodity and model, so that the order picking performance can be increase.

Based on interview, zoning differentiate on two methods there are commodity and by model (code). Commodity is like metal and plastic, pickers put and storage into two places which are on floor and racking but the lowest part of rack and on floor is used to sort and put metal commodity, because metal commodity is heavy weight. If we put and sort on top rack of course, it's hard to do so and also it will break the rack. For the plastic commodity can be put and sort on top of the part of rack or middle. The Order Picking system not only implemented in layout of pick area and zoning, but also in batching at PT. Armada Johnson Control.

4.3.4 Batching

PT. Armada Johnson Control using batching as process of grouping customer orders together and jointly releasing them for picking. Batching is a popular strategy to improve productivity due to the reduction in order picking travel time. Instead of traveling through the warehouse to pick a single order, the picker completes several orders with a single trip. Hence, the travel time per pick can be reduced (Koster & Yu, 2008). This process believed to improve the order picking performance in the warehouse at PT. Armada Johnson Control.

Picture 12: Batching Process Trolley



Source: (PT. Armada Johnson Control Indonesia, 2013)

Picture 22 and 23 above showing the activity of batching done with trolley and forklift At PT. Armada Johnson Control. Based on the interview, the effective and efficient on order picking process called symphony, if company make 12 sets or size we need bigger trolley, and man power itself can be congestion for order picking process, the symphony will not be accurate.

Picture 13: Batching Process Forklift



Source: (PT. Armada Johnson Control Indonesia, 2013)

Actually the last production before order picking system on batching updated, 12 batch or size it's the size for order picking process and it cost a lot of time and more human included. The evidence of batching activities are showing that order picking process can be controlled and improve using batching on the order picking system of warehouse operation.

Picture 14: Batching List

Friday-24-April-2015				
SHIFT 2		REV :	0	
LINE 1 (SATU)	MODEL	ITEM	LOT QTY	REMARK
PICK UP		CUSHION ASSY FR RH	915 48	
PICK UP		CUSHION ASSY FR LH	915 48	
PICK UP		BACK ASSY FRONT	915 48	
PICK UP		CUSHION ASSY FR RH	916 48	
PICK UP		CUSHION ASSY FR LH	916 48	
PICK UP		BACK ASSY FRONT	916 48	
PICK UP		CUSHION ASSY FR RH	917 48	
PICK UP		CUSHION ASSY FR LH	917 48	
PICK UP		BACK ASSY FRONT	917 48	
FPB GX		MEKANIK RR RH	136 12	
FPB GX		MEKANIK RR LH	136 12	
FPB GX		HEAD REST ASSY FR	136 24	
FPB GX		STRAP FPB	136 24	
TOURING UP		MEKANIK FR BK RH	499 30	
TOURING UP		MEKANIK FR BK LH	499 10	
TOURING UP		MEKANIK FR CSHN RH	499 30	
TOURING UP		MEKANIK 2ND BACK LH	499 11	
TOURING UP		GLUING 2ND BACK RH	499 3	
TOURING UP		GLUING 2ND BACK LH	499 11	

Source: (PT. Armada Johnson Control Indonesia, 2013)

The picture 24 and 25 showing the evidence of schedule batching given by planner in PT. Armada Johnson Control. In the picture 24, the lot in the list showing 3 Lot model Suzuki (@48 sett). This shows that the order picking on batching happen due to

brand zoning for the picking process. The layout and zoning helps the order picking process within batching for efficient time consuming.

Picture 15: Batching

PT ARMADA JOHNSON CONTROLS
TRANSFER SLIP OUTGOING

DATE: 24-4-15
NO SLIP: 024
LOT NO: 015 - 017
WORK CENTER: WC

Level	Component Item	Description	Quantity	Per	UM	1 LOT	2 LOT	3 LOT	4 LOT
	CS1000	NUT REAR SEAT LOCK	1		PC	48	96	144	192
	CS2007	SCREW RR SEAT BACK	1		PC	48	96	144	192
	L33029PLPN	PIN SEAT BACK LOCK BAND	1		PC	48	96	144	192
	L33029PLC8BC	CUSHION SEAT BACK CTR	1		PC	48	96	144	192
	CS1008	NUT FRONT SEAT	8		PC	384	768	1152	1536
	HSF10282CFRM	FRAME ASSY FRONT SEAT	1		PC	48	96	144	192
	HSF10282CFRM	FRAME ASSY FRONT SEAT	1		PC	48	96	144	192
	CS4001	PLASTIC PVC							
	CS4018	PLASTIC PVC							
	CS8018	C-RING							
	HS027TRGACG	CUSHION TUB ASSY FR RH	1		PC	48	96	144	192
	HS027TRGBCAT	CUSHION TUB ASSY FR LH	1		PC	48	96	144	192

PREPARED BY: [Signature]
RECEIVED BY: [Signature]
INPUT DATA BY: [Signature]

Source: (PT. Armada Johnson Control Indonesia, 2013)

The picture 25 is the evidence of supply material to the production. Part in setting based on LC or transfer slip & as the amount of the lot size mention in batching list in order to checking material from inventory storage in production. And lastly, giving signature to approve the part that has been supplied is necessary in batching list to approve the conditions and materials that should be pick, so that the stock is well recorded.

The Order picking system based on the interview, documents and evidence on the layout of pick area, zoning and batching is improving and sustain the warehouse performance at PT. Armada Johnson Control. Warehouse Performance at PT. Armada Johnson Control is based on the key performance indicator (KPI) is a measure of performance of the business in order to benchmark against the competition and explore the possibility to improve in order to gain competitive advantage. The KPI that PT. Armada Johnson Control used based on the interview are stock accuracy, inventory loses variant, and wrong part supply.

4.3.4 Stock Accuracy

Stock accuracy is used to measures how much book data of your stock are different from the physical values in terms of location and quantity. At PT. Armada Johnson Control is measure by actual achievement and Inventory system. Actual achievement from stock accuracy, this is calculate when physical inventory check or cycle count operate.

After the data received, the physical inventory will be compared to actual cycle count

result. Cycle count is Periodic inventory system audit-practice in which different portions of an inventory are counted or physically checked on a continuous schedule.

Figure 27: Stock Accuracy (A)



Source: (PT. Armada Johnson Control Indonesia, 2013)

The picture 16 above is stock accuracy data 2012 showing the percentage of the comparison between actual counting results with the inventory in system. The blue line showing the actual counting results from warehouse at PT. Armada Johnson Control. And the red line showing the target minimum from inventory system. According to logistic assistant manager at PT. Armada Johnson Control the target stock accuracy, 96% is the target that determined by management. Global Johnson Control Inc. using 95% stock accuracy target, but the amount of PT. Armada Johnson Control using (96%) because of the performance until now never touch below 96% so that PT. Armada Johnson Control put the criteria higher than the standard, in order to keep the achievement of the stock accuracy performance.

The stock accuracy performance at PT. Armada Johnson Control sustain because of the order picking system in the warehouse is running well according to situation on the production. With the data shown in the figure 16, the evidence of stock accuracy at PT. Armada Johnson Control sowing the performance never touch the minimum target, which considered sustain.

Figure 28: Stock Accuracy (B)

STOCK COUNT QUARTERLY

Cust.	FY 10/11	Okt-11	Nov-11	Des-11	Jan-12	Feb-12	Mar-12
Stock Accuracy		99,0%	99,0%	99,0%	99,0%	98,0%	98,4%
Target (Minimum)		96%	96%	96%	96%	96%	96%

Apr-12	Mei-12	Jun-12	Jul-12	Agu-12	Sep-12	FY 11/12
99,0%	99,0%	99,7%	99,7%	99,9%	99,9%	
96%	96%	96%	96%	96%	96%	96%

Source: (PT. Armada Johnson Control Indonesia, 2013)

The figure 17 showing the stock count quarterly or every three month in a year, this

table is the numbering data from the figure 16. As the down fall line appear in the figure 16, this line shows the lack of stock accuracy in the February stock accuracy performance.

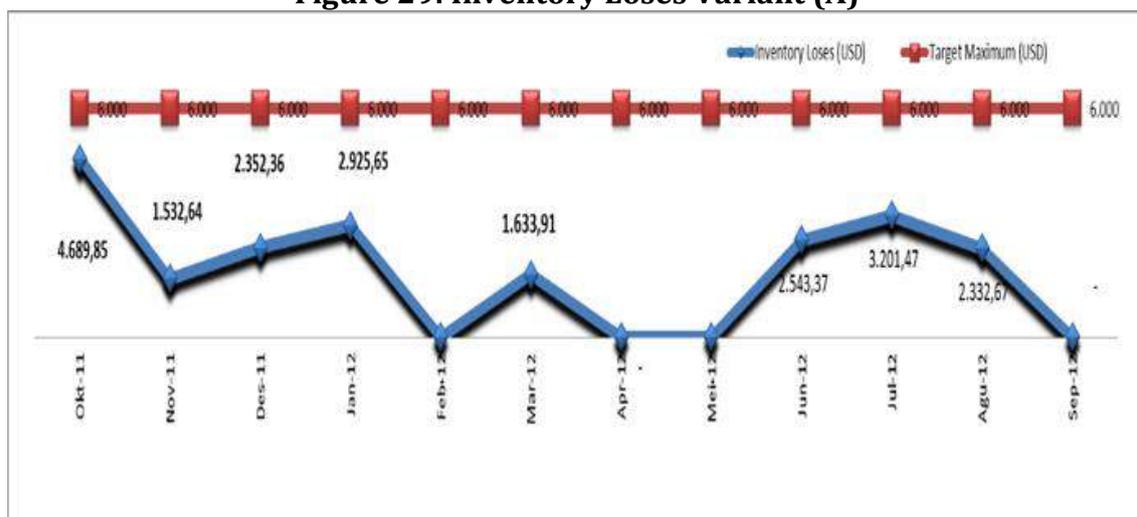
This cause of the closing of Tambun plant, moving all parts and materials to Cikampek plant. This phenomenon causing miscalculated of actual inventory with the inventory system, the performance become less but it all managed with the implementation of order picking system after the condition happen. The performance gradually increase and sustained, even reach better stock accuracy from before at 99, 0% become as the figure shows as 99, 9%.

4.3.5 Inventory Loses Variant

The inventory loses variant measure by inventory loses by actual count in the inventory, and the target maximum loses goods/materials in the inventory system. The inventory loses variant in PT. Armada Johnson Control is measure by not %, but with see the value of inventory loses variant from stock taking/physical inventory. According to logistic assistant manager at PT. Armada Johnson Control the measurement using USD because the standard from Johnson Control Inc. that using USD as well.

Target maximum loses line is the maximum target of loses that allowed, the tolerance from moving materials because of error in documentation. So the documentation is exceed the actual amount of goods, this means as lost not physically lost. If more in physically inventory this calculated gain in inventory system and documented as 0 in inventory system.

Figure 29: Inventory Loses Variant (A)



Source: (PT. Armada Johnson Control Indonesia, 2013)

Figure 18 showing the data of inventory loses variant that consist of inventory loses and target maximum. The data above shows that the performance of PT. Armada Johnson Control is never touch the target maximum which is good, and this condition considered as the sustain performance. Even though the downfall on February of stock accuracy, which appear as one of rises on the inventory loses. This Loses according to the interview with logistic assistant manager, this loses is not because of

theft but most of it happen because miss in inventory system record. The actual stocks is not equal as the inventory system.

