



**UNIVERSITAS INDONESIA**

**APPLYING FOUR LEVERS OF CONTROL IN  
CONSTRUCTION COMPANY (CASE STUDY IN PT.  
SANTOSA ASIH JAYA)**

**THESIS**

**Submitted as one of the requirement to acquire the degree of MM.MBA**

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**FALCULTY OF ECONOMY  
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JAKARTA  
JANUARY 2011**

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## PREFACE

My appreciation mostly to Jesus Christ my one and only Saviour, because of His blessing I'm able to finish this thesis. The purpose of this writing is to fulfill one of the requirement to acquire the Magister Management – International Master of Business Administration degree from the Faculty of Economics of UNIVERSITY OF INDONESIA - I.A.E de GRENOBLE, UNIVERSITE PIERRE MENDES. I realized that without the help and support from many parties, from the beginning of the program until the completion of this thesis; I would have never finished my study.

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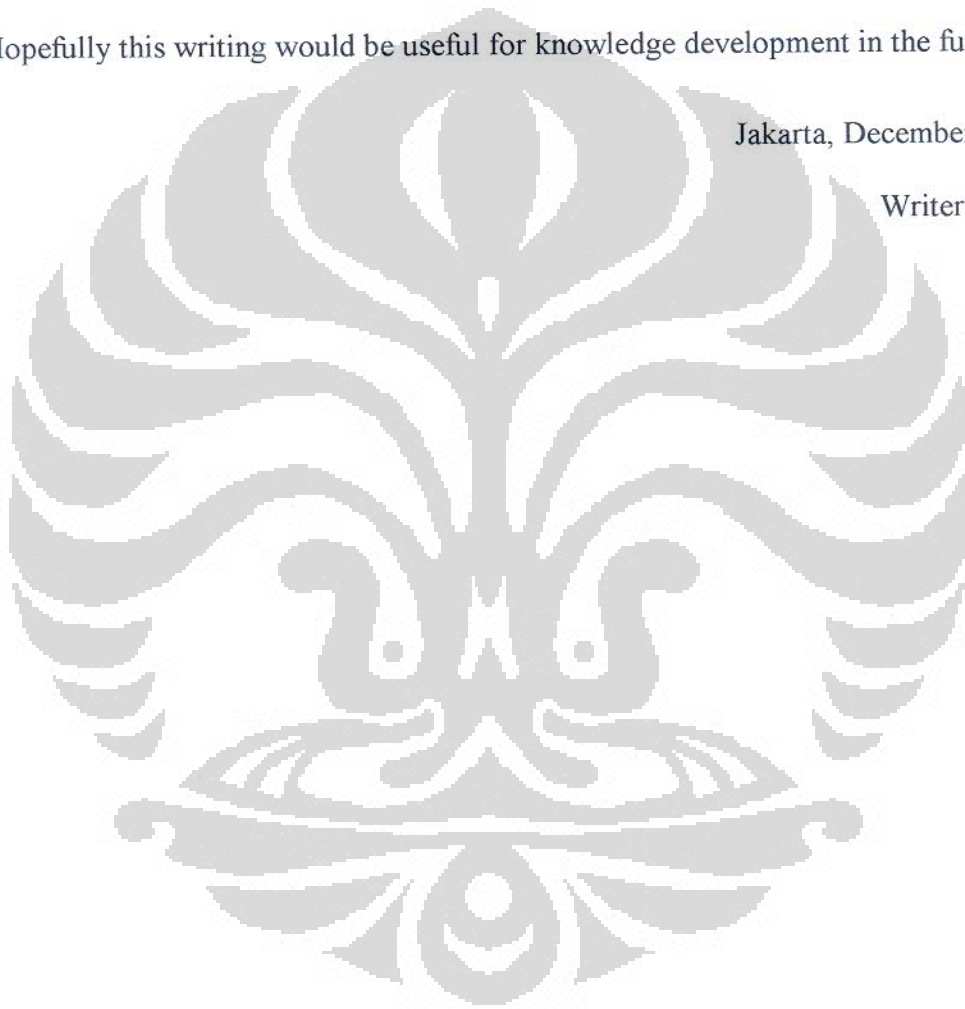
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13. And all my colleagues who have helped my, without any hesitation, either by providing me with their insightful information and knowledge or just for being good friends.

Hopefully this writing would be useful for knowledge development in the future.

Jakarta, December 2010

Writer



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## ABSTRAK

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Judul : Pengaplikasian Empat Levers of Control di Perusahaan  
Konstruksi (Studi Kasus di PT. Santosa Asih Jaya)

Thesis ini disusun sebagai panduan bagi PT. SAJ dalam mengaplikasikan *levers of controls* berdasarkan kinerja mereka di tahun 2009. Dimana pada tahun 2009 perusahaan menghadapi perubahan dalam lingkungan usaha mereka yang mengharuskan manajemen melakukan penyesuaian strategi menjadi “*Stability: Paused and Proceed with Careful*” dan “*Cost Leadership*”. Pembahasan dalam thesis ini meliputi: (1) *Diagnostic Control Systems* dengan menggunakan *balanced scorecard*, (2) *Interactive Control Systems*, (3) *Belief Systems* serta (4) *Boundary Systems*. Hasil penelitian menyarankan agar *balanced scorecard* disosialisasikan kepada seluruh karyawan sebagai alat komunikasi untuk penyampaian strategi perusahaan dan alat penilaian kinerja yg adil. Perusahaan juga sebaiknya menggunakan hasil evaluasi visi yang tertuang dalam penelitian ini untuk kepentingan perusahaan.

Kata kunci:

*Levers of Control, Balanced Scorecard, Perusahaan Konstruksi*

---

## ABSTRACT

Name : Cesar Petrus Hasibuan  
Major of Study : MM-MBA  
Title : Applying Four Levers of Control in Construction Company  
(Case Study in PT. Santosa Asih Jaya)

This thesis was written as guidance in applying four levers of control in PT. SAJ using its performance in 2009. In 2009, company face a change in their business environment that force top management to change their strategy into “*Stability: Paused and Proceed with Careful*” and “*Cost Leadership*” for 2009 and beyond. The discussion in this thesis include: (1) *Diagnostic Controls Systems* using *balanced scorecard*, (2) *Interactive Control Systems*, (3) *Belief Systems* serta (4) *Boundary Systems*. This research suggest that the company socialized the *balanced scorecard* as a tool to communicate company’s strategy and as a tool for a fair performance evaluation. The company should also use the evaluation result for the company’s vision for the company’s benefit in the future

Key words:

*Levers of Control, Balanced Scorecard, Construction Company.*

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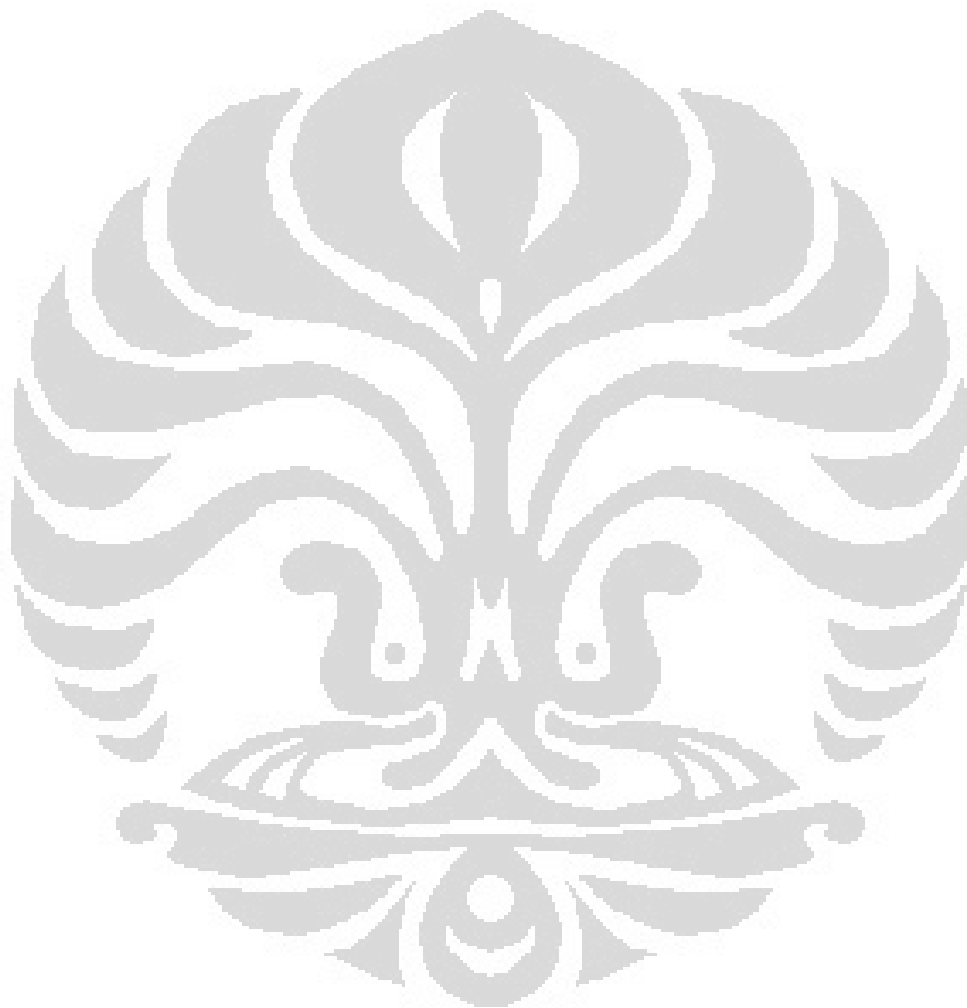
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## CHAPTER 1

### INTRODUCTION

#### 1.1 Background

Civil engineering is a professional engineering discipline that deals with the design, construction, and maintenance of the physical and natural environment, including works such as bridges, roads, canals, dams and buildings. Civil engineering takes place on all levels: in the public sector from municipal to government levels, and in the private sector from individual homeowners to international companies. In Indonesia, one of the government's main agenda since 2004 was to provide excellent infrastructure and communication backbone, in order to attract the inflow of foreign investment into the country.

Both public and private works are highly competitive and both need contractors that meet the basic qualification. The difference between the two is: in public works, the law requires that the contract is awarded to the lowest bidder; however, in private works, some owner can awards contract to anyone they choose (Volpe, 1991). Every contractors which has the basic qualification is eligible to enter the bidding process, everyone has the same chance to win the contract. This industry grows fast and many players jump in to seize an adequate profit out of it. This situation eventually leads to a high competitive industry.

The standard rules for this industry is almost the same with other industry. When an owner company opens a project and presents it to the public in an open bid, it means that all civil engineering/construction companies have an equal possibility to win that project by submitting project proposal to the owner. The owner can choose the desirable company to finish the project. Usually the winner is the one that offer the most suitable project proposal to complete the project for the owner. Levy says "In this competitive age, if your firm can't produce a quality

product and produce it both quickly and at a competitive price, owners will look elsewhere” (Levy, 2007,p.6). Basically each proposal must consist of:

- a. The amount of project value based on the bill of quantity and scope of work of the project (quality of the work are stated in the scope of work and bill of quantity).
- b. The time-line estimation to complete the project.

In the open bid, the construction company must submit suitable price with an adequate profit from it but the price must competitive enough to win the bid. In this condition, the construction company will face two risks that need to be avoided, which are (1) win the bid but at a reduced profit due to submitting a low price proposal, or (2) lost the bid altogether due to submitting a high price proposal (Park, 1979).

For the construction company, those two factors influence its profit of a project directly. Therefore the company need to carefully calculate the bid price based on past work experiences, techniques in completing the project, basic price for material needed, and other considerations. The challenges for the construction company is not only things that already mentioned before but also an adverse monitoring in project implementation is very important to keep the progress within the budget and time schedule. If the expenditure of the project completion were bigger then the budgeted cost, it would cut off the profit. If the construction company cannot meet the time schedule, the project owner will charge penalty for the construction company, which will lead to lower profit. Any bias between the project plan and the realization could make a company's profit vanish into thin air. So it is necessary for a construction company to have an ideal management control system to ensure that its strategy can successfully achieved within the daily operation.

## **1.2 Problem Identification**

By the end of 2008, top management realized that there was a change in its business environment. Because of this change, PT. SAJ can no longer put their

business performances only on the telecommunication division to achieve the desired profit. There are two main problems that contributed to the change in the telecommunication industry. First is the global crisis eventually forces big telecommunication companies in Indonesia to postpone their capital expenditure and second is the Local Government of Indonesia now set a new regulation regarding the telecommunication tower that are allowed to be used in one region. Because of these two things, the construction for telecommunication industry were becoming unclear for the next several years. This condition has been a major concern for the top management of PT. SAJ but at the same time, there were also opportunities for the company to overcome the environment instability, which are constructions in Mechanical and Electrical services for PLN megaproject. These opportunities can be use to cover the revenue loss if what top management concerns occurred.

To ensure that the company's implemented strategy applied and worked, it required a comprehensive management control system. By using levers of controls as the tool, top management could set company's resources and efforts to successfully achieve the desired profit and set proper responses if there was a problem occurred through the process to overcome the problem.

The question is how well PT. SAJ has already execute Levers of Control to ensure the strategy work?

### **1.3 Purpose of Writing**

The purposes of this writing are:

- a. Assessing the critical performance variable with Kaplan balanced scorecard and proposed strategy map for control system in PT. SAJ.
- b. Assessing the three others levers of controls system ( interactive control system, belief systems, boundary systems) used in PT. SAJ and the application together with the balanced scorecard as tool for diagnostic control systems.

## 1.4 Research Method

This research evaluates the existing management control in PT. SAJ and assesses all components in the company that related to the issues by using literature study regarding Management Control System and using the data and documents that provide by PT.SAJ. The literature study was done to gather an adequate understanding of performance measurement and control systems for implementing business strategy related to the research topic.

And because this is the study of one single company there are no intentions to make any general assumptions of the results. The business strategy's goals were the actual goals of PT. SAJ and all description regarding business components were taken from PT. SAJ real condition.

## 1.5 Thesis Outline

The thesis' outline is delivered in below order:

### Chapter 1 Background

This chapter consists of background, problem identification, purpose of writing, and also writing methodology.

### Chapter 2 Literature Review

This chapter consists of all the theoretical regarding performance measurement and control systems for implementing strategy, especially the Four Levers of Controls by Simons (1995).

### Chapter 3 Company profile

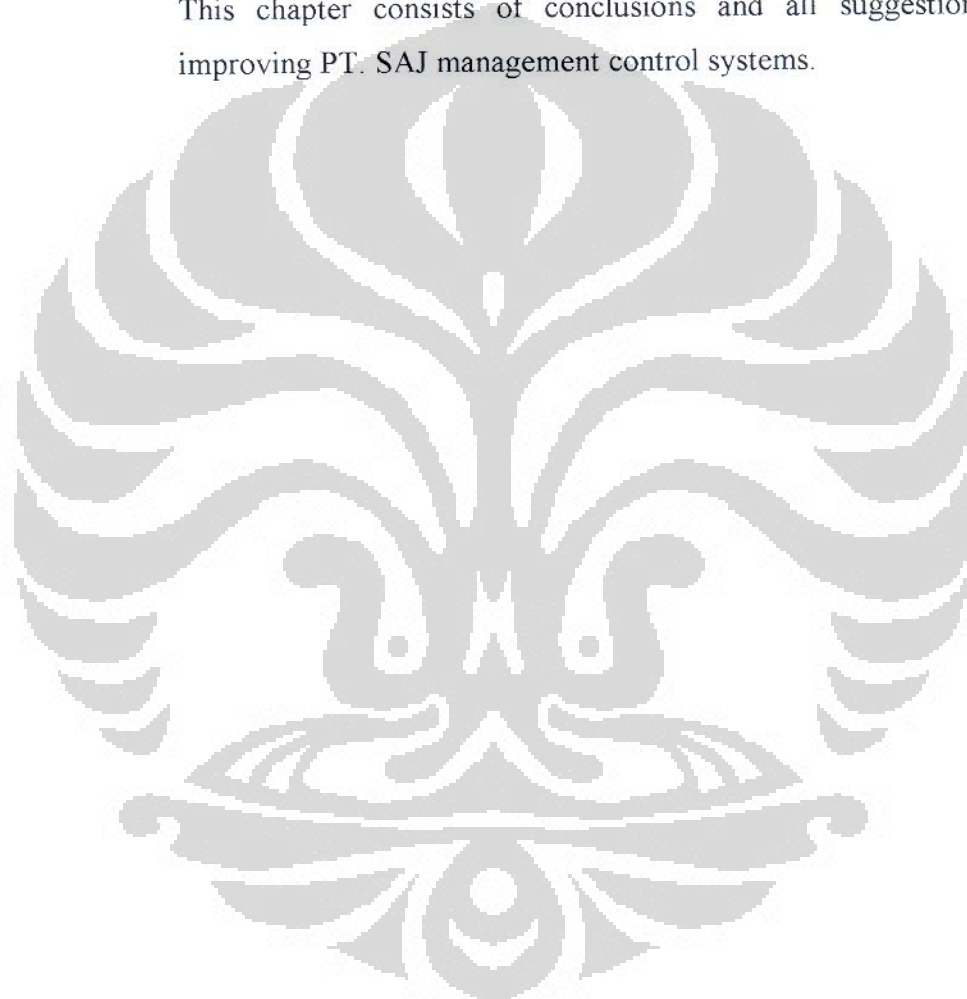
This chapter consists of description of PT. SAJ and its business profile.

#### Chapter 4 Four Levers of Control Analysis

This chapter consists of management controls systems analysis, which divided into four discussions according to the Four Levers of Controls.

#### Chapter 5 Conclusion and Suggestion

This chapter consists of conclusions and all suggestions for improving PT. SAJ management control systems.





## CHAPTER 2

### LITERATURE REVIEWS

#### 2.1 Business Strategic Management

Strategic management is a field that deals with the initiatives by general managers on behalf of owners, involving utilization of resources to enhance the performance of the company in their external environments. It entails specifying the organization's mission, vision and objectives, developing policies and plans to achieve these objectives, and allocating resources to implement the policies and plans, projects and programs. A balanced scorecard is often used to evaluate the overall performance of the business and its progress towards objectives. Recent studies and leading management theorists have advocated that strategy needs to start with stakeholders expectations and uses a modified balanced scorecard which includes all stakeholders.

Strategic management is a matter of setting goals and tactics. It provides overall direction to the enterprise and is closely related to the field of organization studies. In the field of business administration it is useful to talk about "strategic alignment" between the organization and its environment or "strategic consistency". Strategic management includes the management team, the board of directors and other stakeholders of the organization, depends on the organizational structure.

Lamb defines strategic management as an ongoing process that evaluates and controls the business and the industries in which the company is involved; assesses its competitors and sets goals and strategies to meet all existing and potential competitors; and then reassesses each strategy annually or periodically to determine how it has been implemented and whether it has succeeded or needs replacement by a new strategy to meet changed circumstances, new technology, new competitors, a new economic environment., or a new social, financial, or political environment. (Lamb, 1984).

The business strategies discussed in this thesis are :

### **2.1.1 Diversification Strategy**

Diversification is part of the four main marketing strategies defined by the product or market Ansoff matrix. Diversification is a company strategy wherein a company tries to increase profitability through increased sales volume from new products and new markets. In layman's term, diversification means venturing out into new business, new products or new markets to increase profits. It is a form of growth strategy involving a significant increase in the performance objectives beyond past performance records. Diversification allows a company to venture out into new lines of business that are different from the present operations. Company employs different diversification strategies to expand its operations by adding markets, products, services, or stages of production to the existing business.

Diversification efforts may be either internal or external depending upon the objectives of the company. Internal diversification is a situation where a company ventures into a different but related business line. It involves increasing the company's product or market base. On the other hand, the external diversification is used to achieve similar results with a difference that the line of business is drastically different and unrelated to the parent company.

There are many reasons why a company may choose for a diversification strategy. The main objective is business growth and increase in profitability. It is imperative that they decide whether they want to diversify by starting a related or unrelated business line.

Diversification in the form of growth strategy is viewed by many investors as "bigger the better". Higher sales volume is seen as a measure of performance irrespective of the profit margins, and increase in sales is always welcomed. People often assume that if the sales increase the profit will follow suit.

