

CHAPTER 3

METHODOLOGY

This chapter contains step by step in conducting the research. The flowchart of research methodology can be seen in Figure 3.1. and the detail is explained in the following section.

3.1. Conducting Preliminary Research

The first stage of this research was conducting preliminary research on CV. Ash Shaff Offset. This stage aimed to find out some troubles and obstacles that are facing by CV. Ash Shaff Offset. This preliminary research conducted in January to February 2013 by conducting preliminary interview to the stakeholders of CV. Ash Shaff Offset and gathering some data such as sales data, customer data and complaints data. Further, the data was proceed and analyzed as the basis to formulate the problems.

3.2. Problem and Research Objective Formulation

The next stage was defining the problem and defining research objective formulation. After getting some data from the preliminary research, then the author formulated the problems by mentioning primary focus of this research. The research objective formulation was conducted in order to focus on targets / objectives to be achieved.

3.3. Literature Review

This stage was the searching stage to find some previous literatures of SWOT analysis in manufacturing sector. In addition, in this stage was also searching the theoretical background such as customer satisfaction measurement, SWOT analysis and strategic management. It aims to support in establishing a theoretical framework for current research, and also to obtain a guideline for further research work. It conducted by reading and studying some journals, previous researches, literature books and internet resources.

3.4. Customer Satisfaction Measurement

The forth stages was conducting customer satisfaction measurement whose the customers of CV. Ash Shaff Offset as the research object. The customer

satisfaction measurement aimed to evaluate the dissatisfaction of customers (services, product quality) and price as one of sensitive aspect in the middle of intense competition. The result of this stage was included into the internal condition of this company in SWOT analysis. The methodologies were :

1. Location and Time of Research

The research location was in CV. Ash Shaff Offset which is an *industri grafika* located in Timoho street 124 Yogyakarta. The activities of customer satisfaction research were carried out through designing questionnaires, pilot test, data collection, and data analysis. These activities conducted in March to the beginning of July 2013.

2. Sampling Method

The sampling method was used purposive sampling. Purposive sampling is confined to specific types of people who can provide the desired information, either because they are the only ones who have it, or conform to some criteria set by the researcher (Sekaran et.al, 2010). The sample was taken from the customer population of CV. Ash Shaff Offset which at least already made an order once. The customer sample was taken based on the customer population in May (pilot test) and June 2013. This sampling method has been chosen in order to get the representation of quality perceived in terms of services, product quality and price by the customer.

3. Data and Instrumentation

Types of data and data sources used in this research were the primary data and secondary data. Primary data sourced from observation, interviews and distribution of questionnaires. Interview conducted to the frontline employees of the company and the customers itself. The frontline employees were consisted of head of production and pre-production department, front office staff, and also marketing staff. While 10 customers have been chosen, consisted of private employees, entrepreneurs, and civil employees are interviewed related to the needs and requirements about services, product quality and price aspect of *industri grafika*. In addition, observation conducted to observe how is the interaction between the customer and frontline employees in CV. Ash Shaff Offset. These activities intended to understand the behavior, needs, preferences,

and expectations in using printing services of *industri grafika*. The result of these activities concluded as customer requirements list. While, secondary data obtained from several sources of relevant literature such as books and journal.

List of questions became the instrument to conduct interview. Whereas, the questionnaires which consisted of research attributes became the instrument to generate importance and performance rating. The research attributes created from the combination of customer requirements list and the quality dimension of services, product quality and price.

The questionnaire used closed questions which were divided into 3 sections; the identity of respondents, characteristics of respondent, and the satisfaction (perception) and importance rating of respondents which equipped by 5 rating scales (Likert Scale). The data were processed using computer software tools Microsoft Excel 2011.

4. Data Collection Method

The data collection method was conducted based on two type research approach. There were quantitative approach and qualitative approach. The qualitative approach in this research used to identify and collect the research attributes which is collected by survey methods that are observation and interviews. Qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them (Newman & Benz 1998) on (Mostaghel, 2006). While, the quantitative approach conducted by distributing questionnaires. Quantitative approach is one in which the investigator primarily uses post positivist claims for developing knowledge (i.e. cause and effect thinking, reduction to specific variables and hypotheses and questions, use of instrument and observation, and the test of theories), employs strategies of inquiry such as experiments and surveys and collects data on predetermined instruments that yield statistical data (Creswell, 2003) on (Mostaghel, 2006). The data collection has been done into 55 respondents which used valid and reliable questionnaires. The questionnaires consisted of twenty eight research attributes and prepared to collect the customer characteristic and importance-performance rating towards services, product quality and price of CV. Ash Shaff Offset.

5. Data Analysis Method

After has collected all data, the process of analysis begins. There were several analysis which based on quantitative data analysis, there are:

1. Validity test

Validity defined as the extent to which data collection method or methods accurately measure what they were intended to measure (Saunders et. Al., 2003) on (Mostaghel, 2006). In this research, validity test was conducted based on correlation analysis through microsoft excel 2011 software.