Figure 30: Inventory Loses Variant (B)

Monthly Data

Cust.	FY 10/11	Okt-11	Nov-11	Des-11	Jan-12	Feb-12	Mar-12
Inventory Loses (USD)		4.689,85	1.532,64	2.352,36	2.925,65	-	1.633,91
Target Maximum (USD)		6.000	6.000	6.000	6.000	6.000	6.000

	Apr-12	Mei-12	Jun-12	Jul-12	Agu-12	Sep-12	FY 11/12
	-	-	2.543,37	3.201,47	2.332,67	-	
	6.000	6.000	6.000	6.000	6.000	6.000	6.000

Source: (PT. Armada Johnson Control Indonesia, 2013)

Figure 19 showing the numbering data from Inventory loses variant 2012, the inventory loses count monthly. The phenomenon closing Tambun plant happened in February, but the record showing the inventory loses is start from the next month of the phenomenon, slight increase as 1.633, 91 USD total inventory loses appeared at that time.

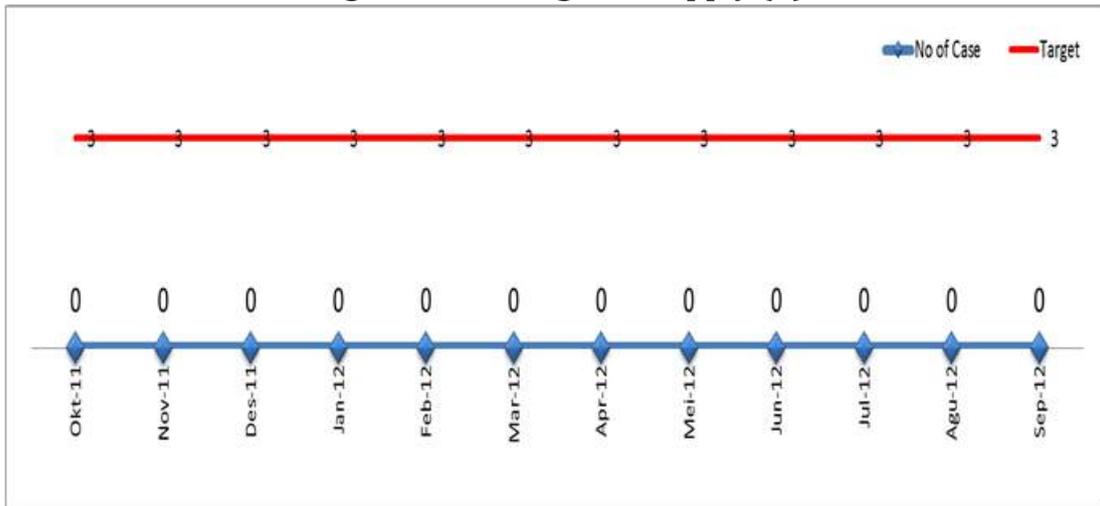
The order picking system helps in reducing complex storage placement, which makes the record become stable again at April and March. Within the new recruitment of picker, the miss recorded that caused by the new pickers made the inventory loses slowly increase start from June until August. After the enhancement of knowledge and supervised, the data recorded become stable again.

This condition showing that the order picking system is effects warehouse performance on inventory loses variant. By placing the materials right and maximizing the space of warehouse, inventory count can easily handle. Even though there is still lack of accuracy on data recorded, but without order picking system applied PT. Armada Johnson Control would experience difficulties due to the problem caused from the closing Tambun plant phenomenon.

4.3.6 Wrong Part Supply

The wrong part supply in PT. Armada Johnson Control is measure by amount of mistake supply that found in production and target maximum case error. The mistake known as case error, at PT. Armada Johnson Control case error is calculated as 1 if the error is found until the production process or customer hand. The data in figure 20 below showing the performance of wrong part supply 2012 at PT. Armada Johnson Control.

Figure 31: Wrong Part Supply (A)



Source: (PT. Armada Johnson Control Indonesia, 2013)

The process of warehouse in PT. Armada Johnson Control is from pickers, than clarify by the feeder, and then line production, and lastly process production. Until that point error will not be recorded as case error.

But after process production until costumer hand still found an error of supply materials, this is when it became case error. Data in figure 20 of wrong part supply 2012, showing that the supply of materials to production never happen. The number stays sustain at number 0, which means no error case.

Figure 32: Wrong Part Supply (B)

Monthly Data

Cust.	FY 10/11	Okt-11	Nov-11	Des-11	Jan-12	Feb-12	Mar-12
No of Case		0	0	0	0	0	0
Target		3	3	3	3	3	3

Apr-12	Mei-12	Jun-12	Jul-12	Agu-12	Sep-12	FY 11/12
0	0	0	0	0	0	
3	3	3	3	3	3	

Source: (PT. Armada Johnson Control Indonesia, 2013)

According to logistic assistant manager at PT. Armada Johnson Control the amount of error per case is measured by each part that error on shipment not the amount of the part. Figure 21 showing the number of the case error that appeared in warehouse process supply to production. The error actually happens frequently in supplying materials to production, however this frequent error fortunately not fatal, as fatal errors may cause loss in production process.

Based on the interview, the way to manage the minor errors is by enhance packaging. Packaging is the processes (such as cleaning, drying, and preserving) and materials (such as glass, metal, paper or paperboard, plastic) employed to contain, handle,

protect, and/or transport an article. Role of packaging is broadening and may include functions such as to attract attention, assist in promotion, provide machine identification (for example barcodes), impart essential or additional information, and help in utilization.

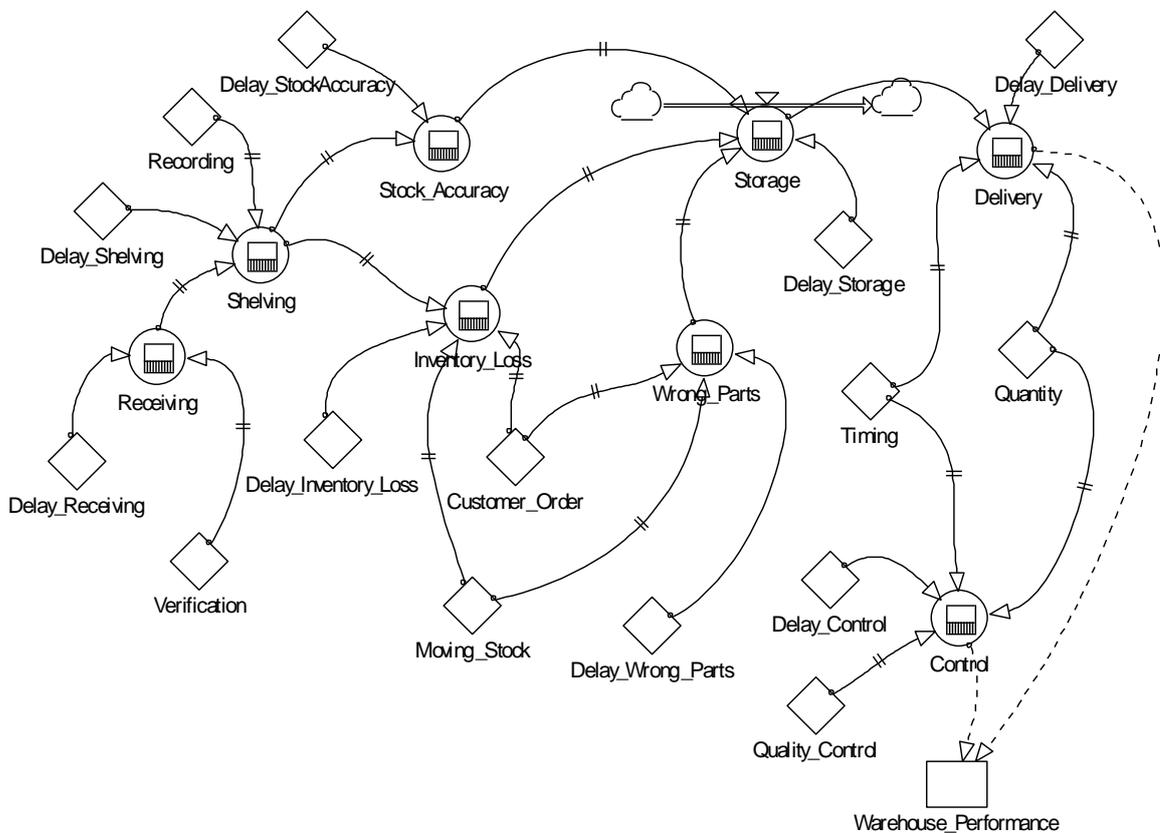
The minor errors, if occurs often may become barrier or can hamper the flow supply materials to production. Therefore, the packaging of each materials should be unique or advance to help distinguished the materials. Thus, helps the picker to easily sort out the required materials.

Advance packaging is one of the way that can improve warehouse performance thoroughly, and can lead to more advance warehouse management system. This is one of the way to warehouse performance at PT. Armada Johnson Control.

4.4 Powersim Modeling

To support the data analysis, the following Powersim modeling is developed sufficient support toward a better analysis, conclusions and recommendations.

Figure 33: Powersim Modeling



Source: Powersim

With a slight modification, relying on the use of Powersim, the simulations of relationships with potential delays on each of the variables show the possibilities of influential degrees over time.

The formulation of Powersim model is based on the company’s procedures in the

warehouse, including related activities, which may potentially influence the performance of the warehouse. The following table shows the underlying assumptions used in the formulation of Powersim model. Those assumptions are obtained directly from interview sessions and the company's available data.

Figure 34: Historical Data on Stock Accuracy



Table 43: Assumptions for Delays

Variables	Delays	Reasons & Explanations
Stock Accuracy	33%	<p>A relatively optimistic estimated delays of only 20 minutes to see the potential impact of postponement in receiving activities and shelving activities.</p> <p>This optimistic delay is based on the company's stock accuracy data, as shown in the above Figure 34: Historical Data on Stock Accuracy, and the internal data.</p>
Inventory Loss	25%	<p>A relatively optimistic estimated delays of only 15 minutes to see the potential impact of postponement in shelving, stock movement and customer order activities.</p> <p>This optimistic delay is based on the company's inventory loss variance, as shown in the above Figure 35: Historical Data on Inventory Loss, and the internal data.</p>
Wrong Parts	25%	<p>A relatively optimistic estimated delays of only 15 minutes to see the potential impact of postponement in stock movement and customer order activities.</p> <p>This optimistic delay is based on the company's wrong parts supplied, and the internal data. This also takes into consideration of future potential delays due to human errors.</p>
Storage	25%	<p>A relatively optimistic estimated delays of only 15 minutes to see the potential impact of postponement in stock accuracy, inventory loss, and parts supplied activities.</p> <p>This optimistic delay is based on the company's inventory loss variance and wrong parts supplied, and the internal data. This also takes into consideration of future potential delays due to human errors.</p>
Warehouse Performance	50%	<p>A relatively optimistic estimated delays of only 30 minutes to see the potential impact of postponement in delivery and control activities.</p> <p>This optimistic delay is based on the company's storage, delivery, and controlling activities, including consideration for future potential delays due to human errors.</p>

The underlying formulas to develop the Powersim model are as follows;

Table 44: Powersim Formulas

Terms on Powersim	Notations	Explanations on Formulas
Constraint	Verification = .25	A constant for initial verification process