There are three types of diversification which are:

### 2.1.2 Concentric diversification

*The concentric diversification* is a strategy where a company adds a related product or market to achieve a strategic fit. This strategy allows the company to maximize its components to achieve higher profitability and effectiveness better than single entity. This strategy may be employed to attain financial synergy to let company with strong financials but limited growth opportunities to work with a company which is not financially strong but has greater market potentials. Another advantage of this strategy is that it opens ways to achieve management synergy, where management experience and expertise can be applied to different situations.

This means that there is a technological similarity between the industries, and the firm is able to leverage its technical know-how to gain competitive advantage. For example, a company that manufactures industrial adhesives might decide to diversify into adhesives to be sold via retailers. The technology would be the same but the marketing effort would need to be changed. It also seems to increase its market share to launch a new product which helps the particular company to earn profit. Another example is the addition of tomato ketchup and sauce to the existing "Maggi" brand processed items of Food Specialities Ltd.

### 2.1.3 Horizontal diversification

The company adds new products or services that are technologically or commercially unrelated (but not always) to current products, but which may appeal to current customers. In a competitive environment, this form of diversification is desirable if the present customers are loyal to the current products and if the new products have a good quality and are well promoted and priced. Moreover, the new products are marketed to the same economic environment as the existing products, which may lead to rigidity and instability. In other words, this strategy tends to increase the firm's dependence on certain market

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segments. For example company was making note books earlier now they are also entering into pen market through its new product.

Horizontal integration occurs when a firm enters a new business (either related or unrelated) at the same stage of production as its current operations. For example, Avon's move to market jewelry through its door-to-door sales force involved marketing new products through existing channels of distribution. An alternative form of that Avon has also undertaken is selling its products by mail order (e.g., clothing, plastic products) and through retail stores (e.g., Tiffany's). In both cases, Avon is still at the retail stage of the production process.

#### **2.1.4 Conglomerate diversification (or lateral diversification)**

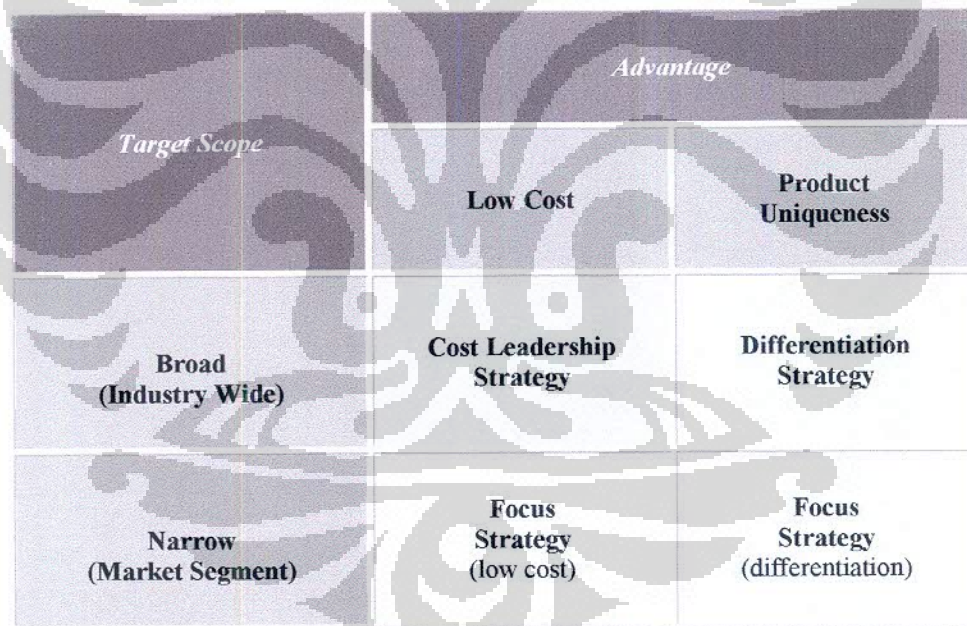
*A conglomerate diversification* takes place when a company diversifies into businesses or markets that are not related to their present business or market operations. Under this situation synergy may be achieved by combining management expertise or financial resources, while the main objective of conglomerate diversification is to improve the profitability of the parent company and make little or no efforts in trying to achieve marketing or production synergy.

The company markets new products or services that have no technological or commercial synergies with current products, but which may appeal to new groups of customers. The conglomerate diversification has very little relationship with the firm's current business. Therefore, the main reasons of adopting such a strategy are first to improve the profitability and the flexibility of the company, and second to get a better reception in capital markets as the company gets bigger. Even if this strategy is very risky, it could also, if successful, provide increased growth and profitability.

## 2.2 Porter's Generic Strategy

If the primary determinant of a firm's profitability is the attractiveness of the industry in which it operates, an important secondary determinant is its position within that industry. Even though an industry may have below-average profitability, a firm that is optimally positioned can generate superior returns.

A firm positions itself by leveraging its strengths. Michael Porter has argued that a firm's strengths ultimately fall into one of two headings: cost advantage and differentiation. By applying these strengths in either a broad or narrow scope, three generic strategies result: *cost leadership*, *differentiation*, and *focus*. These strategies are applied at the business unit level. They are called generic strategies because they are not firm or industry dependent. The following figure illustrates Porter's generic strategies:



**Figure 2.1 Porter's Generic Strategy**

Source : Porter, M.E., "Competitive Strategy: Techniques for analyzing industries and competitors" New York : The Free Press, 1980.

### 2.2.1 Cost Leadership Strategy

This generic strategy calls for being the low cost producer in an industry for a given level of quality. The firm sells its products either at average industry prices to earn a profit higher than that of rivals, or below the average industry prices to gain market share. In the event of a price war, the firm can maintain some profitability while the competition suffers losses. Even without a price war, as the industry matures and prices decline, the firms that can produce more cheaply will remain profitable for a longer period of time. The cost leadership strategy usually targets a broad market.

Some of the ways that firms acquire cost advantages are by improving process efficiencies, gaining unique access to a large source of lower cost materials, making optimal outsourcing and vertical integration decisions, or avoiding some costs altogether. If competing firms are unable to lower their costs by a similar amount, the firm may be able to sustain a competitive advantage based on cost leadership.

Firms that succeed in cost leadership often have the following internal strengths:

- Access to the capital required making a significant investment in production assets; this investment represents a barrier to entry that many firms may not overcome.
- Skill in designing products for efficient manufacturing, for example, having a small component count to shorten the assembly process.
- High level of expertise in manufacturing process engineering.
- Efficient distribution channels.

Each generic strategy has its risks, including the low-cost strategy. For example, other firms may be able to lower their costs as well. As technology improves, the competition may be able to leapfrog the

production capabilities, thus eliminating the competitive advantage. Additionally, several firms following a focus strategy and targeting various narrow markets may be able to achieve an even lower cost within their segments and as a group gain significant market share.

### **2.2.2 Differentiation Strategy**

A differentiation strategy calls for the development of a product or service that offers unique attributes that are valued by customers and that customers perceive to be better than or different from the products of the competition. The value added by the uniqueness of the product may allow the firm to charge a premium price for it. The firm hopes that the higher price will more than cover the extra costs incurred in offering the unique product. Because of the product's unique attributes, if suppliers increase their prices the firm may be able to pass along the costs to its customers who cannot find substitute products easily. Firms that succeed in a differentiation strategy often have the following internal strengths:

- Access to leading scientific research.
- Highly skilled and creative product development team.
- Strong sales team with the ability to successfully communicate the perceived strengths of the product.
- Corporate reputation for quality and innovation.

The risks associated with a differentiation strategy include imitation by competitors and changes in customer tastes. Additionally, various firms pursuing focus strategies may be able to achieve even greater differentiation in their market segments.

### **2.2.3 Focus Strategy**

The focus strategy concentrates on a narrow segment and within that segment attempts to achieve either a cost advantage or differentiation. The premise is that the needs of the group can be better serviced by

focusing entirely on it. A firm using a focus strategy often enjoys a high degree of customer loyalty, and this entrenched loyalty discourages other firms from competing directly.

Because of their narrow market focus, firms pursuing a focus strategy have lower volumes and therefore less bargaining power with their suppliers. However, firms pursuing a differentiation-focused strategy may be able to pass higher costs on to customers since close substitute products do not exist.

Firms that succeed in a focus strategy are able to tailor a broad range of product development strengths to a relatively narrow market segment that they know very well. Some risks of focus strategies include imitation and changes in the target segments. Furthermore, it may be fairly easy for a broad-market cost leader to adapt its product in order to compete directly. Finally, other focusers may be able to carve out sub-segments that they can serve even better.

### **2.3 History of Management Control Systems**

Management control was defined by Anthony, R. N., *Planning and Control Systems: Framework for Analysis* (Boston: Graduate School of Business Administration, Harvard University, 1965) as “the process by which managers ensure that resources are obtained and used effectively and efficiently in the accomplishment of the organization’s objectives.” This definition limited subsequent researchers not only to envisage MCS as encompassing the largely accounting-based controls of planning, monitoring of activities, measuring performance and integrative mechanisms, it also served to artificially separate management control from strategic control and operational control. MCS have also been described as processes for influencing behavior (Flamholtz, E. G., Das, T. K. & Tsui, A., *Toward an Integrative Framework of Organizational Control, Accounting, Organizations and Society* (1985) pp. 35-50. MCS provide a means for gaining cooperation among collectives of individuals or organizational units



who may share only partially congruent objectives, and channeling those efforts toward a specified set of organizational goals.

Controls have been categorized in many ways. Formal controls include rules, standard operating procedures and budgeting systems. These are the more visible, objective components of the control system, and thus, the easiest to research. Empirical research that studies management control system and strategy has focused primarily on formal controls. These include output or results controls which are of a feedback nature, and often financially oriented. They include controls that aim to ensure that specific outcomes will be achieved and involve monitoring, measuring and taking corrective actions. Controls that focus on feed forward control (*ex-anti* controls) include administrative controls (standard operating procedures and rules), personnel controls (human resource management policies) and behavior controls (the ongoing monitoring of activities and decisions). Informal controls are not consciously designed. They include the unwritten policies of the organization and often derive from, or are an artifact of the organizational culture. Ouchi (1979) described clan controls that derive from the shared values and norms, or the culture of the organization. Usually clan controls are Informal, rather than formal controls. However, some formal controls also derive from the organizational culture. For example, the formal organizational mission or objectives may reflect the values and beliefs of the dominant culture. Informal controls are important aspects of MCS and the effectiveness of formal controls may be dependent on the nature of the informal controls that are also in place (Otley, 1980; Flamholtz, 1983).

Management control system design within its organizational context: Findings from contingency-based research and directions for the future, Accounting, Organizations and Society, Chenhall (Chenhall, R., 2003, 28(2-3), 127-168) mentioned that the terms management accounting (MA), management accounting systems (MAS), management control systems (MCS), and organizational controls (OC) are sometimes used interchangeably. In other words, MA refers to a collection of practices such as budgeting or product costing. But MAS refers to the systematic use of MA to achieve some goal and MCS is a

broader term that encompasses MAS and also includes other controls such as personal or clan controls. Finally OC is sometimes used to refer to controls built into activities and processes such as statistical quality control, just-in-time management.

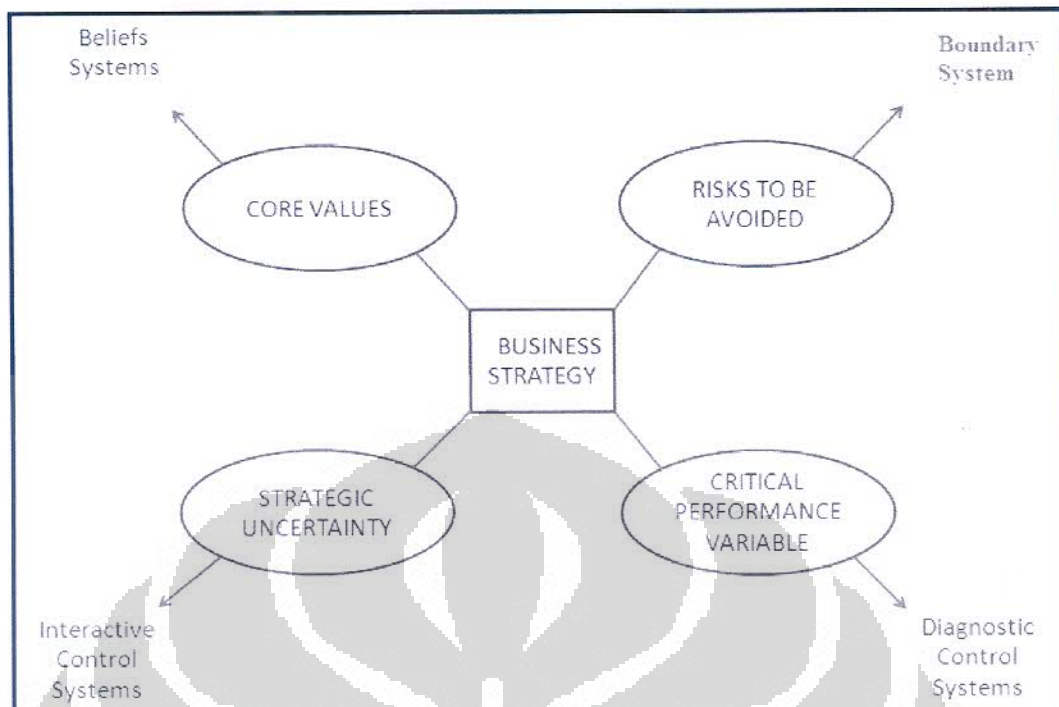
## 2.4 Levers of Control

Types of management control system that stated by Simons is the four levers of control. The use of it is to controlled the business strategy that are chosen by the company by integrating the belief systems, boundary systems, diagnostic control systems, and interactive control systems. The power of these levers in implementing strategy does not lie in how each is used alone, but rather in how they complement each other when used together. The interplay of positive and negative forces creates a dynamic tension between opportunistic innovation and predictable goal achievement that is necessary to stimulate and contro profitable growth (Simons, 2000)

Control System	Purpose	Communicates	Control of Strategy as
Belief Systems	Empower and expand search activities	Vision	Perspective
Boundary Systems	Provide limits of freedom	Strategic domain	Competitive Position
Diagnostic Control Systems	Coordinate and monitor the implementation of intended strategies	Plans and goals	Plan
Interactive Control Systems	Stimulate and guide emergent strategies	Strategic uncertainties	Patterns of actions

**Table 2.1 Relating the Four Control Levers to Strategy**

Source: Robert Simons, "Levers of Control : How manager Use Innovative Control Systems to Drive Strategic Renewal", HBS, Boston, 1995,p.156



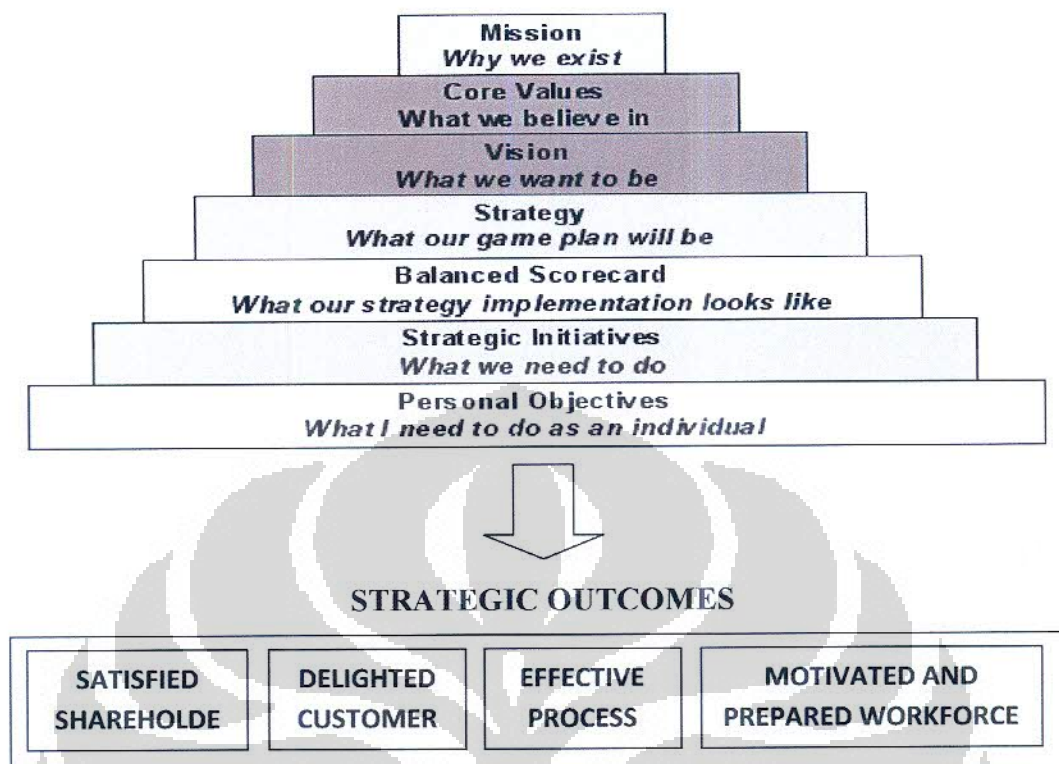
**Figure 2.2 Controlling Business Strategy**

Source: Robert Simons, "Levers of Control : How manager Use Innovative Control Systems to Drive Strategic Renewal", HBS, Boston, 1995,p.7

As long as the business strategy implemented, these systems will provide the motivation, measurement, learning and control that allow efficient goal achievement, creative adaptation, and profitable growth (Simons, 1995). Table 2.1 and figure 2.2 show how the relationship between levers of control and strategy.

#### 2.4.1 Diagnostic Control Systems

Strategy does not stand alone as a management process, a continuum exist that begins in the broadest sense, with the mission of the organization. This mission must be translated so that the actions of individuals are aligned and supportive the mission. Figure 2.3 presents a view of strategy that can be effective in practice.



**Figure 2.3 Translating a Mission into Desired Outcomes**

Source: Robert S. Kaplan, David P. Norton, "The Strategy Focused Organization : How Balanced Scorecard companies thrive in the new business environment", HBS, Boston. 2001,p.73

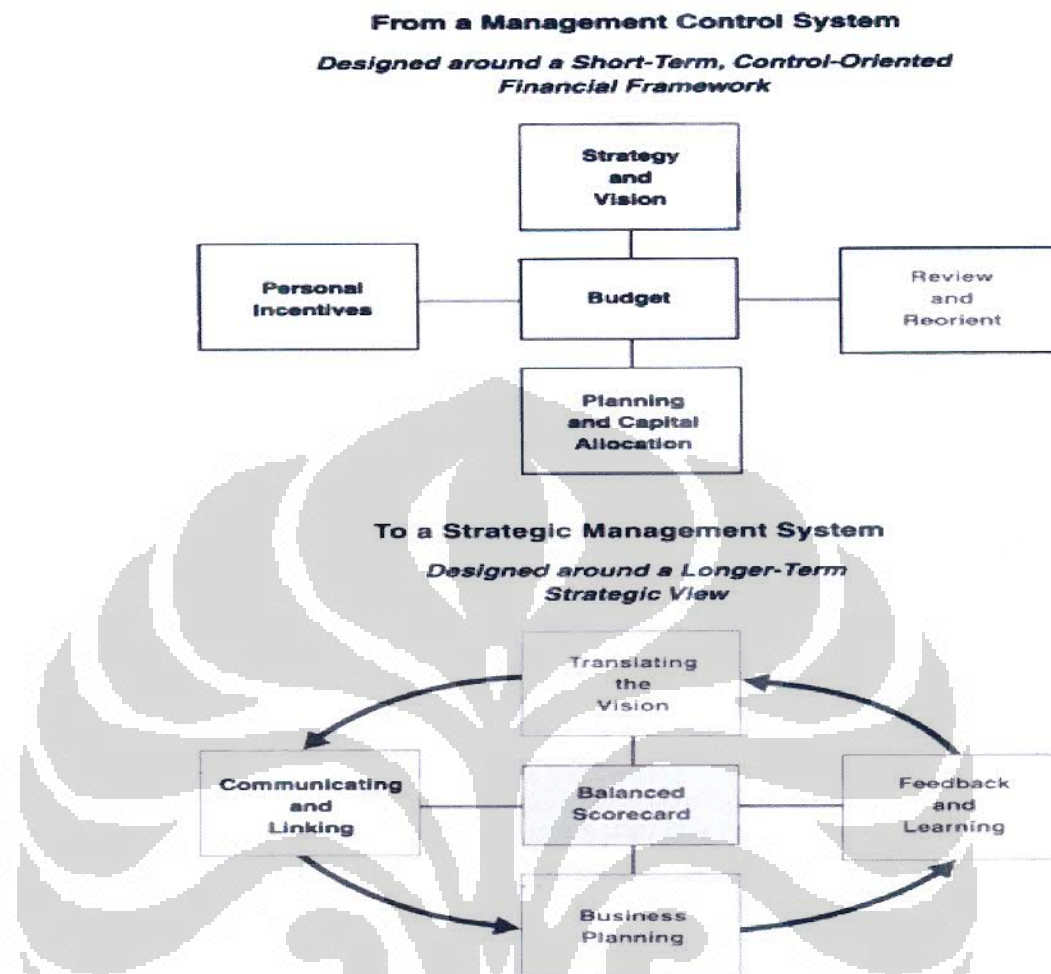
Diagnostic control systems are the formal information systems that managers use to monitor organizational outcomes and correct deviations from preset standards of performance (Simons, 2000). Diagnostic control systems are used as levers to communicate critical performance variables and monitor the implementation of intended strategy.

