

CHAPTER I

INTRODUCTION

1.1. Background

Parking was one of the main problems that was created by the impact of transport development. The availability of less space in urban areas had increased the demand for parking space especially in areas like central business district. The number of tourist arrival in Yogyakarta was expected to increase by 12 percent during holiday seasons according to Major *Yogyakarta* Haryadi Suyuti last year.

Starting July 7, 2015 PT KAI *Daops 6 Yogyakarta* imposed a new parking area from east side of *Tugu Rail Station* to west side of the station or the area *Bong Suwung* (liputan6.com). The parking area was considered for accommodate hundreds of vehicles both two wheels and four wheels. There were three doors counter for incoming and outgoing vehicles. Two counters park in south looked into and out of two-wheeled vehicles. The north side of the counter inside a four-wheeled vehicle.

Enforcement policy operations airflow mechanism passenger at *Tugu Rail Station* had been fully implemented. These were designed for avoiding the traffic jams on the road soon *Margo Utomo*

in holiday seasons. These flow diversion were prepared to prevent the risk of congestion and harm caused by train crossing that often pass through the front gate of the east door of the station.

These alternative was effectively operation almost in one year. The west door parking area of the station had to be measured that the capacity was fulfill the needs of cars and motorcycles.

At beginning of April 2016, *Malioboro* Street, a major shopping street in *Yogyakarta*, had begun the regulation for using the pedestrian in proper way. The parking area for cars and motorcycle were used to in pedestrian side, now had moved and concentrated in selected relocating parking area: *Abu Bakar Ali* Parking Center, *Ngabean* Parking Center, and Parking Area of *Tugu Yogyakarta* Railway Station.

Actually parking area of *Tugu Yogyakarta* Railway Station was not a main destination for *Malioboro* Street visitors, but because the location was not far from *Malioboro*, it could obtain as the alternative optional for the tourists and visitors.

Tugu Yogyakarta Railway Station consisted of two main parking areas: East and West Gates. East Gate was located on *Jalan Margo Utomo* (previous *Jalan Mangkubumi*). These street was usually in traffic jammed because the location was in line with *Jalan*

Malioboro. Previously *Tugu Yogyakarta* Railway Station on East Gate was the central flows for the departure and the arrival passengers. These condition made *Jalan Margo Utomo* even worse in traffic jammed.

The current situation in parking area of East Gate *Tugu Yogyakarta* Station now was available for dropping zone the travelers only. The aim was for reducing the density of the traffic jams on *Jalan Margo Utomo*. Meanwhile for the parking area was concentrated in West Gate *Tugu Yogyakarta* Station: *Bong Suwung*. The entrance gate was the east side of *Gedongtengen* District Office. The existing parking area was almost four hectares, from the availability 20 hectares, while highlight information the capacity were for 170 cars and 450 motorcycles.

The calculation of the parking capacity analysis of West Gates *Tugu Yogyakarta* Railway Station were needed to figure out. Rail passenger number continued to increase in *Yogyakarta* as a result of various timetable changes including the introduction of new services from east (*Surabaya*) to west (*Jakarta*).

Coupling with employment growth in the main urban centers and worsening road congestion this had improved the competitiveness of rail versus other modes. As a result, the

availability of parking had reduced with many full before the end of the AM peak period.

April 9th, 2016 (Jawa Pos) The Governor of *Yogyakarta* Special Region, Sri Sultan Hamengku Buwono X and Executive Vice President PT KAI *Daop 6 Jogja* Hendy Helmi planned for utilizing some parking area at East Doors *Tugu Yogyakarta* Railway Station *Bong Suwung* as vertical parking.

1.2. Problem Statement

The research will cover the problem of:

1. Do the West Gate parking supply cover the convenient the parking demand in *Tugu Yogyakarta* Railway Station?
2. What is the characteristic of the parking system in *Tugu Yogyakarta* Railway Station?
3. Whether it is necessary to re-design the existing parking system?
4. What is the best recommendation can be given?