Terms on Powersim	Notations	Explanations on Formulas
		is set at 0.25 to represent the weight of potential mistakes during the period of 15 minutes per verification process
Constraint	Delay_Receiving = 0.50	A constant for receiving delay is set at 0.50 to represent the weight of potential mistakes during the period of 30 minutes per receiving process
Auxiliary	Receiving = DELAYINF (Verification, Delay_Receiving, 1, .50)	The receiving activity depends on verification process, which potential delay is set at 50% to account for the manual and physical labor.
Constraint	Recording = .25	A constant for administrative recording is set at 0.25 to represent the weight of potential mistakes during the period 15 minutes per recording process
Constraint	Delay_Shelving = .25	A constant for shelving delay is set at 0.25 to represent the weight of potential mistakes during the period of 15 minutes per shelving process
Auxiliary	Shelving = DELAYINF (Receiving, Delay_Shelving, 1, .50) + DELAYINF (Recording, Delay_Shelving, 1, .25)	Shelving depends on receiving and recording activities, which potential delay is set at 50% and 25% respectively due to the physical labor in preliminary receiving activity and administrative recording activity
Constraint	Delay_SA = .33	A constant for stock accuracy delay is set at 0.33 to represent the weight of potential mistakes during the 20 minutes per stock accuracy process
Auxiliary	SA = DELAYINF (Shelving, Delay_SA, 1, .25)	The stock accuracy depends on shelving, which potential delay is set at 25% due to necessity to manually moving stock items appropriately into the designated shelves.
Constraint	Moving_Stock = .50	A constant for stock movement is set at 0.50 to represent the weight of potential mistakes during the 30 minutes per moving stock process
Constraint	Customer_Order = .25	A constant for customer order is set at 0.25 to represent the weight of potential mistakes during the 15 minutes per customer order process
Constraint	Delay_InvLoss = .25	A constant for inventory loss variant is set at 0.25 to represent the weight of potential mistakes during the 15 minutes per inventory loss variant process
Auxiliary	InvLoss = DELAYINF	The inventory loss variant depends on

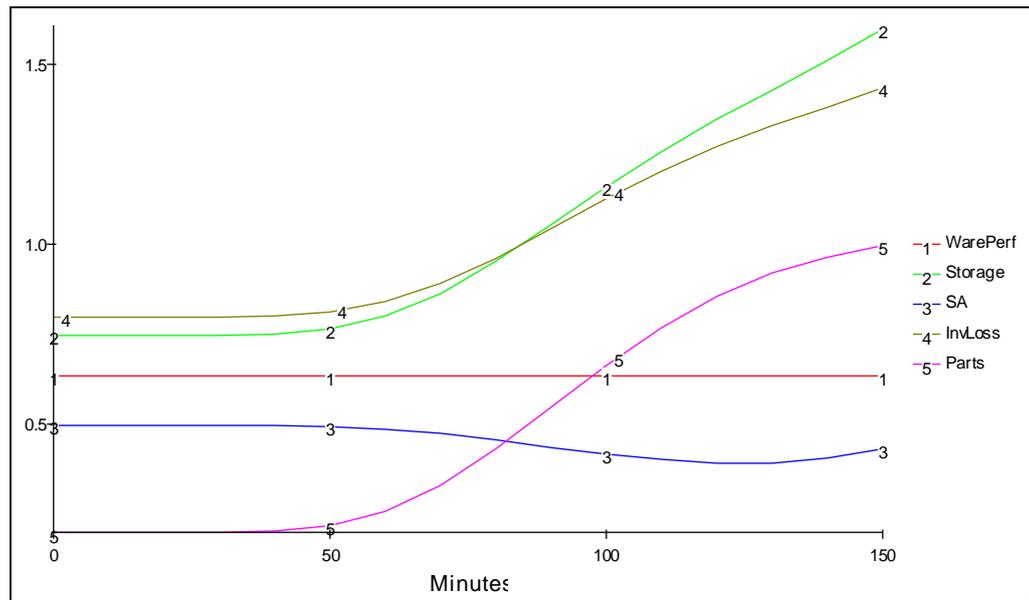
Terms on Powersim	Notations	Explanations on Formulas
	$(\text{Moving_Stock, Delay_InvLoss, 1, .25}) + \text{DELAYINF}(\text{Customer_Order, Delay_InvLoss, 1, .25}) + \text{DELAYINF}(\text{Shelving, Delay_InvLoss, 1, .25})$	the movement of stock items, customer order, and shelving, which potential delay is set at 25% due to the necessity to manually moving stock items from one place to another location, administration verifications with the customers, and internal approvals from management, and the need to match inventory in particular shelves, administrative recording, and physical movement of the stock items
Constraint	$\text{Delay_Parts} = .25$	A constant for part supplied delay is set at 0.25 to represent the weight of potential mistakes during the 15 minutes per part supplied process
Auxiliary	$\text{Parts} = \text{DELAYINF}(\text{Moving_Stock, Delay_Parts, 1, .25}) + \text{DELAYINF}(\text{Customer_Order, Delay_Parts, 1, .25})$	The wrong parts supplied depends on the movement of stock items, and customer order, which potential delay is set at 25%.
Constraint	$\text{Delay_Storage} = .25$	A constant for storage delay is set at 0.25 to represent the weight of potential mistakes during the 15 minutes per storage process
Auxiliary	$\text{Storage} = \text{DELAYINF}(\text{SA, Delay_Storage, 1, .25}) + \text{DELAYINF}(\text{InvLoss, Delay_Storage, 1, .25}) + \text{DELAYINF}(\text{Parts, Delay_Storage, 1, .25})$	The storage performance depends on stock accuracy, inventory loss variant, and wrong parts supplied into the storage area. The potential delay is set at 25% per unit for storage to account for accumulated preceding processes
Constraint	$\text{Quantity} = .33$	A constant for quantity for delivery and control is set at 0.33 to represent the weight of potential mistakes during the 20 minutes per quantity for delivery process
Constraint	$\text{Timing} = .33$	A constant for time spent on delivery and controlling activities is set at 0.33 to represent the weight of potential mistakes during the 20 minutes per time spent on delivery process
Constraint	$\text{Delay_Delivery} = .4167$	A constant for delivery delay is set at 0.4167 to represent the weight of potential mistakes during the 25 minutes per delivery process
Auxiliary	$\text{Delivery} = \text{DELAYINF}(\text{Timing, Delay_Delivery, 1, .4167}) +$	The delivery process depends on time spent, and total quantity to be delivered,

Terms on Powersim	Notations	Explanations on Formulas
	DELAYINF (Quantity, Delay_Delivery, 1, .4167)	which the potential delay is set at 41.67% to account for accumulated preceding processes
Constraint	Quality_Control = .50	A constant for quality control is set at 0.50 to represent the weight of potential mistakes during the 30 minutes per quality control process
Constraint	Delay_Control = .50	A constant for control delay is set at 0.50 to represent the weight of potential mistakes during the 30 minutes control process
Auxiliary	Control = DELAYINF (Timing, Delay_Control, 1, .50) + DELAYINF (Quantity, Delay_Control, 1, .50) + DELAYPPL (Quality_Control, Delay_Control, .50)	The controlling activity depends on time spent, total quantity to check, and the actual quality control, which the potential delay is set at 50% due to volume of samples, complexities, manual check and verification of the physical items and the available documents, including the accumulated preceding processes
init flow	WarePerf = (Control + Delivery)	The warehouse performance is obtained from the accumulation of successful control and delivery activities unto the next department/unit.

Source: Powersim

Based on the above assumptions and the formulas, the following simulations are run in Powersim. The output of those simulations in Powersim can be shown in 4 different modes; base-line, distributed, stacked, and normalized, as illustrated in the following graphs.

Figure 36: Base-Line Mode



Source: Powersim

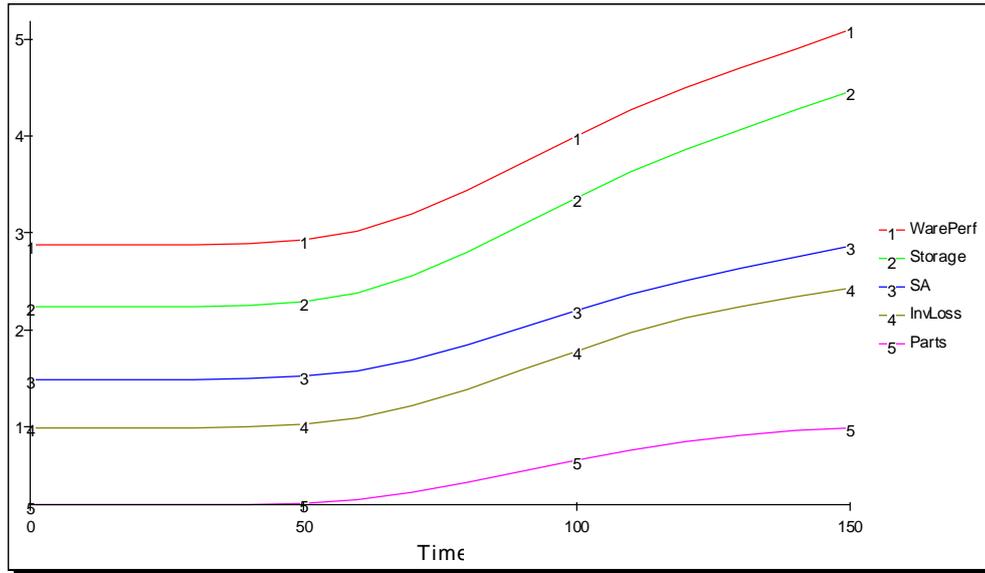
From the base-line mode, it is clear that the simulations of the warehouse performance show the downward sloping stock accuracy when storage processing activities are experiencing deviations from inventory loss and wrong parts supplied. As seen in the graph, the likelihood of deviations and potential delays in the storage processing activities are likely to occur beyond the first initial 50 minutes following the physical stock items arrivals into the warehouse and receiving process has been initiated. It becomes crucial for the warehouse personnel to immediately take the necessary actions upon arrivals of the physical stocks. Hence, the management needs to pay a closer attention into the first 50 minutes of physical stocks arrivals to minimize the chances of deviations and any potential delays along the processes.

As clearly seen from based-line mode, although the potential impact appears small, from about 0.5 to 1.5, however, this indicates the potential index following the deviations and delays per unit (or per batch) of stock items. This means that if there are 10 units or batches arriving, the tumbling-down domino effects may show greater impact on deviations and potential delays. Since this graph is about the base-line model, to be successful in analyzing the chances of deviations in the warehouse performance, the level of warehouse performance must be kept constant. This enables the deviations to emerge into the graphical illustrations.

From the stacked mode, although the underlying data is exactly the same, however, the results are slightly different as the data are statistically stacked to see the overall impact. From the stacked mode, it is clear that despite the deviations and delays, which may occur in the warehouse, from receiving, storing, and delivery, overall, the warehouse performance continues to increase in the same fashion, just like storage activities. This indicates that the storage activities have the greatest influence toward the overall warehouse performance. The warehouse personnel may have to focus on the inter-related storage activities to minimize the chances of deviations and

potential delays on the overall warehouse performance.

