

## **CHAPTER III**

### **RESEARCH METHOD**

#### **A. Type of Research**

An activity would be recognized as a research if there is a systematic and organized effort to review certain problems that need some answers. Type of research gives brief description on how the research would be conducted and reported. The type of research which is used in this research is descriptive research with case study approach.

Based on Yin (2011:208) there is no typology of interpretations. In crafting an interpretation, researcher will be treading on common but still rather uncharted territory. Nevertheless, an inductive approach may serve a helpful purpose: to determine whether some common lessons can be derived by reviewing the interpretations found in existing studies.

Mackenzie (2013:233) explain that Descriptive research is losing verbal analogy and metaphor to describe phenomena. There is no attempt to explore or explain why a phenomenon occurs, but just to state that it does. Descriptive research could therefore be described as low-level, relatively unsophisticated research. However, it could be the case that where very little is known about a particular subject, descriptive research could make an original contribution to existing knowledge.

## B. Focus of Research

Focus of research used to restrain the scope of problem or it is also called as problem limitation. Basically, Focus of research contain general problem. The determination of research focus is needed in order to make the research process to be more directed and running well. The existence of research focus is possibly for the researcher to make a right decision about the data or information that will be collected for further analyzed. In accordance to the previous explanation, the focus of this research is determined as follows:

1. Studying the existed salary system used by Tiara Handicraft as a Small Medium Enterprises and analyze the weaknesses within the existed system. Tiara Handicraft as a small Medium Enterprises which still growth and try to move from conventional system into computer based system.
2. Problem identifying of existed salary system. The specific problem that faced by Tiara Handicraft which become constrain in achieving effectiveness and efficiency.
3. Build good system as solution of the problem from using conventional system. Since the output of this research is designing the new system that suitable with company solution and problem, it will be very important. Tiara Handicraft is a creative industry who need to develop product fastly, good system will overcome the efficiency and effectiveness for company production.

### **C. Location and Sites of Research**

The location of research that is referred in this research is a place where the researcher conducts the research toward the research object. Hence, site of research here means the place where the researcher captures the real condition of the research object. In this case, the researcher selects Tiara Handicraft, Jl. Sidosermo Indah II/5 Surabaya, 60239, East Java.

There are some considerations lies under the selection of the location. First researcher wants to solve company problem from using manual system. The weaknesses of this system already give bad impact to company works.

Second is the company condition. Tiara Handicraft as Small Medium Enterprises is still growth. There will be so many things that need to develop. One of them is the system, in this case salary procedure. The condition of Small Company gives flexibility to adopt the new culture. But this condition also give significant impact to company behavior and performance in understanding what phenomena that might be happen in the future if they consider the new system.

### **D. Source of Data**

Burton (2000:140) stated that An important consideration for researchers is how to use a variety of data sources to find the required information. In addition to books and journals there are lots of other sources of information such as newspapers, theses, research reports, computer databases, and so on. All this information is actually clamoring for researcher attention and only by organizing the search. The data use of this resesarch will be focused on Primary Data. To build good system, researcher have

to stick on availability of primary data. But, researcher still open the possibility of using secondary data in order to support the primary data.

Observation can be an invaluable way of collecting data because what researcher see with their own eyes and perceive with researcher own senses is not filtered by what others might have (self-) reported to researcher or what the author of some document might have seen (Yin, 2011:143). In this sense, researcher observations are a form of Primary Data.

Secondary analysis is any further analysis of an existing dataset which presents interpretations, conclusions, or knowledge additional to or different from, those presented in the first report on the inquiry as a whole and its main results. (Hakim, 1982: 1). Burton (2000 : 350) explain secondary data is focused on obtaining the relevant dataset, and that can usually be organized fairly quickly by using a small number of key contact personnel.

This data source can be collected through literature observation, documents, and other supporting data forms. In this research, secondary data consists of the documents bellow:

1. Company Profile
2. Salary Slip
3. Financial Report
4. Other Accounting Report

#### **E. Data Collection**

The Data collection method in this research is collect and examining methods. “Collecting” refers to the compiling or accumulating of objects

(documents, artifacts, and archival records) related to your study topic. Most of the collecting will occur while you are in the field, but you also can collect objects from other sources, including libraries, historical archives, and electronically based sources. In addition, collected objects can include those produced directly by participants, such as their journals and photographs, whose use might complement the information obtained from interviews with the participants (Murray, 2009 :118)

The data collection activities are :

1. Interviewing

Researcher use a formal question that asked in order to have description of the existed system and company behavior. The researcher as interviewer will try to adopt the same consistent behavior and demeanor when interviewing every participant (Yin, 2011:133). Interview can be usefull to find all party that involve in system work. System weakness and problem can be asily revealed with questioning people inside of system. In this case, user behavior will decide what kind of system that can be purposed.

2. Documentation

Documentation could occur as a result of a formal search and retrieval procedure that uses electronic bibliographic searches as a tool. Objects generally represent another form of primary evidence, they can be invaluable to study of the research. Many documents can be useful simply by the nature of the details they contain. These include the spelling of names, titles, and organizations, the affixing of specific dates to events,

and the specific language used in mottos, slogans, mission statements, and other communications (Yin, 2011:149).

