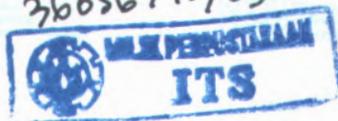




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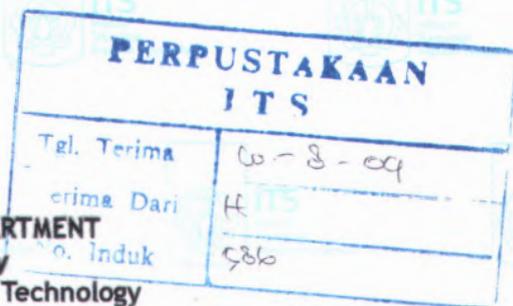
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FORMULATING STRATEGY FOR AUTOMOTIVE COMPONENT SMEs CLUSTER USING STRATEGIC MANAGEMENT APPROACH TO IMPROVE THEIR COMPETITIVE ADVANTAGE

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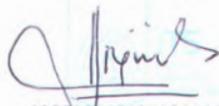
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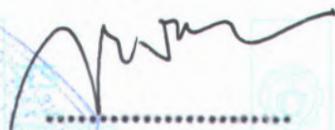
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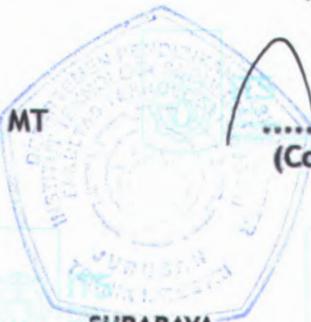


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SURABAYA
JULY 2008

**FORMULATING STRATEGY FOR AUTOMOTIVE
COMPONENT SMEs CLUSTER USING STRATEGIC
MANAGEMENT APPROACH TO IMPROVE THEIR
COMPETITIVE ADVANTAGE**

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Abstract

Small and medium size enterprises have important role in the economics of Indonesia regarding with creating job and increase the national gross product. Developing SMEs cluster in Waru which produce automotive components is very important because this business have good prospect in the future. Strategic management is be used to set their long term strategy. This research will formulate the best strategy for this cluster to improve their competitive advantage in order to compete with both local and international competitors. Focus group discussion and interviews were conducted to collect their aspiration and to evaluate their external and internal condition. This data then will be used to make TOWS and BCG Matrix to formulate the alternative strategies. This cluster is located in the location where they cannot take the advantages of good opportunities because of their weaknesses. In depth interviews with the strategic are used to select the best strategies and prioritize the programs. Therefore, these programs will be ready to be implemented to the cluster to improve their competitive advantage.

Keywords: competitive advantage, strategic management, small and medium size enterprises, industrial cluster



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**FORMULATING STRATEGY FOR AUTOMOTIVE
COMPONENT SMEs CLUSTER USING STRATEGIC
MANAGEMENT APPROACH TO IMPROVE THEIR
COMPETITIVE ADVANTAGE**

FINAL PROJECT

**Proposed to fulfill a requisition of Engineering Bachelor
Degree On Undergraduate Program of Industrial Engineering
Faculty of Industrial Technology
Sepuluh Nopember Institute of Technology**

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PREFACE

Praise only given to ALLAH SWT who has given blessing and mercy so this research entitled “Improving the Competitive Advantage of Small and Medium Size Enterprise Using Strategic Management Approach (Case Study of Automotive Component Industrial Cluster in Ngingas Waru- Sidoarjo)” could be finished. The research is dedicated to SMEs in Ngingas to improve their business and to all the people who what to study about SME and strategic management.

During this research, many people helped and supported me in order to accomplish this final project. I mean nothing without your valuable participation. Now, I would like thank to:

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12. Everyone who helped me in accomplishing this research.

I hope this report will be useful and give a new knowledge for those who want to improve their capability.

Surabaya, July, 30th 2009

Abdul Basyir

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CHAPTER I INTRODUCTION

1.1. Research Background

One of the main weaknesses in Indonesian economic is the fundamental lack of structure in microeconomics. The evaluation of economic performance was only emphasize on the macro indicator such as the economic growth, inflation, and monetary target which show the good thing. The starting point of new evaluation is in 1997 when the economic crisis was happened in Indonesia and opened the sight of Indonesian economic performance more comprehensively. There were a lot of Industries which stopped their operation because they could not be able to handle the financial effect of the crisis. The growth of manufacture industries were more than 10 % and gave 25 % to Gross Domestic Product before the economic crisis and fell drastically to stagnant condition or even have negative growth after the financial crisis happened. Small and medium size enterprises still exist in the Indonesian economy even though the crisis began in 1997, and the financial effects of the crisis have not significantly influenced them (Gunani and Hanoum, 2009).

SMEs still have an important role in Indonesian economy till the end of 2008. Based on data from *Badan Pusat Statistik*, the growth of SMEs was up to 6.4 percent while large enterprise is reach 6.2 percent. SMEs also give the big contribution in Gross Domestic Product with earn 2,121.3 trillion rupiahs or approximately 53.6 percent from Gross Domestic Product in Indonesia. This significant role sometimes become a problem because they still have a lot of weaknesses, such as no standard in financial and administration, out of date, un bankable financial report, small profit margin, and the inadequate of managerial skill in operating it.

Developing small and medium size enterprises is become a strategic issues due to its good prospect to move the society's economic and to be main resource to improve their prosperity.

Strategic Planning is enable an organization or a firm to formulate their strategies in order to set long term and sustainable development. A systematic steps in strategic management is starting with evaluation of both external factors to know the opportunities and the Threats of a certain business and the internal factors to know the strengths and the weaknesses of it. The factors then will be analyzed using several analysis tools to get the most appropriate strategies to the business. The next step is formulation of a company's mission and vision, objective with its target, and performance management will make a company easier to develop their selves. The limited or poor management of the SMEs is show that it is very important and essential to implement the strategic management concept to them. This will also give them an opportunities to learn about new knowledge in order to strengthen their position in the global competition.

1.2. Problem Formulation

From the fact that small and medium size enterprises play an important role and have good prospect to develop, this research will try to formulate the strategies how to improve the competitive advantage of automotive components industrial cluster in Waru Sidoarjo using the concept of strategic management.

1.3. Research Objective

The objectives of this research are:

1. To select the best criteria of competitive advantage for automotive component industrial cluster in Waru Sidoarjo.
2. To identify the external factors of the industrial cluster as the opportunities and threats and the internal factors as the strengths and weakness of it.
3. To formulate strategies for improving the competitive advantages of the automotive component industrial cluster in Waru Sidoarjo.

1.4. Research Benefit

The benefits or advantages of this research are as follow:

1. There will be some strategies for the industrial cluster in order to improve their competitive advantage.
2. Industrial cluster has multiplier effect to the industries within the cluster. If the industrial cluster has good position in their business, the individual industry will also get the advantage of the good position.

1.5. Research Scope and Assumption

The scopes of this research are as follow:

1. Competitive advantage improvement is conceptually based on industrial cluster approach which focus on the improvement of Industrial cluster than the individual industry.
3. Formulation of the strategies is based on strategic management concept and limited only on environmental scanning and strategy formulation.

The assumptions which used in this research are:

1. All of the main industries in the industrial cluster which have the same characteristic in their activities are identical with one big industry.
2. Interviews and focus group discussion with the stakeholders will be used to find the closest condition, which represents their real condition.

1.6. Report Organization

This research is written with structure which consists of:

Chapter I Introduction

This chapter consists of the background of the research, problem identification, research objective, benefits of the research, scope and assumption, and the writing structure.

Chapter II Literature Review

This chapter consists of all of the literatures and theory which are used to do environmental scanning and process the data in order to formulate the strategy for the cluster.

Chapter III Research Methodology

This chapter explains about the research framework and the guideline including the steps and methods to conduct this research.

Chapter IV Data Collection

This chapter shows all of data which have been collected to conduct the research.

Chapter V Data Processing and Analysis

This chapter explains the procedure to process the data in order to formulate the strategy. Each step are also analyzed in this chapter.

Chapter VI Conclusion and Suggestion

This chapter contains the conclusion of the research and the suggestion for the industrial cluster regarding with the results.

CHAPTER II LITERATURE REVIEW

2.1 Competitive Advantage

A firm can achieve competitive advantage by creating a customer value better than its competitor in the same price or creating the same customer value in the lower cost than its competitors (Hansen & Mowen, 1997). Customer value is margin between the cost that customers have paid and the benefit that achieved. Porter (1985) identified there are two basic types of competitive advantage that the firm can get. They are cost advantage and differentiation advantage.

- Cost advantage is achieved when a firm can is able to deliver the same benefit as competitor but in the lower cost. Achieving cost leadership means that a firm sets out to become the low cost producer in its industry. If more than one company try to achieve cost leadership, this is usually disastrous.
- Differentiation advantage is achieved when a firm can deliver benefits that exceed those competing product. Achieving differentiation means that a fir seeks to be unique in its industry along dimensions that are widely appreciated by customers. Areas of the differentiation can be product, distribution, sales, marketing, service, image, etc.

Cost and differentiation advantages are known as positional advantages since they describe the firm's position in the industry as a leader in either cost or differentiation. A resource-based view emphasizes that the firm utilizes its resources and capabilities to create a competitive advantage that ultimately results in superior value creation. Therefore, in order to build competitive advantage the firm must have both of them that are better than its competitors are. Without it, the competitor will easily duplicate what the firm was doing and any advantage would quickly disappear

Resource in here mean as the firm specific assets useful for creating a cost or differentiation advantage and that few competitors can acquire easily. The following is examples of the resource to build competitive advantage (Mirdah and Tenaya, 2005):

1. Preemptive moves or firm become the pioneer of a certain industry. Therefore, the firm has great opportunity to develop their product to become the leader in its competitor.
2. Patents and technology. The use of new technology can supports firm to achieve efficiency in cost, time, and effectively.
3. Firm's financial system.

Capabilities refer to the firm's ability to utilize its resource effectively. An example of a capability is the ability to bring a product to market faster from its competitors. Real competitive advantage implies companies are able to satisfy customer needs more effectively than their competitors. It is achieved if and when real value is added for customers.

A business must add value if it is to be successful. The important elements in adding value are (papulova,2006):

- Understanding and being close to customers, in particular understanding their perception of value
- A commitment to quality
- A high level of all-round service
- A speedy reaction to competitive opportunities and threats

Small industries which understand their customers can create competitive advantage and benefit from higher prices and loyalty of customers. Higher capacity utilization can then help to reduce costs. While it is important to use all resources efficiently and properly; it is also critical to ensure that the potential value of the outputs is maximized by ensuring they fully meet the needs of the customers for whom they are intended. An organization achieves this when it sees its customers' objectives as its own

objectives and enables its customers to easily add more value or, in the case of final consumers, feel they are gaining true value for money.

2.2 Industrial Cluster

Porter (1998) explained that the success of industries in a country does not belong to them, but it belongs to a group of industries and institutions which support each other's. This group of industries and institutions are called industry cluster. In this industry cluster, not only small and medium industries are existing but also large enterprise. Some definitions of industrial cluster are : (1) Industry Cluster is a group of industries and institutions which involved each other and located in same geography, cooperates due to similarity and necessity between them (Porter, 1998). (2) Industry cluster is supplier network which is contained of independent and strong firms (including special suppliers) which is related each other in a production value chain (Roelandt and den Hertag, 1999). (3) Industry cluster is an agglomeration of firms which form strategic and complement cooperation and intensive relation (Wirabrata, 2005).

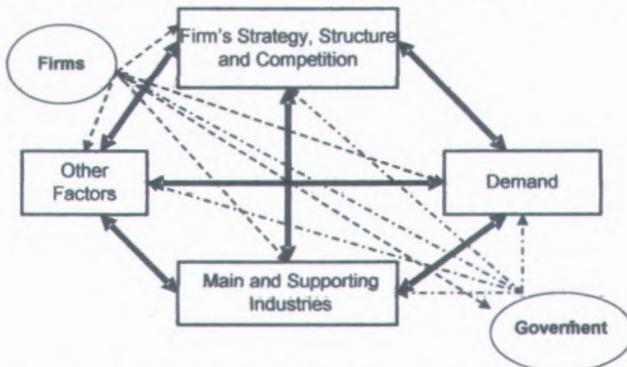


Figure 2.1 Interaction In Industrial Cluster (Porter, 1990)

The interrelation of firms in industrial cluster not only vertically but also horizontally. Furthermore Porter said that the

high growth of productivity is resulted from interaction of four factors namely firm's strategy, structure, competition of demand condition and other factors, and the linkage with supporting industries. This concept is known as Diamond Porter Model as shown in figure 4.1. This industrial cluster will stimulate new business, new employment, and there will be new businessmen who run the capital in a certain area.

Based on the above explanation we know that industrial cluster is a good and effective approach for developing industry. Industrial Cluster is also believed as a concept for improving the competitive advantage to face global competition. Therefore, in conducting reengineering of SME's structure in Indonesia, industrial cluster is a good concept to be developed.

Similar with Porter opinion, Wirabrata (2005) explained that there are some cluster perspectives i.e. (1) tracing value chain, (2) every firm or industry is inherent part of the cluster, (3) Industry as the main gate of the cluster, (4) core competences and Strategic Alliances, (5) form a platform to sustainable competitive advantage. The conceptual model of industrial cluster is shown in the figure 4.2.



Figure 2.2 Conceptual Model of Industrial Cluster (Gunani & Hanoum, 2009)

Industry cluster is a kind of high complexity problem because it consists of various problems. The interrelation between its elements requires a holistic method to analyze or system approach. There are two problems in system thinking, i.e. identify all the main factors to get the best solution and use a quantitative model to help in the decision-making process.