Figure 37: Stacked Mode

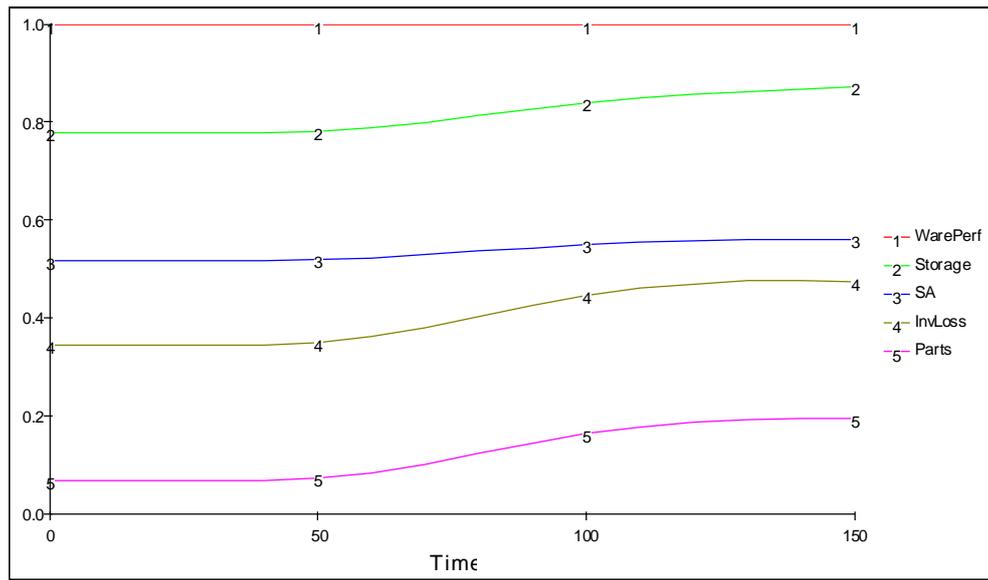


Source: Powersim

Likewise, the stock accuracy following the trends in inventory loss. This signals that the level of inventory losses greatly influence the level of stock accuracy in the warehouse. At least, this is true for the stock accuracy in this company. Similar to the above storage activities and warehouse performance, this signals that the warehouse personnel may have to emphasize the importance of the inter-related activities on inventory loss prevention as it brings about effects onto stock accuracy.

In the bottom of the graph is the parts supplied. As clearly seen, the wrong parts supplied appears to be the main source of deviations and potential delays. This is the area that the management and the warehouse personnel ought to emphasize their time to ensure the accurate delivery of parts into the intended destinations.

With such conditions, the finding in the previous base-line mode is also confirmed in the stacked model, whereby beyond the first initial 50 minutes, deviations and potential delays may occur. Also, because of the stacked mode, it is obvious that wrong parts supplied become the major area to be concentrated to avoid diminishing warehouse performance.

Figure 38: Distributed Mode

Source: Powersim

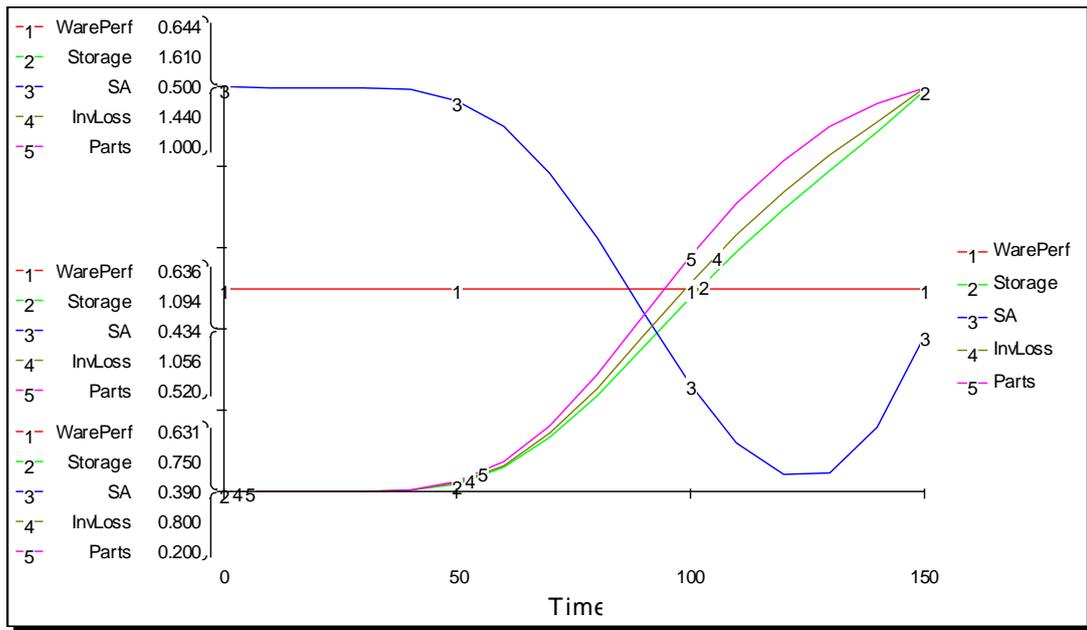
From the distributed model, and similar to base-line mode, it is clear that the level of warehouse performance is not affected by the deviations and potential delays in the storage and wrong part supplied activities. On one hand, it may be due to the slightly minimal variations of the inter-related activities.

It is surprising to know that the level of stock accuracy is also not greatly influenced by the deviations and potential delays in both the storage and wrong part supply activities. Actually, the level of stock accuracy changes only very slightly. This may signal the relatively large tolerance on the stock accuracy margin for both inventory loss and wrong parts supplied. In this instance, what appears to be a relatively large tolerance on stock accuracy for both inventory loss and wrong parts supplied may have to be verified.

Perhaps, the level of tolerance may have to be adjusted to account for slight variations. Again, just like the base-line and stacked modes above, the distributed mode confirms the likelihood of occurrence in the time line beyond the initial 50 minutes upon stock item arrivals and receiving procedures.

From the normalized mode, it is clear that the moment the storage and inventory loss activities start showing deviations and potential delays, the level of stock accuracy slides downward.

Figure 39: Normalized Mode

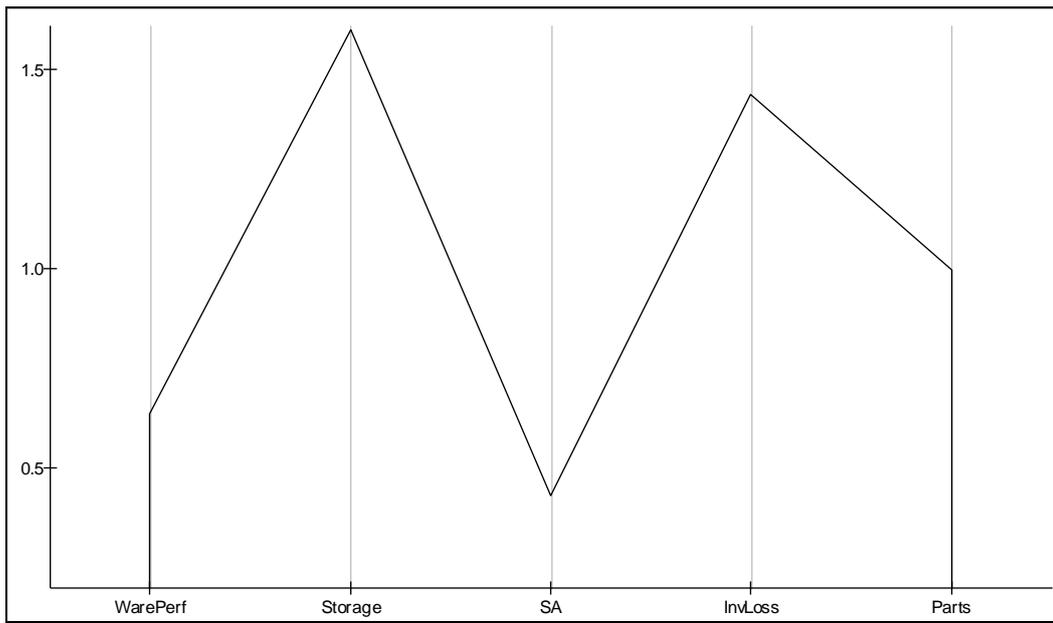


Source: Powersim

It is interesting to know that the level of stock accuracy increases again between 100 minutes and 150 minutes. At the first glance, this shows the relatively saturated level on deviations and potential delays in terms of storage and inventory loss activities. However, this upward sloping means that up to a certain point, at about 120 minutes to 130 minutes, stock accuracy bounces back to reclaim the level of accuracy. Understanding the nature of the warehouse operational activities, the illustrated time between 120 and 130 minutes may indicate the higher risks of being noticed by the management on the prolonged deviations and potential delays in any given activities.

In the following graph on the overall warehouse statistics, it is clear that inventory loss and wrong parts supplied are the 2 most influential warehouse activities. It shows the confirmation to the management that any relevant activities, which are leading into inventory loss and wrong parts supplied, need to be emphasized and even checked further. This may minimize the chances on future deviations and delays.

Figure 40: Overall Warehouse Statistics



Source: Powersim

4.5 Critical Path

To better illustrate the intricacies in the warehouse and its related activities, it is vital to understand the connection between inter-related activities, duration, and costs. The following table shows the estimated costs for the generally common categories of activities in the warehouse, which are; receiving, storing and supplying/delivering.

Table 45: Estimated Process Costs

Process Name	Process Time		Quantity of Manpower	Estimated Total Cost (Rp 31,250/hour/person)	
	Minute	Hours		Hour	Minute
Receiving	30	0.50	2	31,250.00	520.83
Storage	15	0.25	2	15,625.00	260.42
Supply	20	0.33	4	41,666.67	694.44

Source: (PT. Armada Johnson Control Indonesia, 2015; Sutisna, 2015)

The available data from the company are translated into minutes. The minute-based duration is considered as the most likely occurrence, as shown in the table below. Due to the unavailability of details, assumptions on the optimistic and pessimistic durations are necessary. From the most likely occurrence, the optimistic duration is discounted by 10% to potentially save-up the time on each of the activities.

On the other side, the pessimistic duration is tolerated by 20%. Relying on the available data and flow charts, the predecessors on each of the activities can also be determined.

Table 46: Details on Warehousing Activities

	Activity	Optimistic	Likely	Pessimistic	Pred 1	Pred 2	Pred 3
Verification	A	13.50	15.00	18.00			
Receiving	B	27.00	30.00	36.00	A		
Recording	C	13.50	15.00	18.00			
Shelving	D	13.50	15.00	18.00	C		
Moving Stock	E	27.00	30.00	36.00			
Customer Order	F	13.50	15.00	18.00			
Stock Accuracy	G	18.00	20.00	24.00	D		
Inventory Loss	H	13.50	15.00	18.00	E	F	D
Wrong Parts	I	13.50	15.00	18.00	E	F	
Storage	J	13.50	15.00	18.00	G	H	I
Time	K	18.00	20.00	24.00			
Quantity	L	18.00	20.00	24.00			
Delivery	M	18.00	20.00	24.00	K	L	
Quality Control	N	27.00	30.00	36.00			
Control	O	27.00	30.00	36.00	K	L	N
Warehouse Performance	P	27.00	30.00	36.00	O		

Source: (PT. Armada Johnson Control Indonesia, 2015)

To start setting-up the progress on work scheduling, it is important to compute the series of calculations on earliest start (ES), earliest finish (EF), latest start (LS), and latest finish (LF). The calculations rely on the formulas in dealing with operation management (Heizer & Render, 2011). The calculations for the earliest start (ES) begins at the beginning of all series of activities and continue forward to the end of the series of activities.

Equation 10: Early Start & Earliest Finish

$$ES = \text{Max } EF \text{ of all direct predecessors}$$

$$EF = ES + \text{activity time}$$

Source: (Heizer & Render, 2011)

The calculations on latest start (LS) and latest finish (LF) should begin at the end of all series of activities and continue backward to the beginning of activities.

Equation 11: Latest Start & Latest Finish

$$LS = LF - \text{activity time}$$

$$LF = \text{Min } LS \text{ of all direct predecessors}$$

Source: (Heizer & Render, 2011)

Based on those formulas, the calculations on ES, EF, LS, and LF are shown in the

following 3 tables.

