CHAPTER I
INTRODUCTION

1.1 Introduction

In these well development technology eras, information system plays an immense role in every aspects, such as controlling assets, enhance decision making and more importantly assisting user in every transactions in a better and efficient ways (Yadav & Kumar, 2015). Using information system, one possesses abundance data which grants in receiving collections of information through the medium of internet (James, 2015).

While retrieving ever-ready informations, it’s required to bear a mobility technology devices that is accessible in any kind of places through internet connectivity, which is smart-phone. Till now, smartphone has shifted to essential needs due to its mobility and functionalities (Fawareh & Jusoh, 2017). Other advantages being provided by one of smartphones’ platforms is open-source, enable external developers to improve or create its own applications, Android (Mukherjee et al, 2015).

With the high popularity and prominent of smartphone these days, it enhances the development of QR (Quick Response) codes either in advertising or mainly in inventories administrations in variety of industries (Castro et al, 2017). These codes are able to store stacks of informations and only capable to be read by devices with integrated camera.

PT Bingas Manufacturing, one of industrial gas companies, established in Batam, Indonesia for more than 17 years, has been adopting Java Desktop Application since 2011. All data transactions are being saved in local server and
can only be accessed by authorized admin staffs through designated personal computer in the same local network. These reduces the efficiency of information system in allowing user executing each and every transactions.

Issue which experiences by admin staffs, is registering assets. Admin needs to walk approx. 50m to yard, write down all assets’ descriptions manually and returns to office to entry those assets. Human error is a common experience, e.g. duplicate assets’ serial number, unsynchronized assets’ status between system and fact, etc. Admin requires to walk to the yard and ensure all descriptions are precise and return back to office to do the registry.

Other issue is also faced by production staffs. Still, manual procedures are being carried out by employees. Employee occurs to fill in a refilling paper-based form and submit to office to proceed further by admin. While in Maintenance department, the employee also requires to entry data in paper-based form and submit to admin for further transactions.

Hence, author raises a research with title of “Developing and Implementing Assets Control Application using Barcode Scanner Android Based in PT Bingas Manufacturing”, with the aim providing productive and efficient ways in doing each and every transaction for both admins and employees.

1.2 Limitation of Boundaries

Based on the background described above, author concludes developing and implementing assets control application using barcode scanner android based in PT Bingas Manufacturing with scope and limitation of:

1. Developing android application in this research will focus in transaction of:
   a) Manage Assets (Customers, Products, Items),

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2. The application is compatible for mobile devices with Android platform and requires minimum API Level of 16 or above 4.1 Jellybean.

1.3 Aims and Objectives

The main objective of this research with title of developing assets control application using barcode scanner android based in PT Bingas Manufacturing is to provide productive and efficient ways in each and every transactions for both admins and employees. Other objective of this research is to optimize both admins and employees performances in each and every transactions due to its efficiency, easy operating and fast-response of the application.

1.4 Project Output

The outcome of designated project is an Android application which enables both admin staffs and employees to execute each and every transactions efficiently. It is also enables company to optimize both admins and employees performances in every transactions due to its efficiency, easy operating and fast-response.

1.5 Significance of the Study

1. For author
a) Able to develop and implement knowledge which are provided by university theoretically in real world,
b) Able to enhance knowledge about Android Application, mainly in Java programming language,
c) To fulfill one of conditions to achieve Information System Bachelor Degree

2. For PT Bingas Manufacturing
   a) Provides productive and efficient work ground in executing each and every transactions by both admins and employees,
b) Optimizing data entries and human powers.

1.6 Organization of Report

This report consists of 7 (seven) chapters which cover developing assets control application using barcode scanner android based in PT Bingas Manufacturing. Here is an overview of the content of each chapters:

CHAPTER I INTRODUCTION
In this chapter introduces the problems and issues, gives an overview about the study and describes the needs of Android Application in executing transactions in efficient ways. This chapter also discusses scope and limitation of study, the objectives of the study, outcomes of designated project, and significance of study.

CHAPTER II LITERATURE REVIEW
Chapter two covers literature reviews which are the previous related works that have been done before. Moreover, this chapter represents relevant information for understanding the study more.

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CHAPTER III DESCRIPTION OF COMPANY

In this chapter consists of company identity, organization structure, operational activity of company and system used by company itself.

CHAPTER IV METHODOLOGY

Chapter four explains the details of the selected methodology that is used in this project.

CHAPTER V DATA ANALYSIS AND DESIGN

Chapter five contains data collection and data analysis obtained from data retrieval in each design module or whole integrated system.

CHAPTER VI IMPLEMENTATION

Chapter six covers the processes that occur in the stage of implementation and the feedback obtained from design results.

CHAPTER VII CONCLUSION AND RECOMMENDATION

Chapter seven discusses conclusion and recommendations.