1.3. Objectives

The objectives of this research are:

1. To evaluate the capacity parking in *Bong Suwung*, West Gate *Tugu Yogyakarta* Railway Station.
2. To identify the characteristic of the parking system in *Bong Suwung*, West Gate *Tugu Yogyakarta* Railway Station.
3. To determine whether the existing parking system needs to be re-designed or not.
4. To give the best recommendation effectiveness parking system in West Gate *Tugu Yogyakarta* Railway Station.
5. To support as collected data the additional plan for vertical parking building

1.4. Problem Limitation

1. The data analysis was taken at *Bong Suwung*, West Gate *Tugu Yogyakarta* Railway Station.
2. The data sampling was collected on weekdays and weekend days.
3. The area parking was on south area parking in *Tugu Yogyakarta* Railway Station.
4. The parking analysis was limited on cars and motorcycles in *Tugu Yogyakarta* Railway Station.

1.5. Purposes

The purposes of these research:

1. Describing the parking lot's characteristics include parking capacity, parking accumulation, parking duration, turn over, parking index, and parking space requirement at Parking Area *Tugu Yogyakarta* Railway Station.
2. Giving the best advises of parking system at Parking Area *Tugu Yogyakarta* Railway Station.

1.6. Frameworks

The frameworks of the writing report:

Chapter I Introduction

1.1. Background

It contained explanation of reasons in selecting presented problem in the Final Project Proposal to be considered as interesting, important, and worth doing. It was also necessary to elaborate the position of presented problem in broader issue. It should be shown that the presented problems had not yet been answered or solved. In this in the section described the background why doing these research for the parking capacity, as the choice of materials writing papers.

1.2. Problem Statement

Problem statement elaborated the available problems in the background and solution to solve the problems. Problem scope was aimed to determine the Final Project direction, so that was directed and not too broad.

1.3. Objectives

This part mentioned specifically the objectives to be achieved by the Final Projects.

1.4. Problem Limitation

The research had to be limited for the analysis. It included the object of the research, the site location, the type of vehicles that will be observed, and the best time decision.

1.5. Purposes

The purposes of the research included the benefits that can be evaluated based on these study.

Chapter II Literature Review

The literature review contained systematic result of previous researches or other writing described the result of previous research related of the study. In these term, the review conducted the understanding of parking lot, the type of

parking, the characteristics of parking, the identification of parking needs and also the parking impacts.

Chapter III Basic Theories

It was elaborated from literature review as guidance to solve problem in the Final Project. Basic theory could be qualitative arguments, mathematical model, or equations which were directly related to written study field.

Chapter IV Research Methodology

It consists of:

- a. Variables, types, and procedure of obtaining data,
- b. Used tools, accompanied with figures and information as necessary,
- c. Method of data analysis,
- d. Flowchart of Final Project.

Chapter V Data Processing and Analysis

This chapter contained Final Project result and discussion were integrated. The result was presented in form of table, graph, photo, and other formats.

Discussion about the obtained result which was a theoretical explanation, either quantitatively or statistically.

Chapter VI Conclusion and Recommendation

Conclusion and recommendation were stated separately.

- a. Conclusion was a short statement which answered the content of research objectives. There should be hypothesis, then conclusion was a short statement contains hypothesis verification.
- b. Recommendation was made based on author's experience and consideration, addressed to researchers of similar field who intended to continue or developed the accomplished Final Project. Recommendation was not mandatory.