2.3 Small and Medium Size Enterprise

Based on the Indonesian Republic President Decision (*Keputusan Presiden RI*) no. 99 year 1998, Small Industry is "The society's economic activities in small scale in certain field which most of them is small scale and need to be protected to avoid unfair competition". The Indonesian Industry and Trade official or Desperindag stated that the contribution of value added from small and medium size enterprises (SME) have dominated value added in manufacture industries.

Indonesian Statistic or BPS has classified the criteria of industries to be included in small and medium size enterprises are as follows:

- A firm that employs at least 100 persons is called **large Industry**.
- A firm that employs from 20 to 99 persons is called **Medium Industry**.
- A firm that employs from 5 to 19 persons is called **Small Industry**.
- And an industry with only 1 to 4 persons is called **home industry**.

In other side, in Indonesian Law or *Undang-Undang* No. 9 year 1995 mentioned that criteria of small and medium enterprises are as follows:

- The capital of industry is not more than Rp. 200.000.000,- (Two Hundred Thousand Million Rupiahs) and land and building is not included.
- The total sales not more than Rp. 1.000.000.000,- (One Billion Rupiahs)

- Owned by Indonesian citizen
- Independen, the firm is not a branch of large enterprises.

The important role of Small and medium enterprises has been become ironic which is most of SMEs have alot of weaknesses, such as:

- SME does not has good financial system and out of date.
- Small capital and non bankable financial report.
- Small profit margin
- The operation of the firm is based on habit and no adequate management skills.

Due to alot of weaknesses of SME in human resources, production, finances, or marketing, goverment has been trying to develop them. The development is not conducted by goverment, but it is done by a local institution that understand the characteristic and problem of SME that they have to develop.

2.4 Strategic Management

Strategic management is the art, science and craft of formulating, implementing and evaluating cross-functional decisions that will enable an organization to achieve its objectives (David, 1989). It is the process of specifying the organization's mission, vision and objectives, developing policies and plans, often in terms of projects and programs, which are designed to achieve these objectives and then allocating resources to implement the policies, and plans, projects and programs. Strategic management is 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. Moreover, it reassesses each strategy annually or quarterly [i.e. regularly] 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).

Strategy is a long-term plan, very general, and has wide scope. However, in formulating the strategy we have to specify each project and determine its key performance indicator (KPI). The failure in establishing the key performance indicator is often causes the failure in achieving the company's vision.

Pierce and Robinson (1996) define that strategic management is a series of decision and action to formulate and implement plans to achieve the company's vision. It is consist of nine critical tasks. They are:

1. Formulating company's mission, including objectives, philosophies, and targets.
2. Identifying and analyzing internal factor and the company's capabilities.
3. Identifying the environment conditions both external factors and the competition.
4. Analyzing the preferably company by matching its capability with its external condition.
5. Identifying the preferably choices by evaluating each alternative that most appropriate to the company's mission.
6. Formulate long-term strategies to achieve the company's objectives.
7. Develop short-term objectives and strategies to achieve long-term strategies.
8. Implement the selected strategy.

The success in process of getting strategy is used to make a decision.

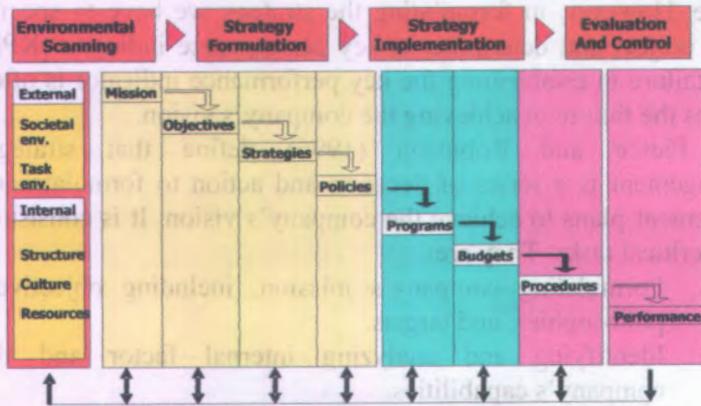


Figure 2.3 Strategic Management Frameworks (Wheelen & Hunger, 2003)

Furthermore, Wheelen & Hunger (2003) introduce a new framework to develop industry by mapping four steps. They are (1) Environmental Scanning, (2) Strategy Formulation, (3) Strategy Implementation, and (4) Evaluation and Control.

2.4.1. Environmental Scanning

The beginning of strategy formulation is environmental scanning. The analysis is very important to determine which strategy that most appropriate with the company's internal and external factors. Environmental scanning is a process of gathering, analyzing, and dispensing information for tactical or strategic purposes. The environmental scanning process entails obtaining both factual and subjective information on the business environments in which a company is operating or considering entering.

2.4.1.1. External Factor Evaluation

Broad environment is uncontrolled factor of the company but it can influence the long-term plan of a company. They are economic, social, technology, and policy.

➤ Economic Consideration

Economic consideration is very important concern with the strategy direction of the company. Consumption pattern of the society clearly influences product's market share. A company has to consider the credit availability, inflation rate, interest rate and so on.

➤ Social Consideration

This factor is consists of belief, values, attitudes, life styles of the society where the company operates. It is formed from cultures, demography, and tribe. If the social condition is change, it will influences demand of a certain good or service and work pattern of society who work in the company.

➤ Technological Consideration

A company has to renew their technology and makes innovation. The quick technological change forces the company to adapt with new situation. Innovation in producing product, manufacture system and marketing are the example that company must do to adapt with new condition.

➤ Political Consideration

Political situation is very important factor to consider in formulating strategy. Minimum wage standard for workers and price policy are political aspect that company must aware about.

External Factor Evaluation (EFE) matrix method is a strategic-management tool often used for assessment of current business conditions. The EFE matrix is a good tool to visualize and prioritize the opportunities and threats that a business is facing. External factors assessed in the EFE matrix are the ones that are subjected to the will of social, economic, political, legal, and other external forces. The matrix can be created using the following five steps:

- a. The first step is to gather a list of external factors. Divide factors into two groups namely opportunities and threats.
- b. Assign a weight to each factor. The value of each weight should be between 0 and 1 (or alternatively between 10 and 100 if you use the 10 to 100 scale). Zero means the factor is not important. One means that the factor is the most influential and critical one. The total value of all weights together should equal 1.
- c. Assign a rating to each factor. Rating should be between 1 and 4. Rating indicates how effective the firm's current strategies respond to the factor. 1 = the response is poor. 2 = the response is below average. 3 = above average. 4 = superior. Weights are industry-specific. Ratings are company-specific.
- d. Multiply each factor weight with its rating. This will calculate the weighted score for each factor.
- e. Add all weighted scores for each factor. This will calculate the total weighted score for the company.

2.4.1.2. Internal Factor Evaluation

Internal analysis of an industry is used to formulate the strengths and weaknesses of the firm. The examples of the firm's strengths such as unique competences, good and available capital and resources, good skill, brand image, etc. The examples of weaknesses are: unclear strategy, bad facilities, bad market share, etc.

Internal Factor Evaluation (IFE) matrix is a strategic management tool for auditing or evaluating major strengths and weaknesses in functional areas of a business. IFE matrix also provides a basis for identifying and evaluating relationships among those areas. The *Internal Factor Evaluation matrix* or short IFE matrix is used in strategy formulation.

The IFE Matrix together with the EFE matrix is a strategy-formulation tool that can be utilized to evaluate *how a*

company is performing in regards to identified *internal strengths and weaknesses* of a company. The IFE matrix can be created using the following five steps:

- a. Make a list of critical success factors: divided between strengths and weaknesses.
- b. Assign a weight to each critical success factor. The value of these weights should be between 0 (not important at all) and to 1 (the most influential critical success factor). The total value of the weights should equal, but not exceed 1.
- c. Assign a rating to each one of the critical success factors. The rating should be between 1 (minor) and 4 (major). *Thus the scores are company-specific and the weights are industry-specific.*
- d. Multiply each factor weight with its rating this determines a weighted score for each critical success factor.
- e. Sum the weighted score for each factor to find total weighted score for the company.

2.4.2. Strategy Formulation

Strategy formulation is stage of strategic management that involves planning and decision making that lead to the establishment of the organization's goals and of a specific strategic plan. , the second phase in the strategic management process, produces a clear set of recommendations, with supporting justification, that revise as necessary the mission and objectives of the organization, and supply the strategies for accomplishing them. In formulation, we are trying to modify the current objectives and strategies in ways to make the organization more successful. This includes trying to create "sustainable" competitive advantages although most competitive advantages are eroded steadily by the efforts of competitors.

A good recommendation should be: effective in solving the stated problem(s), practical (can be implemented in this situation, with the resources available), feasible within a reasonable period, cost-effective, not overly disruptive, and acceptable to key

"stakeholders" in the organization. It is important to consider "fits" between resources plus competencies with opportunities, and fits between risks and expectations.

- **Mission.** Mission of the company is declares why the company exist. Narrow mission will limit the scope of company activities in offering products, services, technology, and served market. Large mission will also enable company to enlarge their activities in providing goods, services, market and technology.
- **Objective.** It will determine the parameter every specific goal that must be determiné by management. It explains what and when one thing should be achieved. Here are some examples of targets: profitability (net profits), efficiency (low costs, etc.), growth (increase in total assets, sales, etc.), shareholder wealth (dividends plus stock price appreciation), and utilization of resources (ROE or ROI).
- **Strategy.** A strategy of the company is declares how the company will achieved their missions and objectives.
- **Policy.** As the detail of company's strategies, policies provide guidance in making decision. Policy is a guidance to connect strategy formulation and strategy implementation.

2.4.2.1. Matching Stage

- **TOWS**
The TOWS analysis is an extremely useful tool for understanding and decision-making for all sorts of situations in business and organizations. The TWOS analysis provides a good framework for reviewing strategy, position and direction of a company or business proposition, or any other idea. TOWS is an acronym for **strengths, weaknesses, opportunities** and **threats**. Strengths and weaknesses are internal aspects. Kotler (1988) suggests that the internal aspects should cover the

four areas of marketing, financial, manufacturing and organizational. Opportunities and threats look at the main environmental issues such as the economic situation, social changes such as the population getting older and technological developments including the internet. A TOWS analysis can be used for companies, departments and divisions as well as individual people.

TOWS analysis can be used to clarify and summarize the keys and opportunities facing. The ideal outcome would be to maximize strengths and minimize weaknesses in order to take advantage of external opportunities and overcome the threats. If the company knows that there are potential threats then the company can set strategies to avoid or counteract. Strengths and weaknesses are internal value creating (or destroying) factors such as assets, skills, or resources a company has at its disposal relatively to its competitors. The example of opportunities can be unique product, location of your business, patents, trade secrets, worker's unique skill, corporate culture, company image, quality of your product, access to financing, and operational efficiency. Then for weaknesses can be location of your business, lack of quality and customer service, poor marketing and sales, access to resources, undifferentiated products or services.

Moreover, opportunities and threats are external value creating (or destroying) factors a company cannot control but emerge from either the competitive dynamics of the industry or market or from demographic, economic, political, technical, social, legal, or cultural factors. The example of opportunities can be a new emerging or developing market (niche product, place - new country, less competition), merger, joint venture, or strategic alliance, market trends, new technologies, social changes (for example demographics). Moreover, the weaknesses can be new competition in the market, possibly with new products

or services, price wars, economic conditions, political changes, competitor oligopoly or monopoly, taxation, availability of resources. TOWS analysis can be presented in a matrix form as shown in figure 4.6.

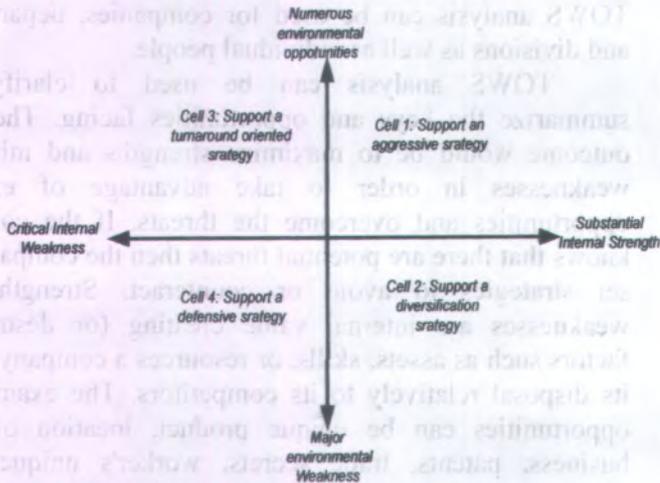


Figure 2.4 TOWS Matrix (Pierce, 2007)

- **Boston Consulting Group (BCG) Matrix**

The **BCG matrix** or also called **BCG model** relates to marketing. The BCG model is a well-known portfolio management tool used in product life cycle theory. BCG matrix is often used to prioritize which products within company product mix get more funding and attention. Each product has its product life cycle, and each stage in product's life cycle represents a different profile of risk and return. In general, a company should maintain a balanced portfolio of products. Having a balanced product portfolio includes both high-growth products as well as low-growth products.