Table 47: Early Start Calculations

Activity	Early Finish	Late Start	Late Finish
A	0	0	0
B	15.25	0	0
C	0	0	0
D	15.25	0	0
E	0	0	0
F	0	0	0
G	30.5	0	0
H	30.5	15.25	30.5
I	30.5	15.25	0
J	50.833333	45.75	45.75
K	0	0	0
L	0	0	0
M	20.333333	20.333333	0
N	0	0	0
O	20.333333	20.333333	30.5
P	61	0	0

Source: Excel

Table 48: Late Finish Calculations (Activity A-H)

	A	B	C	D	E	F	G	H
A	91.50	91.50	91.50	91.50	91.50	91.50	91.50	91.50
B	61.00	91.50	91.50	91.50	91.50	91.50	91.50	91.50
C	91.50	91.50	91.50	91.50	91.50	91.50	91.50	91.50
D	91.50	91.50	40.67	91.50	91.50	91.50	91.50	91.50
E	91.50	91.50	91.50	91.50	91.50	91.50	91.50	91.50
F	91.50	91.50	91.50	91.50	91.50	91.50	91.50	91.50
G	91.50	91.50	91.50	55.92	91.50	91.50	91.50	91.50
H	91.50	91.50	91.50	61.00	61.00	61.00	91.50	91.50

Source: Excel

Table 49: Late Finish Calculations (Activity I-P)

	I	J	K	L	M	N	O	P
I	91.50	91.50	91.50	91.50	91.50	91.50	91.50	91.50
J	76.25	91.50	91.50	91.50	91.50	91.50	91.50	91.50
K	91.50	91.50	91.50	91.50	91.50	91.50	91.50	91.50
L	91.50	91.50	91.50	91.50	91.50	91.50	91.50	91.50
M	91.50	91.50	71.17	71.17	91.50	91.50	91.50	91.50
N	91.50	91.50	91.50	91.50	91.50	91.50	91.50	91.50
O	91.50	91.50	30.50	30.50	91.50	30.50	91.50	91.50

	I	J	K	L	M	N	O	P
P	91.50	91.50	91.50	91.50	91.50	91.50	61.00	91.50
	76.25	91.50	30.50	30.50	91.50	30.50	61.00	91.50

Source: Excel

Following the calculations on ES, EF, LS, and LF, potential slacks can be calculated based on the differences between LS-ES, or LF-EF (Heizer & Render, 2011), as follows;

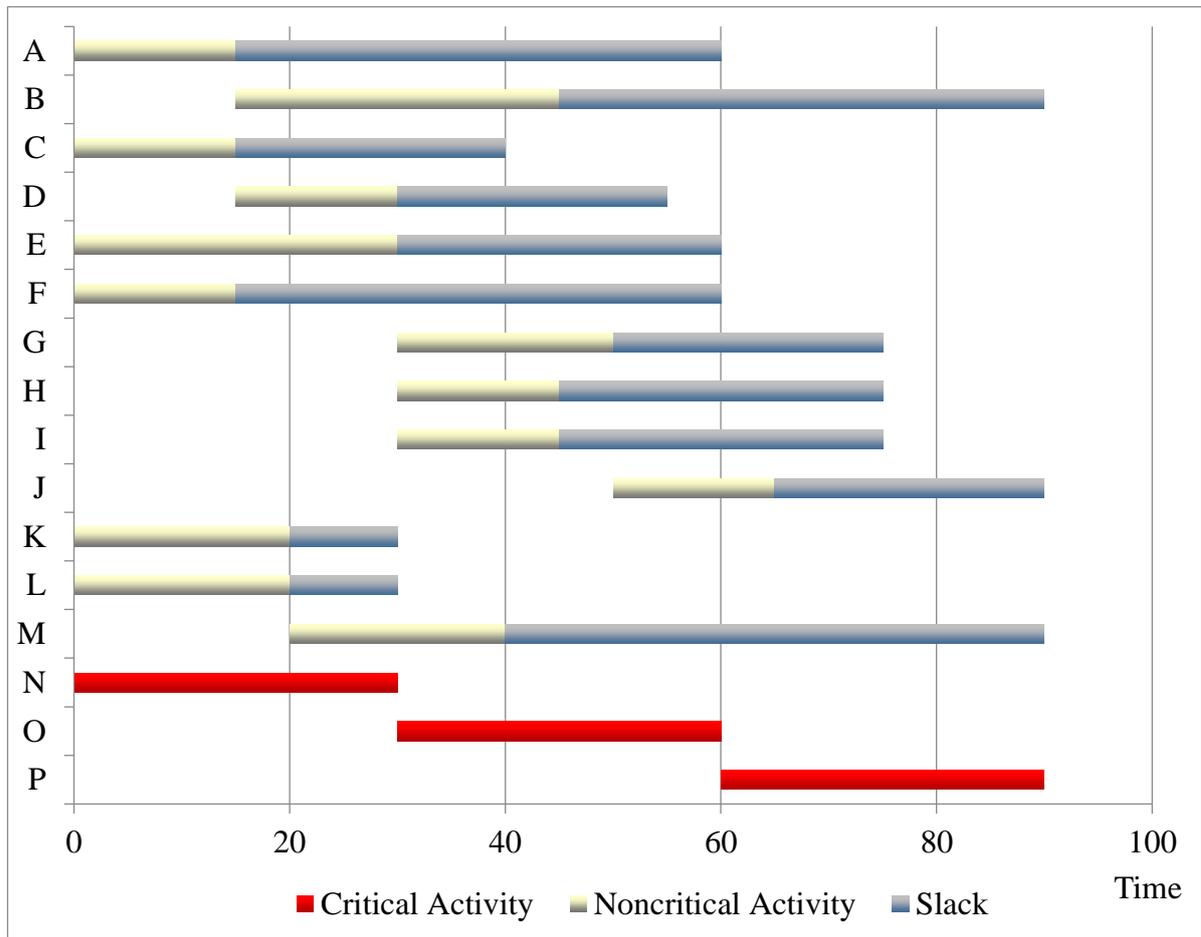
Table 50: Summary on ES, EF, LS, LF & Slacks

Activity	Early Start	Early Finish	Late Start	Late Finish	Slack	Critical Path?
A	-	15.25	45.75	61.00	45.75	No
B	5.25	45.75	61.00	91.50	45.75	No
C	-	15.25	25.42	40.67	25.42	No
D	15.25	30.50	40.67	55.92	25.42	No
E	-	30.50	30.50	61.00	30.50	No
F	-	15.25	45.75	61.00	45.75	No
G	30.50	50.83	55.92	76.25	25.42	No
H	30.50	45.75	61.00	76.25	30.50	No
I	30.50	45.75	61.00	76.25	30.50	No
J	50.83	66.08	76.25	91.50	25.42	No
K	-	20.33	10.17	30.50	10.17	No
L	-	20.33	10.17	30.50	10.17	No
M	20.33	40.67	71.17	91.50	50.83	No
N	-	30.50	-	30.50	-	Yes
O	30.50	61.00	30.50	61.00	-	Yes
P	61.00	91.50	61.00	91.50	-	Yes
Maximum Project Duration		91.50				

Source: Excel

With all the necessary calculations are completed, the following Gantt chart, including the illustrations on the critical path, can be developed.

Figure 41: Gantt Chart



Source: Excel

From the graph, **Figure 41: Gantt Chart**, it is clear that only 3 activities are considered critical; activity N, which represent the quality control activity, activity O, which refer to the managerial control processes, and activity P, which denotes for the overall warehouse performance.

Due to the limited data, some assumptions are necessary to provide foundation on the project crash cost approach as follows;

1. The normal time is based on the estimated longest time spent in a certain group/category (PT. Armada Johnson Control Indonesia, 2015; Sutisna, 2015).
2. The crash time is assumed at 10% faster than the normal time.
3. The overtime is based on the government calculation of 1/173 of the regional minimum pay where the company is located. In this case, the minimum pay is Rp. 3.4 million per month. Hence, the overtime rate is $(1/173) \times \text{Rp. } 3.4 \text{ million}$, or Rp. 19,653/hour for all staff members (PT. Armada Johnson Control Indonesia, 2015; Sutisna, 2015).
4. The crash costs are calculated using the overtime charges on the differences between normal time and crash time. The formula is as follows;

Equation 12: Estimated Project Crash Rate & Costs

$$EPCR = (t_n - t_c) * (CO_n * W_a) = (t_n - t_c) * (CO_n * \frac{((\frac{1}{173}) * 3,400,000)}{60})$$

$$EPCC = EPCR + CO_n$$

Source: (Heizer & Render, 2011)

Where;

- EPCR represents the estimated project crash rate to note for the differences in working duration, overtime rate, and normal cost
- t_n represents the normal time, and t_c represents the crash time
- W_a represents overtime charge/rate
- EPCC represents the estimated project crash cost
- CO_n represents the normal costs

5. The predecessors' activities are assumed to be following the available flow charts, which are provided by the company.

With the above assumptions, the following potential project crash costs are calculated;

Table 51: Project Crash Costs

Activity	Normal Time	Normal Cost (Rp)	Crash Time	Crash Cost (Rp)	Crash Cost/Day (Rp)	Crash limit
A	15.00	15,625	13.50	47,858	21,488	1.50
B	30.00	31,250	27.00	189,465	52,738	3.00
C	15.00	15,625	13.50	47,858	21,488	1.50
D	15.00	15,625	13.50	47,858	21,488	1.50
E	30.00	31,250	27.00	189,465	52,738	3.00
F	15.00	15,625	13.50	47,858	21,488	1.50
G	20.00	20,833	18.00	84,644	31,905	2.00
H	15.00	15,625	13.50	47,858	21,488	1.50
I	15.00	15,625	13.50	47,858	21,488	1.50
J	15.00	15,625	13.50	47,858	21,488	1.50
K	20.00	41,667	18.00	335,954	147,144	2.00
L	20.00	41,667	18.00	335,954	147,144	2.00
M	20.00	41,667	18.00	335,954	147,144	2.00
N	30.00	62,500	27.00	753,931	230,477	3.00
O	30.00	62,500	27.00	753,931	230,477	3.00
P	30.00	62,500	27.00	753,931	230,477	3.00

Source: Excel

Based on the above calculations, the project crash limit can be computed based on the differences between the normal times in comparison to the crash time, as shown in

the following formula;

Equation 13: Crash Limit

$$CL = t_n - t_c$$

Source: (Heizer & Render, 2011)

Where; CL represents the crash limit & t_n represents the normal time, and t_c represents the crash time

Likewise, the crash cost can be computed by comparing the differences between applicable costs and time during normal or faster/crash operation (Heizer & Render, 2011).

Equation 14: Crash Cost

$$CC = \frac{CO_n - CO_c}{t_n - t_c}$$

Source: (Heizer & Render, 2011)

Where; CC represents the crash cost, CO_n represents the normal cost, and CO_c represents the crash cost & t_n represents the normal time, and t_c represents the crash time

Using the above formulas, the following project crash cost and limit can be calculated, as shown in the following table. As noted, some activities need to be combined as they are basically performed within the same and specific proximities of related processes.