## **F. Instrument of Research**

The instrument of this research is researcher itself. Real-life encounters dominate research works. In these situations, researcher five senses will be the main modalities for measuring and assessing information from the field. Researcher also will be constrained by his ability to recall and remember actions, and researcher will be exercising his own discretion in deciding what to record (Yin, 2011 : 123).

Based on Yin (2011 : 136) there are a few guidance that needed to be done in order to give best result from research :

### **1. Interview Guidance**

- a. Speaking in modest amounts.  
One important practice is to try to speak less than the other person—much less. You need to find ways of querying others that will lead to extended dialogues on their part. The opposite and undesirable situation arises when you pose a lengthy question that is essentially a “yes/no” question, to which the other person can satisfactorily respond by giving a one-word answer, namely, “yes” or “no.”
- b. Being nondirective.  
A second important practice is to be as nondirective as possible. Your goal is to let participants vocalize their own priorities as part of their own way of describing the world as they perceive it. To take but a simple example, among the alternative perspectives even may be the sequence of topics discussed by a participant. The sequence may differ from the one that you had planned to follow. However, by giving participants an opportunity to follow their own sequences, later analyses might reveal an important part of the participants’ perspectives.
- c. Staying neutral.  
This third practice is part of being nondirective but serves as a reminder that your entire presentation of self during the conversing process—your body

language and your expressions, as well as your words—needs to be carefully cast in a neutral manner.

d. Maintaining rapport.

A fourth practice is interpersonal. You need to maintain good rapport with the participant. Because you have created the particular research situation, you also have a special responsibility to avoid conversations that might do harm to the other person—for example, using words that lead to hateful thoughts, the divulgence of totally private if not criminal topics, or undue unhappiness on the part of the participant

e. The interview protocol

usually contains a small subset of topics—those that are considered relevant to a given interview. Each topic might be followed by some brief probes and follow-up queries, but the interview protocol should in no sense be considered a questionnaire.

## G. Data Analysis

Data Analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data (<http://ori.hhs.gov>: 2013). Many kind of analyzing procedure can provide a way of drawing inductive inferences from data and distinguishing the signal (the phenomenon of interest) from the noise (statistical fluctuations) present in the data. The other interpretation of data analysis is the process of bringing order, structure and meaning to the mass of collected data. It could be messy, ambiguous, time-consuming, creative, and fascinating process. Qualitative data represents small numbers of cases—situations, experiences, events—using data from observations, interviews, or archives that are usually not chosen using probabilistic methods (Lynch, 2013: 17).

The step of data analysis of this research are :

### 1. Research the existed system

Systems analyst prepares a systems proposal that summarizes

What has been found out about the users, usability, and usefulness of current systems (Kendal, 2011 : 10). That really helpful to find motivation of user from using current system and user expectation in the future.

## **2. Analyzing the problem of the existed system**

The systems analyst needs to know the details of current system functions: the who , what , where ,when, and how of the business under study (Kendal, 2011 : 10). This is important to know what kind of thing that needs to be analyzed and find the problem.

## **3. Designing the new system**

The design phase decides how the system will operate in terms of the hardware, software, and network infrastructure that will be in place; the user interface, forms, and reports that will be used; and the specific programs, databases, and files that will be needed (Alan, 2012:14).

There are few phase that can be done in order to design new system:

### a) Model Design

Every human creation need model, including system. There are two design that become the basic concept of system :

#### 1) Logical design

Part of the logical design of the information system is devising the Human-Computer Interaction (Kendall, 2006: 10). This is very mportant since it will decide people who partipate inside of system.

There are two tools that can be used for analize logical design.



a. Context Diagram

context diagram defines how the business process or computer system interacts with its environment—primarily the external entities (Dennis, 2012:194)

b. Levelled DFD

Data flow diagrams start with the information in the use cases and the requirements definition. Although the use cases are created by the users and project team working together, the DFDs typically are created by the project team and then reviewed by the users.

2) Physical Design

Show the physical architecture of the system. Can also be used to show software components being deployed onto the physical architecture.

b) Database Design

Databases actually not collection of files. Rather, a database is a central source of data meant to be shared by many users in the same time for a variety of applications. The heart of a database is the database management system (DBMS). A database management system (DBMS) is software that creates and manipulates these databases (Dennis, 2012:406). It is also important to make ERD since database will be easily show the information that can be created. Stored, etc.

## 1. ERD (Entity Relationship Diagram)

An entity relationship diagram (ERD) is a picture which shows the information that is created, stored, and used by a business system.

### c) Table Relation

After design ERD, next step is draw table relation. It is very important to explain all of entity and field that exist in database. So that user who doesn't familiar with programming term can also understand the database purpose.

### d) Table Structure

Table structure important in checking the type of data that can be use in database. Since data has a lot of kind, deciding certain data in certain field of entity is very important. Also how much characte that can be type inside of the table,

### e) Design System Implementation (Coding)

System that already analized and designed in detail, technology has been selected and choosen. Afterward, the time for sistem to be implemented. System implementation step is a step of placing system so that ready to operated. This stage including with coding. In this step, programmer will play the major rule. Since Coding not all of the people can did.

### f) Examine System

It could also be called as testing stage. System user will test all of the feature of program. Is the system worked like it designed before, or the system still need more correction in user interface or other a. Together

with programmer, user can consult all problem related with program. Some time problem that can be called as bugs or lags can't be found in short time. But nedded long time use to ensure no problem with program.