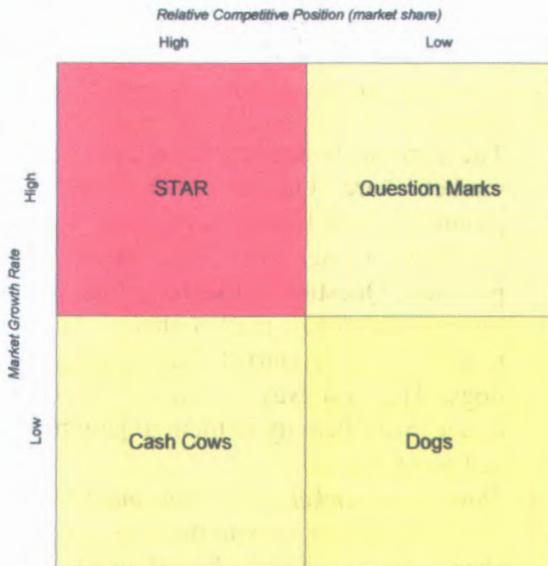


Figure 2.5 BCG Matrix

If the products are placed in the BCG matrix, it will result in 4 categories in a portfolio of a company. They are:

- a. *STAR* (high market growth high market share).
Stars are defined by having high market share in a growing market. Stars are the leaders in the business but still need a lot of support for promotion and placement. If market share is kept, Stars are likely to grow into cash cows.
- b. *Cash Cows* (low market growth high market share).
Cash cows are in a position of high market share in a mature market. If competitive advantage has been achieved, cash cows have high profit margins and generate a lot of cash flow. Because of the low growth, promotion and placement investments are low. Investments into supporting infrastructure can

improve efficiency and increase cash flow more. Cash cows are the products that businesses strive for.

- c. *Question Marks (high market growth low market share)*

These products are in growing markets but have low market share. Question marks are essentially new products where buyers have yet to discover them. The marketing strategy is to get markets to adopt these products. Question marks have high demands and low returns due to low market share. These products need to increase their market share quickly or they become dogs. The best way to handle Question marks is to either invest heavily in them to gain market share or to sell them.

- d. *Dogs (low market growth low market share).*

Dogs are in low growth markets and have low market share. Dogs should be avoided and minimized. Expensive turn-around plans usually do not help

2.4.2.2. The Quantitative Strategic Planning Matrix (QSPM)

Quantitative Strategic Planning Matrix is a high-level strategic management approach for evaluating possible strategies. A QSPM provides an analytical method for comparing feasible alternative actions. The QSPM method falls within so-called stage 3 of the strategy formulation analytical framework.

The format of the QSPM consists of the listing on the left column the critical success factors. These factors are divided into opportunities, threats, strengths, and weaknesses. This information is taken directly from the EFE and IFE Matrices. In the next column the weights used for each factor in the EFE and IFE Matrices are listed. The top row of the QSPM is made up of strategies derived from the TOWS Matrix, SPACE Matrix, IE Matrix, and Grand Strategy Matrix.

Table 2.1 Quantitative Strategic Planning Matrix

QSPM (Quantitative Strategic Planning Matrix) for XYZ Company						
Key Factors	Alternative 1 - <i>Acquire Competitor</i>			Alternative 2 - <i>Expand Internally</i>		
	Weight	Attractiveness Scores	Total Attractiveness Score	Weight	Attractiveness Scores	Total Attractiveness Score
Strengths						
Unique product	0.11	2	0.22	0.08	1	0.08
Location of your business	0.09	3	0.27	0.06	2	0.12
Worker's unique skill set	0.15	1	0.15	0.13	4	0.52
Quality of product	0.11	4	0.44	0.15	4	0.60
Increasing work productivity	0.09	0	0.00	0.12	3	0.36
Weaknesses						
Lack of quality and customer service	0.10	4	0.40	0.13	3	0.39
Poor marketing and sales	0.15	2	0.30	0.10	1	0.10
Undifferentiated product	0.08	3	0.24	0.17	0	0.00
Negatively sensitive to globalization	0.12	1	0.12	0.06	1	0.06
Sum Weights	100%			100%		
Opportunities						
A new emerging or developing market	0.09	4	0.36	0.12	0	0.00
Possible acquisition of a competitor	0.14	4	0.56	0.08	2	0.16
Membership in trade alliance	0.16	0	0.00	0.10	1	0.10
Threats						
Increasing competition in the market	0.08	4	0.32	0.12	1	0.12
Price war	0.10	3	0.30	0.14	0	0.00
Competitor oligopoly	0.18	2	0.36	0.09	1	0.09
US dollar exchange rate	0.09	0	0.00	0.20	0	0.00
Infavorable taxes	0.16	0	0.00	0.15	0	0.00
Sum Weights	100%			100%		
Sum Total Attractiveness Score			4.04	>	2.70	

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2.4.3. Strategy Implementation

Strategy Implementation is stage of strategic management that involves the use of managerial and organizational tools to direct resources toward achieving strategic outcomes. A company has to be able to implement the selected strategy correctly. The wrong in implementing strategy can be occurred although the objectives have been set before.

- Who should implement the strategies? Every managers and supervisors will be involved in implementing corporate, division, and functional strategies.
- What should be done? Division managers and Function managers have to corporate in building programs, budget, and procedure to apply the strategies.
- A program is an activity to achieve the company mission

- Allocate the resources and cost.
 - Standard operation procedure is used to make a system how task or activities must be done.
- Moreover, strategy execution has to fulfill the following principal:
- Building organization that can execute its strategy successfully
 - Accurate in allocating the resources
 - Determine the standard Operation Procedure that supports strategy
 - Motivating Human Resources, modifying tasks, and Restructuring the behavior.
 - Designing reward structure
 - Create good organization culture and atmosphere, to support strategy implementation and execution.
 - Developing leadership
 - Determine best practices and programs in achieving continue improvement.

2.4.4. Strategy Evaluation and Control

The final stage in strategic management is strategy evaluation and control. All strategies are subject to future modification because internal and external factors are constantly changing. In the strategy, evaluation and control process managers determine whether the chosen strategy is achieving the organization's objectives. The fundamental strategy evaluation and control activities are: reviewing internal and external factors that are the bases for current strategies, measuring performance, and taking corrective actions.

When the target of the company is not achieved, the management can analyze why it could happen. Then the evaluation is used as the consideration in the next strategy. Balanced scorecard is the tools to help company to evaluate the company's performance from top management to operational level. According to Kaplan and Norton (1996), balanced

scorecard is: "... a set of measures that gives top managers a fast but comprehensive view of the business. It includes financial measures that tell the results of actions already taken, complements the financial measures with the operational measures on customers satisfaction, internal process, and the organization's innovation and improvement activities-operational measures that are the drivers of the future financial performance." Therefore, balanced scorecard is a management system, tools for measuring and controlling a business performance fast and comprehensively

2.5 Previous Research

Actually, there several previous research about SME, industrial cluster, and strategy management. Heryanti (2007) used strategic management to formulate the best strategy for marmer industry in Tulung Agung. Hidayati (2008) studied the the foundation of the automotive component industrial cluster in Ngingas Sidoarjo. She identified the criteria of competitive advantage of the cluster. Then, this research will use strategic management to formulate its strategy for this automotive component industrial cluster in order to improve the its competitive advantage.

CHAPTER III RESEARCH METHODOLOGY

3.1 Research Framework

The important role of small and medium size enterprises in driving the economical condition has to be maintained by government. SMEs also have a good prospect and more resistant to financial crisis. However, in other side, SMEs often have several lacks such as poor management, small capital, poor human resource etc. For those reasons, it is very important for us to develop and help SMEs in getting their competitive advantage. Criteria of competitive advantage from secondary data and the concept of strategic management are used to formulate the strategies in order to make SMEs have good competitive advantage to face global competition. It is clearly described in figure 3.1.

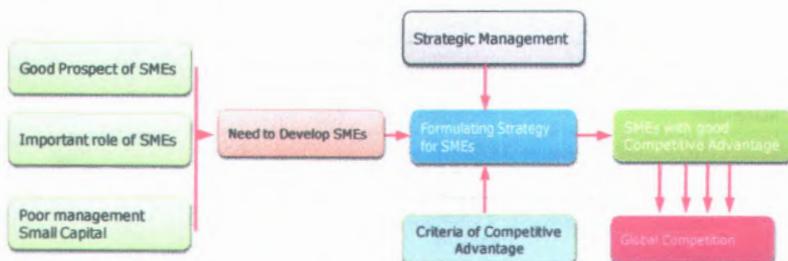


Figure 3.1 Research Framework

3.2 Research Guideline

This research will be conducted based on the following guideline.

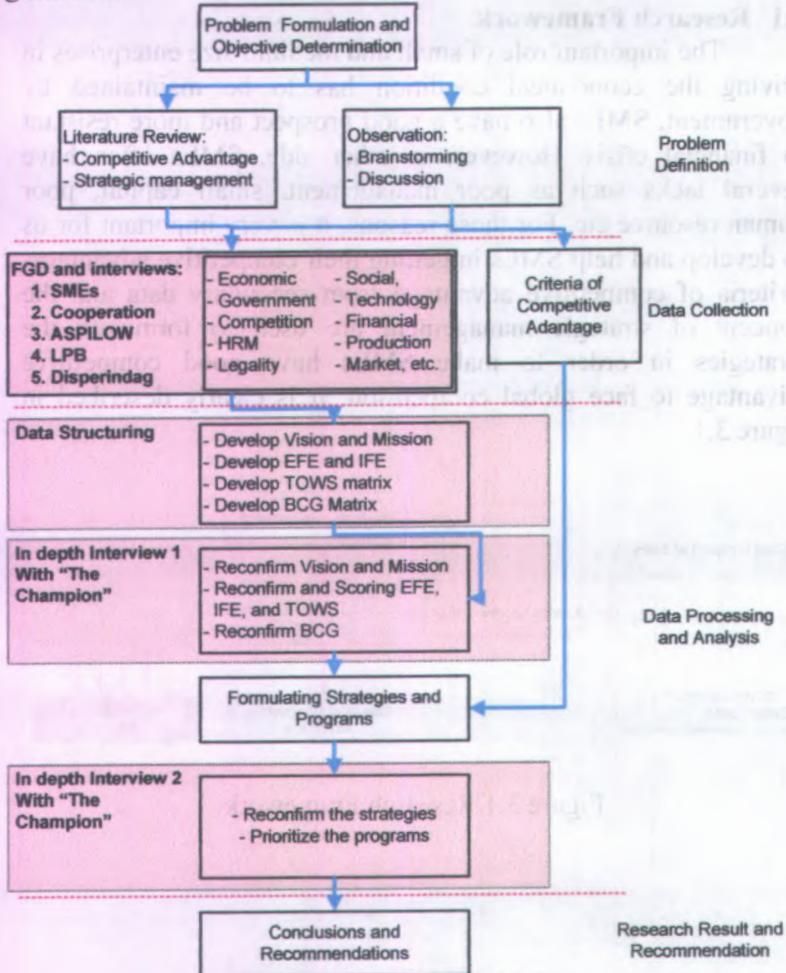


Figure 3.2 Research Guideline

3.2.1. Problem Definition

Problem identification is started with literature review and observation in the object namely some SMEs in Waru Sidoarjo where the research will be conducted. The discussion with the owner of some industries and expert is done to identify what are the problem of SMEs industrial cluster. The literature review is done by searching theory and concepts to figure out the problems. The references are gathered from books, journals, and also some articles from internet. The literatures consist of competitive advantage, Strategic management, industrial cluster, and Small and medium size enterprises.

3.2.2. Data Collection

Data collection is the stage to collect all the required data. The first data are external factors such as social condition, economic, technology, and policy in where the SME located. We collect secondary data from internet and other sources. The next data are internal factors of SMEs by doing focus group discussion and interviews with all stakeholders of industrial. They are SMEs, financial institution, LPB Waru, ASPILOW, and *Disperindag*. The criteria of competitive advantage are gathered from the research conducted by *Disperindag* Jatim.

3.2.3. Data Processing and Analysis

In this section, all data which have been gathered from environmental scanning are then used to develop the EFE & IFE matrix, to map the cluster, and to select the best strategies for the cluster. The process of environmental scanning, developing EFE & IFE matrix, and developing TOWS & BCG matrix are based on the David (1989). On the other hand, the formulation of alternative strategies and the selection are based on the Guideline of Developing Corporate Planning for Governmental Projects from World Bank. The TOWS and BCG matrix and vision and mission are made and will be confirmed to the champion, namely the chief of

ASPILOW and *Disperindag*. The fixed TOWS and BCG matrix then used to formulate the alternative strategies. In other side, the criteria of competitive advantage gathered from *Disperindag* are processed to select the five best criteria.

By considering the TOWS and BCG matrix and criteria of competitive advantage, the best strategies are chosen for the cluster. The selected strategies are broken down into detail program to be applied in SMEs industrial cluster. The data analysis is to explain and analysis the result in data processing. The result is not generic strategy but will be designed as strategy initiative so that it will be ready to be implemented for automotive component industrial cluster.

3.2.4. Research Results and Recommendations

In the end of this research, the conclusions are taken to answer the research objectives that have been determined first. Several best criteria to improve competitive advantage of SMEs and the most suitable strategies for SMEs will be the result of this research. Recommendations about the strategies is also made in order to improve to quality of SMEs in Waru Sidoarjo.

CHAPTER IV DATA COLLECTION

In this section, all required data will be collected. The existing condition of the automotive component cluster will be identified and explained here. The data which are collected consist of primary data and secondary data. The primary data are gathered from focus group discussion with the main industries and all stakeholders and interviews with the people who have expertise in the cluster. In other side, the secondary data are gathered from some sources such as previous research and from websites.

4.1. The Automotive Component Industrial Cluster

The automotive component industrial cluster is located in Waru Sidoarjo. It consists of small and medium size enterprises. According to Gunani and Hanoum (2009), this cluster was initiated in 2009. In their research, they diagnosed the components of the cluster system and they also build the model of the cluster. The main industries and the supporting industries and institutions were identified to map the system of metal based industrial cluster. The whole system of automotive component industrial cluster and its stakeholders is shown on the figure 4.1.

Furthermore, this research is limited and focused on the automotive component industrial cluster. After the cluster was initiated in 2008, the next important step is formulating the strategy. This research will try to formulate the best strategy for the cluster to be able to survive in the competition. Strategy becomes very essential to set because competition is harder right now not only with local industries, but also with the industries from China and Japan who also concern in the automotive industries. China is very well-known with their low cost products is one of the threats of this cluster. The cluster should respond quickly and make the best strategy to face them.