Table 52: Results on Project Crash

Activity	Crash cost (Rp)	Crash limit (minute)	Total (Rp/minute)
A	21,488	1.50	32,233
B	52,738	3.00	158,215
C	21,488	1.50	32,233
D			
E	52,738	3.00	158,215
F	21,488	1.50	32,233
G	31,905	2.00	63,810
H	21,488	1.50	32,233
I			
J			
K	147,144	2.00	294,287
L			
M			
N	230,477	3.00	691,431
O			
P			
Total		19	1,494,890

Source: Excel

From the above table, it is clear that the tasks can be performed faster at an approximate limit of 19 minutes, and at a total estimated cost of Rp. 1,494,890, or at a rate of Rp. 78,678.42 per minute. Since the last 3 activities represent the critical paths in these series of tasks, it is vital to emphasize on those 3 activities and the related time duration and embedded potential costs.

With the crash limit and estimated costs calculated, it is also important to know the likelihood of task completion. The simple computations relying on the use of statistical formulas on mean, standard deviation, variance, and normal distribution are necessary to complete the process.

To have the ability to calculate the chances on project completion, it is necessary to come-up with another assumption on optimistic and pessimistic duration of each of the activities. As shown in the following table, the optimistic duration is assumed 20% faster than the initial planning. The pessimistic time is assumed at 25% slower than the initial planning.

Relying on the suggested formulas by Heizer & Render (2011) on project management’s mean (or expected time), standard deviation, and variance, the relevant formulas are;

Equation 15: Mean, Variance & Standard Deviation

$$t_{exp} = \frac{(a + 4b + c)}{6}$$

$$Variance = \sigma^2 = \left(\frac{(b - a)}{6}\right)^2$$

$$Standard\ Deviation = \sigma = \sqrt{\frac{(b - a)}{6}}$$

Source: (Heizer & Render, 2011)

Where;

- T_{exp} represents the expected time, or mean of the time of the project’s activities
- a represents the optimistic time, b represents the normal time, and c represents the pessimistic time
- σ^2 refers to “squared sigma” to represent the variance
- σ refers to “sigma” to represent the standard deviation

At the total project variance of 6.75, and the project standard deviation of 2.60, the necessary chance/probability on project completion can be approximated. With the project’s maximum minutes of 91.50, as shown in **Table 50: Summary on ES, EF, LS, LF & Slacks**, the normal distribution can be appropriately computed.

Table 53: Mean, Standard Deviation & Variance

Activity	Optimistic	Likely	Pessimistic	Mean	Standard Deviation	Variance
A	13.50	15.00	18.00	15.25	0.75	0.56
B	27.00	30.00	36.00	30.50	1.50	2.25

Activity	Optimistic	Likely	Pessimistic	Mean	Standard Deviation	Variance
C	13.50	15.00	18.00	15.25	0.75	0.56
D	13.50	15.00	18.00	15.25	0.75	0.56
E	27.00	30.00	36.00	30.50	1.50	2.25
F	13.50	15.00	18.00	15.25	0.75	0.56
G	18.00	20.00	24.00	20.33	1.00	1.00
H	13.50	15.00	18.00	15.25	0.75	0.56
I	13.50	15.00	18.00	15.25	0.75	0.56
J	13.50	15.00	18.00	15.25	0.75	0.56
K	18.00	20.00	24.00	20.33	1.00	1.00
L	18.00	20.00	24.00	20.33	1.00	1.00
M	18.00	20.00	24.00	20.33	1.00	1.00
N	27.00	30.00	36.00	30.50	1.50	2.25
O	27.00	30.00	36.00	30.50	1.50	2.25
P	27.00	30.00	36.00	30.50	1.50	2.25
Overall				21.29	2.60	6.75

Source: Excel

With the information on the overall mean and task standard deviation, the probability on tasks completion can be estimated, as shown in the following table.

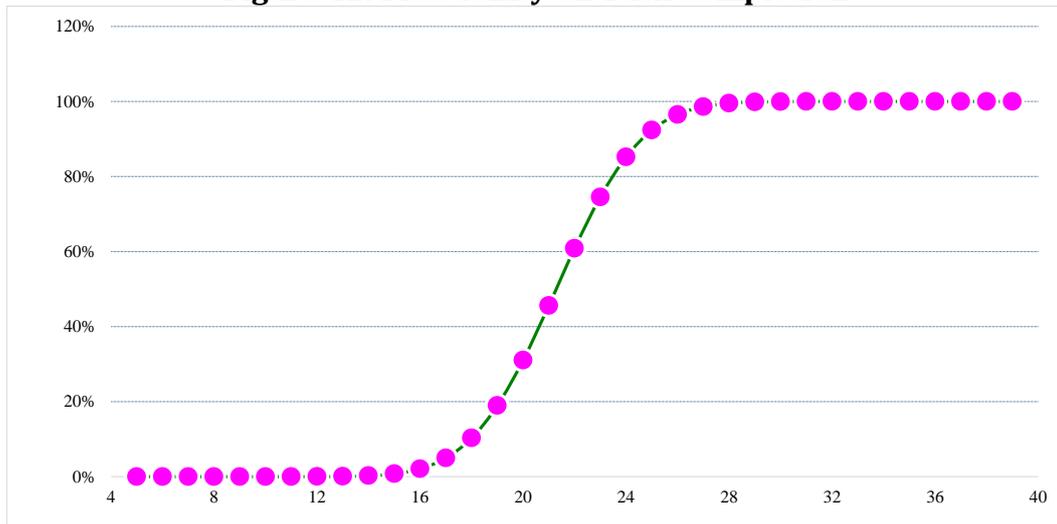
Table 54: Probability on Task Completion

Time (minute)	Probability	
	Comma	Percent
5	0.0000000002	0.00000002%
6	0.0000000020	0.00000020%
7	0.0000000191	0.00000191%
8	0.0000001577	0.00001577%
9	0.0000011278	0.00011278%
10	0.0000069905	0.00069905%
11	0.0000375912	0.00375912%
12	0.0001755432	0.01755432%
13	0.0007126960	0.07126960%
14	0.0025192723	0.25192723%
15	0.0077675350	0.77675350%
16	0.0209375762	2.09375762%
17	0.0494859318	4.94859318%
18	0.1029431199	10.29431199%
19	0.1894138847	18.94138847%
20	0.3102442823	31.02442823%
21	0.4561024366	45.61024366%
22	0.6082044736	60.82044736%
23	0.7452262664	74.52262664%

Time (minute)	Probability	
	Comma	Percent
24	0.8518596858	85.18596858%
25	0.9235471427	92.35471427%
26	0.9651798412	96.51798412%
27	0.9860661297	98.60661297%
28	0.9951175246	99.51175246%
29	0.9985058727	99.85058727%
30	0.9996015132	99.96015132%
31	0.9999075290	99.99075290%
32	0.9999813538	99.99813538%
33	0.9999967363	99.99967363%
34	0.9999995046	99.99995046%
35	0.9999999348	99.99999348%
36	0.9999999926	99.99999926%
37	0.9999999993	99.99999993%
38	0.9999999999	99.99999999%
39	1.0000000000	100.00000000%

Source: Excel

Figure 42: Probability on Task Completion



Source: Excel

From the above table, **Table 54: Probability on Task Completion**, it is clear that the tasks should probably completed within 28 minutes to 39 minutes. This range accounts for potential deviations and delays in handling certain processes, as mentioned in the above explanations. To better visualize the changes in probability in accordance with the minutes of tasks run, **Figure 42: Probability on Task Completion** illustrates the probability on tasks completion. The graphical illustration above confirms that the project completion may likely occur beyond 28th minutes.

CHAPTER 5: CONCLUSION & RECOMMENDATION

Chapter 5 of the research report focuses on the conclusion and recommendation based on the actual research activities, data collection, data analysis, and research results. When individuals have conducted the appropriate research methods, and have successfully produced the research report up to chapter 4, this particular section of the research report may become the easiest final steps, as if to provide closures. Basically, this chapter 5 may only show 2 sub-sections; conclusions and recommendations.

On the first part, this section should outlay the conclusions. Such conclusions should be based on the data analysis and research findings in chapter 4. In particular, conclusions should be arranged in accordance with the sequence of the research hypotheses, as they are written in chapter 2. Although it may not be necessary to re-write the research hypotheses, however, for some people, it may be easier to re-write them prior to providing the conclusions. It actually depends on the preference of the researchers as well as the targeted audience.

Second, this section should outlay recommendations. Following-up from the conclusions, recommendations should be organized accordingly. This means that recommendations should only address the conclusions of the research. Perhaps, ways toward improvement, proposed methods on handling issues, or immediate action plans to be potentially prescribed to the members of management. Pertinent to these recommendations, some quantitative measures and/or calculations may be necessary as if to provide evidence on relevant costs and benefits for the organizations and/or individuals at stake. Also, a recommendation for future research projects may have to be explained.

SELECTED SAMPLES ON CONCLUSIONS & RECOMMENDATIONS

SAMPLE # 1: MACROECONOMICS INFLUENCE ON CREATIVE INDUSTRY

The following research sample is based on the actual work of an undergraduate thesis in 2014, which was originally written by Tommy Dwi Hartanto^{xv} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*Analysis of Creative Industry in Tangerang Selatan: The Study of Macroeconomics Influence on Pillars & Sustainability*”.

The approach used in this study was a quantitative-based research, which mainly relied on questionnaire to obtain responses on indicators to enable the evaluation on the relationships among variables used in this study. Interviews were also conducted to learn the insights from the owners of creative industry. Secondary data from previous studies were also considered.

CHAPTER 5 – CONCLUSIONS AND RECOMENDATIONS

Chapter 5 is the closing chapter of this study. This chapter complements the discussion of the topic after hypothetical and non-hypothetical analysis are described. Conclusions and recommendations are presented.

5.1. Conclusions

This subchapter concludes the results found in this study. The conclusions are as follows:

1. MEIs do not have a significant impact on the foundation and the pillars of the creative industry. Its explanatory power is 26% and its relation is negative.
2. The foundation and the pillars of the creative industry have a significant impact on the internal sustainability as much as 99% explanatory power.
3. The foundation and the pillars of the creative industry have a significant impact on the external sustainability as much as 45% explanatory power.
4. The original model or the internal organizational growth model supports the creative industry in Tangerang Selatan. The opinions by the creative businesses in Tangerang Selatan implies that they acknowledge the existence and the importance of the elements in the Triple Helix (government, business, and intellectual).

5.2. Recommendations

5.2.1. Recommendations for Creative Businesses

The recommendations for the owners or the managers of creative businesses in Tangerang Selatan are as follows:

1. Not many creative businesses are a member of an association or group (Ali, et al., 2014). It is necessary for them to join a business association/group of the same interest to sustain their growth, or in the bigger picture strengthen the pillars of the creative industry. However, learnt from interviewing respondents who join an association/group, some of them are not actively participating in their own association/group. In consequence, they do not have as much advantages as they who are active in their association/group. Therefore, not only should they be a member of an association/group, being active is also strongly advised.
2. Many of the creative businesses do not have a particular strategy to welcome AEC in 2015 (Ali, et al., 2014). As a result, they do not know what risks they would encounter such as price war. Therefore, it is recommended for them to create a strategy that can at least defend their own market by focusing on developing customer loyalty. There are many techniques that can be found in books, internet, and other knowledge sources (training, seminar). An example of those techniques is differentiation.
3. Taking from the statements made by several respondents that the market preferences change quickly (Ali, et al., 2014), R&D is then very necessary. Undoubtedly, R&D can be very costly. However, if the creative businesses/associations/groups build a facility for R&D for collective interest, the expense could be shared without diminishing its real benefit. Another benefit is more customer satisfaction that could lead to customer loyalty.