1.7. Map Location & Plan

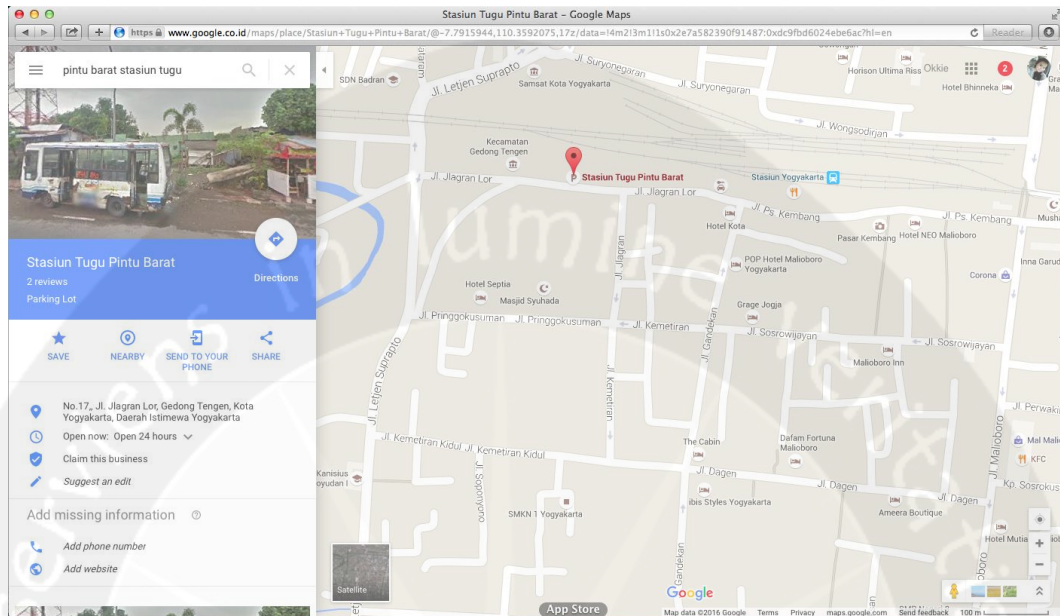


Figure 1.1. Map Location West Gate *Tugu Yogyakarta* Railway Station

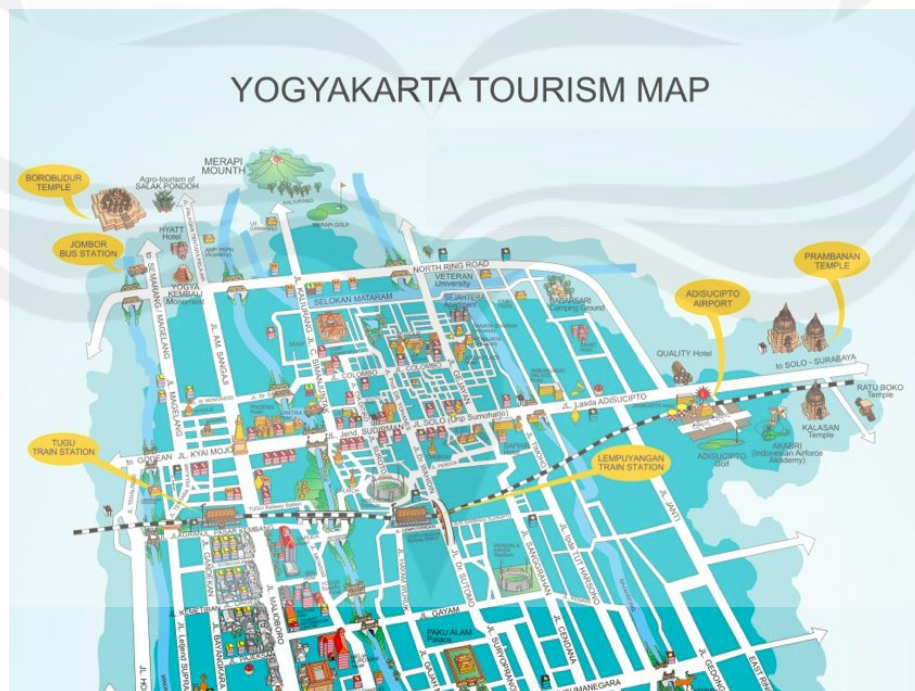


Figure 1.2 Map Location Yogyakarta City