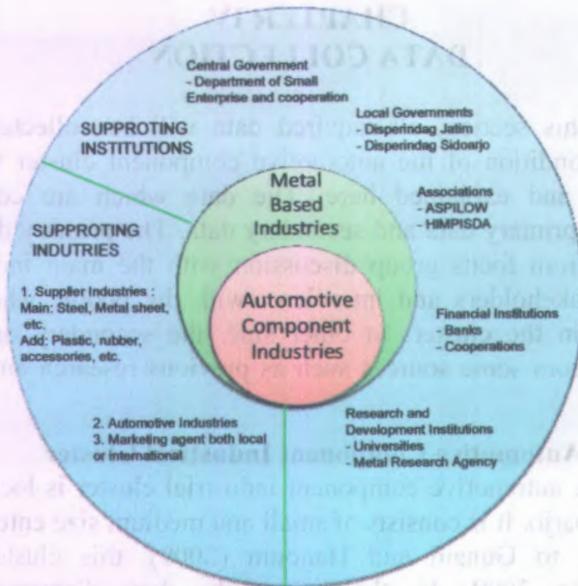


Figure 4.1 The System of Metal Based Industrial Cluster (Gunani and Hanoum, 2009)

4.2. Identification of The Cluster's Stakeholders

Automotive component industrial cluster in Ngingas consists of some small industries which have their own production capacities, human resources, and capitals. They also have some institutions in order to support their business, such as financial institution which enables them to get money in the simple and fast process and they also has businesses consultant institutions which helps them to develop their management and training. This industrial cluster has the same intention and aspirations to be best supplier of automotive components and has a good competitive advantage. If one of them gets big order which is out of its production capacity, other industries will be involved to serve that order.

Because of the unity and dependency of the entire parts in the cluster, it is very important for them to formulate strategy in

order to improve their competitive advantage as a cluster. The external competitors especially the industries from China are become the main threat for them because of their low cost of production. Long-term, middle-term, and short-term strategy should be developed immediately. The strategic management approach will be used to formulate the best strategy for this industrial cluster.

Identification of the cluster's stakeholders is very important to do in order to know the whole system of the cluster. By doing this, the main industries and the supporting industries or institution can be identified. The research can be focused on the main industries and the supporting industries or institution will also be analyzed to make industries better.

a. The Main Small and Medium Size Enterprises

SMEs are the main industries which produce automotive components. The data of the main industries is based on the data provided by LPB Waru in 2008 who works as the business consultant of the cluster. Here are some main industries:

Table 4.1 (a) The Main Small and Medium Size Enterprises

No	Name	Product	Annual Revenue (000)
1	Lancar Jaya, UD	Automotive Comp.	800
2	Atak Otomotif Indometal, PT	Automotive Comp.	1,500
3	Mamli, UD	Automotive Comp.	700
4	Soponyono, UD	Automotive Comp.	650
5	Trilaksana, CV	Automotive Comp.	950
6	Barokah Jaya, UD	Automotive Comp.	900
7	Barokah, UD	Automotive Comp.	1.100
8	Fajar, UD	Automotive Comp.	680
9	Jasa Logam, CV	Cars comp. & Electroplating	600
10	Jaya Utama	Cars comp. & Electroplating	800

Table 4.1 (b) Continuance

No	Name	Product	Annual Revenue (000)
11	Karya Motor, UD	Cars Comp.	820
12	Khas, UD	Cars comp. & Electroplating	600
13	Lira Utama	Cars comp. & Electroplating	750
14	Mochtar, UD	Motorcycle comp	650
15	Kurnia motor, UD	Automotive Comp	710
16	Oktavio Metal, CV	Automotive Comp	800
17	Sinar Abadi, UD	Motorcycle comp	670
18	Sudi, UD	Automotive Comp	700
19	Maju Makmur, UD	Motorcycle comp	700
20	Asia Teknik, CV	Motorcycle comp	800

Source: LPB (2008)

b. Suppliers

Suppliers are the supporting industries who supply the material to the cluster. There are two main steel industries surround the cluster. They are Krakatau Steel, Tbk and PT. Ispatindo.

c. Customers

Customers are the supporting industries who use the products of the cluster. The customers of the cluster can be automotive industries such as PT. AHM, PT. Indospring Gresik and also can be open market. It means that sometimes SMEs also sell their products to individual customers.

d. Financial Institution

Financial institution have role to fulfill the capital need of the cluster. There are many financial institutions which involved in the cluster. They are *Koperasi Waru Buana Putra*, Bank Mandiri, Bank Bukopin, etc.

e. Government

Government is the one who has the law regarding to the operational of the industries.

f. Business Development Service

The roles of Business Development Services are to support the cluster deal with the training problem, consultation, and how to upgrade their capability in running their business. Lembaga Pengembangan Bisnis Waru is one of them who have been active in coordinating SMEs in Ngingas.

g. Academic Institution

In order to do research and development, cluster needs participation of academic institution. There many universities surround the cluster enable them to improve their quality.

h. Local Society

Local societies have to be considered in analyzing cluster. They get the both positive and negative effect of the cluster.



Figure 4.2 Stakeholders of the Cluster

Here is the list of the automotive components which are produced by the cluster.

Table 4.2 Products list of the Cluster

Products	
1	Bracket Join Kapel
2	Hanger Spring BLK
3	Handle Bagasi BLK
4	Perseneling
5	Tutup As Roda
6	Pedal Gas FE
7	Pangkong Spion FE
8	Plat Dynamo Ampher
9	Kunci Busi+Tang
10	Pedal ST
11	Reng Cakar Roda BLK FM
12	Pir Schock
13	Tatakan stobkaker
14	Frame kaca angin
15	Anting Ver Double
16	Holder Glass
17	Ring lampu Seal Ben
18	Plat Struck Roda
19	Stelan Rem Roda Depan
20	Stang Spion T/K
21	Ayunan Shakel+Bosh
22	Clamp Joke Bangku Depan
23	Reng Stoper Oil FE
24	Mur Kawel Bag FE
25	Tutup Dinamo Stater
26	Kunci Mur As Gardan BLK
27	Baut Stabilish T/H

Source: LPB (2008)

4.3. Environmental Scanning

Environmental scanning is the activity of collecting the information about industries or organizations which will be analyzed in order to formulate the best strategy for them. In this research, focus group discussion and interviews with the stakeholders has been conducted to gather the primary data. The secondary data from website, journal, and other institutions are also used to support the primary data in describing the real condition on the cluster.

The institution or organization who involved in the environmental scanning are:

- a. Small and Medium Enterprises
- b. Koperasi Waru Buana
- c. LPB Waru (Business development Institution)
- d. Aspilow (Metal based Industries Association in Waru)
- e. Dinas Perindustrian dan Perdagangan
 - Ngingas Industry division
 - Standardization division
- f. Academic Institution

The information gathered from those activities then collected and classified into three groups.

4.3.1. The External Condition of The Cluster

The first step of doing *environmental scanning* is identifying and analyzing the external factors where the industries or organizations are located. This step is important to do because there are many factors which will influence the SMEs. From this identification, the opportunities and the threats of the industrial cluster will be classified and will be used to develop the map of the industrial cluster.

These factors consist of economical condition, social and culture condition, technological condition, political condition, and competition condition.

- a. Economical Power

Indonesia is the developing country which has big demand of cars and motorcycles. The demand of motor

cycles is increasing in last 3 years. According to Data Consult, the demand of motorcycle was 4.45 million units in 2006, 4.71 million units in 2007, and still grew in 2008 became 6.27 million units. It also estimated that the amount of motorcycles in 2008 was 63.6 million units and will be increase every year. It is also estimated that the demand of automotive products will still increase in the next few years.

Furthermore, regarding to financial institution, many banks offer the loan for the SMEs with simple ways. For instance, Bank Mandiri gives credit for SMEs from 100 to 500 million rupiahs. Its mean that there is great possibility for the cluster to improve their business.

Moreover, there are two big steel companies around the cluster. These make it easy for the cluster to get the material in lower cost. However, they cannot do it because of the companies' policy in minimum amount of purchasing. The minimum amount is 40 tons each time, which is too much for the individual industry. They usually purchase the material from the distributor in Surabaya and obviously with higher price. The price of steel is always changing and influences the price of the cluster's product.

b. Political Power

The government role in developing SMEs is very important. Their policies can accelerate and decelerate the growth of SMEs including industrial cluster in Ngingas. From the interviews which have been conducted, they have difficulties in some of policies and laws. For instance, the patent law or known as HAKI which regulate the invention of a product. Some SMEs have just got the bad effect of it. There is one product which had been being produced for a long time. Then, there was new industry who registered this product. This industry then prohibited the industries in Ngingas from producing this product unless they paid the royalty to the industry. The SMEs could do nothing; some of them quit and there are two industries who continued by

paying the royalty. The problem is that patent is only consider who register first, whether he or she is exactly the inventor of a certain product or not. Therefore, it is possible that there will be more products which have the similar problem.

The next law is about Indonesian National Standard (INS). The SME who want to get it should provide at least 50 million rupiahs for the process and the consultant. Of course, it is too expensive for SME and only a few of them can get this certificate. Beside, without the INS, they can sell product in the free market.

Moreover, *Disperindag* Jatim is the governmental institution who responsible with the SMEs in Ngingas. They have a certain Technical Service Unit (TSU) in Trosobo for giving the knowledge to SMEs regarding to metal industries. This TSU also helps SMEs to test their product such as hardness test, tensile, etc.

c. Social, Culture and Environmental power

As developing country, most of the Indonesian citizens have high demand of motorcycles. Motorcycles are more desirable than cars because it is cheaper. Therefore, the price of motorcycles is still reachable with low salary. There is also a tendency of the society to buy illegal products for the second spare part. The genuine part sometimes too expensive for the society and they will look for the cheaper one. In labor availability, Ngingas has a large number of human resources. Almost every home in the area is metal based home industry. They have very good experience and skill in metal based industry.

The area where the industrial cluster is located is not in the highway. The condition of street to access the cluster is small and not good. This makes the big vehicles which transport products and material often has difficulty to pass. Furthermore, the location of the cluster is also very far

from the automotive industries. Most of them are located in West Java.

d. Technological Power

Technology always grows rapidly every single time. It help cluster to get the better business by taking the benefit of it. The online marketing or knows as e-business enables the companies to market their product twenty four hours. Unfortunately, they cluster able to use this facility due to lack of information and knowledge about computer and internet. They have ever been given free website from the government; however, it was useless because they didn't have an administrator to manage the website.

Besides, there are many academic institutions around the cluster. They can give the skills and knowledge about the present technology and other information. These institutions have responsibility to share and implement their knowledge to the local industries by doing research and development.

e. Competition Power

The competition of automotive component market is very hard. There are many SMEs which are located surround the automotive industries in west java have a big opportunity to win the competition. They can minimize the cost of transportation and time delivery.

In addition, the ASTRA Company has a certain policy or system in purchasing the automotive components. They have a certain group of industries which supply ASTRA because they have special relationship with the ASTRA. This relationship makes other industries unable to enter or sell their product to ASTRA. This condition off course is very terrible for cluster in Ngingas. They have been banned from sell their product to automotive industries.

4.3.2. Porter's Five Force

This step will analyze industrial the condition cluster from five perspectives based on porter's *five forces*.

1. Competitive Rivalry

- There are many competitors in the automotive component industry. It means that many industries are ready to replace which one who cannot fulfill the customer's order.
- Japanese and Chinese industries are still dominating the market share of automotive components.
- The market is growing every year so that industrial cluster has the possibility to earn more income.
- All industries are competing in fulfilling the specification of the products in order to save in competition.
- There is no different type of the products, so that industrial cluster should compete in quality and price.

2. Threat of New Entrants

- There is big possibility for new competitors to enter this market. The skill in producing this products can be upgraded with simple training
- The minimum need of capital make it easy for new industries to enter this business.
- The input materials are very easy to get also cause the high possibility for new comers.

3. Bargaining Power of Buyers

- There are two main customers; they are automotive industries and free market.
- Automotive industries have strong. Automotives industries may have many suppliers and it is very easy for them to change their supplier which make industrial cluster weak in bargain power.
- Customers from large industry have their own product specifications which sometimes it's difficult for the industrial cluster to fulfill.
- Customers have strong power to determine the products price.

4. Bargaining Power of Suppliers

- Industrial cluster has strong power to their suppliers in determining the price because metal can be bought from many suppliers with almost the same in quality.
- Industrial cluster has no power in determine the price of fuel.
- Lower cost can be achieved in purchasing from supplier if they do it in the same time and in a large amount of metal.
- The price of fuel and metal are widely known so that industrial cluster can monitor them.

5. Threat of Substitutes

- Due to the complexity of the automotive components and they are commonly determined by large industries with a certain specification, it is very difficult for new industry to make substitute products. Therefore, the appearance of substitute product has small possibility.
- Substitute product can be made with the aim of modification, but it is expensive and only a particular customer wants to do it.

4.3.3. The internal Condition of the Cluster

a. Marketing and Market Share

From the discussion and Focus Group Discussion with some SMEs, they explained that they are still weak in selling their products. Although the cluster can produce automotive components in a large quantity, they cannot sell their product to automotive industries like ASTRA, SUZUKI, or YAMAHA. This market is still difficult for them to access. Cluster doesn't have a certain agreement with automotive industries relating with subcontracting.