This control lever relies on quantitative data, statistical analyses and variance analyses. Managers use these and other numerical comparisons (e.g., balance scorecard, expense center budgets, actual to budget, increases/decreases in overhead from month to month, etc.) to periodically scan for anything unusual that might indicate a potential problem. To utilize diagnostic control systems effectively, managers must ensure that they devote sufficient attention to 5 areas, which are:

- Setting and Negotiating Goals
- Aligning Performance Measures
- Designing Incentives
- Reviewing Exception Reports
- Following Up Significant Exceptions

The definition of the critical success factors responds to the question "What will be measured?" These factors are defined based on what has to be done to achieve the final objective, and how the behavior of the person or unit responsible can be influenced in that direction. Putting the critical success factors into operation responds to the question "How will the previously defined factor be measured?" It is about defining the specific behavior that is expected of the persons or units responsible in order to reach the goals represented by the critical success factors. Finally, the standards against which performance will be evaluated need to be established. The standard is the specific quantitative level that is desired to be achieved.

The following are some aspects to take into account in the previous steps of defining the critical success factors, putting them into operation, and setting the standards: The critical success factors must be derived from the strategy. In the different stages of a company's development, the emphasis can change. For example, at first the emphasis may be on obtaining customers, generating sales, and gaining a position in the market. Later on, efficiency and cost control may take on more importance in order to maintain or increase profitability. In a time of changes in the market, the emphasis could be on developing new products and services. The success factors and management indicators should adapt to the new demands and changes, and the strategic direction the company takes. All the management indicators should be aligned, so that the accomplishment of one feeds the others, and they all contribute to the realization of the final objectives.



**Figure 2.4 The New Approach to Management Control System**

Source: Robert S. Kaplan, David P. Norton, "The Strategy Focused Organization : How Balanced Scorecard companies thrive in the new business environment", HBS, Boston, 2001,p.24

#### 2.4.1.1 Balanced scorecard

Design of a Balanced Scorecard ultimately is about the identification of a small number of financial and non-financial measures and attaching targets to them, so that when they are reviewed it is possible to determine whether current performance 'meets expectations'. The idea behind this is that by alerting managers to areas where performance deviates from expectations, they can be encouraged to focus their attention

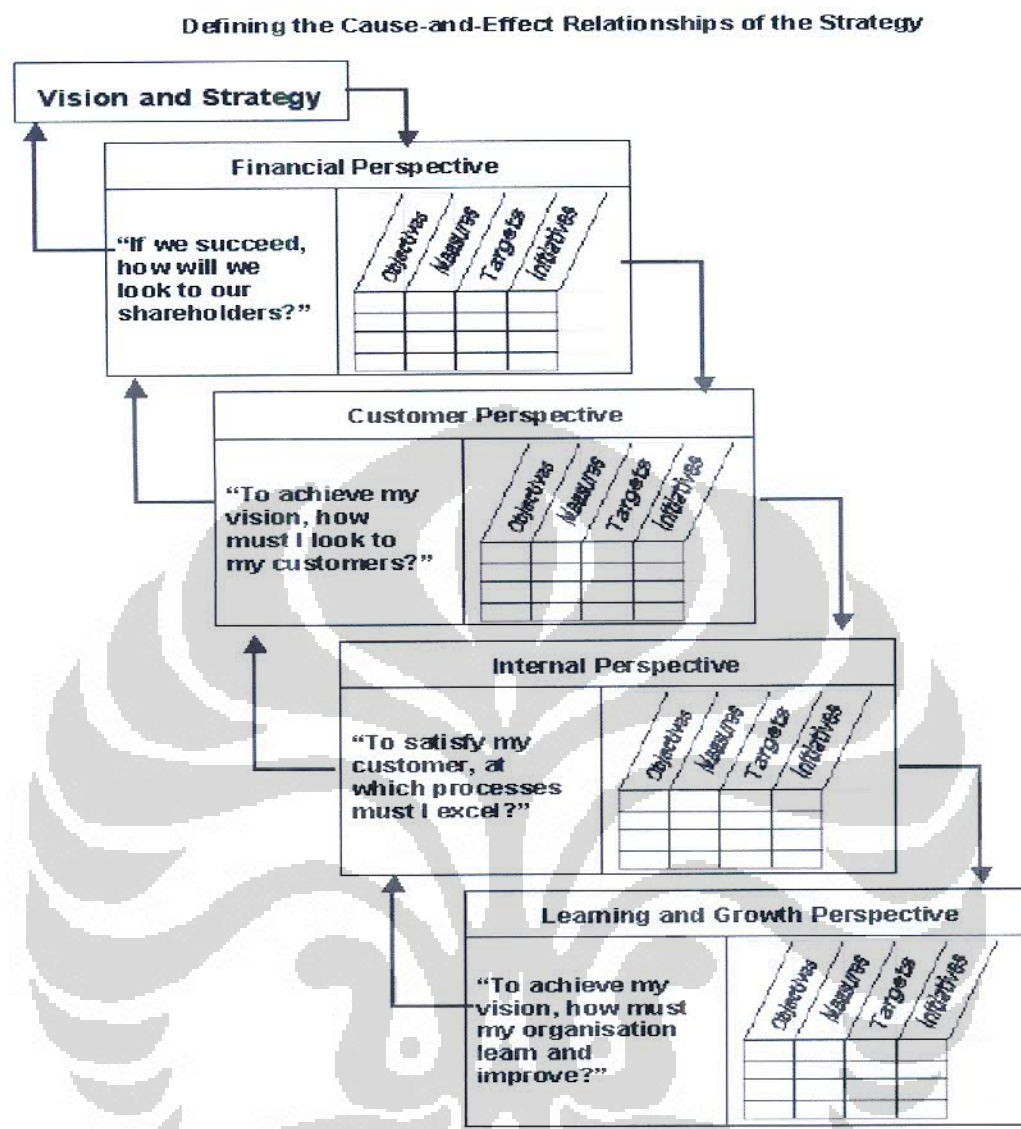
on these areas, and hopefully as a result trigger improved performance within the part of the organisation they lead.

The original thinking behind Balanced Scorecard was for it to be focused on information relating to the implementation of a strategy, and perhaps unsurprisingly over time there has been a blurring of the boundaries between conventional strategic planning and control activities and those required to design a Balanced Scorecard. This is illustrated well by the four steps required to design a Balanced Scorecard included in Kaplan & Norton's writing on the subject in the late 1990s, where they assert four steps as being part of the Balanced Scorecard design process (see figure 2.4) :

- Translating the vision into operational goals;
- Communicating the vision and link it to individual performance;
- Business planning; index setting
- Feedback and learning, and adjusting the strategy accordingly.

These steps go far beyond the simple task of identifying a small number of financial and non-financial measures, but illustrate the requirement for whatever design process is used to fit within broader thinking about how the resulting Balanced Scorecard will integrate with the wider business management process. This is also illustrated by books and articles referring to balanced scorecards confusing the design process elements and the balanced scorecard itself. In particular, it is common for people to refer to a “strategic linkage model” or “*strategy map*” as being a balanced scorecard.

Although it helps focus managers' attention on strategic issues and the management of the implementation of strategy, it is important to remember that the balanced scorecard itself has no role in the formation of strategy. In fact, balanced scorecards can comfortably co-exist with strategic planning systems and other tools.



**Figure 2.5 Defining the Cause-and-Effect Relationship of the Strategy**

Source: Robert S. Kaplan, David P. Norton, "The Strategy Focused Organization : How Balanced Scorecard companies thrive in the new business environment", HBS, Boston, 2001,p.77

The first design method proposed by Kaplan and Norton was based on the use of three non-financial topic areas as prompts to aid the identification of non-financial measures in addition to one looking at Financial. Four "perspectives" (shown in figure 2.5) were as follow :



- **Financial:** encourages the identification of a few relevant high-level financial measures. In particular, designers were encouraged to choose measures that helped inform the answer to the question "How do we look to shareholders?"
- **Customer:** encourages the identification of measures that answer the question "How do customers see us?"
- **Internal Business Processes:** encourages the identification of measures that answer the question "What must we excel at?"
- **Learning and Growth:** encourages the identification of measures that answer the question "Can we continue to improve and create value?".

These four perspective below will be one by one with the aspect that related to each perspectives.

- **Financial Perspective**

Goals and benchmarks financial perspective chosen should be appropriate and in accordance with long-term vision and strategy firm. This is because the goals and financial benchmarks will be the main target of the goals and benchmarks three other perspectives. The company's main goal ultimately is to increase shareholder value. Kaplan and Norton (2001) suggest there are two ways that can be used :

- a. *Revenue growth strategy*, which generally can be achieved in two ways:
  - Building the franchise, a goal that leads to additional sources of new revenue sources from the market, products and new customers.
  - Increase customer value is achieved by establishing relationships with customers to enhance customer loyalty

b. *Productivity improvement strategy* is a strategy that focuses on cost reduction and efficiency. This strategy can be achieved in two ways:

- Improve the cost structure, done by increasing efficiency and productivity that leads to a decrease in cost per unit.
- Improve the use of assets (asset utilization), by reducing working capital through higher utilization of company assets.

The relationship between the perspective of financial strategy with corporate strategy can be seen from the selection of strategy by the company. Companies that are in early stages or at the growth stage will emphasize the objectives and performance measurement in strategic growth. Productivity strategy becomes less precise because the company will initially spend a lot to introduce products and services to market. As for companies that are in mature stages, firms will tend to emphasize the productivity strategy, which is on cost reduction and asset utilization peningkatan. As for companies that are in the midst of the business cycle will implement profitable growth strategy, so expect a balance between increased revenue and cost reduction and productivity.

- **Customers Perspective**

In the book *Balanced Scorecard Step by step: maximizing performance and maintaining result* (Niven, 2002) states that in choosing the size of the customer perspective, companies need to answer two important questions, such as: (1) Who is the target customer, (2) What is the value proposition companies in serving customers.

In this perspective a company should identify what are the objectives that need to be achieved from the customer side who contributed to or resulted in the achievement of all goals of the financial perspective that is predefined. Basically, the customer perspective aims to increase the value proposition which will play a role and result in the

achievement of targets in terms of financial perspective. Value proposition should be used as a communication tool between the business of an enterprise in terms of providing products or services in accordance with the wishes of customers (Kaplan and Norton, 2001). Value proposition consists of three main components, among others:

*a. The attributes of the product or service*

The attributes of the product or service is an attribute which states what factors are the basis for assessment of the value of a product in the eyes of the customer. These factors include: price, quality, availability in the market, selection and function.

*b. Image*

Describing intangible factors that make the customer interested in a product or a service company. Companies that try to exploit their own image and reputation determine the ideal customer and trying to influence customer purchase through the image associated with the purchase of company products.

*c. Relationship*

Concerning the customer feelings toward the purchase of products offered by the company. The feeling is very much influenced by customer responsiveness and commitment to customers related to the time of delivery. Time is an important component in a business competition. Consumers usually think that quick completion of orders and timely as an important factor customer satisfaction.

Another opinion came from Tracy and Wirsema (Kaplan and Norton, 2001) about the value proposition customers. They claim the company generally will choose one of the three following strategies:

*a. Product leadership*

Companies that adopt this strategy emphasizes product quality, both in terms of features, functions and factors. Value creation is different from competitors and probably unprecedented.

*b. Customer intimacy*

Companies that implement this strategy tends to focus on building loyal relationships with its customers in a way familiar with their customers and offer products and services that are needed.

*c. Operational excellence*

Generally, a company that does this strategy will create a combination of product quality, price and the simplicity of purchase.

Relationship with customers is one of the values important to note by the company. Currently, many companies have developed customer relationship management (CRM) to maintain relationships with customers.

• **Internal Business Process Perspective**

To meet customer needs, the company seeks to create an internal business processes effectively and efficiently. Internal business processes are starting from scratch, such as purchases of raw materials, processing to product distribution stage. Activities included the organization within the framework of internal business processes embodied in the value chain. This activity is a process or way of firms to deliver value to customers and achieve its financial objectives (Kaplan and Norton, 2001). By generic, internal business process consists of four main themes such as:

### *a. Operational Process*

Operations management refers to the routine things and processes that do from day to day. Measurements selected typically tailored to the type of company because they have adapted to the operational model of the company. This process begins from the receipt of customer orders and ending with delivery of products or services to customers in an efficient, consistent and timely. Traditional measurement system, operating processes are controlled by financial measures such as standard costs, budgets and variances. But it turns out such financial measures may lead to dysfunctional, such as machine efficiency, labor efficiency and purchase price variance can lead to high inventory costs, an uncertain delivery time and can even lead to poor product quality. The size of the company that is currently used in general to measure the performance of operations include: measurement of time, quality and cost.

### *b. Customer management processes*

Customer management consists of five sub-processes that determine the measurement of customer choosing the destination, close to the customer by communicating the value proposition, understand customer needs, retain customers and deepen relationships with customers.

### *c. Innovation*

The process of innovation is an activity related to the process of identifying customer needs and product development efforts. Product development aims to benefit the customer so that customer satisfaction can be achieved. The innovation process consists of two stages. First, do managers will conduct market research to determine market size, customer preferences and price level targeting products and services. Process innovation includes new opportunities and markets for products and services provided by the company. The

next stage is to conduct basic research in developing products and services radically to give added value to customers, conduct applied research, developing existing technology for the next generation and to develop a focus on efforts to bring products and services to market.

*d. The process of setting and Social*

This measurement focuses on the process of environmental protection, occupational safety and health, and community which is a form of Good Corporate Governance (GCG).

- **Learning and Growth Perspective**

The overall goal set forth in the three previous perspectives will be achieved if supported by human resources that are capable and motivated. Growth and learning refers to intangible assets that organizations need to carry out its activities so the organization can demonstrate performance at the highest level to provide value to customers (Niven, 2006). To measure the capability and structure, and employee motivation, it requires a fourth perspective is the perspective of the past but is an important component. Kaplan and Norton (2001) divides into three main components of learning and growth perspective, such as:

- a. *Human capital*, namely the ability of member organizations in the face of a strategi plan for the future. Examples of knowledge (knowledge), skill (intelligence), values (the values such as honesty, openness, and focus).
- b. *Information capital*. In the highly competitive conditions, system of reliable information needed for decision making. The ability of information systems is determined by the level of information availability, the accuracy of the information and the length of time necessary to obtain that information. This is because no matter how

accurate the information received by the company but if the period of time has elapsed then the information is not useful anymore.

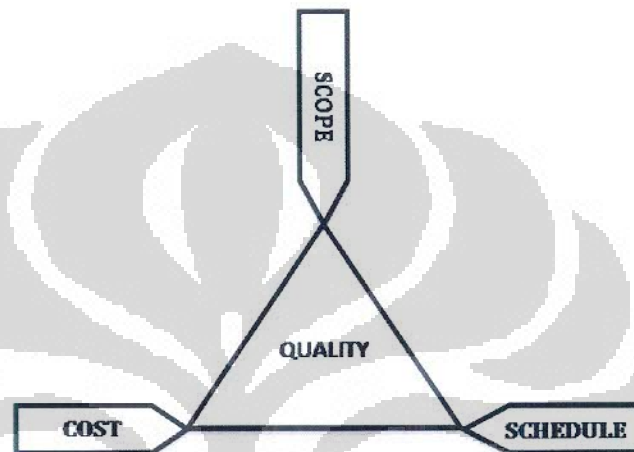
- c. *Organizational capital*, including leadership (leadership), culture (cultural), awareness (understanding) on strategy, alignment (direction and content appropriateness) of individual goals with corporate goals, and teamwork (cooperation).

Learning and growth perspective is beginning to achieve long-term and sustainable strategy for the company. Level executives should realize how important this perspective, but perspective is actually less attention. By paying attention and learning and growth perspective, executives can align human resources, information technology, and climate to the needs of companies in implementing business strategies to achieve company goals. The following map learning and growth perspective.

#### **2.4.1.2 Project management techniques**

Project management is the discipline of planning, organizing, securing and managing resources to bring about the successful completion of specific engineering project goals and objectives. It is sometimes conflated with program management, however technically that is actually a higher level construction: a group of related and somehow interdependent engineering projects. A project is a temporary endeavor, having a defined beginning and end (usually constrained by date, but can be by funding or deliverables), undertaken to meet unique goals and objectives, usually to bring about beneficial change or added value. The temporary nature of projects stands in contrast to business as usual (or operations), which are repetitive, permanent or semi-permanent functional work to produce products or services. In practice, the management of these two systems is often found to be quite different, and as such requires the development of distinct technical skills and the adoption of separate management.

The primary challenge of project management is to achieve all of the engineering project goals and objectives while honoring the preconceived project constraints. Typical constraints are scope, time, and budget (see figure 2.4) . The secondary—and more ambitious—challenge is to optimize the allocation and integration of inputs necessary to meet pre-defined objectives.



**Figure 2.4 the Project Management Triangle**

Source: Michael W. Newell, Marina N. Grashina (2004). *The Project Management Question and Answer Book*. p.8

Project control is that element of a project that keeps it on-track, on-time and within budget. Project control begins early in the project with planning and ends late in the project with post-implementation review, having a thorough involvement of each step in the process. Each project should be assessed for the appropriate level of control needed: too much control is too time-consuming; too little control is very risky. If project control is not implemented correctly, the cost to the business should be clarified in terms of errors, fixes, and additional audit fees.

Control systems are needed for cost, risk, quality, communication, time, change, procurement, and human resources. In addition, auditors should consider how important the projects are to the financial statements, how reliant the stakeholders are on controls, and how many controls

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existing. Auditors should review the development process and procedures for how they are implemented. The process of development and the quality of the final product may also be assessed if needed or requested. A business may want the auditing firm to be involved throughout the process to catch problems earlier on so that they can be fixed more easily. An auditor can serve as a controls consultant as part of the development team or as an independent auditor as part of an audit.

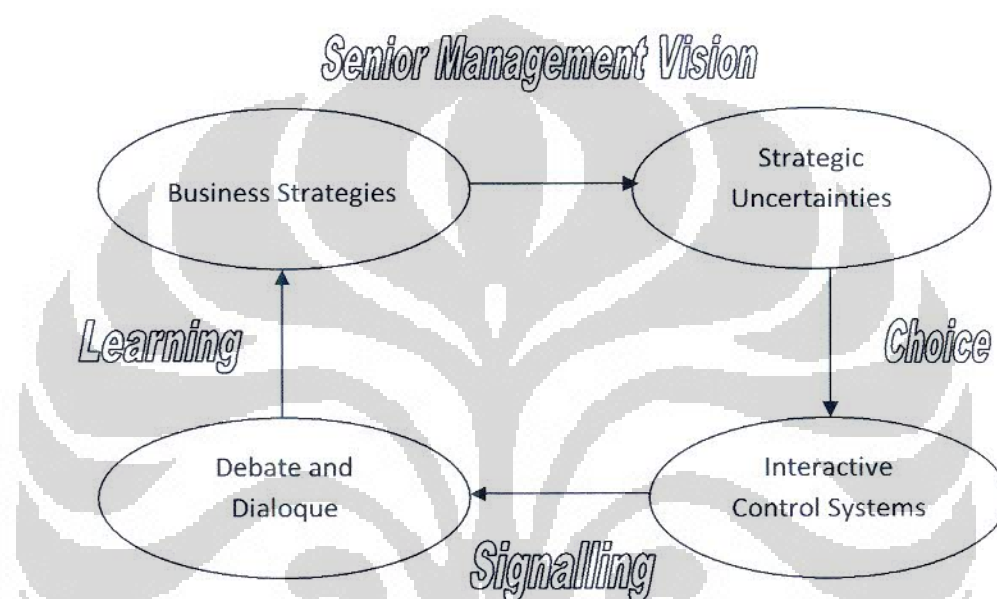
Businesses sometimes use formal systems development processes. These help assure that systems are developed successfully. A formal process is more effective in creating strong controls, and auditors should review this process to confirm that it is well designed and is followed in practice. A good formal systems development plan outlines:

- A strategy to align development with the organization's broader objectives
- Standards for new systems
- Project management policies for timing and budgeting
- Procedures describing the process
- Evaluation of quality of change

#### **2.4.2 Interactive Control Systems**

Interactive control systems are the formal information systems that managers use to personally involve themselves in the decision activities of subordinates (Simons, 2000). This control is closely related to the interactive among company's components regarding monitoring the *strategic uncertainty* that company continuously facing in times. Focus on strategic uncertainty during a face-to-face interaction, management can use this control to extract new opportunity, stimulate experimentation and rapid response and maintain control over what could otherwise be a chaotic process. It also emphasize on the need for changing ways of doing things, changing the value proposition, or even changing aspects of the business strategy.

