**Chapter III**

**METHODS OF RESEARCH**

This chapter focuses on the research methods used in this study. It describes a survey for quantitative methods. This chapter also discusses research locale, population and sampling techniques, instrumentation, data gathering procedure, description of respondents and statistical treatment are also discussed in this chapter.

**Research Design**

The researchers used a descriptive research method to identify the advantage and disadvantage of using PayPal integration, sending message service, application programming interface, a framework to the mock-up of the proponents. The descriptive research method is a method of preparing questions, data analysis, classifying data, trends, design and accuracy of transferring information that will be related to a given topic or study. The reason of the researchers why they use this kind of research design is to specify, illustrate and give detailed information about managing an e-commerce website from your home without difficulty and with or without knowledge on create a website. The researcher also used a quantitative research to collect information which is numerical form, such as computed answers on a survey. The proponents used this to help them to make this study more reliable by surveying professionals and non-professionals. Therefore, the researchers made an answer for this kind of problem that’s why they created a management system for food e-commerce with PayPal Integration and Database Algorithms. This research helps the proponents to easily identify what is the software requirements and how much the hardware requirements.

**Research Locale**

The proponents have no exact place or location, because of the system is generic but the proponents get the information based on interviewing some businessman or businesswoman who established the small to medium-scale business. Some of the said businessman or businesswomen has no idea on e-commerce or online buy and sell, and the others have an idea on it but they don’t have enough skills to do that and enough time to make that. Also, they want to make their transaction secured and not difficult to manage.

**Population, Sample and Sampling Technique**

**Instrumentation**

**Data Gathering Procedure**

It is the stage where the client documented the user requirements. As expected by the client, the data, functionality, performance, physical, interface, security are requirements of the proposed system. The said requirements are one of the ways to use to communicate the business analysis of their understanding of the system back to users. During this step, to make an acute research the proponents will be using a unique application.

**Interview Method**

It is may be formally or informally to be performed. A Formal interview, it is the direct conversation in a way of question-and-answer format. Informal interview, where the respondent(s) answering the question (add something).

**Internet Method**

It is the easiest and advance way of gathering data. Through the Internet, there are many available of electronic information. (add something)

**Library Method**

This is the wide method of data gathering. To collect the data for the proposed system, the proponents may use the books, magazines, newspaper and other published and unpublished materials that related to the topic.

**Observation Method**

Where the proponents on the spot jotting notes of the gathered information of a particular research target. Through this method, the proponents determined the possible to do the study.

**Description of Respondent**

The target users are the greater part of the data recommended for this study. As stated in the given criteria the target users are in charge to evaluate the proposed system. There are 2 sets of respondents. The first set, it composed of related courses such as BS Information Technology and BS Computer Science, the Information Technology professionals and also who have work in the field of an Information Technology. The second set, it composed of non-related course of the said course in the first set, and also a businessman or businesswoman who haven’t knowledge of making a website.

**Statistical Treatment**

The proponents used a survey to measure the efficiency and capacity of the operation. After the survey of the proponents, there will be the translation of data and proper computation about on data they gathered in a survey. They used the mean formula to get the average of the customer who purchased a product. To get the mean, the number of customers who purchased product divided by the total number of customer.