There are many obstacles which cause this condition happen. Lack of quality assurance is one of them. One important obstacle which make cluster doesn't have power is the system of the company itself. For instance, ASTRA has closed relationship with their suppliers. The newcomer

can enter directly instead of being the third or fourth level suppliers. The location of the cluster which is far from ASTRA is also makes condition worse. Therefore, their market is only in the free or open market. It means that their products don't have Indonesian national standard or don't have a quality assurance.

They usually market their own products individually. Sometimes, unfair competition happens between SMEs in the cluster. They don't have online marketing or company website. Some of them have ever been given a free website from the government to enlarge their market online. However, it was useless due to the lack of knowledge and skill about computers. They don't have an expert for the website who can monitor and manage the website.

b. Financial

The individual industry only has the limited and small capital, but they have financial institution (*Koperasi Waru Buana Putra*) which is able to serve the industries' financial need. They can provide from the small loan or not more than 50 million Rupiahs with fast and simple processes. It is easier to do instead of asking for loan in conventional bank which need longer processes. However, they sometimes need more than that. They still have difficulty in accessing the financial institutions because they require them to be *bankable*. Most of SMEs in the cluster don't have operational license. This condition will impede them from accessing the financial institutions.

c. Production Process

Most of the industries or 70% of SMEs in this cluster use semi-automatic machines. They still employ human to operate the machines. From the FGD that has been conducted, they often couldn't be able to fulfill the order because of high specification from the customers. The lack of quality control also became one factor why they couldn't be able to satisfy the customer's demand.

They have difficulty in provide the products with Indonesian national standard (INS). They think that it is to expensive to do and some of them doesn't have good production process relating with safety and efficiency which are needed to fulfill when they want to get NIS.

Their problem will be very complex if the government doesn't take apart in making easy for SME to get NIS. Some of the SMEs in the cluster don't have operation license from the government.

d. Human Resources

Human resources play an important role in the successful of industrial cluster especially small and medium size enterprises. This industrial cluster has very good human resource in quantity with small wage. This cluster has very good experiences with metal based industries. The society has been running this business since before independence era.

In other side, the awareness of working together as a group from the individual SME is still need serious attention. Sometimes, they do unfair competition to fight each other. Selling with lower price to the same market to win the competition is one of the examples.

ASPILOW is the association of entrepreneurs in metal industries located in Waru. There are ten SMEs who have been joining in this association. They have received training programs from the government or other institutions. But, they didn't get a continuous follow up or guidance to apply in their business.

e. Legality of the Industries

The existing condition shows that only 40% of the SMEs in the cluster who have the license of operation. It means that most of the cluster don't have legal certificate from the government. This condition will impede them from getting the INS and they cannot compete with their competitors who have good quality of products.

4.4. The Criteria of Competitive Advantage

In formulating the strategy for SMEs cluster in a certain field should consider the criteria of competitive advantage. These criteria should be identified as the consideration in selecting the best strategy based on their environment. Not all of the criteria will be used in this research, however, they should be analyzed and prioritized based on the importance in this automotive component industrial cluster.

The criteria of competitive advantage is taken from the previous reserach conducted by the Ministry of Industry and Commercial (*Disperindag*). These criteria are for industry in general and need to be specified for metal based industrial cluster. These criteria can be seen on the figure 4.2.

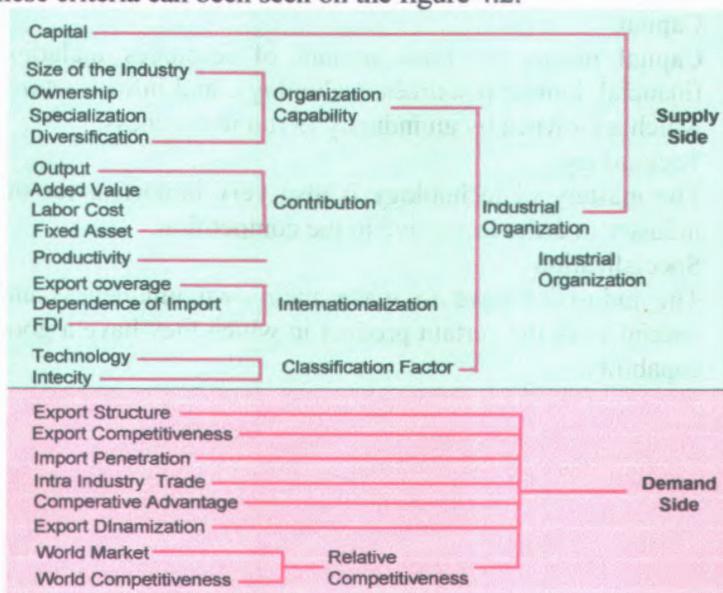


Figure 4.3 Criteria of Competitive Advantage

Hidayati (2009) studied about this industrial cluster and made a questioner to select the most significant criteria of competitive advantage for the automotive component industrial

cluster. She used the Likert scale method to do it. She interviewed the stakeholders of the cluster and found that the distribution of the criteria based on their importance. The five most important criteria are as follow:

- a. **Productivity**
Productivity is the ratio of total output divided by input. Bigger is better which means that the industrial cluster should have good productivity to get better competitive advantage.
- b. **Added Value**
Added value is the additional value of a product from the processes which are done to this product. This also means the gap or difference between input and output.
- c. **Capital**
Capital means the total amount of resources including financial, human resources, technology, and infrastructures which are owned by an industry to run its business.
- d. **Technology**
The mastery of technology is also very important for the industry in order to survive in the competition.
- e. **Specialization**
The industries have to make their own uniqueness and specialize in the certain product in which they have a good capability.

CHAPTER V DATA PROCESSING AND ANALYSIS

The data which have been gathered then will be discussed in this section. Those data which are still unstructured will be processed and organized so that the external and internal factors will be easier to read and analyzed. Then, these factors will be used to formulate strategies. The analysis of the data will be directly stated in every part.

5.1. Vision and Mission Statement

After it is founded, the cluster have to make the same vision and mission as a groups. The vision and mission statement for the cluster is very essential to do in order to formulate the long term strategy. Vision will describes the cluster preferred of desire condition in the next four or five years. Moreover, setting the mission of one organization is also very important. Mission of the cluster will explain the reasons why the cluster exists. The reasons of cluster mean that the cluster was founded to give benefit for all the important stakeholders. This vision and mission will become the guideline to achieve their destination which means their preferred future condition. It also will unite all the SMEs in the cluster to work together.

Most of all, stakeholders have to be involved in the process of stating the vision and mission. Focus group discussion and interviews should be conducted with them to collect their aspiration relating to their businesses.

5.1.1. The Stakeholders' Aspiration

It has been stated that the SMEs cluster is considered as organization which need to create the vision and mission of the organization. In order to do this, the stakeholders should be identified to collect their aspiration regarding to the existence of the cluster. The stakeholders of the cluster are:

- a. Small and medium size enterprises
- b. Large industries of automotive industries

- c. Government especially *Disperindag*
- d. *Koperasi Waru Buana Putra* and Financial Institution
- e. LPB Waru as the business development service
- f. Local Societies
- g. Suppliers
- h. Academic Institution

However, not all of the stakeholders will be involved in stating vision and mission. Only the stakeholders which have significant influence to the SME cluster and play an important role for them. They are SMEs, customers, and the local societies. The interviews with the selected stakeholders then were conducted to collect their aspiration of the SME cluster.

First, in the vision statement, about 20 automotive component industries in the cluster were invited in focus group discussion. This FGD was conducted to capture their aspiration and to make the same perception about the cluster. In this focus group discussion, they were asked about their preferred condition of the cluster in the future. The results of the processes are:

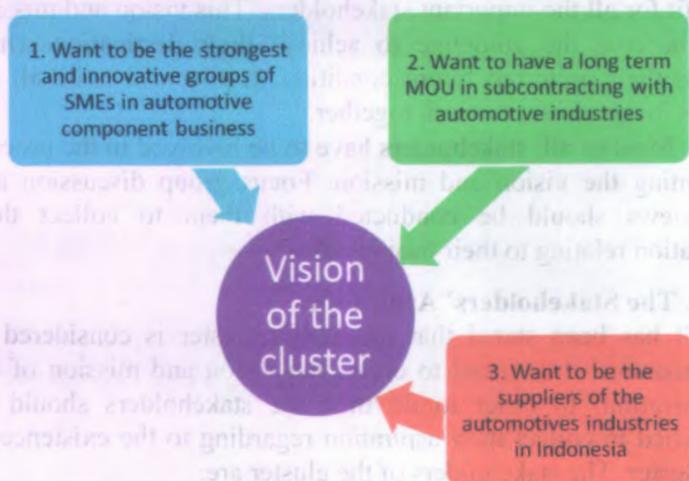


Figure 5.1 The SMEs' Vision Statements

Meanwhile, for stating the mission of the cluster, there are more stakeholders who are involved in the process. The interviews were done with the SMEs, the local societies, and the customers both free market and the automotive industries. The customers were differentiated into free market and automotive industries. It is because they have different opinion and orientation regarding with the development of automotive component industrial cluster. They were asked about the important roles which the cluster should have or the reason why the cluster should be developed. Their aspirations then were collected to state the mission of the cluster. These are the result of the interviews for each stakeholder:



Figure 5.2 Stakeholders' Aspiration

5.1.2. The Champion

The champion or the strategic group is the part of the cluster which will be involved in validating the strategies and to prioritize the programs. This group is chosen because they have more knowledge and good understanding about cluster. The champion is expected to be able to encourage the whole member of the cluster to work effectively. They are the driven force for the SMEs within the cluster and can motivate them. Two institutions are elected to be the champion of the automotive component industrial cluster. They are Association of metal based entrepreneur in Waru or ASPILOW and *Disperindag*.

ASPILOW is the group of ten main metal industries in WARU. It is founded by some industries which have the same vision and ideology to improve their competitive advantage. They have strong commitment to work as one cluster. This organization will be able to encourage the other SMEs within the cluster to work as a cluster. The leader of this association has experiences to visit some success industrial cluster in Japan. Therefore, he can use this experience to develop the automotive component industrial cluster.

Disperindag is the governmental institution in East Java which responsible to develop all industries. This institution is important to be involved in selecting the strategy for the cluster because they have power to support the development for the cluster using governmental policy.

5.1.3. Vision and Mission

This vision and mission is stated from the stakeholders' aspiration. It was gathered from the focus group discussion and interview which have been conducted. After first draft created, the vision and mission were reconfirmed to the *champion* or the *strategic group*. This term is used called a certain group of people in the cluster. They are the SMEs who know better than the others relating with the strategy. They are also well educated and can drive the entire SMEs in the cluster to work together. The leader of Aspilow, an association of metal based industries in Waru was

chosen to be the one who confirmed the vision and mission of the cluster. Finally, the fixed vision and mission of the cluster can be stated based on their aspirations.

a. Vision:

“To be the strongest and innovative cluster in providing automotive component for the automotive industries”

b. Mission:

1. Increase the revenue and profit of the small and medium size enterprises
2. Improve the quality of products, production system, and human resources of the SMEs
3. Guarantee the quality of the product, on time delivery and continuity of the product availability
4. Create and improve the entrepreneurial mentality of the SME's owner through developing discipline, innovativeness, professionalism, and responsibility.

c. Strategic Objective:

Strategic objective is the certain value or condition which indicates when the vision and mission of the cluster have been achieved. The strategic objectives of this cluster were arranged based on the four perspectives of balanced scorecard. This strategic objective will also be communicated to the SMEs. Here are the strategic objectives:

Table 5.1. Strategic Objective

Perspectives	Strategic Objectives
Learning and Growth	Good commitment from the SME to work together as a cluster
	The cluster's management is well established
Internal Business Process	50% of the cluster product's get INS
	80% of the SMEs have operational licenses
Customer	Improvement the customer satisfaction
	Obtain Memorandum of Understanding (MOU) with automotive Industries in subcontracting
Financial	Hold 10% market share of automotive Industries
	Increase the profit of SMEs

5.2. The External and Internal Factor Evaluation

The information gathered from the focus group discussion and interviews in the data collection are still unstructured. Therefore, those data should be processed and arranged into well structured data. First, the data will be reconfirmed to the *champion* relating their effect on the cluster. The external factors will be differentiated into opportunities and threats. Also, the internal factors will also be differentiated into strengths and weaknesses of the cluster. They determined whether one external factor include into opportunity or threat and internal factor into strength or weakness. It depends on their perception as the subject in the cluster. They must have standard to decide which place a certain factor will be.

The second step is giving the score to the factors. The score will be divided in two categories in order to know the effect of the factors to cluster and to evaluate how far and what the cluster did to take the advantages of the opportunities, avoid the threats, etc. By knowing the score of each factor, it will be easy to evaluate the current condition of the cluster and to set new strategy.

In depth interview was done with *the champion* is done to reconfirm and score the factors. They were asked to fill the questioners about those factors. The detail questioner for external and internal factors can be seen in the appendix. These factors were divided based on the categories in the data collection.

Table 5.2 The Questioner of External and Internal Condition

No	List of Factor gathered from Observation	Charac-teristic	Effect (0-4)	Respond of the Cluster (1-4)
1	Factor 1			
2	Factor 2			
3	Factor 3			

- List of Factors, are the external or internal factors which have been collected from the environmental scanning.
- Characteristic, is the category of the factors. It can be opportunity or threat in for external factors and can be strength or weakness for internal factors.
- Effect, indicates how much each factor affects or influences the cluster. 0 means a factor doesn't have effect on the cluster, 2 means less affects, 3 means affects, and 4 means a factor affects significantly to the cluster.
- Respond of the cluster, indicates the respond of the cluster relating to the external factors. The scale is from 1 to 4. No respond with a certain factor is represented with 1, while 4 means the cluster has a great respond the factors.

The data from the questioners then were furtherer processed to make an EFE and IFE matrixes. The external factors are distinguished between opportunities and threats for external factors and strengths and weaknesses for the internal factors. The factors which have no effect on the cluster were eliminated. The final factors of the cluster are shown on the table below.