Strategic uncertainties are the emerging threats and opportunities that could invalidate the assumptions upon which the current business strategy is based. Moreover, uncertainty in general is the result of difference in information held and required to perform a task (Galbraith, 1977). To focus the organization on these strategic uncertainties, managers choose one (or more) performance measurement and control system and use it in a highly *interactive* way (Simons, 2000).



**Figure 2.5 Using the Interactive Control Process for Learning**

Source : Robert Simons, "Performance Measurement and Control Systems for Implementing Strategy", HBS, Boston, 2000, p.217

Interactive control systems are not defined by the technical design features, but it is defined in how managers use these systems. Usually managers received reports from their subordinates and then use the report to engage the thinking and action of the subordinates. Figure 2.5 illustrate how an interactive control systems focuses organizational attention and stimulates the emergence of new strategies over time. As seen in figure 2.5 depend on the current strategy and management's vision for the future, strategic uncertainties may relate to customer preference, competitors, technology, government regulation, or any number potential threats and opportunities. When the information collected about the

changes, the managers will use the information to challenge subordinates and their action plans and force them to make sense of rapidly changing conditions. In this time, interactive debate and dialogue takes place at all levels of the company, as new information is studied and analyzed. This debate and dialogue will force organizational learning and eventually loops back to the adjustment of strategy. Thus, emerging strategy could be an indirect result of bottom-up action plans and experimentation.

### 2.4.3 Beliefs Systems

Belief systems are the explicit set of organizational definitions that senior managers communicate formally and reinforce systematically to provide basic values, purpose and direction for the organization (Simons, 1995). This control lever is used to communicate the tenets of corporate culture to every employee of the company. Beliefs systems are generally broad and designed to appeal to many different types of people working in many different departments.

In order for beliefs systems to be an effective lever of control, employees must be able to see key values and ethics being upheld by those in supervisory and other top executive positions. Senior management must be careful not to adopt a particular belief or mission simply because it is in vogue to do so at the time, but because it reflects the true nature and value system of the company as a whole.

It is easier for employees to understand on an informal, innate level the mission and credo of a company that operates in only one industry, as did many companies in the past. As companies grow more complex, however, it is becoming more and more necessary to establish formal, written mission statements and codes of ethics so that there can be no mistaking where the company is going and how it is going to get there.

#### 2.4.4 Boundary Systems

Boundary systems, the second lever of control, unlike the belief systems they establish limits based on defined business risk, to opportunity seeking (Simons, 1995). The formal systems establish two types of boundaries : *business conduct boundaries* and *strategic boundaries*, both are determined through analysis of the risks associated with specific business strategies.

The *business conduct boundaries* are those that define and communicate standards of business conduct for all employee . The standards encompassed in these codes have three sources : (1) society's laws, (2) the organization's belief systems, and (3) codes of conduct promulgated by industry and professional association (Gatewood and Carrol, 1991). Like the Ten commandments, codes of business conduct are stated for the most part in proscriptive terms. Proscribed behaviors typically include conflicts of interest, activities that contravene anti trust laws, actions that could compromise trade secrets or confidential information, and certain types of payments to government officials, etc. These activities are ones that could jeopardizes the well being of an organization by exposing it to potential loss of assets, loss of reputation, or legal liability (Simons, 1995). Business conduct boundaries can be also thought of in terms of "minimum standards," and can help to guard the good name of a company, an asset that can be very difficult to rebuild once damaged. Examples of these kinds of standards include forbidding employees to discuss client matters outside the office or with anyone not employed by the company (sometimes including even spouses) and refusing to work on projects or with clients deemed to be "undesirable."

The basic principle underlying *the strategic boundaries* is straight and should be understandable to all employee of the company which business scope that company choose from the beginning. This limitation will specify limit of acceptable opportunities. It is moreless same with market positioning of the company.

This control lever is based on the idea that in an age of empowered employees, it has become easier and more effective to set the rules regarding what

is inappropriate rather than what is appropriate. The effect of this kind of thinking is to allow employees to create and define new solutions and methods within defined constraints. The constraints are set by top management and are meant to steer employees clear of certain industries, types of clients, etc. They are also intended to focus employee efforts on areas that have been determined to perform maximum for the company, in terms of profitability, productivity, efficiency, etc.

Many times a company will implement a boundary system only after it has suffered a major crisis due to the lack of one. It is important that companies begin to be proactive in establishing boundaries before they are needed. Boundary systems are the flipside of belief systems. They are the “dark, cold constraints” to the “warm, positive, inspirational” tenets of belief systems.

## **2.5 Levers of Control and Human Behavior**

All the literature above mentioning about how to control the strategy, but still the one that run that strategy is human. In every business, human factor is key to success and failure. Levers of control is one systems that can help to harmonize the application of human behavior model with organization. In the human behavior model each employee has its own desires to achieve and to contribute, to do right, to create and innovate. But these behavior oftenly blocked by an obstacle that usually called the organizational block.

This organizational block can be removed by the application levers of control, as an example the unsure of the company purpose can be removed by actively communicating core values and mission (belief systems), the pressure and temptation in order to do what is right can be guide through clear specifying and uambiguously enforcing the rules of the game (boundary systems), the desire to achieve but lack of focus and resources can be support by communicating clear targets and providing the necessary resources for achieving those targets (diagnostic control systems), the intention to innovate and create new techniques that oftenly blocked by the lack of opportunity and the fear of the possible risk that may occur can be solve by opening up a channels for organizational dialogue

and encouraging a learning environment that values dissent and new ideas (Simons, 2000). We can see clearly the practice of four levers in the table below.

<b>ORGANIZATIONAL MAN/WOMAN DESIRES TO</b>	<b>ORGANIZATIONAL BLOCKS</b>	<b>MANAGERIAL SOLUTION</b>	<b>RELEVANT CONTROL LEVER</b>
Contribute	Unsure of purpose	Communicate core values and mission	Belief systems
Do right	Pressure or temptation	Specify and enforce rules of the game	Boundary systems
Achieve	Lack of focus or resources	Build and support clear targets	Diagnostic control systems
Create	Lack of opportunity or afraid of risk	Open organizational dialogue to trigger learning	Interactive control systems

**Table 2.2 Human Behaviour , Organizational Blocks , and the Levers of Control**

Source: Robert Simons, "Levers of Control : How manager Use Innovative Control Systems to Drive Strategic Renewal", HBS, Boston, 1995,p.173

## CHAPTER 3

### COMPANY PROFILE

PT. SAJ is a member of Bumi Asih Group with PT. Life Insurance Bumi Asih Jaya as the holding company. The motto of Bumi Asih Group is “Love Others”, which is quite uncommon for business motto, but this motto is proudly presented by the founder Mr. K.M. Sinaga as one of the key success factor for the establishment of the group. Mr. K.M Sinaga idea is to provide the society with good insurance for their family and their future for the unpredictable upcoming bad event that could harm their source of income. This motto also became some sort of belief that everyone involved in the business must have a feeling of love and compassion for each other, everyone that work in the company needs to be acknowledged and honored for improving the quality of work and increased productivity. Meanwhile, PT. SAJ was founded by Mr. Saut M. Hasibuan in 1974 with the name Santo Jaya, and in 1976 joined Bumi Asih Group as one of the Bumi Asih Jaya subsidiary and change its name become PT. SAJ.

The company’s mission is to develop Indonesian country in every work of construction and to join in to compete in a professional, good and right manner with the business foundation according God’s way to bring glory to God and become bless to fellows. This mission is translated into the vision of the company which is serving God, country, beloved government and entire society in Indonesia by construction work.

At the beginning of the operation, field of operation of PT. SAJ were mainly in civil projects carried on by the Government Civil Works such as roads, bridges and civil building. Later on in the year 2000 PT. SAJ focused mainly in Telecommunication Transmission or Distribution Network project. And finally in the last three year the company’s project is mainly in Mechanical and Electrical works carried on by PLN.

PT. SAJ also participates as member of Santosa Asih Group. This group consists of Santosa Asih Foundation, Santosa Asih Church, Koperasi Santosa Asih, STT IKSM Santosa Asih, Riau Asih Jaya (Subsidiary of PT. SAJ), Palm Asih Jaya (Subsidiary of Riau Asih Jaya), and General Clinic Santosa Asih. Most of the activities of this Group are for Christian Service. Mr. Saut M. Hasibuan the founder of Santosa Asih Group is well known as a religious person. The main activities of Santosa Asih Group are being held in Jl. Condet Raya Number 17 East Jakarta, where the office of PT. SAJ is also located. As a religious person, Mr. Hasibuan make a strict rule for all the employee involved in the institution or the company to attend the early week briefing every Monday morning and gathering at the end of the week on Friday afternoon. These meetings and gatherings are known as PMS (Pembinaan Mental Spiritual), and in these events the employees declare the loyalty vow, sing the Bumi Asih Song and read the Psalm of Salomo. Every week there are some professional that given time to teach and give the employee lesson of management or other things that related to improving skills and knowledge. At the end of the week, a time is provided for religious activities. For Christian employee there are special rules that the Christian employee have to obey, which is the everyday morning bible reading led by Mr. Saut M. Hasibuan. Through these religious activities the management is hoping to provide the employees with spiritual guidance that will lead to optimum productivity and prevent them from conducting acts of corruption or other acts considered as cheating in the Group. Presented below the latest list of PT.SAJ's shareholders as of 2009:

**Table 3.1 Shareholders List**

No	Name	Total Shares	%	Number of Shares
1	PT. AJ. Bumi Asih Jaya	2.789.685.000	55.79	557.937
2	Drs. S.M. Hasibuan	1.893.605.000	37.87	378.721
3	PT. Sardo Investindo	263.065.000	5.26	52.613
4	Ir. Samuel Sormin	53.645.000	1.07	10.729
	<b>TOTAL</b>	<b>5.000.000.000</b>	<b>100</b>	<b>1.000.000</b>

Source: Santosa Asih Jaya Company Profile



PT. SAJ is a company engaged in construction and Telecommunication Network Services, and Mechanical & Electrical works with the certification of capabilities as mentioned below. All the association is under the supervision Lembaga Pengembangan Jasa Konstruksi (LPJK) and government public works department.

- a. *Certificate of Gapensi (Gabungan Pengusaha Indonesia)* This certificate allows its holder to enter the bidding which requires a skill and ability in construction business. It is divided into two sub-areas; architecture and civil engineering. Each sub-area has its own grading that represents the company's ability. This grading will determine the amount of project can be taken. The higher the grade, the higher amount of project can be taken.
- Classification of sub-areas for architecture
    - Single Housing and Koppel, including maintenance (Gred-7)
    - Warehousing and industrial buildings, including maintenance (Gred-5)
    - Commercial buildings, including maintenance (Gred-5)
    - Non-Residential Buildings, others, including maintenance (Gred-7)
  - Classification of sub-areas for civil engineering
    - Highway, road environment, including maintenance (Gred-7)
    - Bridges, including maintenance (Gred-5)
    - Irrigation and Drainage, including the maintenance (Gred-5)
- b. *Certificate of Apnatel (Asosiasi Perusahaan Telekomunikasi)*. This certificate allows its holder to do the work in telecommunication in underground cables and build telecommunication tower. Each work area has its own grading that represents the company's ability. This grading

will determine the amount of project can be taken. The higher the grade, the higher amount of project can be taken.

- Telecommunication Transmission Network and / or phone, including the maintenance (Gred-7)
- Telecommunications Distribution Network and / or phone, including the maintenance (Gred-7)

c. *Certificate of Aklindo (Asosiasi Kelistrikan Indonesia)*. This certificate allows the company to do the work in electrical installation and building construction for electrical tower and underground cables work. Each work area has its own grading that represents the company's ability. This grading will determine the amount of project can be taken. The higher the grade, the higher amount of project can be taken.

- Power Grid High Voltage and Extra High Voltage (Gred-7)
- Network Medium Voltage Power Distribution (Gred-6)
- Electricity Distribution Network Low Voltage (Gred-6)
- Electrical Installation of Buildings and Factories (Gred-5)

PT. SAJ has carried out various jobs i.e.: Housing, Roads, Bridges, Hotels and Networking Copper and Fiber Optic Cable in cooperation with: KIMPRASWIL/DPU, PT. PLN, PT. Nokia Siemens Networks, PT. Areva Transmission, PT. INDOSAT Tbk. Bumi Asih Group, PT. Telkom Tbk., PT. PINDAD, PT. Excelcomindo Pratama, PT. BTN, PT. Globalfon International, PT. Multifabrindo, PT. Huawei Tech. Investment, PT. Smart Telecom, Natrindo Telepon Selular, PT. Silkar National, and many more.

Until 2008, PT. SAJ has been concentrating on telecommunication industry as its main market segment to achieve the desired profit. But in 2009, the top management saw the agenda of PLN (Perusahaan Listrik Negara) to provide additional 10,000 Kwh for Indonesia as a new opportunity to gain more profit. This project will require a lot of construction work for electricity station and mechanical and electrical services.

### *Human Resources*

To support the quality management that the company proclaimed, the human resources and administration division has the responsibility to prepare requirement for all employees and to assess their competency, including all activities that related to planning, implementating and evaluating all training for employees that involves in managing project implementation. The other task for this division is to verify the scope of work in which has impact to the project quality to ensure that the company's component had the required skill within their scope of work.

Management has made the commitment to provide a conducive working environment, suitable working equipment and facility, whether in the form of software or hardware, and also proper transportation and communication in order for employees to do their job description with their best to deliver final product with the assigned quality.

### *Bidding Process*

The existing Standard Operational Procedure for marketing team in making decision to enter project bidding is:

- a. Attending meeting held by the owner regarding administration and field condition (bill of quantity)
- b. Preparing the bidding documents and calculation for the project by calculating project volume based on the Bill Of Quantity and the landscape or field observation, checking materials prices that required for the project, the overhead of the project and also the equipment that needed to get the work done. The project plan must at least consist of Project Time Schedule, Project Cost Plan, and other project requirement.
- c. After finished with the cost estimation, the bidding team will set the price for the price offering proposal. The company's requirement that need to be

PT. SAJ manages to obtain worthy past experiences and capitalize on more skills and knowledge through on the job learning process. These experiences, skills and knowledge are needed as basic requirement to expand its business horizon but still maintain its business core activity which is general construction for civil engineering. For that reason, the company has established three divisions to handle three different market segments. Starting only on Bridge, Irrigation and Road (BIR) civil project, now PT. SAJ also focus in construction for telecommunication industry, mechanical and electrical (M&E) services and also building and industrial estate (BIE).

The quality policy proclaimed by the management is to become a reliable and trustworthy partner in the field of construction, telecommunication network services and mechanical & electrical, as well as to participate in a professional competition and improve human resources that produce the quality to fulfill the customer satisfaction according to the quality management system ISO 9001: 2008. This system can be applied to manage all the process in fulfilling customers' satisfaction, all related regulations and laws and company's requirement.

In order to run the company's strategy accurately, the management establishes responsibility center units that have special authorities inside the company. They are a layer in the organization who received delegation from management for a certain functions and who have a certain level of decision-making power. This is necessary to ease top management in determining the nature of these responsibilities, and to define the procedures for harmonizing relations between these responsibility centers. Figure 3.1 and 3.2 show several divisions in PT. SAJ, which can be divided into two categories:

- a. Core Division, which consist of Marketing and Technical division (telecommunication, building & industrial estate, mechanical & electrical, and road, bridge and irrigation).
- b. Supporting Division, which consist of Finance, HRD and Logistic.

considered by the bidding team is the minimum profit margin of a project, which is 15% of the cost estimation.

- d. Presenting the price offering proposal to board of director and discussing the all project bidding requirement that needed to be fulfilled to support the board of director in making their decision whether the company decide to enter the project bidding or not.
- e. If the board approves the calculation of the bidding team, then the bidding team will continue with entering the proposal documents and the price offering proposal to the project's owner.

The bidding team will have full responsibility to study and review every request and proposal from the project's owner and evaluate the company's capability to implement the request before proceed to signed contract. The matters that have to be reviewed are:

- a. Clear specification according to the Bill of Quantity that requested by the project's owner and time schedule of project delivery.
- b. The availability of material for the project, the suitable material price and its supplier for the project.
- c. To ensure that the current resource such as human resource and equipment needed for the project.
- d. Any related laws and regulation

### ***Project Implementation***

Some factors that can influence the success of the project plan are field work condition, human resource, equipment, working method or techniques, and working environment. The project manager have to submit project progress and monitoring report periodically and prepare the proper filing for project administration to the owner.

Project manager is required to do project visit at least once every two months and need to be at the project area whenever client and/or project construction management conduct a field visit.

The purposes of this field visit are to ensure whether the quality of work meets the contract requirement, the project progress meets time schedule, the anticipation for the next phase of the project, the problems that the site team has to deal in the project implementation and also all invoices that occurred during the progress.