2. Reliability test

Reliability refers to the degree to which data collection method or methods will yield consistent findings, similar observations would be made or conclusions reached by other researchers or there is transparency in how sense was made from the raw data (Saunders et. Al., 2003) on (Mostaghel, 2006). In this research, reliability test was conducted based on Cronbach's coefficient alpha calculation through microsoft excel 2011 software.

3. Importance Performance Analysis

Importance-performance analysis was introduced as a framework for understanding customer satisfaction as a function of both expectations related to salient attributes (importance) and judgments about their performance (performance) by (Martilla and James, 1977) on (Levenburg and Maghal, 2005). The IPA was conducted by calculating the IPA Gap and IPA mapping.

The step by step of conducting customer satisfaction measurement was:

1. Designing Questionnaires

The first stage of customer satisfaction measurement was designing questionnaires by early conducted interview and observation to create the customer requirement list. Later, the questionnaires were constructed from the combination of customer requirements list and the quality dimension of services, product quality and price into form of questionnaires. After the research attributes have been made in the form of questionnaires, then this instrument was tested by spreading and collecting data questionnaires into 30 respondents (Pilot Test). The respondents were asked to give the only importance rating for each attributes. The datas then were analyzed by validity and reliability test. The valid and reliable research attributes directly can be

used as main questionnaires, but whether there were invalid and unreliable research attributes the questionnaires should be redesigned.

2. Data Collection

In this step, the main questionnaires were spreaded to the customer of this company. The respondents were asked to rate the level of importance of each research attributes and their satisfaction level on a five-point Likert-scale, and filled the customer identity and characteristic section.

3. Data Analysis

After the data have been collected, the analysis begin by Importance Performance Analysis approach which was followed two methodological streams Gap analysis and IP maps.

3.5. Strategy Formulation

After conducted the customer satisfaction measurement, the research begins to strategy formulation based on quantitative SWOT analysis approach. This stage aims to formulate the alternative strategy by analyzing the strength, weaknesses, opportunities, and threats of this company. The methodologies were:

1. Location and Time of Research

The research location was in CV. Ash Shaff Offset which was an *industri grafika* located in Timoho street 124 Yogyakarta. Location selection was done intentionally (purposive) based on the business development activities being conducted by CV. Ash Shaff Offset. The research activities carried through two stages: (1) the restructuring proposal as preliminary study in January and February 2013, and (2) data collection and analysis data of SWOT analysis in July to September 2013.

2. Sampling Method

The sampling method was used judgemental sampling method and the owner of this company (director) was became the research respondent. Judgemental sampling involves the choice of subjects who are most advantageously placed or in the best position to provide the information required (Sekaran et.al, 2010). Director is the decision maker in business activity of this company that is

responsible for the plans of company, and the wealth management of the company. The director gave the weighted score and rating of SWOT key factors both from external and internal environment of the company. In addition, the owner also gave the rating of Attractiveness Score (AS) in the decision stage of strategy formulation.

3. Data and Instrumentation

Qualitative approach to obtain primary data for analyzing the condition of this company has been conducted through observation and depth interview. The observation was conducted to observe the condition of the company in order to find out the strengths and weaknesses. While, the depth interview was conducted with the company's stakeholders by using questions list as the instrument. In addition, quantitative approach to obtain primary data has been conducted through weighting process of external and internal key factors (IFE and EFE Matrix) and rating of Attractiveness Score (QSP Matrix) which is using questionnaires instrument given to selected respondents (directors). The weighting process of external and internal strategic factors was processed using computer software tools Microsoft Excel 2010.

Secondary data were obtained from CV. Ash Shaff Offset staffs such as income data, the facilities of the company, the data of employees, and scheduling form. In addition, secondary data were also obtained from the literature books, journals, previous research, and information from the internet related to the topic, data from the BPS, and *Bank Indonesia*.

4. Data Collection Method

The data collection methods were conducted by depth interview, observation and questionnaires. Secondary data obtained through the data of this company, the study of literature, *Badan Pusat Statistik* (BPS) Indonesia and Yogyakarta, Department of Health, and other literature books relevant with research. Secondary data obtained through internet browsing to search for articles, news and other data that supports research based on official website.

5. Data Analysis Method

Data analysis methods that have been used were qualitative descriptive and quantitative approach. Qualitative descriptive used to determine the external and

internal key factors of the company by the approach of SWOT. The external key factors have been analyzed based on external forces and competitive forces (Porter's Five Forces). While, the internal key factors have been analyzed based on value chain analysis through 5 M(Man, Material, Money, Machine, and Method). While, quantitative approach was used the Matrix of EFE, IFE, IE and QSP. In addition, the weighting process for IFE and EFE matrix were conducted based on paired comparison (Kinnear, 1992) on (Rachmat, 2009).

