CHAPTER 3

RESEARCH METHODOLOGY

3.1   Research Object

This research is conducted in PT. Expertindo, a training and consulting provider company in Indonesia located in Kaliurang St.10 Sleman, Yogyakarta. The research object in this research is the management of PT. Expertindo specifically in the organizational structure. This research was carried out from March 2019 to May 2019

3.2   Flowchart

A structured research flow is essential to make a directed research. The research flow of this research is depicted in a flowchart to show the stages of the research from the beginning to the end. The process and stages of this research is depicted in the flowchart in figure 3.1.
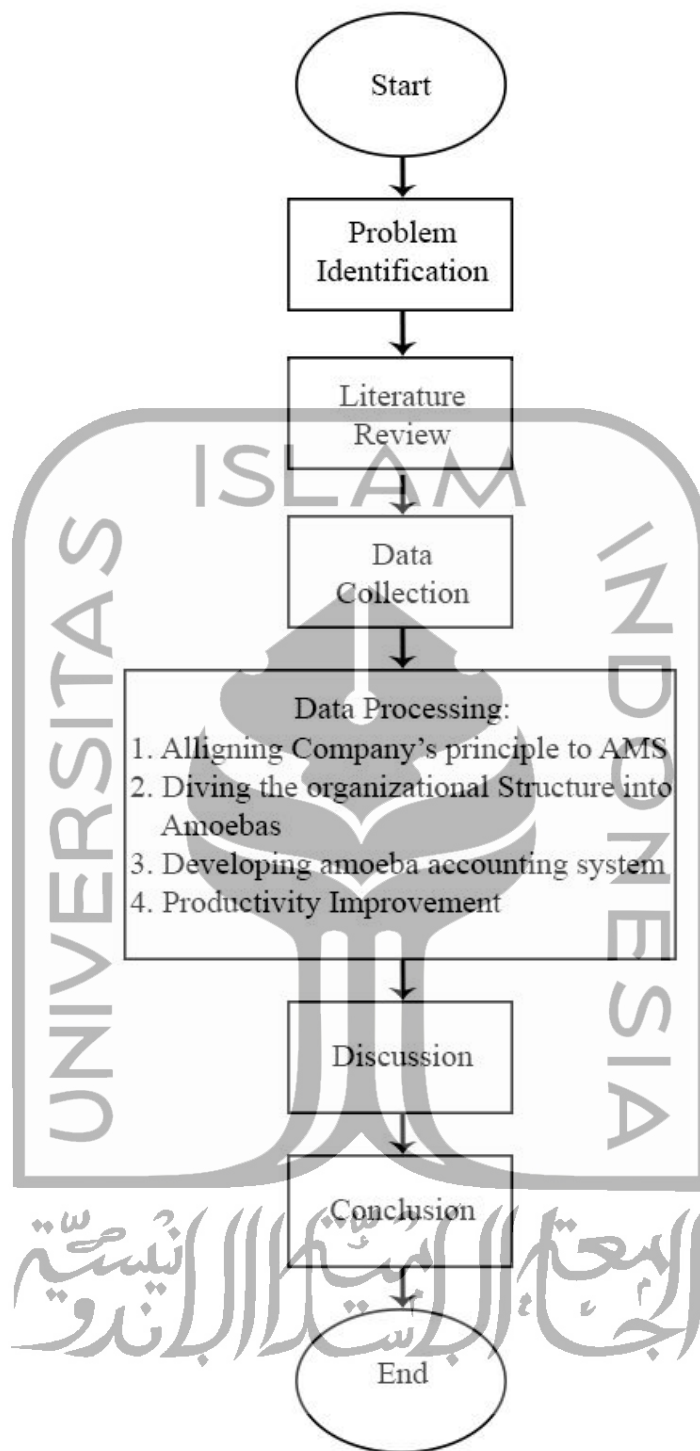
Figure 3.1 Flowchart

The research flow is described in more detail in every stage from the beginning to the end in the following sub-chapter.