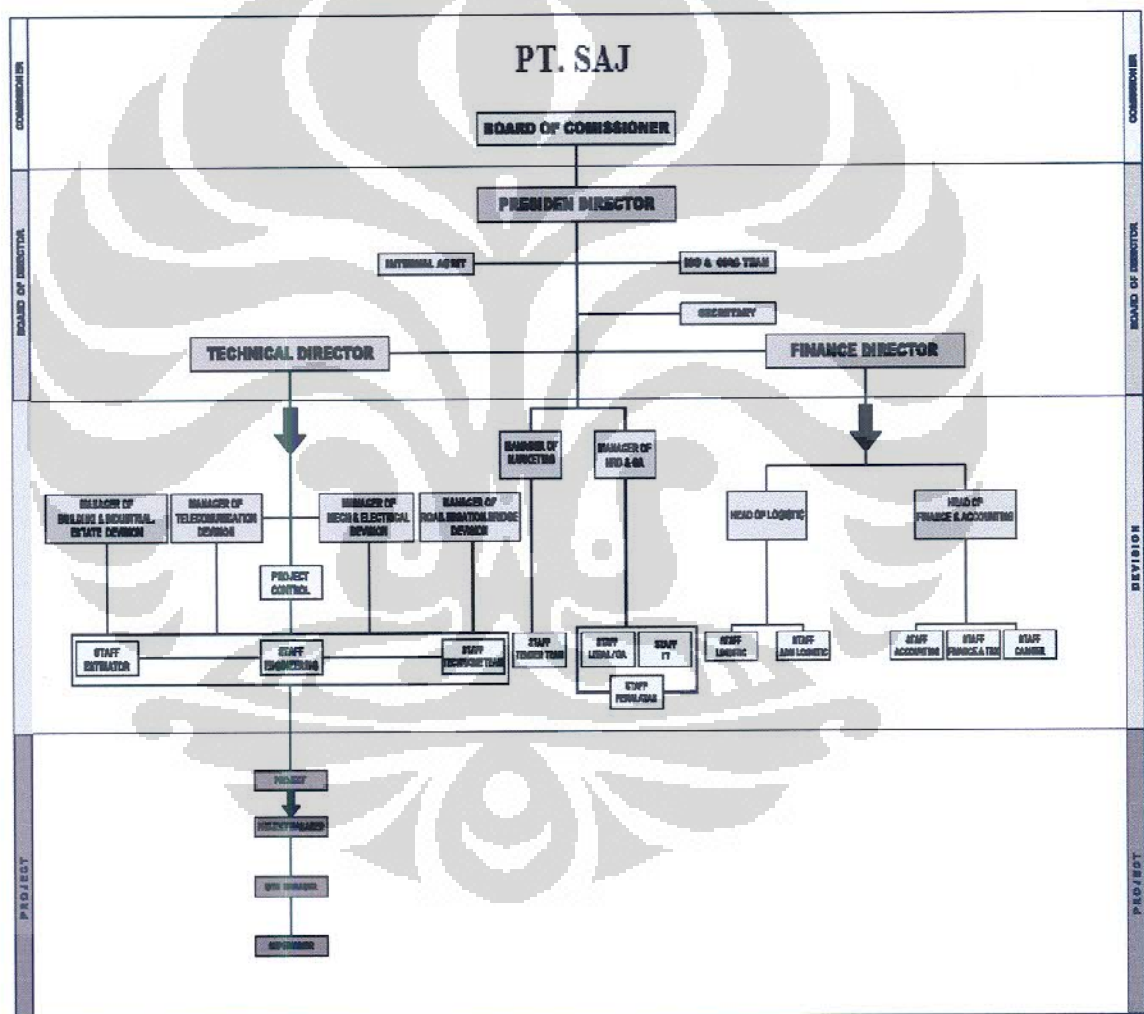
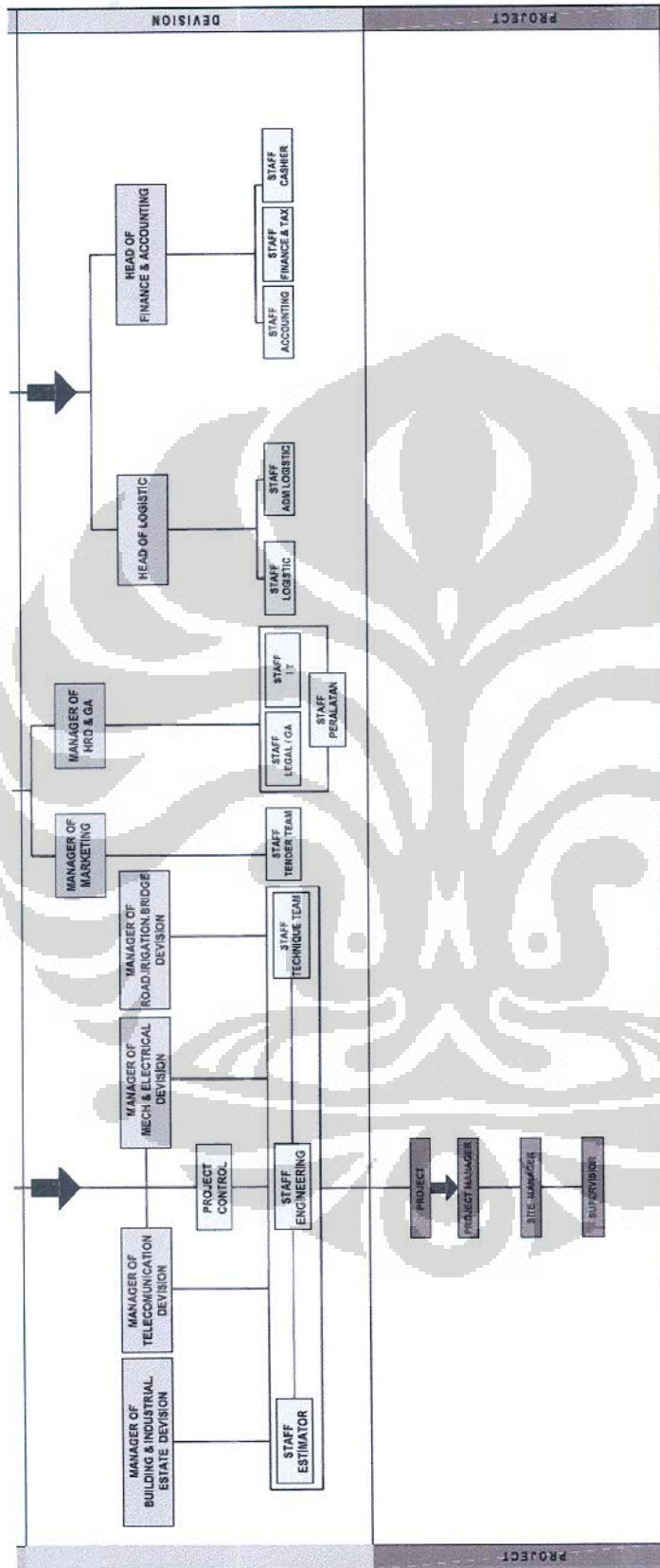


Figure 3.1 Structure Organization of PT. SAJ



Picture 3.2 The Responsibility Center of PT.SAJ (Below Directors)

Source: Santosa Asih Jaya Company Profile

Table 3.2 Budget vs. Realization (2005-2008) (in millions Rupiah)

Description	2005				2006			
	Budget (IDR)	Budget (%-to-total)	Realization (IDR)	Realization (%-to-total)	Budget (IDR)	Budget (%-to-total)	Realization (IDR)	Realization (%-to-total)
Telecommunication Division	19,750	33%	15,454	37%	23,500	38%	38,920	62%
Road-Irrigation-Bridge Division	12,000	20%	9,456	23%	12,000	19%	8,295	13%
Mechanical & Electrical (M&E) Division	15,021	25%	12,952	31%	10,000	16%	-	0%
Building & Industrial Estate Division	13,995	23%	3,600	9%	17,000	27%	15,148	24%
Total	60,766	100%	41,462	100%	62,650	100%	62,363	100%
Description	2007				2008			
	Budget (IDR)	Budget (%-to-total)	Realization (IDR)	Realization (%-to-total)	Budget (IDR)	Budget (%-to-total)	Realization (IDR)	Realization (%-to-total)
Telecommunication Division	28,500	41%	30,890.50	78%	28,937	74%	47,521	72%
Road-Irrigation-Bridge Division	17,000	25%	8,750.92	22%	4,012	10%	4,030	6%
Mechanical & Electrical (M&E) Division	11,150	16%	-	0%	-	0%	12,052	18%
Building & Industrial Estate Division	12,500	18%	-	0%	5,900	15%	2,632	4%
Total	69,150	100%	39,641.41	100%	38,849.33	100%	66,236.05	100%



## CHAPTER 4

### FOUR LEVERS OF CONTROL ANALYSIS

At the very beginning of its establishment, PT. SAJ mission is to develop Indonesia state and nation in every field of construction work and along its journey they managed to complete miscellaneous works starting from roads, building construction, telecommunication towers, underground cables work for telecommunication service, underground cables for electrical service, and other construction works. The company managed to earn a lot of experiences and expand their business horizon but never across it. At the end of 2002, top management realized there were a huge potential opportunity for construction in telecommunication industry due to the booming of telecommunication business and phenomenon. The company decided to pursue the telecommunication industry as their main market segment at that time.

Moreover, the company managed to expand their business horizon into two additional divisions, which is building and industrial estate and mechanical & electrical (M&E) division. The company's moves eventually succeed and generated a satisfying return for company and shareholders, especially in the period of 2005-2008. Along the period, PT. SAJ becomes really dependent especially to the telecommunication industry as their source of income.

At the end of 2008, there were some changes in their main market that influence the stability of PT. SAJ. Those changes will be explained as critical factor from external changes and internal capacity by using TOWS analysis. There are some evaluation that is considered by the management as a shifting trigger to other market segments that has more opportunity.

## 4.1 TOWS ANALYSIS

### 4.1.1 Threat

Threat is all factors that can become obstacles for a company to move forward in achieving its desired goals. For PT. SAJ, problems that become the threat for the company by the end of 2008 in telecommunication business can lead to decrease of revenue if they did not set the proper response to overcome these threats. These threats are categorized as external factors which is:

- *Business industry analysis.* By the year of 2008, telecommunication industry's towers were almost fully spread around big cities of Indonesia, from North Sumatera to Sulawesi. The only one that left behind is only Papua island. The reason why the island is left behind is because the hard terrain of the island that made it difficult to build telecommunication tower. With no more landscape left behind for the tower construction, it will automatically decline the quantity of tower construction in Indonesia.
- *Political Analysis – government regulation.* The problem is even more complicated in 2008, when the Provincial Government of North Sumatra regulates a new tax for each telecommunication tower that has been and will be built in the region. This condition put telecommunication company more reluctant to establish new towers because it will add more expenses, while the condition of the telecommunication market is already full of players and the price competition is very tight. This condition causes many telecommunication companies must decrease and even eliminate company budget for establishing new telecommunication towers.
- *Competitor analysis.* In 2002 there are not many company that able to do the construction work for telecommunication industry, such as building telecommunication towers and do underground telecommunication cables. But in 2008, the players that able to do the work is vast and it makes the competition is very tight. Every contractors try to win the bidding and even some company

took courageous action by giving very low price. This action eventually leads to many contractors have to suffer huge loss and finally become bankrupt.

- *New competitor threat.* The unavailability of subcontractors or workers is also one of big concern in the telecommunication industry. Many foreman which at the beginning acted as digger supervisor now become independent and also compete with contractors.
- *Uncertainty in the future.* The PLN mega project only last until 2015, company must start to find other source of revenue to maintain its operation and organization life cycle.

#### 4.1.2 Opportunity

The first opportunity that appears for PT. SAJ is the construction of the internet provider using fiber optics. This project needs construction work for its infrastructure service. PT. SAJ is pursuing this opportunity to acquire revenue replacement due to the expectation of declining in telecommunication tower construction sector.

Clients like Indosat and ZTE are also has appoint T. SAJ as their construction partner during 2008. However, just when the business prospect started to bloom, it was straight with go off when the global crisis hit whole over the nations and forces that companies to hold their capital expenditures.

In 2007, Indonesia's government announced their new project to answer the demand of the public complaint regarding the frequent electricity shut down. The Government objective is to establish additional 10,000 Kwh capacities in until 2013 and made an additional capacities three Gwh in the year 2013 until 2015.

This mega project of PLN to accelerate additional electricity capacity around 10,000 MW phase one with the project value estimated more then IDR 10 trillion and would be divided into several projects' locations which are 10 projects in Java, nine projects in Sumatera, four projects in Kalimantan, four projects in Sulawesi, two projects in Maluku and 2 more projects in Papua. Therefore, by shifting PLN mechanical &

electrical industry as the main market segment, the company can focus on resource allocation to pursue more projects available from the megaproject. The expectation is the company can obtain an adequate profit while surviving the uncertainty of construction for telecommunication industry.

There are also many opportunities that lie ahead in the public and private construction for infrastructure, road, housing, etc, but the company limits its business opportunity by setting its strategic boundaries. This limitation is the management decision because of bad experience in working the public construction and lack of skilled staff and employee to do all those works.

#### **4.1.3 Weakness**

The weaknesses from internal PT. SAJ in pursuing the opportunity from the PLN mega project are as follows:

- In the past, even though PT. SAJ has experiences in implementing one and two Mechanical & Electrical Projects for PLN, it is only 30% of its total project and the capacity is only sufficient to complete medium-sized projects. Moreover, regarding projects from PLN to establish additional 10,000 KWH capacities in Indonesia can be categorized as big projects, therefore the company still needs to look for more expert staff with an adequate skill and knowledge or educate the existing staff with more skill and knowledge needed.
- The standard job requirement for underground cable of telecommunication industry for trenching was only 120 cm depth and 80 cm width. And the work can be done only by human. But the standard for PLN's projects was bigger than telecommunication's projects. It requires 270 cm and 150 cm width. It can be only done using machine such as an excavator to meet the standard and also the company needs an additional transportation vehicle such as a dump truck to move the dirt to other places. This condition will force the company to do the investment in machinery and transportation vehicle needed for the PLN mega project works.

Other weaknesses in the internal of the company:

- The implementation of ISO 9001:2008 still need a lot of supervision and because some of the employee haven't practice the ISO according to the procedure given (especially the workers in the project)
- Cost efficiencies in the project cost and operational cost still need to be considered and applied, because there is still room for savings if the work is closely monitored .

#### 4.1.4 Strength

- The strength from internal PT. SAJ to move forward and pursue the opportunity is the *certified specialization* that company acquired in the past year, to acquire these certifications the company must pass some examination regarding company capabilities. Those certified specializations such as: Certificate of Gapensi (Gabungan Pengusaha Indonesia), Certificate of Apnatel (Asosiasi Perusahaan Telekomunikasi), Certificate of Aklindo (Asosiasi Kelistrikan Indonesia)
- PT. SAJ has good relationship with two and more cables fabric (from the latest PLN project) which will leads to adequate supply for the material needed in the PLN mega project
- PT. SAJ also has good reputation in delivering the works from recent work in PLN, these reputation will become one considerations for the requirement to enter PLN bidding process
- PT. SAJ has certificate of Aklindo categorized in seventh grade, which eligible the company to execute PLN project above 100 million rupiah (based on the Aklindo list, there are only 20 company in Indonesia holding seventh grade). It means that the number of competitor in the PLN mega project is small compared in other construction industry.
- Until 2008 PT. SAJ has some *experiences* conducting electricity projects from PLN with value more than one billion Rupiah, These experiences (see Table 4.1)

eventually become the basic requirements needed to enter the PLN bidding process.

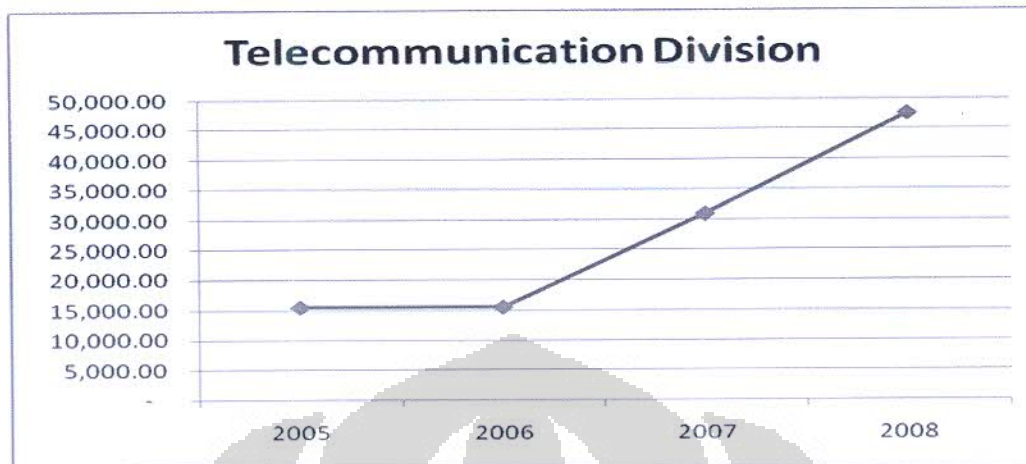
**Table 4.1 Mechanical & Electrical Projects Experiences**

No.	Projects Name	Value (IDR)	Area
1	Transmission Line Construction Project Java - Bali JBIC Loan No.IP-442,IP-462 Lot.4 500 Kva Depok III Substation	20,350,000,000.00	Depok
2	NEW GIS (Gas Insulated Substation) 150 kV. Pegangsaan Substation.	12,052,365,600.00	Kelapa Gading
3	Under Ground Project Cable for 150 KV	8,845,100,000.00	Sumatera
4	Procurement and installment SKKT 150kV to Dinding-Sekarbungu by suramadu bridge	26,845,430,281.00	Surabaya

Source: PT. SAJ Company Profile

Based on the TOWS analysis above, PT. SAJ has a good chance to seize some projects from PLN, if the company manages to deliver quality, expected time, it would likely to continue to deliver other new projects in the years to come.

The evaluation regarding the current situation can be categorized as the interactive control system, where management received the information about current situation and condition in the industry and use it to evaluate the impact of that information on the business for the short term and/or the long term. The other part that needed to be reviewed is whether the current market segment was a failure or a successfully achieved over the years. The evaluation of internal information was the base on the financial report can be done by comparing the budget and the actual achievement. This activity is fall into a category of the diagnostic control systems and being done by assessing the critical performance variable of the company. As shown in Table 3.2 in chapter III page , from 2005 to 2008 the revenue from telecommunication projects still dominate the revenue of PT. SAJ and also higher than its target for the year 2008. Furthermore, the revenue trend is showing that the division revenue continuously increasing from year 2005 as shown in Figure 4.1.



**Figure 4.1 Telecommunication Division's Revenue Trend**

Source: Company revenue data from year 2005 until 2008

This would be inline with the theory regarding the product life cycle that mentioned that when a product reach the peak of the curve than its time for the company to innovate a new product or adding value to the existing product, in order to stimulate the curve to be stable instead of declining.

#### 4.1.5 The company strategy analysis based on TOWS

As already mention in the TOWS analysis, top management has to raise their cautiousness and decided to put on hold the *concentric (related) diversification strategy* and carefully stepping into the year of 2009 by maximizing the utility of all company's division to maximize company's profit. Their main market segment, telecommunication industry, was appeared to be entering the maturity phase. As the life cycle curve theory said, after maturity phase, there will be declining phase. This condition forced the company to change their focus in achieving the revenue stability (*stability strategy*) by carefully proceed targeting the current focus while aggressively search any potential new segment to explore to avoid company's curve stepping into the decline phase. For that management has to improve company capability and also skills of their staff and pull the effort to utilize all their division to increase their curve again.