5.2.2. Recommendations for Future Research

The recommendations for proceeding research are as follows:

1. There are differences among the three sectors (craft, publishing, and fashion). According to the interview (2014), they face different external environment, market, and challenges. Therefore, generalizing these sectors might lose details of findings. It is recommended for future research to focus on one sector.
2. This research is unfortunately do not have a satisfactory statistical validity and reliability because of the lacking clarity of the questionnaire. In consequence, three variables have to be deleted although the model has been well-developed in past literatures. Thus, it is strongly recommended to redo this research with more compatible questionnaire for better accuracy and relevant findings.

There are influential factors discovered from the interview: product, marketing strategy, market, and periodical events in the form of seasonal effects (Ali, et al., 2014). Researching those issues on the creative industry based on their effects is recommended.

SAMPLE # 2: PROFITABILITY RATIO & RISK MANAGEMENT

The following research sample is based on the actual work of an undergraduate thesis in 2012, which was originally written by Priscilla LE Siahaan^{xvi} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*Analysis of Relationship Between Selected Profitability Ratio with Risk Management: A Case Study of Publicly-Listed Banks in Indonesia in Financial Year 2005-2010*”.

The approach used in this study was quantitative-based research, which mainly relied on document analysis and verification from the banks’ financial statements to note evaluate the relationships among variables based on the research model.

CHAPTER 5 – CONCLUSION AND RECOMMENDATION

This chapter describes the whole ideas that have been gathered from the beginning to the end of this study. Based on the analysis, results and discussions from previous chapter, there are conclusions as well as recommendations, which can be derived from this thesis.

5.1. Conclusions

There are several conclusions regarding the relationship between selected profitability ratios in the banking industry listed on the Jakarta Stock Exchange with its risk management with the use of statistic calculation. The conclusions that can be computed through all the research process are;

First, by comparing and searching deeply regarding the relationship between selected financial ratios towards risk management process. The correlation between each of the selected indicators as part of the group of financial ratios is very low towards the risk management process. Some of the selected ratios have a positive correlation and some have a negative correlation, yet a low level of correlation. The ratios, which have positive correlations, are Return on Assets, Capital Adequacy Ratios, and Non Performing Loan. In other words, as these ratios increase the level of risk management process is also increase. However on the other hand, the ratios such as Return on Equity and Net Interest Margin, which have negative correlations means that as these ratios increase, the risk management process will decrease, and vice versa.

Second, conclusion acquired by analyzing the statistical process of regression statistic calculation is, above all the selected financial ratios done in this research, none of the ratios have a strong relationship towards the risk management process. The regression analysis is used in this process is to support the result of correlation as an

additional proof that there is a very low correlation and a weak relationship between selected financial ratios with the risk management.

Hence, due to the very low correlation and weak relationship between selected financial ratios with banking risk management process of Indonesia's banks listed in Indonesia's Stock Exchange for the period of year 2005 to 2010.

5.2. Recommendation

Although the result of the statistical calculation in this study shown that there is a weak correlation and relationship between selected financial ratios with risk management process, as type of financial institutions, the place where people of the whole country put their trusts. Banks need to conduct risk management process in order to minimize the risk, which can all of the sudden come without any emergency warnings. The risk, which can come from anywhere, for instance the market, such as inflation rate, Gross Domestic Product, and interest rates, or by the loans that banks give to the public and also the risk that comes within the banks itself such as the error in one of the operating expenses done by the employees, may lead the banks to a worsened situation.

Therefore it is important to banks in managing the risk from different indicators to be prepared of what will happen in the future.

SAMPLE # 3: FOOD WASTE MANAGEMENT

The following research sample is based on the actual work of an undergraduate thesis in 2012, which was originally written by Mario Immanuel^{xvii} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*3R Approach on Food Waste Management: A Case Study in Selected Family-Owned Restaurants*”.

The approach used in this study was both qualitative and quantitative-based research, which mainly relied on interview, document verifications, and questionnaires to evaluate the relationships among variables in this study.

CHAPTER 5 – CONCLUSION AND RECOMMENDATION

5.1. Conclusion

Based on the data analysis, it can be concluded that;

1. Food waste management, which is based on the 3R method, has a minimum correlation of 36% with any attempts in improving business performance. This could be further explained as follows;
 - a. Establishing proper standards in developing FBC-9 or menu recipes (part of reducing food waste) could reduce the amount of food waste. By implementing the proper inventory system for food materials, including food packaging, restaurants are able to minimize the amount of necessary purchases on food ingredients.
 - b. Donations in relation to any actual forms on reusing food waste can also be considered as a part of restaurants’ promotional activities. This may reduce the cost required on promotional tools. This is expected to increase the number of diners.
 - c. By managing the cleanliness, which is an integral part of food waste recycling activities, restaurants have participated in helping the government to raise community awareness towards the food waste management. In fact, the 3R method may eventually improve employee’s productivity since staff members may have become more knowledgeable on proper food waste management.
2. Food waste management, which is based on the 3R method, has the minimum correlation of 33% toward helping the environment. This could be further explained as follows;
 - a. By establishing and applying proper FBC-9, restaurants may contribute to the overall reduction in demands for animal meat and vegetable required as food ingredients. Also, through the reliance on proper food

packaging, restaurants may also contribute to the overall amount of wastes from food packaging.

- b. Through donations of edible food waste, as part of reusing food waste, restaurants may certainly play an important role in assisting and maintaining animal and plants population.
 - c. Through segregations of waste, as a part of food waste recycling activity, restaurants may contribute to the environment, particularly on wastes, which are difficult to be degraded, and/or needed time to be decomposed. This may be the way that restaurants contribute to the sustainability of environment.
3. Food waste management based on the 3R method has a minimum of 33% correlation with the attainment on community engagement. This could be further explained as follows;
- a. By establishing and applying proper FBC-9, as a part of food waste reduction, restaurants may reduce the number of wastes for disposals by customers. This may raise the awareness of people to be more concerned with the environment. Hence, it may create more pleasant environment.
 - b. Donations of edible food waste to the poor may be considered as a vital part in fulfilling social responsibilities. Inviting customers to participate in food donation activities may enhance the living conditions of the community against poverty and/or famine. This may be considered as social contribution.
 - c. Putting-up signage, for instance by not littering and/or using eco-friendly products may portray positive contributions toward community engagement.

Based on how each of the restaurants applies the 3R method, this study can safely conclude the following:

Table 5.1: Conclusion on application of 3R

Restaurant	Reducing Food Waste	Reusing Food Waste	Recycling Food Waste
Saung Serpong	Has implemented some method of reducing food waste.	Has implemented some method of reusing food waste.	Has implemented some method of recycling food waste.
Pondok Kemangi	Has implemented some method of reducing food waste.	Has implemented some method of reusing food waste.	Has implemented some method of recycling food waste.
Pondok Selasih	Has	Has not	Has

Restaurant	Reducing Food Waste	Reusing Food Waste	Recycling Food Waste
	implemented some method of reducing food waste.	implemented some method of reusing food waste.	implemented some method of recycling food waste.

Therefore, it is apparent that the selected family-restaurants in this study have conducted several methods of food waste management. Unfortunately, restaurants' operators may not realize that their daily operational activities may have synchronized to what the 3R method has formulated. Though not all method in 3Rs may have been applied by restaurants, such deficiencies may simply due to the lack of knowledge.

Detailed analyses, which are combined with interview results, and supporting theories, as well as previous studies, have given strong evidence that the 3R method contributes significant influence toward restaurants' benefits. Hence, it is safe to conclude that the approach on food waste management based on the 3R method, contributes positive impacts to restaurants.

In short, this study concludes that (1) food waste management based on the 3R method provides positive influence toward improvements in business performance, (2) food waste management based on the 3R method provides positive influence toward helping environment, and (3) food waste management based on the 3R method provides positive influence in attaining community engagement.

5.2. Recommendation

Some recommendations could be proposed as follows;

1. One of the easiest ways that any restaurant could do in maintaining environment may start with the food waste reduction. Restaurants may have to create variations in recipes without affecting the selling price. Through the real applications in standardized recipes (FBC-9), including better portioning, food waste may be reduced. This may influence the unnecessary purchases. Also, by evaluating the standardized recipes, restaurants may have to evaluate the quality of dishes. In longer period, it is expected that customers are happier with the food portioning, recipes, variations of dishes, and displays. This may increase business performance.
2. The second easiest issue to deal with may be the proper application on food inventory systems. Certainly FIFO, as a form of the 3R method, may assist restaurants' staff to be more discipline. This may deliver cost efficiency for the restaurants.
3. Another way that restaurants could do is reusing food waste, undoubtedly. This may be conducted through creation of special recipes. This may not only reduce wastes, but also, unconsciously, restaurants will expand the staffs' creativity in developing special recipes, which may eventually become the "chef recommended" menu.

4. Food donation may be put into agenda. Though this may look simple, however, this may serve as a powerful promotional activity for restaurants.
5. Though waste separations may not common in Indonesia, nevertheless, restaurants may start to do so, and become the role model and pioneer for other restaurants. Perhaps, by placing garbage bins in a more secluded area, this may prevent garbage odor. Of course, it is expected that customers would be happier with the cleaner surrounding.
6. A simple signage around the restaurants' premises, may promote customers' participation in environmental cleanliness and/or waste management.
7. Above all, knowledge and education on food waste management may have to be shared among restaurants' owners and staff members. If each individual were aware on food waste management, it will surely bring-about positive impact toward the working environment.

Thought this study has successfully calculated the best-fitted correlation among variables, this study has some limitations. Hence, it can be recommended that:

1. In accordance with the statistical results, it is recommended that interaction of other sections in restaurant needs to be studied, such as sales, marketing and promotion, finance and accounting, especially for in-depth restaurant operational.
2. This study only emphasizes only part or general view of business performance, help the environment, and attain community engagement. Further explanation of detail and in-depth calculation of business performance, help the environment, attain community, and any other benefits have not been covered in this research. Thus, it is suggested that future research may involve more in the analysis dan conducting in-depth study of the details.

The object of this study is family-owned restaurants with medium size family restaurant. It is suggested that future research can expand its participants in the longer research period to other type of restaurant classification, and if possible also reach restaurant customer. Perhaps, further research to improve awareness from the restaurants side and the customers will create more sustain, clean, and well-managed environment.

SAMPLE # 4: CSR & FINANCIAL PERFORMANCE

The following research sample is based on the actual work of an undergraduate thesis in 2012, which was originally written by Saffana Afiff^{xviii} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*Corporate Social Responsibility and Company Financial Performance: A Correlational Study in Indonesian Publicly-Listed Firms*”.

The approach used in this study was quantitative-based research, which mainly relied on the use of secondary data of the companies’ financial statements and CSR index to evaluate the relationship among variables.

CHAPTER 5 – CONCLUSION AND RECOMMENDATION

Corporate social responsibility is crucial for any business organization. The decision is important because of the need to maximize returns to various organizational constituencies, and also because of the impact such a decision has on an organization’s ability to deal with its competitive environment.

This present study evaluated the influence of corporate social responsibilities on firm’s performance of LQ – 45 listed firms on the Indonesia Stock Exchange during an eight-year period (2004 – 2011). The result is there is no influence of CSR on a company’s financial performance. Nevertheless, the other variables that have a significant positive influence on a company’s financial performance are ROE, Size, and Leverage.

5.1. Managerial Implications

The result shows that jointly the independent variables (employee, community, environment, size, leverage, ROE, beta, Dcrisis) has an influence on the dependent variable (stock price). Broadly speaking, in a partial test the result show that only size, ROE and leverage have a significant effect on the stock price. It means this company’s do not really give attention to CSR, despite companies being more concern about their financial condition.