According to the champion, there are fourteen factors for the external factors; they are eight opportunities and six threats. They influence and give different effect on the cluster.

Table 5.3 External Factors Evaluation Matrix

Opportunities	Weight	Rating	Weight Score
The demand of motorcycles in Indonesia is growing	0.08	2	0.15
The availability of micro finance for SMEs from Bank	0.08	3	0.23
The large number of human resources around the SMEs	0.08	2	0.15
The steel can be found easily	0.08	3	0.23
There is a Technical Service Unit for SMEs in Trosobo	0.05	2	0.10
There are many academic institution around the cluster	0.08	3	0.23
The habit of the society to buy lower cost products	0.08	2	0.15
The technology of e-business enable the SMEs to market worldwide and twenty hour	0.05	2	0.10
Threats			
The law of patent is hard for SMEs	0.08	2	0.15
The law of operational license	0.08	2	0.15
The location of the cluster is far from Large industries	0.05	2	0.10
The lack information of the competitors	0.05	2	0.10
The access street to the cluster is not good	0.10	2	0.21
The closed system of supplier in ASTRA	0.08	2	0.15
Total	1.00		2.23

a. Weight indicated the effect of the factors to the cluster.

The value is comes from *effect / total effects*. Therefore, the total of weight is 1.

b. Rating indicates the respond of the cluster to each factor.

c. Weight Score = Weight X Rating

Highest possible weighted score for the organization is 4.0; the lowest, 1.0. Average = 2.5

The total weight score of the external factors is 2.23, which means below average. This condition indicates that the cluster is below average in its effort to pursue strategies that

capitalize or take the advantages on external opportunities and avoid threats.

Meanwhile, there are twelve internal factors which influence the cluster from internal factors. It consists of four strengths and eight weaknesses.

Table 5.4 Internal Factors Evaluation Matrix

Strenghts	Weight	Rating	Weight Score
The availability of testing machine	0.05	3	0.16
The good production capacity of the SMEs	0.08	2	0.16
SMEs have a good experience of metal based industries	0.08	3	0.24
There is LPB WARU as the BDS	0.08	4	0.32
Weaknesses			
40% of the SMEs have operational license	0.08	3	0.24
The lack ability of access final institution	0.08	2	0.16
60% of the SMEs use middle technology and below	0.11	3	0.32
Lack of market information	0.11	2	0.21
SMEs still sell their product individually	0.05	2	0.11
Unable to access the Large industry market	0.11	2	0.21
Most of product don't have INS certificate	0.11	2	0.21
Unfair Competition within cluster	0.08	3	0.24
Total	1.00		2.55

The cluster have weight 2.55, which is on the little bit above average. This condition indicates that the cluster is little bit above average in its overall internal strength. The cluster has responded to its strengths and weaknesses. However, cluster need to should pay more attention to those factors in order to get the benefit of external opportunities. It can use the strengths or minimizing the weaknesses which enable it to take the advantages of the opportunities.

5.3. The Cluster Mapping

After the external and internal factors data are collected, the next step of strategic management is called matching stage. The external and internal data will be used to make the map of the cluster. TOWS and Boston Consultant Group will be used to know the position of the cluster.

5.4.1. TOWS Matrix

TOWS matrix is used to make a map the industrial cluster based on the internal factors and external factors. Internal factor consists of the strengths and the weaknesses of the industrial cluster and the external factor consists of their opportunities and their threats. The external factors are shown in table below.

Table 5.5 The Cluster's External factors

Opportunities	Weight	Rating	Weight Score
The demand of motorcycles in Indonesia is growing	0.08	2	0.15
The availability of micro finance for SMEs from Bank	0.08	3	0.23
The large number of human resources around the SMEs	0.08	2	0.15
The steel can be found easily	0.08	3	0.23
There is a Technical Service Unit for SMEs in Trosobo	0.05	2	0.10
There are many academic institution around the cluster	0.08	3	0.23
The habit of the society to buy lower cost products	0.08	2	0.15
The technology of e-business enable the SMEs to market worldwide and twenty hour	0.05	2	0.10
Total score of opportunies	0.56		1.36
Threats			
The law of patent is hard for SMEs	0.08	2	0.15
The law of operational license	0.08	2	0.15
The location of the cluster is far from Large industries	0.05	2	0.10
The lack information of the competitors	0.05	2	0.10
The access street to the cluster is not good	0.10	2	0.21
The closed system of supplier in ASTRA	0.08	2	0.15
Total score of threats	0.44		0.87
Total	1		0.49

The total score of the external factors is 0.49. This value indicates that the cluster has better potential opportunity which can be capitalized than the threats which should be avoided by the cluster. The cluster should take the advantage of the opportunities in order to improve their business.

For the internal factors, the total weight score is -0.82 which indicates that the cluster still have many weaknesses. There are still many internal factors which aren't similar with the standard of the cluster. These weaknesses can be the barriers for it to be able to compete with the other industries. These weaknesses should be fixed as soon as possible in order to survive in the competition.

Table 5.6 The Cluster's Internal factors

Strenghts	Weight	Rating	Weight Score
The availability of testing machine	0.05	3	0.16
The good production capacity of the SMEs	0.08	2	0.16
SMEs have a good experience of metal based industries	0.08	3	0.24
There is LPB WARU as the BDS	0.08	4	0.32
Total score of strenghts	0.29		0.87
Weaknesses			
40% of the SMEs have operational license	0.08	3	0.24
The lack ability of access final institution	0.08	2	0.16
60% of the SMEs use middle technology and below	0.11	3	0.32
Lack of market information	0.11	2	0.21
SMEs still sell their product individually	0.05	2	0.11
Unable to access the Large industry market	0.11	2	0.21
Most of product don't have INS certificate	0.11	2	0.21
Unfair Competition within cluster	0.08	3	0.24
Total score of Weaknesses	0.71		1.68
Total	1.00		-0.82

Last of all, the external and internal factors are combined in the TOWS matrix. The TOWS matrix shows that cluster is located in the third quadrant.

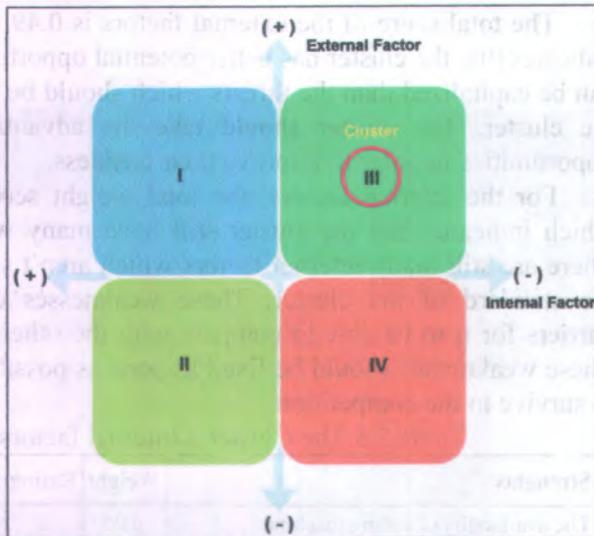


Figure 5.3 TOWS Matrix

The automotive component industrial cluster is located in third quadrant of TOWS matrix which means that:

1. Cluster have big market opportunity, however it has weak or inadequate resources. Therefore, the cluster cannot get the benefits of the opportunity
2. The strategy in this position is minimizing the weaknesses or obstacles from the internal cluster.

5.4.2. Boston Consulting Groups (BCG) Matrix

The development of BCG matrix uses two parameters regarding with the market condition of the product which the industry is competing. They are market growth and market share. According to Data Consult (2009), the demand of the motorcycles was 4.45 million units in 2006, 4.71 million units in 2007, and 6.27 million units in 2008. The data shows that the market growth of the automotive components is high. It is because the demand of automotive products which is represented the demand of motorcycles in Indonesia is also

increases every year. Therefore, this demand will influence the demand of automotive components.

In other side, the market share of the industrial cluster is low. From the interview with the industries, they explained that they are in difficult condition. They are not able to enter the market in automotive industries. Their market share is only limited in the low level of automotive component. It is means that they only produce low derivative component of main product with small value added. Moreover, most of them sell their products in the free market. The difficulties in fulfilling the high specification of the products become the problem for the SMEs.

By combining the two parameters above, the automotive component industrial cluster is located in the question marks position.



Figure 5.4. BCG Matrix of the industrial cluster

According to David (1989) in his book titled *Strategic Management*, the generic strategy which can be used if a company or organization is located in *question mark* position is

intensive strategies. Therefore, the possible strategies which can be used are *market penetration, market development, and product development*.

5.4. Strategy Formulation

In this stage, all of the possible strategies which can be generated from two kinds of matching stages will be listed. However, not all of them will be chosen as the strategy for the cluster. It will be selected first based on the condition of the cluster.

From the TOWS matrix, the alternative strategies can be developed by combining those factors using TOWS matrix. The possible strategies are as follow:

- a. SO Strategy (Strengths – Opportunities)
 - Increasing the production to fulfill the market growth.(O1, O4, O7, S2, S3)
 - Building a partnership or cooperation with academic institution relating with business consultation, and research and development(S4, O6)
- b. ST Strategy (Weaknesses – Opportunities)
 - Improving the quality of products (O5, W6, W7)
 - Increasing the marketing effort (W4, W5, W6, O1, O8)
 - Improving the financial access (W2, O2)
 - Improving the awareness to work as a cluster (W5, W8, O6)
- c. ST Strategy (Strengths – Threats)
 - Improving the knowledge of the SMEs regarding with patent law (T1, S4)
 - Repairing the access street to the cluster (T5, S4)
 - Lobbying to ASTRA relating to subcontracting (T6, S4)
- d. ST Strategy (Weaknesses – Threats)
 - Restructuring the Supply Chain (W6, T3, T6)

From the BCG matrix, the alternative strategy is intensive strategy, which can be market penetration, market development,

or product development. Those are still generic strategy which need to be broke down into initiative strategy.

- a. *Market development* is the strategy of introducing the present products to the potential customers in new geographic area. It means that the cluster should introduce their products to new customers.
- b. *Market penetration* is the strategy of increasing the market share of present products or services in present market through greater marketing efforts.
- c. *Product development* means increasing the sales of the cluster by improving or modifying the present products or services.

Moreover, in selecting the best strategies for the cluster, the criteria of competitive advantage which are gotten from *Disperindag* will be considered. Five main of these criteria are productivity, added value, capital, technology, and specialization.

Finally, validation to the strategies is done to evaluate whether the strategy is reasonable or not. The above alternative strategies are then reconfirmed to the *champion* or the strategic group. The second in-depth interview was conducted with the *champion*. They were asked not only to select the reasonable strategies, but also to make a priority for the programs which are generated from every possible strategy. By considering about criteria of competitive advantages, then the best and reasonable strategies for the cluster are as follow:

1. Improving the access to the financial institutions
2. Increasing the marketing Effort
3. Improving the quality of products
4. Improving the awareness the SMEs about the important of cluster
5. Restructuring the supply chain
6. Building the cooperation or relationship with the academic institutions relating to research and development and business consultation

7. Improving the knowledge of the SME regarding with patent law.
8. Lobbying to ASTRA relating to subcontracting.

Two alternative strategies were eliminated. They are increasing the production and repairing the access street to the cluster. Increasing the production to fulfill the growing market is difficult to do in this time. As stated before that the market of the SMEs is on the free market. The condition shows that this market is getting worse. The demand of their customers is decrease from time to time. This condition indicates that SMEs should enter new market, namely automotive industries if they want to survive in this business. Repairing the access street to the cluster area is also difficult to do. The cluster don't have enough capability to do this strategy. It need involvement of the government because it will require much cost and relocate some houses in the side of the street.

5.5. Program Development

The fixed strategies in the previous section are then used to develop programs. These programs have to be simple and ready to be conducted by the cluster.

1. Improving the access to the financial institution.

From the identification of the cluster's internal factors, it shows that they often have difficulty in increasing their capital and don't have the good access to the financial institutions. *Koperasi Waru Buana Putra* can only serve the loan which not more than 50 million rupiahs. In fact, cluster often need more than that. The alternative programs to achieve this strategy are:

- a. Socialization about KUR from the government.

The government of Indonesia has launched the program called *Kredit Usaha Rakyat* (KUR). The objective of this program is to help SMEs dealing with their capital need and the difficulties in accessing the financial institutions. By pointing the two credit

insurance institutions, the government guarantees credit for SMEs in banks. The maximal amount of the credit is 500 million rupiahs. There are six banks which have been chosen to serve this kind of credit. They are: BRI, Bank Mandiri, Bank Bukopin, BNI, BSM, and BTN. The SMEs don't have to be bankable like having operational license or anything. Although the SMEs didn't have operational license yet, they still be able to have credit on bank using this program. By conducting this program it is expected that SMEs in the cluster will understand the easy way to get additional capital.

- b. Building a good cooperation with a certain chosen bank (ex. BRI) to serve the financial need for the entire SMEs in within cluster.

Having relationship with one bank will make easier for the cluster fulfill their financial need. The SMEs in the cluster will focus to this bank and they will trust each other.

2. Increasing the marketing effort

- a. Developing and implement official website.

This website is built to facilitate the e-business activities and promote the cluster worldwide. The most important in the program is the availability of the administrator who can manage and monitor the website continuously.

- b. Promoting the cluster product to automotive industries. There is one product which can enter automotive industry. It is a spring for Indospring which supplies Suzuki. The cluster can make a good relationship with Suzuki and try to offer another product.