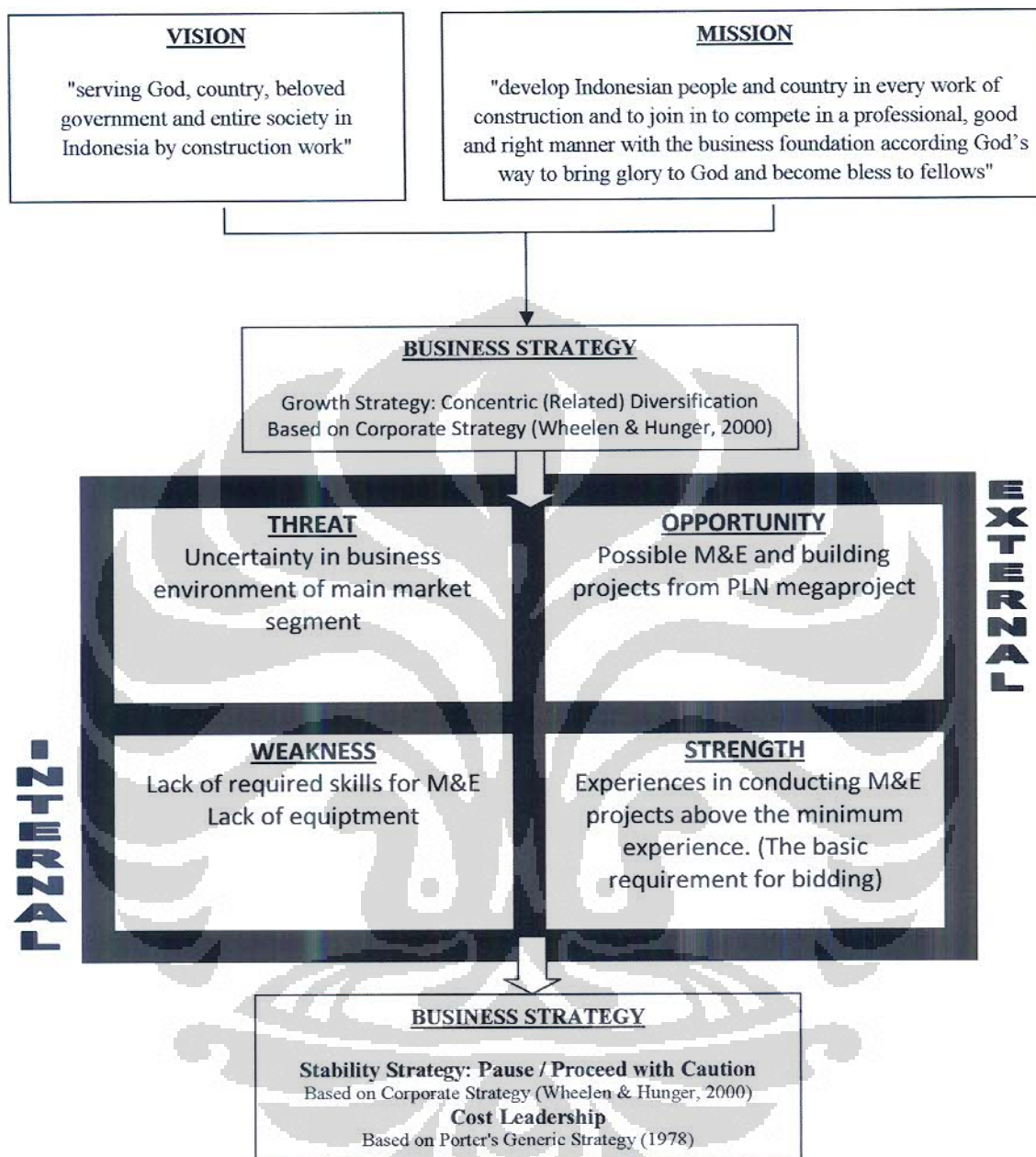


Figure 4.2 TOWS Summary

Source: Company Vision, Mision, Business Strategy and Internal – External Data

To ensure there were adequate projects achieved in 2009, the top management applied *cost leadership strategy* into the strategic plan. This generic strategy calls for being the low cost producer in an industry for a given level of quality. As they carefully formulated price proposal for every project to win more and more projects, all



components focusing their effort to find a way that allowed companies acquire cost advantages which eventually leads to function strategy as follow:

- Delivering customer satisfaction by completing project on time and fulfilling the quality requested by owner
- Improving process efficiencies, which will leads to project cost efficiency and operating cost efficiency
- Gaining unique access to a large source of lower cost materials and making optimal outsourcing for subcontractors/workers in order to give competitive price to the owner

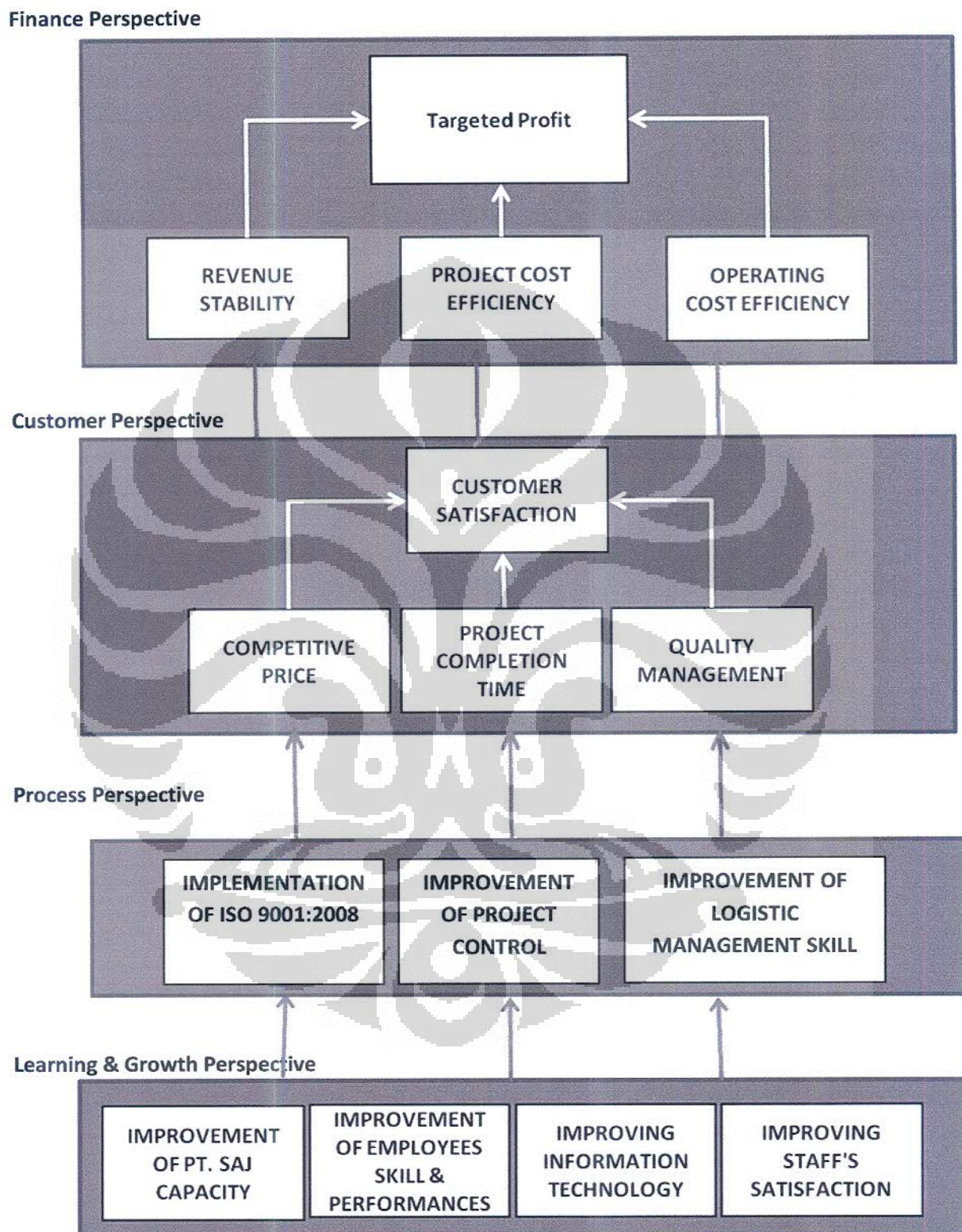
All of the strategy above basically is already align with the internal and external condition of the company, but there are some important things that actually needed to be added in the company strategies, which is:

- Improvement of quality management in the company by strict implementation of ISO 9001: 2008
- Improvement of employee skill and knowledge; in logistic and technique skills
- Improvement in project control by interactive control system

This three additional strategy is to be expected will support the internal business process of the company to achieve the stability and cost leadership strategy that embrace by the company.

#### **4.2 PT. SAJ Strategy Map**

The strategy map are made based on TOWS analysis that was created earlier. The strategy map aims to help companies communicate the strategy to all employees. It will provide a clear figure of company goals and how to achieve that goal. It also explains a causal relationship of the strategy used to achieve company goals. From the figure 4.3 below it is clearly stated that strategy map of PT. SAJ is divided into four perspectives which is financial, customer, internal business process and learning & Growing.



**Figure 4.3 Proposed Strategy Map PT. SAJ**

### 4.3 Diagnostic Control Systems

Before we enter the balanced scorecard project, we have to look at the most critical component of the organization which is the vision. It is critical because it acts as a conduit between your reason for being as reflected in the mission, the values that representative of your culture, and the strategy you will put into execution to reach your desired future state. The vision of PT. SAJ is to serve God, nation, country, government and entire society in Indonesia by construction works. An effective vision statement must have characteristics such as concise, appeals to all stakeholders, consistent with mission and values, verifiable, feasible and inspirational (Niven, 2002). In order to know exactly the effectiveness of PT. SAJ vision it will be examined by using the characteristic as mentioned below:

- **Concise**, meaning simple, memorable and interesting. The existing vision of PT. SAJ is simple but not represent the current condition of the company.
- **Appeals to all stakeholders**. By using words “serve”, the likeness is to become servant, not becoming the first option in the field of construction works, It will bring different perception from the stakeholder.
- **Consistent with mission and values**. The company’s vision only say “serve” but in the mission clearly state that the company wants to “to compete professionally”, those words from the existing vision are very much different and faraway from the mission
- **Verifiable**, meaning it can be achieved upon time. The existing vision of PT. SAJ did not state the exact time to be achieved, so it is a blur of time.
- **Feasible**, meaning stay in reality, clear understanding of the market. The vision only state construction work, and the market for construction work is huge, there is no clear what market to be penetrate.
- **Inspirational**. The vision is definitely inspire people to do good things.

Based on the evaluation above and the current situation for the company, we can conclude that the vision of the company is no longer effective because it did not have the characteristic of effective vision statements. Because this is a critical component that becomes the desired future state of the company, it is better that the company change its vision statement become more relevant with the current condition. With the opportunity

that lies in front of the company it would be best if the company make vision statement that represent the desired future state, and for PT. SAJ the vision “*to become a specialized, trusted and reliable partners in mechanical electrical and other constructions field by 2015*” is likely would be best because it simple, appeals to all stakeholders, consistent with mission and value, can be achieved upon time (verifiable), understand the market (feasible) and inspire employee to perform as stated in the vision.

The diagnostic controls’ system relies on quantitative data, statistical analyses and variance analyses. Managers use these and other numerical comparisons (e.g., actual to budget, increases/decreases in overhead from month to month) to periodically scan for anything unusual that might indicate a potential problem. Diagnostic systems can be very useful for detecting some kinds of problems, but they can also induce employees and even managers to behave unethically in order to meet some kind of preset goal.

Company’s strategy will be implemented from time to time by adjusting the internal capacity and external environment. The company strategy is translated into the *Strategy Map*, at the same time the measurement and implementation of strategy are done by the framework of *Balanced Scorecard*. The balanced scorecard retains traditional financial measures. But financial measures tell the story of past events, an adequate story for industrial age companies for which investments in long-term capabilities and customer relationships were not critical for success. These financial measures are inadequate. However, for guiding and evaluating the journey that information age companies must make to create future value through investment in customers, suppliers, employees, processes, technology, and innovation (Kaplan, 1996). Balanced scorecard is interpreting company’s mission and strategy into four different perspectives, which are financial, customer, internal business and learning and growth. With these four perspectives, balanced scorecard should be use to translate the business strategy, gives direction to all individual, organizations and initiative of across departments in achieving the company’s goal.

**Table 4.2 Assessment of 2009 Performance using Balanced Scorecard**

Description	Target	Real	Performance	Notes
<b>Financial Perspective</b>				
Targeted Profit	15%	16.91%	Success	(Set by Management)
Project Cost Efficiency (Real < Budget)	47 Million	32 Million	Success	(Company Strategy)
Revenue Stability		-13.5%	Decrease	(Set by Management)
Operating Cost Efficiency	3%	1.41%	Failed	(Company Strategy)
<b>Customer Value Proposition</b>				
Customer Satisfaction				(Company Strategy)
- New Projects (Referral)	4	2	Failed	
- Additional Work	3	5	Success	
Project Completion Time	On time		Success	(Company Strategy)
Quality Management				(proposed)
- Customer Survey	Satisfy		Grade "Satisfy"	
- Zero Repeated Project Work	0	0	Success	
- Full return of project guarantee	100%	100%	Success	
Competitive Price	90%	53%	Failed	(Company Strategy)
<b>Internal Business Process Perspective</b>				
Implementation of ISO 9001:2008			Still need tight supervision for implementation	(proposed)
Improvement of Project Control			NA	(proposed)
Improvement of Logistic Management Skill			NA	(proposed)
<b>Learning &amp; Growth Perspective</b>				
Improvement of PT. SAI Capacity			Past experiences increase,	(proposed)
			New certification.	
Improvement of Employees Skill & Performance			Continuous Training	(proposed)
Improving information Technology			On-going	(proposed)
Improving Staff's Satisfaction			NA	

### 4.3.1 Financial Perspective

The main purpose of financial perspective is how to maximizing company profit to increase shareholders' welfare. In PT. SAJ. The shareholders expecting minimum 10% of total contract value of the current will be distributed as dividends. And this expectation is reflected in company policy of *minimum profit margin of 15% for every project that uses in the price proposal in every bidding project*. From the required 15%, the 10% will be distributed as dividends for shareholders while the 5% will be using funding the operational expenses. If the 5% share cannot fully cover the operation expense than the dividend share will be reduced for funding the excess. This standard will be use as financial indicators as it's required by the shareholders.

**Table 4.3 Strategy and Indicators of Financial Perspective**

Objective Strategy	Indicator	Target	Performance
Targeted Profit	• Total Profit	Minimum 15% from contract	Success to meet the estimated profit of all contracts
Project Cost Efficiency	• Real Cost	Below the Budgeted Cost	The Real Cost is 68% from the Budgeted Cost (Success)
Stability in Revenue	• Total Revenue	Achieve the Budget	Achievement was only 56.45% (Failed)
Operating Cost Efficiency	• Operating Cost	3% decrease	1.41% decrease (Failed)

#### 4.3.1.1 Targeted Profit

The purpose of a company is to increase its shareholders' welfare. The way to achieve that is setting the target profit to fulfill the desired level of return for shareholders. In every beginning of the year, the board of directors and the shareholders will set a budget to be achieved for the current year. And this is one of the keys of the success factors to achieve the strategy. The success of company's strategy can be seen from the percentage of profit that can be achieved for every project they win.

**Table 4.4 Comparison between 2009 Revenue Budget and Contract**

Description	Annual Budget of 2009			Realized by Marketing in 2009		
	Budget Revenue	Target Profit		T. Contract Value	T. Estimated Profit	
	(IDR)	(IDR)	(%)	(IDR)	(IDR)	(%)
Telcom	55,000,000,000	8,250,000,000	15.00	9,518,358,594	1,985,634,700	20.86
BIR	-	-		-	-	
M&E	10,000,000,000	1,500,000,000	15.00	19,637,304,824	3,411,195,484	17.37
BIE	36,500,000,000	5,475,000,000	15.00	28,138,880,900	4,294,275,491	15.26
<b>Total</b>	<b>101,500,000,000</b>	<b>15,225,000,000</b>	<b>15.00</b>	<b>57,294,544,318</b>	<b>9,691,105,675</b>	<b>16.91</b>

Source: PT. SAJ annual financial report

The revenue budget of 2009 is IDR 101.5 billions. However, company only manages to generate IDR 57,294,544,318 or around 56.45% from total revenue budget. And from total profit budgeted IDR 15,225,000,000 PT. SAJ only manages to generate IDR 9,691,105,675 or around 63.65% from the budget number. The main reason of this failure is because the marketing division failed to win the required projects for telecommunication division due to the limited project in 2009.

**Table 4.5 Comparison Revenue and Profit Budget with Realization of Revenue and Profit of 2009**

DESCRIPTION	2009 (in IDR 000,000)			
	Budget	Realization	Variance	
Revenue	101,500.00	57,294.54	(44,205.46)	-43.55%
Profit	15,225.00	9,691.11	(5,533.89)	-36.35%
<b>Profit on Revenue</b>	<b>15.00%</b>	<b>16.91%</b>		

Source: PT. SAJ annual financial report

From the portion of target profit margin that set in the company policy can be see in Table 4.5 that the company manages to secure 16,91% profit, The percentage is exceeding the targeted profit, it means that the company is *successful* in meeting the strategic objective for the targeted profit.

#### 4.3.1.2 Project Cost Efficiency

Another way to achieve maximum profit is emphasizing the project team to create project cost efficiency, but they cannot deliver their final work with quality less than the stated contract. This efficiency will lead into the success of achieving the targeted profit that expected by top management and shareholders.

**Table 4.6 Performance of Project Team in 2009**

Description	BUDGETED COST	COST PROGRESS TOTAL	EFFICIENCY/ (INEFFICIENCY)
	(IDR 000)	(IDR 000)	(IDR 000)
<b>Telecommunication Division</b>	<b>7,532,724</b>	<b>7,177,130</b>	<b>355,594.04</b>
<i>Project MSOAN Datel Sumatera</i>	<i>637,938</i>	<i>626,614</i>	<i>11,324.35</i>
<i>Project HCPT Backbone Jateng</i>	<i>222,090</i>	<i>209,026</i>	<i>13,064.14</i>
<i>Project SKSO Jawabarat Outer</i>	<i>134,460</i>	<i>126,090</i>	<i>8,369.25</i>
<i>Project Telkom Sulawesi</i>	<i>483,411</i>	<i>466,954</i>	<i>16,457.28</i>
<i>Project SKSO Tasik Outer</i>	<i>1,963,680</i>	<i>1,848,169</i>	<i>115,510.57</i>
<i>Project EJIB FO Construction</i>	<i>149,282</i>	<i>75,672</i>	<i>73,610.55</i>
<i>Project Tower Sitact Semarang</i>	<i>349,272</i>	<i>374,220</i>	<i>(24,948.00)</i>
<i>Project Tower CME Semarang</i>	<i>2,555,961</i>	<i>2,351,484</i>	<i>204,476.91</i>
<i>Project Sitact Dinamika Semarang</i>	<i>1,036,629</i>	<i>1,098,900</i>	<i>(62,271.00)</i>
<b>Road-Irigation-Bridge Division</b>	<b>0</b>	<b>0</b>	<b>-</b>
<b>(M&amp;E) Division</b>	<b>16,226,109</b>	<b>9,092,033</b>	<b>7,134,075.84</b>
<i>Project PLN Suramadu</i>	<i>1,839,411</i>	<i>1,313,865</i>	<i>525,546.06</i>
<i>Project PLN UGC Bintaro (*)</i>	<i>14,386,698</i>	<i>14,252,182</i>	<i>134,515.63</i>
<b>Building &amp; Industrial Estate Division</b>	<b>23,844,605</b>	<b>16,302,775</b>	<b>7,541,830.20</b>
<i>Project Property SAJ Bandung</i>	<i>3,456,803</i>	<i>2,850,803</i>	<i>605,999.31</i>
<i>Project Pasar tomang</i>	<i>6,365,905</i>	<i>8,111,514</i>	<i>(1,745,608.72)</i>
<i>Project PLN GIS Paket B4-Jawa Bali (*)</i>	<i>5,902,248</i>	<i>5,898,316</i>	<i>3,932.45</i>
<i>Project PLN GIS Bintaro (*)</i>	<i>8,119,650</i>	<i>8,077,022</i>	<i>42,628.16</i>
<b>Total</b>	<b>47,603,439</b>	<b>32,571,939</b>	<b>15,031,500.08</b>

Source: PT. SAJ annual financial report



From all projects in 2009 the total project costs based on budgeted is IDR 47,603,438,643. And the cost progress is IDR 32,571,938,560 or 68% from estimated cost. From this achievement, top management evaluates that the business strategy *successfully achieves the project cost efficiency and fulfilling the minimum standard.*

The only project that can be labeled as a “total failure” is Pasar Tomang Project (see Table 4.6) When the project finished, top management asked for the Project Manager to present all project notes to find the cause(s) that forced company to suffer loss for that project. After reviewing the Project Manager Notes and documentation from the project and compared it with the notes from the internal auditor, top management concludes that all procedures were conducted in every aspect of project implementation and all project staffs already done their scope of works according to the contract. Moreover, the causes of the failure are on the preparation phase where the bidding team forgot to be calculated and included the resistance from the local merchant and society. This problem leads to failure of fulfilling the time schedule and causes company being charged for project penalty from the project’s owner and also a lot of material wasted because of the resistance.

#### 4.3.1.3 Stability in Company’s Revenue

One of the company strategy is the stability strategy. In this condition the company tried to achieve the stability in revenue achievement. With the declining of telecommunication industry, other divisions are urged to cover with increase in revenue.

**Table 4.7 Plan of Revenue & Profit Portion for 2008 & 2009**

Description	2008		2009			
	Budget Revenue	Contract Value	Budget Revenue	Contract Value	Target Profit	Estimated Profit
	Portion-to-Total	Portion-to-Total	Portion-to-Total	Portion-to-Total	Portion-to-Total	Portion-to-Total
	(%)	(%)	(%)	(%)	(%)	(%)
Telcom	74.49	71.74	54.19	16.61	54.19	20.49
BIR	10.33	6.08	-	-	-	
M&E		18.20	9.85	34.27	9.85	35.2
BIE	15.19	3.97	35.96	49.11	35.96	44.31
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

**Table 4.8 Revenue Trend***(in IDR 000,000)*

	2005	2006	2007	2008	2009
Telcom	15,454	38,920	30,890.50	47,521	9,518.36
BIR	9,456	8,295	8,750.92	4,030	-
M&E	12,952	-		12,052	19,637.30
BIE	3,600	15,148		2,632	28,138.88
<b>Total</b>	<b>41,462.00</b>	<b>62,363.00</b>	<b>39,641.42</b>	<b>66,235.00</b>	<b>57,294.54</b>

As it is shown in Table 4.7 on page 62, the revenue portion was already shifted. The telecommunication division not dominated the revenue portion anymore in 2009. Projects that related to PLN mega projects, through M & E and BIE division, starting to show increasing trend compared to 2008. Although the revenue portion already shifted, company *failed to achieve the revenue stability in 2009*. (See table 4.8)

#### 4.3.1.4 Operating Cost Efficiency

As seen in Table 4.9, the top management also manages to decreased the operational expenses in 2009 to anticipate to revenue decrease of telecommunication division. In the above table, the Lease, Insurance & Consultancy in 2009 was having a major increase compare to 2008. This was caused by the leasing agreement for all machineries and new transportation unit that needed for projects for M & E and BIE division related with PLN mega projects. For 2009 analyses, these expenses would be treated separately with the plan of lowering that stated before. But for salary and general & administration, for 2009 managements only managed to decrease the expenses to 1.41% compare to 2008.