The possible explanations of these results could be that CSR is a relatively new issue in Indonesia, and most investors have a low degree of perception of this matter. The quality of disclosure for CSR is not easily measurable. There is a lack of general accepted principles and most firms use CSR disclosure as an additional instrument of advertising, avoiding giving relevant informations also most investors are short-term oriented while CSR’s impact is mostly in the medium-long term.

5.2 Future Research Suggestion

Furthermore, the main further research suggestions of the analysis are :

1. The implementation of other variables influencing firms stock price in order to implement the regression model
2. The enlargement of the sample, considering more companies in the analysis

3. The widening of the time-horizon of the analysis
4. The extension of the analysis to other industry groups

SAMPLE # 5: STRATEGY IMPLEMENTATION ON ENERGY CONVERSION

The following research sample is based on the actual work of an undergraduate thesis in 2008, which was originally written by Sutan Muamar Ariefandi^{xix} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is *“Strategy of PT. Samara Permata to Implement the Government Program in Conversion Energy from Kerosene to Liquid Petroleum Gas in Kebayoran Baru”*.

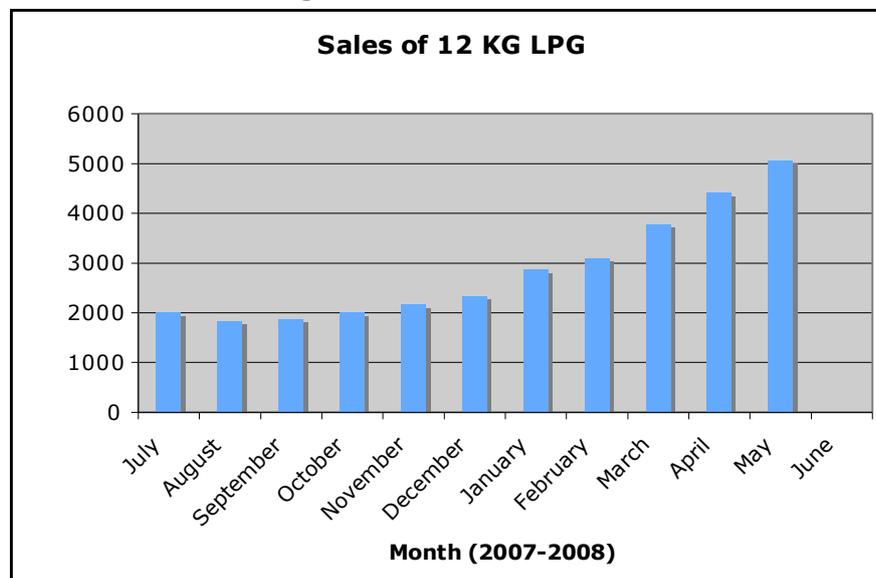
The approach used in this study was quantitative-based research, which mainly relied on questionnaire to evaluate the SWOT analysis, and market analysis (segmenting, targeting, positioning, and the marketing mix 4P). Secondary data are obtained from financial records of the company to provide the objective evidence on the successfulness of the implementation of strategy.

CHAPTER 5 – CONCLUSION AND RECOMMENDATION

5.1. Conclusion

The performance of PTSP is good; they also already have a good and strong reputation in their neighborhood around Kebayoran Baru. The increasing number of sales of PTSP proves all of that. Even only less than 1 year since they are established but PTSP already show their capability. In the hard situation like May 2008 when LPG face scarcity situation, PTSP could enhance their sales number.

Figure 5.1: Growth Sales



Source: P.T. Samara Permata Sales Number (2008)

The growth and performance of the company cannot be separated with their marketing strategies and policies. Following factors that supporting the performance of the company are:

1. The success in positioning its product in the market mind as the company perceived. In terms of product, LPG consumers have seen the company as precise quality and quantity of LPG seller.
2. The right Policies. The company has several policies prioritizing welfare of human being.
3. In terms of price, the company is still considered affordable and appropriate for LPG market. Even in scarce situation.

Those all above show good results. All of the experience and system of the company appear to be sufficient to launch new strategy in implementing the government program on the energy conversion from Kerosene to LPG. The weaknesses of the company are perceived as minimal hurdles in comparison to its strengths. Opportunities are enormously big and the potential threats are not as big.

SAMPLE # 6: DEPRECIATION METHOD

The following research sample is based on the actual work of an undergraduate thesis in 2008, which was originally written by Praditya Kesuma Dewi^{xx} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*Analysis on Depreciation Method in PSC Company in Comparison to the Financial Accounting Standard*”.

The approach used in this study was quantitative-based research, which mainly relied on documentation studies/verifications of the company’s financial records and the prevailing financial standards as per Ikatan Akuntansi Indonesia (IAI).

CHAPTER 5 – CONCLUSION & RECOMMENDATION

5.1. Conclusion

The study indicates a difference in the depreciation calculations used by BPMIGAS that is implemented by oil and gas contractors in Indonesia as compared to the FAS depreciation calculations. As a result, the depreciation calculations show a high depreciation expense using BPMIGAS method. Furthermore, the statistical calculations also show that depreciation calculation using BPMIGAS method generates a higher expense rather than using FAS method. From the income statement, it is illustrated that the higher the depreciation expense will lower the net income.

However, high depreciation expense, in fact, gives benefits to both government and oil and gas contractors. In this case, it is not necessarily true that high depreciation expense is not good for management even it generates lower income. Several managerial reasons were emerged to understand how government and contractors derive benefits by implementing the method. Oil and gas contractors implement a different method to calculate the depreciation for the assets. By using the declining balance depreciation method prescribed by BPMIGAS, the depreciation expense for the first year will be higher than using FAS. It is such a benefit for them because the asset can be depreciated sooner by having high depreciation expense early in the beginning of the year on asset valuation. On BPMIGAS side, uniformity of the depreciation method implemented by the Indonesian-based oil and gas contractors makes the process of finance controlling easier. Moreover, BPMIGAS could attract foreign investors to discover oil and gas wells because they can give a faster reimbursement of asset purchased.

5.2. Recommendation

Fundamentally, the oil and gas industry is one of the industries that really need a special handling for financial reporting. In this case, the implementation of BPMIGAS depreciation method is well-applied and suitable for oil and gas industry. This is due

to the industry deals with different types of assets and times of purchase, so there should be a specific calculation method to simplify the calculations to enable both BPMIGAS and contractors to both gain advantages from this situation.

First of all, is the standardization of depreciation method for contractors. The attached PSC, stated that the book keeping conducted by contractors will be maintained in accordance with the generally accepted accounting principles (GAAP).

In some cases, BPMIGAS prescribes different calculation method for contractors. For example is the depreciation method of calculations. This issue evokes an assumption of the use of 2 standard financial methods, in which both depreciation calculations show the same result, but BPMIGAS method performs a better point by giving more efficient and quicker recovery cost for the contractors. BPMIGAS calculations can be included in the FAS method, which are issued by IAI to simplify and synchronize the standard for oil and gas industry. For instance, there must be a certain depreciation calculation. IAI should publish a certain depreciation calculation for FAS, specifically to be implemented by PSC companies.

Next, in order to be more specific, the oil and gas companies should maintain the data filing of depreciation for each asset bought. The data mining specify at the price and purchase date. As contractors may not prepare for the depreciation filing, it would be good for them to have the depreciation detailed information from the beginning since a particular oil and gas contractor may have been in Indonesia for at least 2 years, and such a company may be close to the production phase.

In general, as the issue is now pressured by the soaring oil prices, BPMIGAS should maximize its productivity by forcing contractors to boost efficiency, specifically by limiting the scope of refund and recovery claims related to exploration and operations.

Contractors are recommended to limit the purchase of assets only to the assets, which are really needed by them. This will reduce the depreciation expense, which at the end, will reduce the reimbursement cost. An example is BPMIGAS should reduce the numbers of items, which are not directly related to the contractors' operations. This matter will also be a potential topic for another research on the cost recovery factor.

SAMPLE # 7: CSR, GOOD GOVERNANCE & COMPANY PERFORMANCE

The following research sample is based on the actual work of an undergraduate thesis in 2013, which was originally written by Velicia Novianty Meiji^{xxi} from the Faculty of Business Administration at Swiss German University, BSD City, Serpong, Tangerang, Indonesia. The title of this study is “*Corporate Social Responsibility and Good Corporate Governance Toward Company Performance: An Empirical Performance Study in Consumer Goods Industry During 2002-2012*”.

The approach used in this study was quantitative-based research, which mainly relied on the analysis of secondary data of various companies during the time span of 2002-2012. The data are evaluated based on correlations among variables and indicators.

CHAPTER 5 - CONCLUSION AND RECOMMENDATION

This chapter concludes all the results and analysis as showed in the previous chapter, and also give the recommendation related to the results concluded in this study and also the recommendation regarding the connected or similar study in the future.

5.1. Conclusion

Based on the results and evidences showed above, below are some conclusions that can be concluded:

1. First, all companies have proven to apply CSR but only few companies that have started to apply it well since 2002 which are UNVR, INDF, KLBF. However from those companies that seems has applied CSR well only INDF that consistently show its commitment to society with CSR percentage equal or above 5%.

In the other side, for the other companies that have low score of CSR in the beginning of the year was starting to have a significant increase score of CSR in 2007. From that result it can be concluded that Law no.40 year 2007 which was started to be enforce in 2007 has indirectly pushed more companies to be more care and aware toward its society through CSR.

Another result can be concluded also in evidence of CSR (figure 4.7) which is linked to the result of firm reputation showed in figure 4.17, where company with high CSR score will have a high graph of reputation as well.

2. Second, all companies has also proven to implement GCG inside the company, which showed from the company’s GCG score that is more or less are the same between each other’s. Furthermore, the evidence showed in figure 4.10 is link to almost all evidence of firm performance, where the graph’s pattern between

those charts shows a similarity. The company with high GCG score has a high company performance as well. This result is supporting the previous study which stated that GCG can lead to a better company performance.

5.2. Recommendation

There are some recommendations that could be suggested from the results concluded above:

1. Since CSR is proven can influence the company's reputation in public's eyes, therefore it is suggested for all companies that have applied CSR to keep implement the CSR, and for those who have not implement it to implement it.
2. It is also suggested that the future study about this topic should be conducted in attempt to see the correlation and how significant the correlation between CSR and firm reputation.
3. GCG is suggested to be implemented by all companies that have not implemented it and for those that have implemented GCG are suggested to maintain and increasing the implementation of GCG in all sectors inside the company.
4. Further study related to GCG and firm performance is also suggested to be conducted, to see the correlation and how significant the correlation between GCG and firm reputation.
5. The study to reveal the motive behind cigarette companies do CSR might be needed, since the results showed in chart of commitment society (figure 4.18) has showed that CSR percentage from all publicly cigarette companies in BEI are below 5%.

It is suggested as well to government to make another specified law about CSR and its implementation (for instance: the minimum % of CSR each company should fulfill, the list of CSR that should be fulfill) and not only as it regulated in ministry letter. Since the results from evidence of CSR has showed that the enforcement of law no. 40 2007 can encourage some companies that before are not too concern about CSR to be more concern.

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Why Business Research?

It is simply because research is closely related into decision-making processes. Though the word "research" may appear a bit daunting for people, simply due to its close connections with the use of laboratories, perform by scientists, require data analysis, including various mathematical and statistical testing, research is actually the sets of activities and processes to value the available data toward formulating solutions, given a particular situation. From a simple decision to get lunch (what, where, when, how much, and with whom), to a more complex decision to buy a tour package from travel agencies, for instance, research is needed to assist people in making a better decision.

Perhaps, the more appropriate question is
"why NOT"?

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