PARKING MAP: Parking Area Tugu Yogyakarta Railway Station WEST GATE, BONGSUWUNG

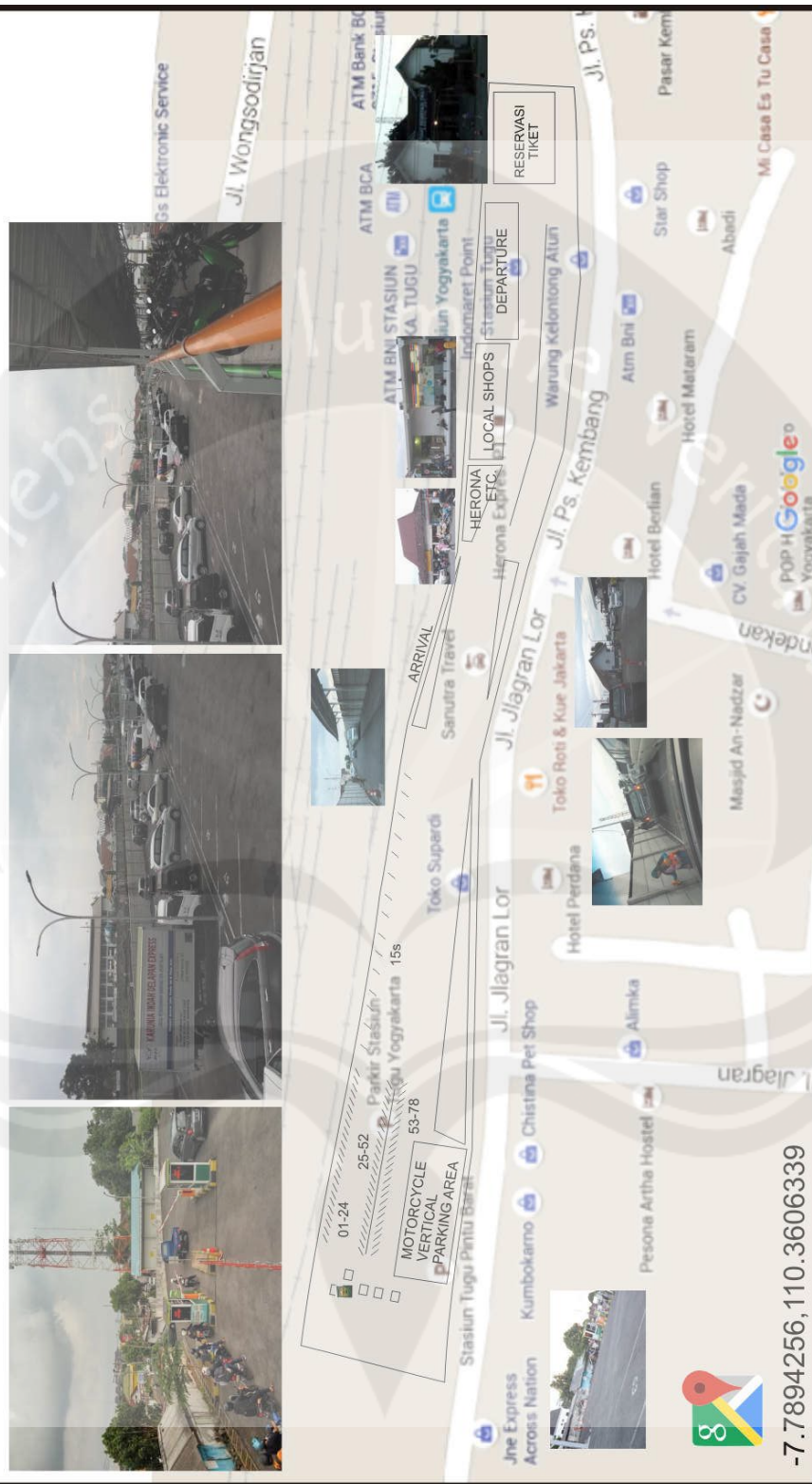


Figure 1.3. Parking Map, Parking Area Tugu Yogyakarta, Railway Station, West Gate, Bong Suwung