**Table 4.9 Comparison of Operating Expenses 2008 & 2009**

Description	2008	2009	Variance	
	(IDR)	(IDR)	(IDR)	(%)
Salary & Wages	1,695,725,655	1,750,617,071	54,891,416	3.24
G&A Expenses	1,778,704,798	1,674,764,417	(103,940,381)	(5.84)
<b>Total Op Expense before LIC</b>	<b>3,474,430,453</b>	<b>3,425,381,488</b>	<b>(49,048,965)</b>	<b>(1.41)</b>
Lease, Insurance & Consultancy	204,620,304	2,264,065,149	2,059,444,845	1,006.47
<b>Total Op Expense</b>	<b>3,883,671,061</b>	<b>7,953,511,786</b>	<b>4,069,840,725</b>	<b>104.79</b>

The failure factor was because the company still had to pay expenses for telecommunication division such as the annual fees for certification of equipment, and some skilled employees who still work in telecommunication division even though there's no work or project to finish.

#### 4.3.2 Customer Value Proposition Perspective

Next will be presented the strategy and indicators of customer's perspective:

**Table 4.10 Strategy and Indicators of Customer Perspective**

Objective Strategy	Indicator	Target	Performance
Customer Satisfaction	• New Contracts (referral)	4 new contracts	2 new contracts obtained from reference of existing customer
	• Additional projects	3 additional projects	5 additional projects
Competitive Price	• Successful Project Bidding Rate	90%	• Winning 8 new projects from 15 project bidding (success rate = 53%)
Project Completion Time	• S – Curve	Finish On Schedule	• One project Failed to meet the Time Schedule

**Table 4.10 Strategy and Indicators of Customer Perspective (Continued)**

Objective Strategy	Indicator	Target	Performance
Quality Management	<ul style="list-style-type: none"> <li>• Customer Survey</li> <li>• Repeated Project Work, return of project guarantee.</li> </ul>	The end of the project / Satisfactory	<ul style="list-style-type: none"> <li>• Satisfactory level high</li> <li>• No project rework, all guarantee can be collected</li> </ul>

To support the strategy of achieving minimum profit for shareholders in financial perspective, company needed to search an adequate project number to achieve the revenue budget. By ensuring the existing customers' satisfaction, it would effect to the company credibility in pursuing new contracts from new customers or new contracts from the existing customers to conduct any additional works or different projects for them. In construction industry, the common factors that will create customers' satisfaction are the competitive price, the quality of the final works delivered, and on time project completion.

#### 4.3.2.1 Customers' Satisfaction

The level of customers' satisfaction on company's capability and/or company's work is seen from the level of confidence that the customers have in PT. SAJ. This level of confidence which is reflected in two indicators, categorized in the number of new contracts and additional projects. The "new contracts" refer to contract(s) from new customer(s) referred by the existing customers.

The referral process usually comes from the existing customers that gives the opportunity for PT. SAJ to participate in bidding process of project from other customer that related to the existing customer . As a referral participant, the possibility fot PT. SAJ to win the bidding is quite high. Therefore, out of the four bidding processes, in which PT. SAJ is referred to by customers, the marketing team was only able to win two contracts, or 50% of the expectation. During the evaluation of the failure it was found that in one bidding process another contractor proposed lower price than PT. SAJ, while in another bidding process, a disagreement on price and quality of material between the

marketing team and the client candidate. By evaluating of the failure, top management realized the source of the problem is the lack of capabilities from the logistic staff to calculate the shipping cost for the material needed. This is happen because the logistic staff is not supported with adequate knowledge and supporting tools.

In 2009, PT. SAJ managed to seize two new projects that related to PLN mega projects (new customers) and five additional works from the existing customers. The total contracts value of all those contracts, especially for telecommunication division, still did not meet the revenue budget.

As stated previously, company set its focus on pursuing new projects related with PLN mega projects for 2009 and above. Nevertheless, there is some important requirement that still needs to be fulfilled first by PT. SAJ before it qualified to enter the bidding process. Those requirements are underground work certification training from PLN and the equipment to conduct the works. To cover the deficiency to enter the bidding process the company already made action by sending their staff for certification training and/or signed some lease agreement for the machinery and transportation vehicle. However, the effort need time and it caused the company losing several potential projects. From a narrower point of view, the company failed to achieve the revenue budget. Nevertheless, if we take a look at the timeline of PLN mega projects, 2009 can be marked as the turning point of their life cycle.

#### 4.3.2.2 Competitive Price

The success pricing strategy is more depending on the judgment on the decision makers in formulating the project costs. In every bidding process, Construction Company always facing two risks (Park, 1997) which are (1) losing the opportunity to seize adequate profit by submitting low price to win the bidding process, (2) losing the opportunity to seize any profit at all by submitting high price into a bidding process.

The competitive price has to satisfy the customer who looking for the lowest offer for a certain required quality of projects among the bidding process contestants. The success indicator of the strategy delivering a competitive price is project bidding rate which

calculated by comparing the total bidding won against the total project bidding entered by company. In 2009, the marketing team won eight from 15 project bidding. The success rate of the marketing team was only 53%.

#### 4.3.2.3 Project Completion Time

The other things that also important in the eyes of the project owner are the completion of the project, every project has the time schedule to fulfill. This time schedule is calculated before the bidding starts, every participant of the bidding process must present its own project schedule with scope of works that need to be done in order to fulfill the time schedule.

There are some reasons why the project completion sometimes exceeding the time schedule, mostly because there are some additional work that needs to be done. If the reason is the additional work, it will not be a problem for the owner. But if it is not, the owner will charge the construction company with a percentage of penalty according to the contract.

**Table 4.11 Strategy Comparison of Time Implementation of 2009 Projects**

Description	TIME IMPLEMENTATION		
	CONTRACT	REALIZATION	Performances
	(Months)	(Months)	Criteria
<b>Telecommunication Division</b>			
<i>Project MSOAN Datel Sumatera</i>	3	3	<i>Success</i>
<i>Project HCPT Backbone Jateng</i>	3	3	<i>Success</i>
<i>Project SKSO Jawabarat Outer</i>	3	3	<i>Success</i>
<i>Project Telkom Sulawesi (**)</i>	3	3	<i>Success</i>
<i>Project SKSO Tasik Outer</i>	3	3	<i>Success</i>
<i>Project EJIB FO Construction</i>	3	3	<i>Success</i>
<i>Project Tower Sitact Semarang (**)</i>	3	3	<i>Success</i>
<i>Project Tower CME Semarang (**)</i>	3	3	<i>Success</i>
<i>Project Sitact Dinamika Semarang (**)</i>	3	3	<i>Success</i>

Table 4.11 Strategy Comparison of Time Implementation of 2009 Projects (Continued)

Description	TIME IMPLEMENTATION		
	CONTRACT	REALIZATION	Performances
	(Months)	(Months)	Criteria
<b>(M&amp;E) Division</b>			
<i>Project PLN Suramadu (**)</i>	6	6	<i>Success</i>
<i>Project PLN UGC Bintaro (*)</i>	12	11	<i>Success</i>
<b>Building &amp; Industrial Estate Division</b>			
<i>Project Property SAJ Bandung</i>	12	12	<i>Success</i>
<i>Project Pasar tomang</i>	6	9	<i>Failed</i>
<i>Project PLN GIS Paket B4-Jawa Bali (*)</i>	12	11	<i>Success</i>
<i>Project PLN GIS Bintaro (*)</i>	12	11	<i>Success</i>

Notes: (\*) projects related from PLN megaprojects

(\*\*) additional works

As shown in the table 4.11 on page 67, the only failure of the project team was the Pasar Tomang Project, where the project implementation exceeds three months from the contract time schedule. The qualification in evaluating the progress of the project was set by using contract time schedule and scope of works.

#### 4.3.2.4 Quality Management

PT. SAJ has the commitment to deliver the quality of works that assigned in the contract to increase the customers' satisfaction. At the end of the project, when the project owner signed the Certificate of Acceptance (COA), the Project Manager of PT. SAJ is obligated to ask to project owner's representative to fill-in a customer survey regarding the project work. This survey will also be included in the project evaluation. So far, based on the customer survey that already done, can be concluded that the work quality of PT. SAJ assessed with *Grade "Satisfy"*.

The other indicator for the customer's satisfaction is the success of project guarantee collection in 2009. Furthermore, shown in Table 4.8, in 2009 PT SAJ manages to seize several additional works from existing customer indicates that the customers' level of satisfaction on company's work was in line with the customer survey.

The result of the customers' survey was also supported with no repeated project works in 2009 and a fully return of project guarantee from all projects of 2009. Furthermore, when a customer is satisfied with the construction work is impossible that any customer will give a different project using the last project as reference or an additional work to improve their construction product. In every project, the Project Management, if possible, must always search an alternative way for customer to utilize the construction product at its maximum. This action would lead into higher customers' satisfaction and create additional work opportunities for PT. SAJ. As describe before, in 2009 the company manage to generate five additional projects from the target that set by the management.

#### 4.3.3 Internal Business Process Perspective

The strategy initiative was done in an internal business process directed to support the whole strategy in customer value proposition and also financial perspective. As stated before, it was top management intention to reapportionment of marketing focus in pursuing new potential projects starting 2009.

**Table 4.12 Strategy and Indicators of Internal Business**

Objective Strategy	Indicator	Period	Performance
Improvement of Project Control	<ul style="list-style-type: none"> <li>• Percentage of working error because of Human Error</li> <li>• Worker Performance</li> </ul>	Throughout project progress	NA
Improvement of Logistic Management Skills	<ul style="list-style-type: none"> <li>• Zero material defect</li> </ul>	Throughout project progress	NA
Implementation of ISO 9001:2008	<ul style="list-style-type: none"> <li>• Procedure defiance</li> </ul>	Throughout project progress	Still need tight supervision for implementation



#### 4.3.3.1 Improvement of Project Control

The main factors of a successful project are the close monitoring and the adequate controls of the work implementation, There is scope of works and time scheduled that has to be achieved. A lot of interactive control will be needed to perform a very good project control. In this area, the control for the workers and employee involved lying in the hands of site managers, site manager must have the ability to command and to direct the workers and employee in the work site to complete the all works that need to be done according to contract and the time scheduled. In the field works, site manager usually needs workers to do heavy work such as carpenter, bricklayer, digger, hammersmith, prentice, helper. These workers usually have one chief for each capability, site manager must very carefully to choose which worker will be use in completing the work, usually the human error comes from the workers who miscarriage the instructions. In order to avoid careless workers, site manager must perform the workers' performance appraisals periodically to secure the excellent workers for the work.

#### 4.3.3.2 Improvement Logistic Management Skills

As describe before (see p.54), top management realized their logistic team need some improvement. They must ask human resource division to search for available logistic management training to fulfill the need to support the cost leadership strategy.

By sending their logistic staff to this training is improving of logistic management skill for logistic staff to ensure the success of the project for fulfilling the quality (in terms of project materials), the costs (in terms of finding the demanded quality materials at the lowest price available) and also time schedule (in terms of making sure the availability of project material for project team on the site).

The success factors for logistic management skill are the zero defects and the zero lack time. To avoid any defect and any lack time during the project progress, logistic team needs to conduct the market survey by the time marketing division assembling the bidding team and searching for list of supplier for all materials and equipment needed

by the project. As the result of these actions, logistic would be able to give confirmation for bidding team regarding the availability of material and equipment and the ideal logistic handling expenses.

Moreover, throughout the implementation of the projects, the logistic team must prepare the logistic delay report by comparing company's contract with the supplier and supplier proposal with the realization progress. If the realization can meet the contract and supplier services can meet the company's expectation as the compliment to the supplier the payment progress will be made according to the agreement, which is 30-day max after the supplier submitting their invoices. The good relationship with the supplier will lead into good coordination to make sure the materials and equipment availability and automatically creates zero lack time to support project team meet the time schedule and scope of work.

#### 4.3.3.3 Implementation of ISO 9001:2008

The implementation of ISO 9001:2008 is the success key factor for quality management strategy in customer value proposition perspective. The expected result of ISO 9001:2008 is projecting quality assurance that can be backed up by well administrated project's documents that can be verified at any time whether by external party or internal party. The key indicator of well administrated and no cheating can be seen in the project evaluation at project evaluation meeting and internal audit report of that project. If these two activities are producing a good result than it can be said that the project already implemented according to the ISO 9001:2008.

As stated in [www.ISO.org](http://www.ISO.org), ISO 9001 specifies the basic requirements for a quality management system (QMS) that an organization must fulfill to demonstrate its ability to consistently provide products (which include services) that enhance customer's satisfaction and meet applicable statutory and regulatory requirements. The certification means PT. SAJ has developed and implemented quality management system to demonstrate its ability to consistently provide a product that meets customer and

statutory and regulatory requirements, and to address customer satisfaction through the effective application of the system.

For all projects in 2009, through every site visit that were conducted by project manager and internal audit, all project staffs were not fully implementing ISO 9001:2008, eventhough all projects in 2009 were delivered according to the time line and scope of work that stated in the contract. This condition is a serious problem that commonly happen in construction company because mostly the workers in the field is uneducated people that does not know how to deal with paper works. That is why the company needs to train its staff and urged them to follow the rules and start applied the ISO 9001:2008 appropriately.

PT. SAJ must have the commitment to ensure the customer satisfaction by implementing quality management using ISO 9001:2008 as its foundation. To ensure the project team can fulfill the standard minimum. The project team must use the quality management that already set using ISO 9001:2008. By improving the quality management, project team will set a comprehensive plan that includes human labor, equipment & materials mobilization, all permits and other required items to finish the project under the time schedule and scope of work.

It's a common practice if there is a delay regarding one of those two factors. The construction company will have to pay a certain amount of money as a penalty and/or repeated project work if the quality of the work did not meet the expectation as stated in the contract. If a customer severely disappointed with the work, the customer can sue the construction company. This is a problem that could happen, even though the demand of the customer did not accept by the court. The reputation of the construction company already crossed.

#### **4.3.4 Learning & Growth Perspective**

The objective strategy was done in learning and growing perspective directed to support the whole strategy in internal business process and also financial perspective. It related to implementation of IS 9001:2008 and all skill improvements discussed before.

It is very important for all staff to improve all their skill and knowledge to continuously create improvement of their works.

**Table 4.13 Strategy and Indicators of Learning and Growth**

<b>Objective Strategy</b>	<b>Indicator</b>	<b>Period</b>	<b>Performance</b>
<b>Improvement of PT. SAJ capacity</b>	<ul style="list-style-type: none"> <li>• certified technical staff</li> <li>• skill certification for PT. SAJ</li> </ul>	<b>Continuously</b>	<b>Past experiences increased, new certification</b>
<b>Improvement of employees skill and performance</b>	<b>Employee Performance Appraisal</b>	<b>Yearly</b>	<b>Continuous training</b>
<b>Improvement staff's satisfaction</b>	<b>Employee Satisfaction Survey</b>	<b>Yearly</b>	<b>NA</b>
<b>Improving information Technology</b>	<b>Reduce time delay in information collection</b>	<b>Yearly</b>	<b>On-going</b>

To be able to pursue new projects from PLN megaprojects, PT. SAJ need to gain new certified skills for its technical staff. Those skills were required in the PLN bidding process. The new additional certification for either technical staff or PT. SAJ as an organization is the key factor for customer acquisition that stated in the customer value proposition before.

As described earlier, before 2008, the company focused their effort in construction for the telecommunication industry to achieve the desired profit. However, not all past experiences can be used when top management shifted their focus into mechanical and electrical industry. Even though the overall scope of works between these two segments it almost the same but there are many differences regarding the standards for the construction project. The following training is obligatory for technical staffs in order to

improve their knowledge and skills to be able to deliver high quality of works related to PLN electrical projects:

- Health and Safety Training. This training is to increase the awareness of project staffs in implementing a project and also is regulated by the Ministry of Labor of Republic of Indonesia. As mention earlier in Chapter 3, PT. SAJ is committed to fulfilling all related regulations and laws that bind the company in conducting their business.
- Welding Technique Training from Weld Training Center (*Balai Latihan Kerja Las*) and Training in conducting works of PLN underground cable, provided by PLN.

There is also a performance evaluation that has been implemented in the company to measure all employees' skill and performance. The result of employee performance evaluation will be combined with the employees' satisfaction survey as input for top management and human resource division to choose training activities or any action necessary to ensure the highest quality of work from all company's component.

The staff's satisfaction in 2009 is stabil based on the fact that no employees resigned from the company in 2009 and from the project cost efficiency company shared some of the project cost efficiency to all project staff as a reward for performance and attitude.

#### **4.4 Interactive Control Systems**

The levers of controls are closely related to the interactive among company's components regarding monitoring the *uncertainty* that company continuously facing in times. By focusing attention on a face-to-face interaction, management can use this control to extract new opportunity, stimulate experimentation, give rapid response and maintain control over what could otherwise be a chaotic process. It also emphasize on the need for changing ways of doing things, changing the value proposition, or even changing aspects of the business strategy.

The communication between top management and lower management regarding any kind of information, whether internal or external information, that can be impact company directly or indirectly must be done in active and open way to ensure that the company can prepare the proper response to anticipated any kind of obstacles that may occurred in the process. While the interactive controls systems is a system to communicate the achievement of the business strategy that pledge by top management and any other information that may impact company business (shown in Figure 4.2). Though this may seem somewhat like the diagnostic control system discussed earlier, there are four important characteristics which set the interactive control system apart:



**Figure 4.4 Interaction between Top Management and Lower Levels**

As shown in figure 4.4 it is the flow of control in PT. SAJ. All the meetings are made to accommodate the interaction between the subordinate with the managers and even directors. With this kind of control all uncertainty hopefully can be detected before it creates threats and problems to the company. With this tool the company can also seek the opportunity that lies within, with close control and actively interaction with the owner, hopefully will create good relationship and will last in long term.