3.2.1 Problem Identification

In this stage, the problem identification is done to identify the problem which subsequently will become the focus of this research. The problem identification in this research is done through three stages as follow,

1. Problem Formulation

   This stage describes the scope of the problem that will be the focus of the research from the problem identification in the form of questions.

2. Research Objective

   This stage describes the objective of the final output of the research.

3. Problem Limitation

   This stage describes the limitation of the research which is intended to focus on the objective. Thus, the research discussion will not have too broad discussion on any aspect outside of the research.

3.2.2 Literature Review

The literature review includes researches and empirical studies on research pertaining to this research topic that supports problem solving in this research. In addition, the literature review includes basic theories that will be used as a reference in this research.

3.2.3 Data Collection

The objective of this stage is to collect data that will be used in this research. The source of data is divided into two based on how the data are obtained namely primary data and secondary data. The following describes in more detail on the primary data and secondary data.

1. Primary Data

   Primary data refer to data that are obtained directly from the source. Primary data can be in the form of opinion from a person or group of people, observation of an object, event, or activity, and test result.

2. Secondary Data

Secondary data refers to the data that are obtained indirectly or not based on direct measurement toward the object of the research. The forms of secondary data are file, document, and company records.

3.2.4 Data Processing

The objective of data processing stage is to process the data that have been collected. The data processing in this research is intended to design the amoeba management system in the company. In this stage the data that will be used include the company's vision and mission, organizational structure, and accounting system. In developing an amoeba management system, the company's organizational structure will be broken down into small independent business units called amoeba. The stages in designing an amoeba management system are described as follows:

1. Aligning Company's vision and Mission to the Amoeba Management System principles
2. Dividing the company's organizational structure into amoebas
3. Developing amoeba accounting system
4. Productivity improvement

3.2.5 Analysis

This stage analyses the current performance of the company to determine area of improvements. This stage can be broken down into three parts as follows:

1. Productivity rate

   In identifying the performance of the company, an analysis on the productivity rate is done. The productivity rate refers to the profit per hour produced by the amoeba management accounting system. One of the distinctive features in the amoeba management accounting system is that it exposes the profit per hour in every department. The profit per hour shows the performance of the particular department and can be plotted to see the performance over time. This research uses financial data from the company's income statement from 2016-2018.

2. Productivity target

The productivity target can be obtained through many ways, in this research the management sets the productivity target by forecasting the previous period to become the target for the next period. A trend and seasonality forecasting method is used in this research by using the data from 2016 to 2017 to forecast 2018.

3. Gap

The Gap indicates the difference between the target and actual. As the target is obtained through forecasting, the forecasted data of 2018 is later on compared with the actual data of 2018. Subtracting the value of target to the value of actual will result in the gap. If the result shows negative value it means that the company has exceeded the target and achieved the target and if the result shows positive value. It means that the company do not achieve the objective, thus must take action to fulfill the target.

3.2.6 Productivity Improvement

This stage discuss about the efforts to increase the performance of the company in order to fulfill the target by increasing the overall productivity in every department. In this research, only the sales department is used as an object to improve the productivity. There are two options to improve productivity namely improving the input in this case the revenue or reducing the output in this case the expenses. After analyzing the data, the result shows that the revenue has greater influence in generating the profit per hour or productivity than the expenses as seen in data in months that have bigger revenue significantly will generate more profit per hour. Therefore, in order to increase sales this research uses marketing mix strategy. The stages of using marketing mix strategy to improve productivity is described as follow,

1. Identify Current Marketing Mix strategy

The current marketing mix strategy indicates the marketing strategy or the performance of the marketing strategy that the company is currently using. Marketing mix consist of seven components known as 7P (Product, Price, Place, Promotion, People, Process, Physical evidence). The indicator in every component identifies the existing method or performance that existed in the company. Every component is identified and analyzed in to determine which aspect of the company's marketing mix strategy should be sustained and which

aspect to make improvements. These key indicators are obtained according to research findings. In order to obtain the current marketing mix data, a table of 7P components along with the key indicator to show the existing method or performance used in the company in constructed. The data are obtained through several ways including observation, interview, and questionnaire. Table 3.1 shows the data to be collected regarding the 7Ps.