3.5.1. The Input Stage of Strategy Formulation

The strategy formulation began with the external and internal environment analysis. This stage involved analyzing and describing the key factors of external and internal of this company which were accompanied with SWOT approach. After the external and internal environment analysis has been finished, and then the key factors were proceed by creating IFE and EFE Matrix. In creating these matrix involved determining the weighted scores of each key factors. The weighting process already conducted by the owner of the company by questionnaires instrument. The owner of the company has been asked to give the weight and rating for each key factor. Then, the scores were entered into the IFE and EFE Matrix along to the internal and external key factors.

3.5.2. The Matching Stage of Strategy Formulation

The matching stage of strategy formulation was conducted by creating the SWOT Matrix, and Internal-External (IE) Matrix. The total weighted scores from IFE and EFE matrix were used to plotted the scores into IE Matrix. The result of this IE Matrix was directing to certain strategies based on the quadrant location. Further, the strategies obtained from IE Matrix were used and matched in SWOT Matrix.

3.5.3. The Decision Stage of Strategy Formulation

In the last stage, the strategies obtained was proceed into QSP Matrix. This matrix involved fulfilling Attractiveness Score (AS) by the respondent (owner) and calculating the Sum Total Attractiveness Score (AS) to decide the priority of each strategies. In fulfilling the Attractiveness Score were preceded by determining the key factors which affects the choice of strategy.

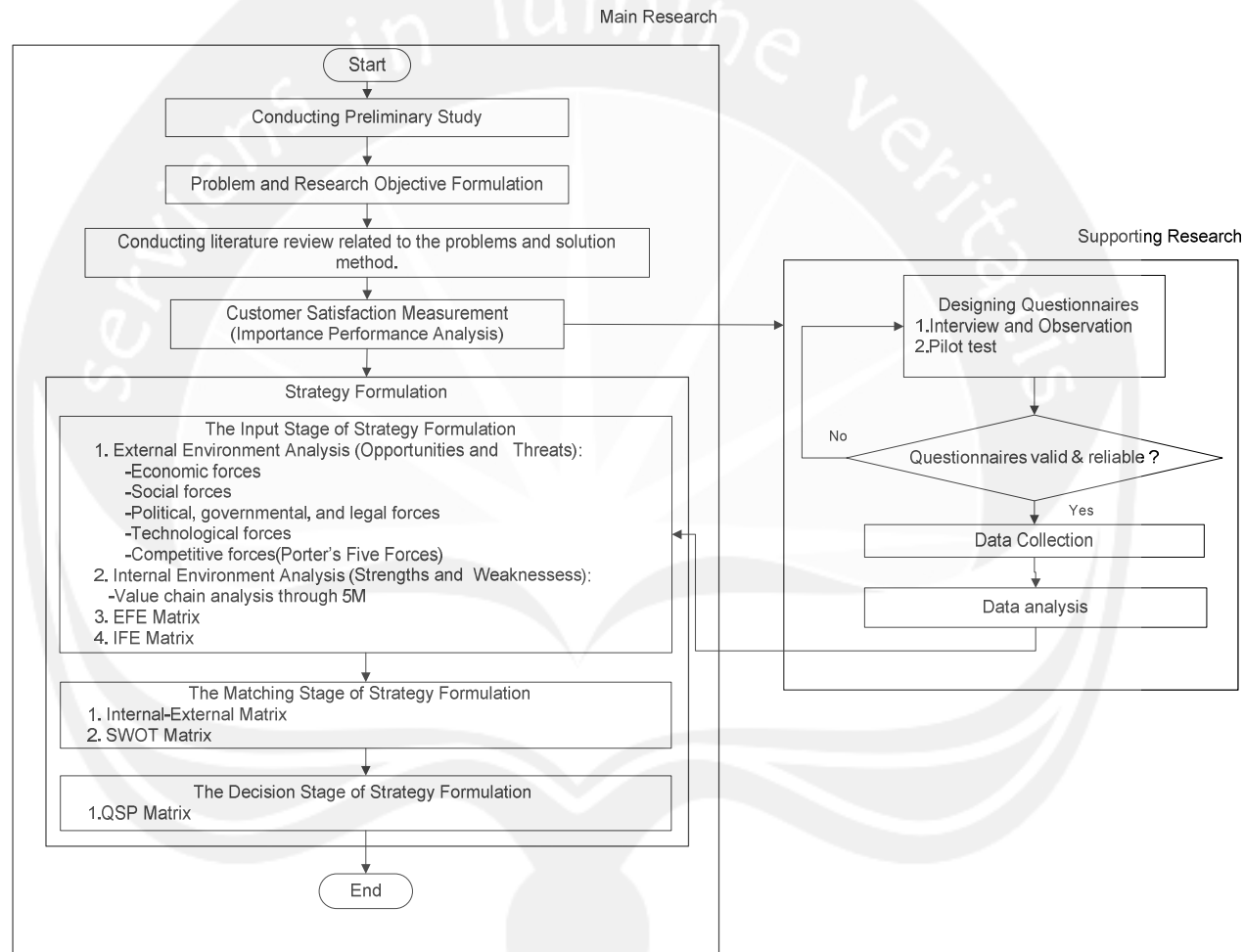


Figure 3.1. Research Methodology