3. Improving the quality of products.

One of the main reasons why the cluster's products unable to enter automotive industries because they cannot

fulfill the need of product quality and specification. The automotive industries require the high precision and standardized products. On the other hand, most of the cluster's products don't have the INS certificate yet. In fact, its only 40% of the SMEs which have operational license. Therefore, it is very essential for the cluster to improve their product's quality. If they want to have a good credibility and trusted by automotive industries as their suppliers, the cluster should do it.

Moreover, selling products with no brand in it will no longer interesting as a result of higher education of the society. They will consider not only the price, but also the quality of products they want to buy. It is time for cluster to think about long term benefit by improving the quality of products. The programs to implement this strategy are:

a. Total operational license

The goal of this program is to encourage the SMEs to have their business operational licenses. The existing condition shows that only 40% of the SMEs have this license. By doing this programs hopefully there will be more SMEs who have the license. Most of all, in order to make this program run successfully, the government play in important role in making the procedure easier for the SMEs who want to get the license. LPB Waru and ASPILOW should facilitate and communicate about this program to the governmental institution who concern with this license. They also should encourage others SMEs to actively participate in running this program.

b. Indonesia National Standard (INS) for some main products.

Before promoting the products, the cluster should ensure that the products had INS certificate. The standard and precision of products is very important

for automotive industries. It will be easier for cluster to access the bigger market if they have INS certificate. During interview, the SMEs complained about the cost of getting this certificate. They have to pay around 50 million for the process. They suggested that no need for the government to hire consultants from Jakarta which will make the cost more expensive. It is because the SMEs should pay the living cost, transportation cost of the consultants. It will be better if they hire local people from companies who have had an INS certificate.

The existence of the Technical Service Unit in Trosobo should help the SMEs to do this program. Most of all, the communication between the cluster and the TSU should be held.

4. Improving the awareness the SMEs about the important of cluster

The current condition shows that SMEs in the cluster still lack information about the important of being a cluster. Sometimes, unfair competition happen between them by selling the same products in the lower price. This behavior will break the stability of price in the market and will damage the SMEs.

a. Comparative study with the success cluster.

The cluster can choose one team consists of ten to twenty peoples to visit a certain cluster in other area. Visiting other industrial clusters which have been success to be a cluster will give new knowledge about cluster. They can share the advantage and disadvantages of being a cluster. After all, this team should share all knowledge and information they have got with the other SMEs.

b. Monthly meeting between the SMEs.

The follow-up of the comparative study is to share with the other SMEs. Monthly meeting can be one

alternative solution of it. Many agendas can be discussed in this forum regarding with the development of the cluster. The SMEs will share about their experiences or new knowledge with the other SMEs. This forum can be used to evaluate and control the implementation of the strategies.

5. Restructuring the supply chain

Being far away from automotive industries makes cluster also difficult to be their fixed suppliers. Long distance brings many risks which are avoided by the customers. The transportation cost and risk is one of the main considerations in choosing suppliers. The programs to fix this condition are:

a. Trading House.

Trading house is an organization which helps industries regarding with marketing. It can link the industry with their new customers both local and overseas. Trading house can also help industries to get market information and identify potential customers.

The distant location between cluster and automotive industries is one of the causes why the cluster couldn't enter this market. The automotive industries require just in time delivery and no stock. Its means that today's components should be delivered one day before. This is too difficult for the cluster because there are many risks in the long transportation such as accidents, criminal actions and so on. These make it difficult to supply the products continuously. In fact, by building a trading house near to the customers, the cluster doesn't have to worry about the problem. The products can be collected in the trading house and then distributed in the certain industry. The discontinuity of supply can be minimized.

Furthermore, trading house can help the cluster to know update market information. The cluster will be able to produce new product based on the voice of

customers. Trading house also help the cluster to promote their products both in the local market or international market.

Finally, the trading house can be developed by individual, association, government, or collaboration between them. The most important of trading house is that they should help the cluster to access their market.

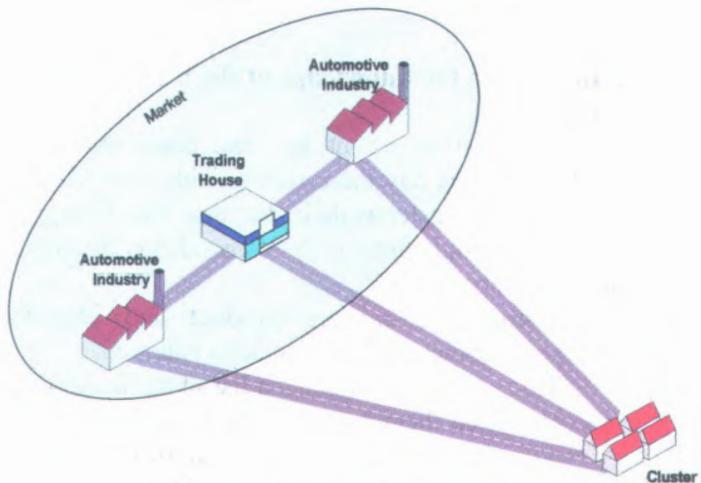


Figure 5.5 Trading House

b. Collaboration shipping

The SMEs who want to send their product to the costumers can minimize the cost of transportation by collaborating to send the product in the same time. The cost can be minimized because they send in the larger amount of products.

c. Collaboration in purchasing material

The SMEs are not able to purchase the steel from the steel industry directly because they can fulfill the standard minimum amount of purchasing. By their

purchasing, they can get lower price in material which will decrease the cost of production.

6. Building a cooperation or relationship with the universities relating to research and development and business consultation.

The academic institutions have responsibilities about social dedication. They should help the local society based on their study background. The cluster have to make a relationship with them to make their business better and better.

7. Improving the knowledge of the SME regarding with patent law.

The threat of patent law can come every time. It is possible that one day there will be industries claim a certain product of the cluster as theirs because they have patent on it. The cluster should anticipate this condition by improving the knowledge about patent.

- a. Listing the existing product and identifying the products which have not been patented.

This program will make a list of the main products and classified them based on the patent condition. The list will useful to decide which one of the products which should patented as soon as possible.

- b. Make a cluster brand for the existing products.

Cluster brand will be very useful to produce one product in many industries without paying loyalty. The products with cluster brand will have stronger position.

8. Lobbying to ASTRA relating to subcontracting.

LPB Waru is the institution founded by ASTRA, Koperasi Buana Putra, and ITS. The cluster can use this relationship to communicate with ASTRA about subcontracting and ensure that they can produce good quality products.

The next step is making a priority of those programs. The *champion* is represented by the leader of the association of Metal Based Industries in Waru (ASPILOW), who has better experiences not only about industrial cluster but also in the metal based industries, and *Disperindag*. From the questioner which has been collected from the *champion* or strategic group, the order of the programs according to the level of importance are as follow.

Table 5.7 Important Level of Programs

Programs	Responden		Average
Promoting the cluster product to automotive industries.	4	4	4
Collaboration of Purchasing Material	4	4	4
Trading House.	4	3	3.5
Socialization about KUR from the government.	3	4	3.5
Total operational license	3	4	3.5
Monthly meeting between the SMEs.	3	4	3.5
Making a cluster brand for the existing products.	3	4	3.5
Lobbying to ASTRA relating to subcontracting.	3	4	3.5
Building a good cooperation with a certain chosen bank (ex. BRI) to serve the financial need for the cluster.	3	3	3
Developing and implement official website.	3	3	3
Indonesia National Standard (INS) for some main products.	3	3	3
Comparative study with the success cluster.	3	3	3
Building a cooperation or relationship with the universities relating to research and development and business consultation.	3	3	3
Collaboration shipping	2	2	2

The above table shows the important level of each program. The level of important 4 indicates that corresponds program is very important to be implemented. Therefore, building trading house for the cluster, promoting to the automotive industries, and collaborating in purchasing material are the most important programs which should be implemented as soon as possible. Moreover, 3 indicates that correspond program is important to be implemented. Most of the programs are located in this score. The programs are important to be implemented in order to achieve the vision of the cluster. Finally, letter 2 indicates that corresponds program is less important to be implemented in the cluster. Collaborating in shipping products to the customer right now is less important. It is difficult because the present customers of one industry are different. Free market sometimes made the SMEs compete each others in the same market. It off course will be different when they have fix market such as automotive industries. This program will be useful to minimize the cost of transportation.

5.6. The Critical Points for Stakeholders

Small and Medium size Enterprises are the main actors in the cluster which run the businesses. The awareness to be a cluster and then found it is the milestone for them to improve their businesses. They should think how to be a good business not only as individual but also as a whole cluster. The cluster should have a good commitment and always responsive with their environment. They believe that being a group is stronger than to be individual industry. Unfair competition within cluster should be avoided because it will weaken the cluster. Responsive means that they have to be able to know what the environment can do to make them better. For instance, they should build a good relationship with many universities which are located surround the cluster. Recognition of their own businesses including weaknesses, strengths, opportunities, and threats is needed so that they can evaluate them. They can communicate those things to the external institutions in order to get the best solution.

The most important thing the SMEs should aware is the commitment to improve their businesses. The fact shows that many industries are reluctant to enlarge their businesses because. They have already satisfied with all they got. They think that fulfilling the daily need for their family is enough. No need for them to work harder and widen their businesses. It will be more effective for the cluster if the commitment building is not only given to the owners of the SMEs, but also to the children who will continue the businesses. The children may have different mindset and more open minded to the concept of cluster because they are well educated.

Business development services play an important role in developing SMEs, including this industrial cluster. Poor management, lack of capital, unavailability of financial report, are the common problem in SMEs. The existence of BDS can be the solution for SMEs to upgrade their problems. In fact, there is one BDS which has been working with this cluster. (*Lembaga Pengembangan Bisnis*)LPB Waru always gives help to SMEs especially in getting training about management of business. LPB also helps SMEs to get financial need from banks by guiding them to make a proposal and being a facilitator between them. This role has been quite good and should be maintained. It will become better and more effective if LPB can fully concentrate on developing SMEs without thinking how to get money to support the life of this organization. It can enlarge their expertise and serve the need of the SMEs including patent, INS certificate, etc.

Finally, the external industries and institutions should support the cluster based on their expertise. The governmental institution which is involved in this cluster should have commitment to support the cluster. They should more concern with the laws and rules which are directly related to the life on the cluster. For instance, they should simplify or make something easier for cluster to get INS certificate, patent, and so on. There should be *effective communication and understanding* between the cluster and the governmental institutions. The unnecessary

thing such as government gives free website for the cluster and it is useless because the cluster don't have an operator to manage it will never happen. Academic institutions have to take a part in the development of cluster. They have a responsibility to dedicate their knowledge and skill to the society. The fact shows the SMEs have got many trainings or socialization about cluster, but there were not follow up or further actions.

Business development services play an important role in developing SMEs including the industrial cluster. The management lack of capital, unavailability of financial report are the common problem in SMEs. The assistance of BGS can be the solution for SMEs to upgrade their problems. In fact, there is not BGS service has been working with the cluster (Kawabata, 2009). However, BGS always gives help to SMEs especially in getting training about management of business. IFR also helps SMEs to get financial need from banks by writing them to make a proposal and being a facilitator between them. This role has been done well and should be maintained. It will become better and more effective if IFR can fully concentrate on developing SMEs without thinking how to get money to support the life of this organization. It can reduce their expenses and solve the need of the SMEs including getting INZ certificate, etc.

Finally, the external industries and institutions should support the cluster based on their expertise. The governmental institution which is involved in the cluster should have a commitment to support the cluster. They should more concern with the laws and rules which are directly related to the life on the cluster. For instance, they should simplify or make something easier for cluster to get INZ certificate pattern and so on. There should be effective communication and understanding between the cluster and the governmental institutions. The unnecessary

CHAPTER VI CONCLUSION AND RECOMMENDATION

6.1. Conclusions

The conclusions of the research are as follows:

1. The five main criteria of competitive advantages which influence automotive component industrial cluster are: Productivity, Added Value, Capital, Technology, and Specialization
2. Based on the environmental scanning, the automotive component industrial cluster is located on the condition where they have many opportunities to capitalize. However, they cannot take the advantages of those opportunities because they still have a lot of internal weaknesses.
3. Based on the TOWS and BCG matrix and also considering about criteria of competitive advantages, the best strategies which can be used for the automotive component industrial cluster are:
 - a. Improving the access to the financial institution.
 - Socialization about KUR from the government.
 - Building a good cooperation with a certain chosen bank (ex. BRI) to serve the financial need for the cluster.
 - b. Increasing the marketing effort
 - Developing and implement official website.
 - Promoting the cluster product to automotive industries.
 - c. Improving the quality of products.
 - Total operational license
 - Indonesia National Standard (INS) for some main products.
 - d. Improving the awareness the SMEs about the important of cluster
 - Comparative study with the success cluster.
 - Monthly meeting between the SMEs.

- e. Restructuring the supply chain
 - Trading House.
 - Collaboration shipping
 - Collaboration of Purchasing Material
- f. Building a cooperation or relationship with the universities relating to research and development and business consultation.
- g. Improving the knowledge of the SME regarding with patent law.
 - Listing the existing product and identifying the products which have not been patented.
 - Making a cluster brand for the existing products.
- h. Lobbying to ASTRA relating to subcontracting.

6.2. Recommendations

After doing this research, there are some recommendations which should be done to make this strategies run successfully. The recommendations of this research are:

- a. The SMEs in the cluster should have the same commitment to implement the strategies.
- b. The government should take part and help the cluster especially for the programs which involve the government's policy.
- c. The large industries have to responsible to develop SMEs by subcontracting their components and guide them so that they can fulfill the high standard of products.