Table 3.1 Current marketing mix strategy

No	Element 7P	Description	Key Indicators	Data Collection
1.	Product	The extent to which a training and consulting service company develops a comprehensive service offer to satisfy and fulfil the customers' needs.	1.1 Core benefit	Customer satisfaction toward the usefulness of the training for implementation in company.
			1.2 Actual product	Customer satisfaction toward the ease of understanding the training and depth of coverage of the topic.
			1.3 Augmented product	What attributes does the training offer that makes it stands out from other training provider
2	Price	The extent to which a training and consulting company practices costing policies and activities in developing a product in the form of services prices.	2.1 Flexibility	Flexible price strategy that the company offers.
			2.2 Price level	The price level of the training in the market
			2.3 Discount	The company's capability of reducing the price.
3.	Place	The extent to which a training and consulting company determines the	3.1 Accessibility	The accessibility of the training avenue
			3.2 Visibility	The visibility of the training avenue

		location of the training offered.	3.3 Facility	Customer satisfaction toward the facility of the training avenue
			3.4 Environment	Customer satisfaction toward the environment of the training avenue
4.	Promotion	The extent to which a training and consulting company develops a promotion strategy through the components of promotion activities.	4.1 Advertisement	The market that the advertising strategy is directed
			4.2 Sales promotion	Sales promotion frequency
			4.3 Publication	Channels of the publication.
			4.4 Personal Sales	Amount of approved prospect from the personal sales.
5.	People	The extent to which a training and consulting company is customer oriented in practicing the business	5.1 Customer relationship	The quality of the people within the process of delivering the service to the client.
6.	Process	The extent to which a training and consulting	6.1 Process	The process to schedule a training.

		company provides its service		
7.	Physical evidence	The extent to which a training and consulting company is aiming to create customer friendly, safety, secure and a healthy environment in the environment.	7.1 Building	The company's main building

2. Marketing Mix Target

The marketing mix target indicates the target of every component of the 7P that the company should fulfill. The result of the current marketing mix strategy in every component is assessed then compared to the target of each component from the management. Every component may have different units of measure thus the assessment is done in different unit of measure as well. Subsequently, the assessment in every component is classified into two categories that shows the performance of every component. The categories are adequate and inadequate. Adequate refers to a condition where the quality of the key indicator is sufficient enough and should sustain. Inadequate refers to a condition where the quality of the key indicator is insufficient and needs to be improved. These category shows which component of the marketing mix strategy should the company sustain and take more attention to.

3. Productivity Improvement Area

The productivity improvement area identifies which aspect of the marketing mix strategy that the company should improve. The productivity area is obtained from the insufficient category from the previous stage. A cause and effect diagram or fishbone diagram is used to identify the root causes of the insufficient category. Subsequently, the root causes from the fishbone diagram is identified to find the dominant causes and ranked to prioritize which causes should be solved. A questionnaire is deployed to the employees of the company. The result of the questionnaire is further processed using Borda count to determine the causes that affects the most or the prioritized causes that should be solved. The stages in Borda count are as follows:

a. Calculate the number of respondents who stated the ranking

b. Multiply the number in the ranking column with the weight below it, then add the multiplication result to the same type, then fill in the results in the ranking column.

c. Add the ranking results.

d. To find the weight of each type, for the ranking with the number of ranks.

e. The type with the highest weight is the chosen one.

Table 3.2 depicts the questionnaire of the root causes ranking. The respondent should rank the root causes from the highest impact to the least by ticking on the space given.

Table 3.2 Borda Count

Root Causes	Rank						Ranking	Weight
	1	2	3	4	5	6		
Lack of Supervision								
No specific database category								
No tools to monitor client's response								
No SOP								
Lack of Training								
Not available budget								

4. Proposed Improvement

   The proposed improvement gives the recommendation toward the root causes. The prioritization of the proposed improvement is given in sequent from the highest rank of the root causes to the lowest.