**Table 4.14 Key Management Meetings**

<b>NAME</b>	<b>SCOPE / FREQ</b>	<b>REPORTING SYSTEM</b>	<b>PRIMARY TOPIC</b>	<b>ATTENDES</b>
Daily Meeting	Project / Everyday	Daily Site Diary (DSD)	Project logistic, cashflow, workflow,	Site manager, all employee (core project only), subcon
Project Coordination Meeting	Project / Weekly	Weekly Project Report	Project cost & earnings, status and progress of the project, logistics, project specific issue raised by project manager , all issue regarding the project	Head of logistic, head of Finance, internal audit, GA & HR manager, all technique division manager
Owner- Contractor Meeting	Project / Weekly	Project Progress Report	Status update, information sharing, and group problem solving on major issue. all project's issue	Project manager, owner representatives, architect/consultant
Project Completion Meeting	Project / End of Project	Closing Project Report	Project cost & earnings, status and progress of the project, logistics, project specific issue raised by project manager all issue regarding the project, rewards or punishment	BOD, Head of logistic, head of Finance, internal audit, GA & HR manager, all technique division manager
Managers Meeting	Company / Weekly	Manager's Report	General activity (including financials, new business, personel, risk, etc)	Head of logistic, head of Finance, internal audit, GA & HR manager, all technique division manager
Board of Director's Meeting	Company / Monthly	BOD decision	All co-wide issues: policies, personel, earnings, risk, general activities, project status, major issue	Board of Directors, GA & HR Manager, internal audit
BOD and marketing team meeting	Company / Monthly	Tender Report	Authorization of prospective new proposals	Board of Directors, marketing team

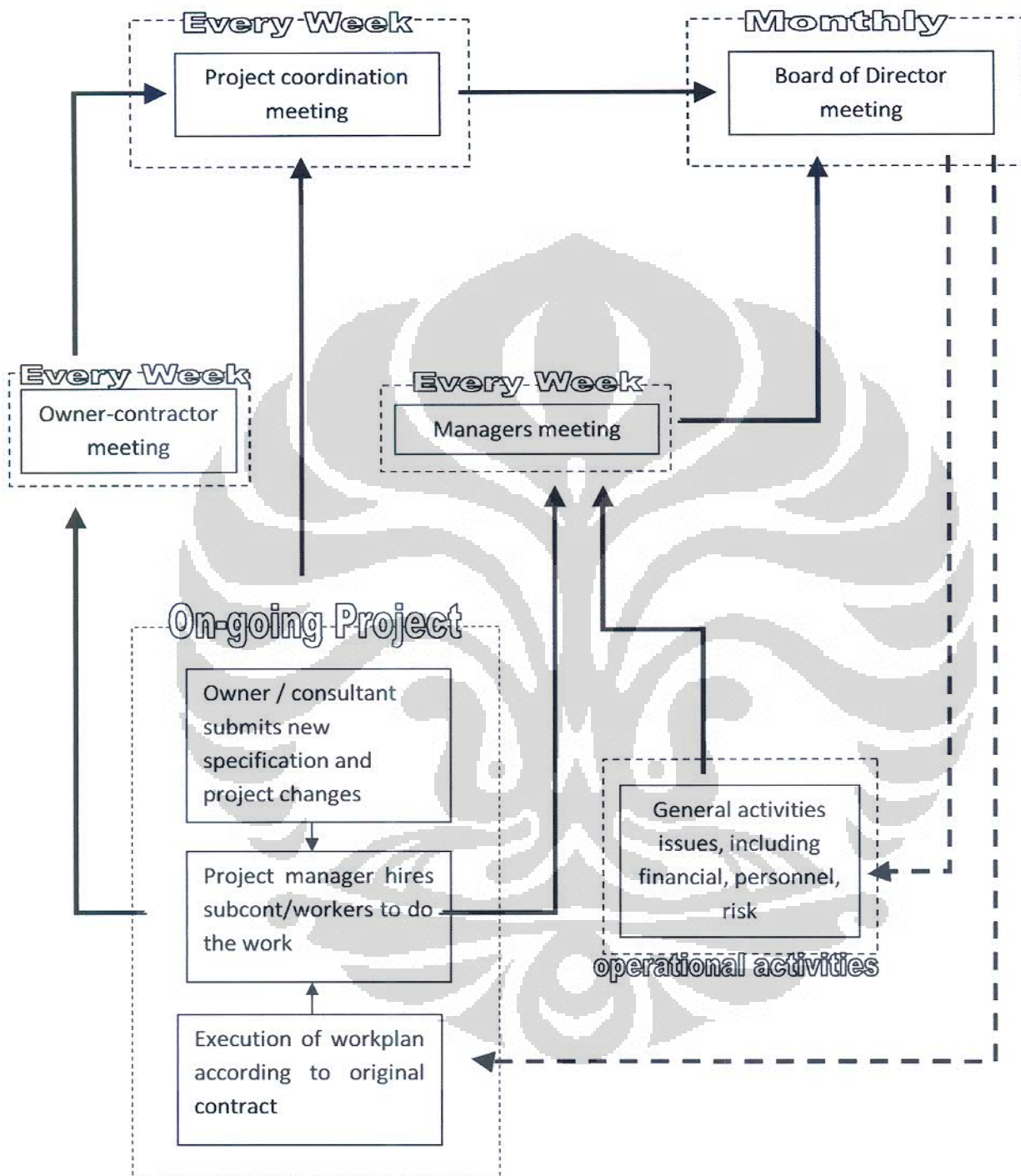


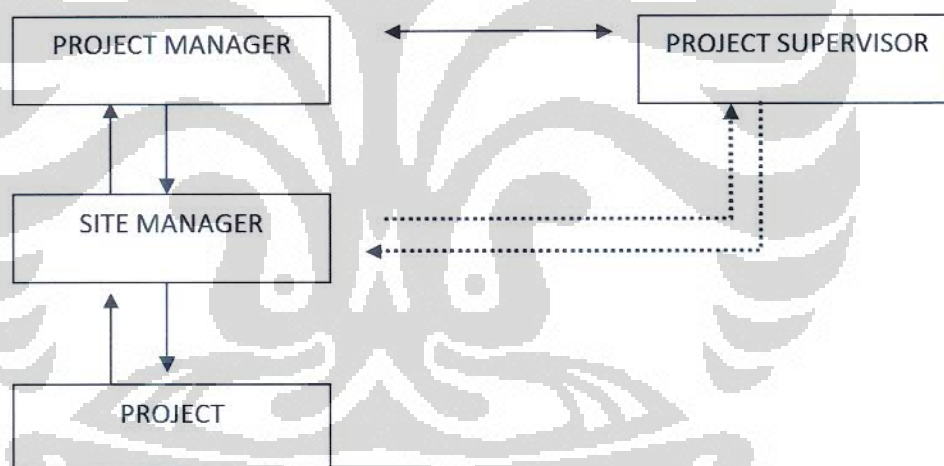
Figure 4.5 PT. SAJ existing control system

Source : Company Data



Table 4.14 on page 76 show the company key management meeting to ensure the projects were successfully implemented in terms of costs, time schedule, scope of work and quality. In all of this meeting open discussion and debate are allowed. Each subordinate can give their feedback to the managers to make decisions. Each management meetings will provide formal report system, this report system is the source flow of information that needed to be analyzed by debate and dialogue to cope the possibility occurrence of strategic uncertainty.

The implementation of formal reporting system as one control systems will give all the company's component the ability to know exactly all related things and condition in the project, the current situation, the status, the projection of volume & margin, the savings, the expenditure. (see figure 4.5)



**Figure 4.6 Level of decision making in the project**

Source : Company Data

Figure 4.6 shown the level of decision making that happen in the project. Site manager as a leader in the project still has to coordinate with the project manager and also the owner representatives, below is the current situation and activities that are mention in the figure 4.5.

#### 4.5.1 Daily meeting at site project and project manager site visit

Before starting the project, the project manager already set time schedule for the project team, the project team is led by a site manager project. Site manager project is the key person that holds the highest authority in the project. Each decision that needed to take is made by site manager project with the approval from the Project Manager.

Everyday before starting to work, site manager project must coordinate the supervisor to do the work in order to fulfill the time schedule with the scope of work that already approved. Every work being done is recorded in Daily Site Diary (DSD) and every meeting that happen in the field is recorded in The Project MOM (Minutes of Meeting) and presented to the Project Manager every week.

It's also PT. SAJ policy that acquires all Project Manager to do site visit at very least 1 in every two months. Other site visits are conduct whenever there's customer and/or customer's representative site visit or there's trouble that need to solve with high authority above site supervisors. The purposes of these site visits are:

- a. To make sure the project progress meet time schedule that stated in the contract. Whenever there is a project that behind the time schedule, the project manager obligated to find the cause(s) of the delay and find an alternative to accelerate the progress within the project costs plan. If the acceleration alternative(s) force the project cost exceeded the project plan, then the project manager must immediately report to Technical Director or Finance Director to ask for approval for the alternatives. In PT. SAJ, this is called as "One Level Authority" decision making that creates to avoid any further delay for project team in overcomes any obstacle.
- b. To evaluate the material on-site purchases were inline the project requirement, whether in quality or quantity. This step is to ensure that all transaction that occurred during the project process was all documented properly and right.

- c. Discussing and evaluating the site team preparation for all jobs that will be implemented for the next two months. The discussion is not only limited to the materials or jobs that stated by contract, but also including the potential obstacles that might occurred during the process judging from the existing situation and condition of project environment. This discussion is a media for all project team to do brainstorming whereas all staff can pour their creativity to improve the way of finishing their works on time or even faster and more efficient. It is the job of Project Manager, as the leader of the discussion, to ensure that all the ideas that occurred are not violating any regulation or company's policy and value.

#### **4.5.2 Coordination meeting with project owner's representatives**

There are also coordination meeting with the project owner's representatives, usually this client representatives is called *Project Supervisor*. The Site Manager project also responsible to Project Supervisor and have to coordinate with him/her for every work and decision taken regarding the project work (see Figure 4.5). The main job of the Project Supervisor is to assure that the SAJ project team does the work exactly of the scope of work so that the quality of the work is achieved. Usually the site manager project held coordination meeting with the Project Supervisor in the beginning of the week to inform the Project Supervisor what will be done in the whole week, with the formal reporting system is project progress report. Sometimes if sudden problems occur there are also sudden meeting between SAJ project team and the Project Supervisor, and if the problems is bigger and need more precautious treatment, Project Manager will attend the meeting to coordinate with the Project Supervisor.

#### **4.5.3 Project coordination meeting**

Once a week, Project Managers and Division Managers gather to discuss the progress of all projects. In this regular meeting, all Project Manager will present the project report which consist of project progress, problems that often occur in the field, and other things that needed to be discussed regarding to the completion of all project.

Beside the project matters, this meeting also discussed problems that may occurs in the other division. The formal reporting system is Weekly project report and will be presented to the Board of Director's Meeting.

#### **4.5.4 Manager's meeting**

Similar to the project coordination meeting, every week there is always a meeting that involving all division managers and in this meeting discussion is general activity (including financials, new business, personel, risk, etc). In this meeting all managers are expected to understand the company capacities at a whole, not only in one aspect. The report system is Managers' report and it also presented to the board of directors

#### **4.5.5 Project completion meeting**

After the project finish, the Project Manager will receive the Certificate of Acceptance from the client. Finance division will use this COA as final billing document to the client. The project manager will invite other division manager in a Project Completion Meeting to evaluate the project from the side of project cost, residual inventory handling, human resource arrangement, and in this meeting Finance division must provide final cost progress for the project to be compared with the project cost budget to know whether the real cost project meet the budget or over the budget. The formal reporting system is closing project report and will be presented to the Board of Director's Meeting.

The experiences from the recent project can be absorbed by all Project managers and they can have a discussion and simultaneously evaluate what difficulties may arise from similar projects, what had been done by the team, and how the team responded, and conduct an integrated analysis on what is the best action to handle it. This learning process can intrigue the creativity of the Project Managers; it also constitutes a valuable process to improve the company's project control system.

#### **4.5.5 Board of director's meeting.**

This meeting take place two times in a month, in this meeting usually the board of director also invited the Project Manager to explain about the current situation of the ongoing project, in this meeting the discussion is more complex and including all aspects that needed to be discussed to pursue the company's goal and strategy. In this meeting mainly discussed about the forecasting of new project and evaluation of each ongoing project. All data from the weekly manager's meeting or project completion meeting will be discussed in this meeting. Usually if one project succeed (in term of time schedule and under cost budget) there will be bonuses given to all employee and especially for the project team.

There is also yearly annual meeting which involves all company staff, except the member of the project team which only has status as honorees labor. In this annual meeting, all divisions will presenting the current year achievement and the existing projects that still has status as on-going projects. Also board of director and all division managers will set the next year target for each division and company as whole.

This meeting has been proven as a very valuable process in PT. SAJ that need to preserves. In the end of 2002 meeting, the output of this annual meeting provide company with a direction which resulting a huge profit for company up to 2008. And the end of 2008 meeting was saved company by realizing the danger of the business environment of their main market target and shifted the company strategy to response the change without any hesitation regarding the main segment still providing an adequate amount of profit for company in 2008 but sharply drop in 2009 and 2010.

#### **4.5.6 BOD and marketing team meeting**

Beside the communication for project team, there is also interactive control system when marketing division open a discussion to decide whether an open project bidding can be consider as a potential project or not. If there is an open project bidding for public, then as stated in company's SOP, the marketing team will assemble a bidding team which consist marketing, technical team (related division), finance,

logistic and human resource. The formal reporting systems used in this meeting is tender report. By assembling this bidding team, then the information regarding potential projects was delivered to all related party that will pointed to involve into the projects. This is one of the applications of interactive controls system in marketing division to ensure the success of company strategy, which provides some controls such as:

- a. Checking the availability of company human resources and company capability, the materials price and its potential supplier. Any additional project would require a certain technical staff to handle the project. If all related technical staff are already at their full capacity, then company have to considering the costs of adding new staff(s) or rearranging their staff allocation with all the implication that have to put into consideration. Or if company's staffs not yet has certain skills that require by the potential projects, then the HRD could start looking for proper training and/or certification exam so company would have adequate human resources to pursue the same project(s) in the future.
- b. To notify all related parties that will involve in the potential projects to prepared all necessary anticipation to act as soon as possible if company win the project bidding.

#### 4.6 Beliefs Systems

The belief control system is used to communicate the tenets of corporate culture to every employee of the company. Beliefs systems are generally broad and designed to appeal to many different types of people working in many different departments.

As already told in the third chapter, the company's mission is *to develop Indonesian country in every work of construction and to join in to compete in a professional, good and right manner with the business foundation according God's way to bring glory to God and become bless to fellows*. And it becomes a culture that implanted in every employees of PT. SAJ. The company believe that every work should be done according to God's way which is righteousness. When we talk about

doing the right things and doing everything according to righteousness it is an absolute requirement. As an example, corruption is one thing that consider as violation of rightneousness because corruption means stealing money from the company. Other example is in the field of work the workers is not allowed to lessen the material needed in the work, eventhough it will bring more profit for the company.

The rightneousness says that everything must be done as it written in the contracts and specification of work. This beliefs systems that are implanted by the shareholders has its own purpose in order to deliver best result to the project's owner. It is also a custom in the construction work to do bribery practice. PT. SAJ choose not to follow this custom, and fortunately without doing those practice PT. SAJ still manages to get work from other project's owner that value righteousness.

Basically the company mission is already run by the company. The mission is translated into every aspect of work in the company. Along its journey they manages to do a lot of construction work from roads, bridges, building, housing, telecommunication service and also mechanical and electrical works.

Clearly stated in the company mission to compete in professional and good manner, the company show it by sending their employee into training to get adequate skill that needed for the work. And also Good and right manner according to God's way are continuously taught by the shareholders through some activities such as spiritual mental development (Pembinaan Mental Spiritual), Bible reading, lecture of skill and management technique, English courses for managers. Each employee are urged to have high level of spiritual believe to prevent them to do the wrong-doing such as corruption, mark up prices, faking the report, other considerations that classified as crime and can cause bad effect for the company.

Mission of the company must able to have three characteristic to know its effectiveness (Niven, 2002), Table 4.15 is the evaluation of PT. SAJ mission :

**Table 4.15 Evaluation of PT. SAJ Mission**

No	Characteristic	Explanation	SAJ Mission
1	Inspire Change	Since the mission can never be fully realized, it should drive the organization forward, stimulating change and positive growth	By saying to develop Indonesian country in every work of construction, it means that PT. SAJ must able to do every area construction and work in professional standard. This statement is very inspiring because it gives challenge for every person that involved in it
2	Long-term in nature	Mission statement should be written to last 100 years or more	Indonesia is a developing country and still in the process of building its infrastructure, construction project will never die as long as the needs of infrastructure still exist
3	Easily understood and communicate	Mission should be written in plain language that easily understood by readers and simply represent a sign of "words in action and a culture on the move"	" <i>compete in a professional, good and right manner with the business foundation according God's way</i> " This statement is very easy to understood, because most of Indonesian people are religionist and understand exactly what is good manner, according God's way, and profesionality is something that can be educated through lesson and experiences.

Source : Niven, *Balanced Scorecard step by step : Maximizing Performance and Maintaining Results*, John Wiley & Sons, Inc. New York, 2002 and Writer's analysis

#### 4.7 Boundary Systems

The formal systems establish two types of boundaries: *business conduct boundaries* and *strategic boundaries*, both are determined through analysis of the risks associated with specific business strategies. All of this regulation will guide the company and employee to understand the rules of the game that needed to obey and followed. The business conduct boundaries in PT. SAJ are presented in:

- *The company regulation*. In this regulation controls the obligation and employee's right such as working time, rewards and punishment.



- *The department of labor (depnaker) regulation.* In this regulation controls the obligation and company's right, which consist of paying employee's tax, employee social security rights, employee's rights, etc.
- *The work agreement between contractors and owner.* In this agreement usually consist of health and safety at work, regulations in the field of work, other considerations regarding to project work.

The second boundary is the strategic boundaries, based on company's article of association clearly stated that PT. SAJ was established to conducting business for providing services as general contractor for telecommunication industry; construction works for road, irrigation and bridge (including its maintenances); mechanical & electrical services and also construction for building & industrial estate. Therefore all skill, training and employees focus was limited only to improve company capacity and the quality of works for those services.

There is no intention from shareholders and top management to expand the business horizon into other business scope. Other strategic boundaries of the company is clearly defined in the certification of work, PT. SAJ only limit the certification in the field of engaged in construction and telecommunication network services, mechanical & electrical, civil engineering & architecture (certificate Gapensi, Aklindo, Apnatel).

For example, no matter how big the profit temptation of owning and self managing telecommunication tower and business (before 2008), there were never any intention from PT. SAJ to become tower's owner regarding plenty of experiences for telecommunication tower's construction and well-established relationship with telecommunication companies and tower's owners. Others example is related to PLN megaproject, there are so many of business opportunities to complete the PLN megaprojects, such as providing turbine engine and power cables as the main business of the PLN megaproject, and also providing transportation system for PLN, but PT. SAJ never has any intention to pursue any of those opportunities except project related to construction for mechanical & electrical services and also construction for building that needed for that PLN megaproject.

## CHAPTER 5

### CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Conclusion

The four levers of control are designed to controlled the company's strategy being implemented properly. Based on balanced scorecard evaluation, we can see that PT. SAJ performance in 2009 in five perspective which is financial perspective, customer preposition perspective, internal business perspective, and learning and growth perspective. Two conclusion can be made regarding the application of four levers of control in PT. SAJ and the assessment result for the company performance in 2009 using Kaplan balanced scorecard:

- a. The financial perspective which become the goals of the other perspective are designed to achieve the targeted profit set by shareholders using revenue stability, project cost and operating cost efficiency strategy. There are some critical performance variable that needs to be considered by the management in order to improve their performance:
  - The company tries to achieve revenue stability by delivering competitive price to its customer's but in the realization the strategy is not fully successful, there are problems that occur because the lack skill of the logistic staff in providing cheapest material transportation. The other aspect that contribute to this failure is: in 2009, the company just starting to train the employee to have an adequate skill and techniques needed to do the PLN mega project work. This delay, makes the company missed the opportunity to enter the bidding process at the early semester .
  - The company tries to do efficiencies in project cost and turns out it perform successfully, the good performance of project control is one factor that able to deliver the project completion in quality and time

expected as the contract. The good performance also supported by the zero repeated project work and full return of project guarantee. The company also manages to get customer satisfaction record through its customer survey.

- In the internal business process, the implementation of ISO 9001:2008 still on doubt because many employee especially workers in the project did not carry out the ISO according to the procedure. Eventhough the project manages to deliver on time but the procedure of ISO urged to be follow.
  - In learning and growth perspective, the company continuously do improvement either in its own capacity nor the employee skills, information technology also needs improvement to support the project control.
- b. From all analysis in chapter 4. Four levers of control are proven actively controlled PT. SAJ strategy by setting its ground rules of seeking opportunity (strategic boundaries systems), limitation level of acceptance for the employees action (business conduct boundaries) align with the implementation of core values that is written clearly in the company's mission, the uses of balanced scorecard as critical performance variables to monitor the implementation of strategy (diagnostic control systems) and the close interaction between subordinate and managers in monitoring the strategic uncertainty that may occur during the implementation of strategy (interactive control system).

## 5.1 Recommendation

There are some recommendation that top management PT. SAJ can follow in order to improve its performance:

1. To perform trainings regarding the balanced scorecard and strategy map proposed for all authorized parties and to be proceed to all company's employee. By conducting this training, hopefully it will increase the awareness from all employees regarding their responsibility and their

impact on the company's efforts in achieving the desired target. And through this training also, top management will be able to communicate company's strategy to all employee and use it to evaluate their performance fairly.

2. To improve the coordination between the human resource, the technical and marketing divisions by using the report system so the company will be able to anticipate the kind of skills that their staffs needs to support the company strategy.
3. To use the company's new vision which is "to become specialized, trusted and reliable partners in mechanical electrical and civil construction field by 2015" with the company stability strategy and cost leadership strategy.
4. To use report systems as tools for interactive controls in order to anticipate the strategic uncertainties that may occur in the middle implementation of company's business strategy.
5. To push the general affairs and human resources division emphasizes the implementation of ISO and perform tight supervision in the progress.
6. To maintain the quality of work and improve the relationship with supplier and subcontractors that meet the qualification requirement to fulfill the adequate supply of supplier and subcontractors.
7. To constantly remind all company's components and themselves, eventhough PLN mega projects will provide huge potential work for the company but it's just a limited opportunity until 2015. Therefore company still needs to search for more opportunity to keep on maintain its business and organization life cycle.

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