REFERENCES

- BPS. 2007. *Angka Produk Domestik Bruto (ODB), Indeks Tendensi Bisnis dan Indeks Tendensi Konsumen Tahun 2007*. Badan Pusat Statistik Propinsi Jawa Timur.
- Data Consult.2009. *Perkembangan Industri Sepeda Motor Di Indonesia*. <http://www.datacon.co.id/Otomotif2009.html> [be accessed on June, 11 2009]
- David, F.1989. *Strategic Management*, Columbus:Merrill Publishing Company.
- Guideline of developing corporate planning for governmental projects.
- Hansen Don, R and Maryane M.Mowen. 1997. *Cost Management : Accounting and Control*. Cincinnati : South-Western College Publishing.
- Hidayati, Novita. 2009. *Analisis Rantai Nilai Untuk Mengetahui Pola Peningkatan Daya Saing Klaster Industri Berbasis Logam Di Jawa Timur Dengan Pendekatan Sistem Dinamik*. Surabaya: Teknik Industri ITS
- Kotler, Philip.1988. *Marketing Management, Analysis, Planning, Implementation, and Control*. Englewood Cliff: Prince-Hall International Inc.
- Lamb, Robert, Boyden.1984. *Competitive strategic management*, Englewood Cliffs, NJ: Prentice-Hall.
- Mirdah, Andi and Tenaya, Agus Indra.2005.*Upaya Menghadapi Perubahan Lingkungan Strategis Dengan Membangun dan Meraih Competitive Advantage Melalui value Chain Analysis dan Kemitraan*.Malang: Universitas Brawijaya.
- Papulova. 2006.*Competitive Strategy And Competitive Advantages Of Small And Midsized Manufacturing*

Enterprises In Slovakia. Slovak Republic : University of Economic

Partiwi, Sri G, Hanoum, Syarifa. 2009. *Peningkatan Daya Saing Industri Manufaktur dengan Pendekatan Klaster Industri: Pilot Klaster Industri Berbasis Logam di Sidoarjo.* Surabaya: Teknik Industri-ITS

Pearce, J. A, Robinson, R. B.1996. *Strategic Management, Formulation, Implementation, and Control.* Boston: McGraw Hill Companies, Inc.

Porter, M.E. 1998. *Clusters and The New Economic of Competition.* Harvard Business Review.

Porter, M.E. 1990. *What Is National Competitiveness?* .Harvard Business Review, 68 (2): 84-85.

Porter, M.E.1985. *Competitive Advantage.* New York. Free Press

Roeland, T, den Hertag, P.1999. *Cluster Analysis and Cluster-Based Policy making in OECD Countries: An Introduction to the theme. In Boosting Innovation: The Cluster Approach.* Paris: OECD.

Waribrata, Hanafi. 2005. *Klaster Industri: Bermitra untuk Bersaing.* Lembaga Penelitian Institut Teknologi Bogor.

Wheelen, T. L. & Hunger J.m D., 2003. *Strategic Management and Business Policy.*New York: Addison-Wesley Company, Inc.

http://id.wikipedia.org/wiki/Usaha_Kecil_dan_Menengah
[be accessed on September, 20 2008]

APPENDIX A (Questioner of Existing Condition)

**Questioner of Existing Condition
Metal Based Industrial Cluster
For Automotive Component Ngingas-Sidoarjo**

Respondent's Name : _____
Industry : _____

1. Material

- a. Purchasing,
- b. suppliers,
- c. Price

2. Production Process

- a. Capacity,
- b. Partnership,
- c. Demand fulfillment)

3. Capital

- a. Sources,
- b. Processes,
- c. Obstacles

4. Technology

- a. Type of technology
- b. Quality
- c. Investment

5. Market

- a. Quantity of demand
- b. Type of demand

6. Marketing Effort

- a. Marketing method
- b. Obstacles

7. Government's Support

- a. Kinds of Programs
- b. Effectiveness
- c. Program expectations

8. Problems

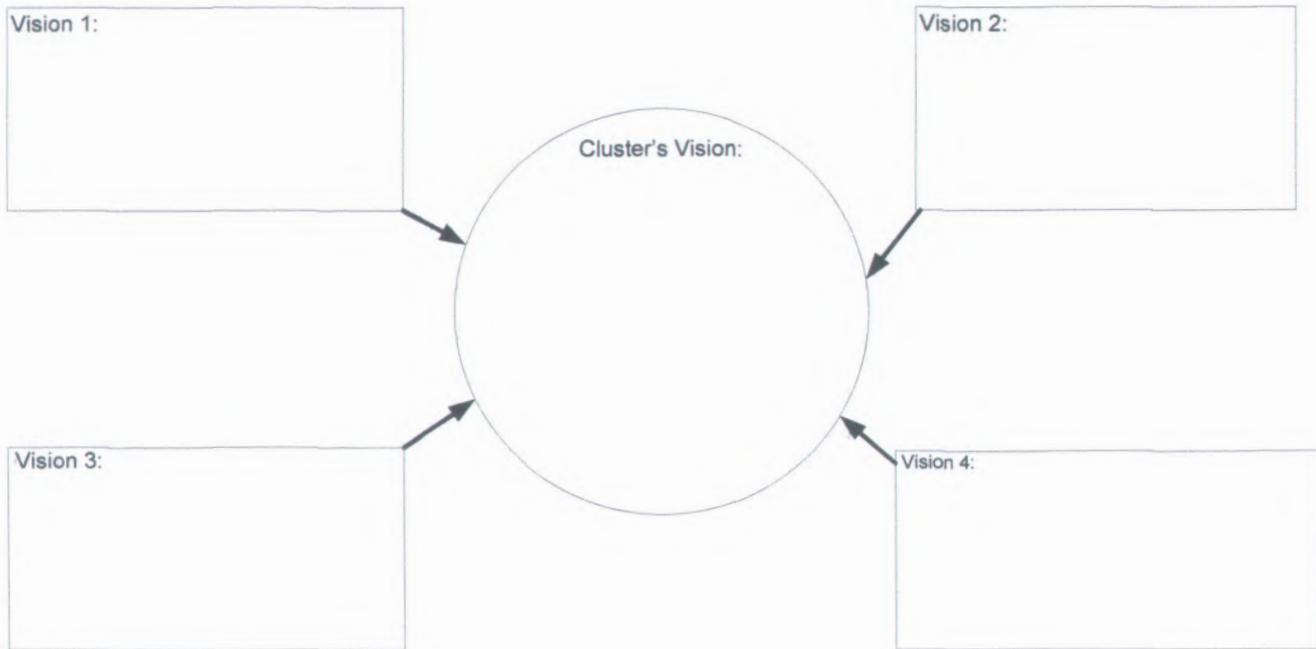
- a. Safety
- b. Patent

9. Future Expectation

10. Others

APPENDIX B (Questioner of Vision and Mission)

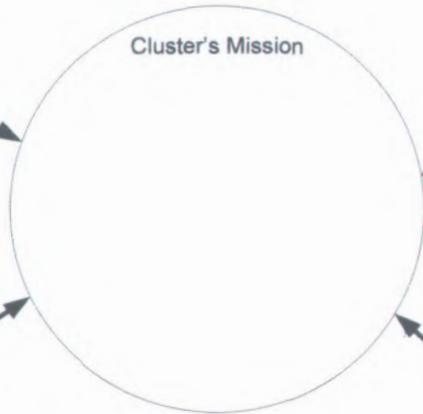
Vision



Mission

The SMEs:

The Automotive Industry



The Local Societies:

Free Market customers:

APPENDIX C (Questioner of Tows Matrix)

1. External Factor

No	Observation	Characteristic (O/T)	Effect	Respond
			(1-4)	(1-4)
1	Economical Factors			
	The demand of motorcycles in Indonesia is growing			
	The availability of micro finance for SMEs from Bank			
	The price of steel is unstable			
	The steel can be found easily			
2	Government: Political and Law Factors			
	The law of patent is hard for SMEs			
	The law of operational license			
	There is a Technical Service Unit for SMEs in Trosobo			
	Less effective communication between cluster and Disperindag			
3	Social, Cultural, and environmental Factors			
	The large number of human resources around the SMEs			
	The habit of the society to buy lower cost products			
	There are many academic institution around the cluster			
	The access street to the cluster is not good			
	The location of the cluster is far from Large industries			
	Low frequency of natural disaster			
4	Technological Factors			
	The technology of e-business enable the SMEs to market worldwide and twenty hour			
5	Competitive Factors			
	The lack information of the competitors			
	The closed system of supplier in ASTRA			

Note :

Effect:

1 = Not Affect

2 = Less Affect

3 = Affect

4 = Much Affect

Industrial Respond:

1 = Not Effective

2 = Less Effective

3 = Effective

4 = Very Effective

2. Internal Factor

No	Observation	Characteristic (S/W)	Effect	Industrial Respond
			(1-4)	(1-4)
1	Financial Factors			
	The lack ability of access final institution			
	Small capital			
2	Legality Factors			
	40% of the SMEs have operational license			
	Few products which have INS certificate			
3	Production Factors			
	The availability of testing machine			
	The good production capacity of the SMEs			
	60% of the SMEs use middle technology and below			
4	Marketing Factors			
	Lack of market information			
	SMEs still sell their product individually			
	Market share is on the free market			
	Unable to access the Large industry market			
5	Human Resources Factors			
	SMEs have a good experience of metal based industries			
	Lack of information about Patent Law			
	There is LPB WARU as the BDS			
	Unfair Competition within cluster			
	Less of research and development			

Note :

Effect:

1 = Not Affect

2 = Less Affect

3 = Affect

4 = Much Affect

Industrial Respond:

1 = Not Effective

2 = Less Effective

3 = Effective

4 = Very Effective

APPENDIX D (TOWS Matrix)

<p style="text-align: center;">Internal Factors</p> <p style="text-align: center;">External Factors</p>	<p style="text-align: center;">Strengths</p> <ol style="list-style-type: none"> 1. The availability of testing machine 2. The good production capacity of the SMEs 3. SMEs have a good experience of metal based 4. There is LPB WARU as the BDS 	<p style="text-align: center;">Weaknesses</p> <ol style="list-style-type: none"> 1. 40% of the SMEs have operational license 2. The lack ability of access final institution 3. 60% of the SMEs use middle technology and below 4. Lack of market information 5. SMEs still sell their product individually 6. Unable to access the Large industry market 7. Most of products don't have INS certificate 8. Unfair Competition within cluster
<p style="text-align: center;">Opportunities</p> <ol style="list-style-type: none"> 1. The demand of motorcycles in Indonesia is growing 2. The availability of micro finance for SMEs from Bank 3. The large number of human resources around the SMEs 4. The steel can be found easily 5. There is a Technical Service Unit for SMEs 6. There are many academic institution around the cluster 7. The habit of the society to buy lower cost products 8. The technology of e-business enable the SMEs to market worldwide and twenty hour 	<ol style="list-style-type: none"> 1. Found the good partnership with Academic Institution relating with business consultation and research and development.(S4, O6) 2. Increasing the production to fulfill the potential market (O1, O4, O7, S2, S3) 	<ol style="list-style-type: none"> 1. Improving the quality of products (O5, W6, W7) 2. Increasing the marketing effort (W4, W5, W6, O1, O8) 3. Improving the financial access (W2, O2) 4. Improving the awareness to work as a cluster (W5, W8, O6)
<p style="text-align: center;">Threats</p> <ol style="list-style-type: none"> 1. The law of patent is hard for SMEs 2. The law of operational license 3. The location of the cluster is far from Large industries 4. The lack information of the competitors 5. The access street to the cluster is not good 6. The closed system of supplier in ASTRA 	<ol style="list-style-type: none"> 1. Improving the knowledge of the SMEs regarding with patent law. (T1, S4) 2. Repairing the access street to the cluster (T5, S4) 3. Lobbying to ASTRA relating to subcontracting (T6, S4) 	<ol style="list-style-type: none"> 1. Restructuring the Supply Chain flow to customer (W6, T3, T6)

APPENDIX F (Questioner of Strategies and Programs Priority)

No	Strategies dan Programs		Applicable? (Y=yes N=no)	Priority				Reason
				1	2	3	4	
1	Strategi		Improve the access to the financial institution.					
	Program	a	Socialization about KUR from the government.					
		b	Build a good cooperation with a certain chosen bank (ex. BRI) to serve the financial need for the cluster.					
2	Strategi		Increase the marketing effort					
	Program	a	Develop and implement official website.					
		b	Promote the cluster product to automotive industries.					
3	Strategi		Improve the quality of products.					
	Program	a	Total operational license					
		b	Indonesia National Standard (INS) for some main products.					
4	Strategi		Improve the awareness the SMEs about the important of cluster					
	Program	a	Comparative study with the success cluster.					
		b	Monthly meeting between the SMEs.					
5	Strategi		Fix the supply chain					
	Program	a	Trading House.					
		b	Collaboration shipping					
		c	Collaboration of Purchasing Material					
6	Strategi		Improve the knowledge of the SME regarding with patent law.					
	Program	a	Listing the existing product and identifying the products which have not been patented.					
		b	Make a cluster brand for the existing products.					
7	Strategi		Build a cooperation or relationship with the universities relating to research and development and business consultation.					
8	Strategi		Lobbying to ASTRA relating to subcontracting.					

Information for priori scale:

1. Not Important
2. Less Important
3. Important
4. Very Important

BIOGRAPHY



The writer was born in Banyuwangi, March 6th 1986. He is the first son of Moh. Amin and Siti Sholibatul A. He graduated from Industrial Engineering – Sepuluh Nopember Institute of Technology on 2008. During his study, he was active in some organizational activities in both in his department and faculty. He was the chief of department of Education and Student Advocation of BEM FTI in 2007/2008. He was also an assistant of PSMI Laboratory. In 2009, he got scholarship to study English in The United States for nine weeks. He also had an experience to join internship program in PT Philips Lighting Surabaya in 2008. He interested in human resources management and strategic management. The writer can be contacted by email in abdulbasyir@ymail.com.