

## CHAPTER

### 1. INTRODUCTION

#### 1.1. Introduction

According to G. Sweis (2008) delay could be defined as an act or event that extends the time required to perform the tasks under a contract. It usually shows up as additional days of work or as a delayed start of an activity. The contractor and the owner pay for the extra charge for the completion of the project due to delay in small or large construction projects. Residential and housing construction projects do not make any exception. In a study of Sugiharto Alwi and Keith Hampson (2006), it shows clearly the importance causes on multi-storey projects in Indonesia. When the completion time of the construction project exceeds the agreed completion time, it is known as construction project delay (International journal of project management).

Al-Momani (2000) investigated causes of delay in 130 public projects in Jordan. The main causes of delay were related to design, user changes, weather, site conditions, and late deliveries, economic conditions and increase in quantity.

Ogunlana (2008) studied the delays in building projects in Thailand, as an example of developing economies. They concluded that most of the problems in construction industry in developing economies could be nested in three layers which are problem of shortages or inadequacies in industry infrastructure, mainly supply of

resources; problems caused by clients and consultants; and problems caused by incompetence of contractors.

Delays on construction projects are a universal phenomenon, so that suggesting a methodology minimize delay is primordial, especially in Yogyakarta where the number of construction (malls, hotels and bank building for instance) do not stop increasing.

Construction is complex and challenging and delays, changes, disputes, accidents cost more than ever. Construction Management represents a professional service that applies effective management techniques to the planning, design and construction of a project from inception to completion for the purpose of controlling time, cost and quality.

## **1.2. Problem statement**

Despite of the fact that construction projects represent a significant priority in Indonesia's economy growth, the presence of delays are still very common. The delay in dispute settlement has manifold effects such as it will give detrimental to the relationship between owner and contractor (Kang Sik Wei, 2010). According to Sugiharto Alwi and Keith Hampson (2006) many small and large size constructors have the difficulty to overcome delay problems and the main raison is because they do not have the capacity to identify the important factors. Lee Schumacher (1997) has mentioned that in vast majority of cases, each party points a finger at the others, so all are faced with proving and/or disputing claims for the construction delays.

To determine who is responsible for the delays, reviewing the contract documents is the first thing to do whether it contains any specific provisions that assign responsibility for the delaying circumstance. But in some cases the document is not fulfilled, so that it is crucial to understand the main factors of delay. Research is needed on social and financial factors. I propose to do an in-depth study concerning the delays by each party's responsibilities.

In a certain case, delays often contribute to costly dispute and adverse relationship amongst the project participants such as clients, consultants, contractors, sub-contractors and suppliers (Al-Khalil and Al-Ghafly, 1999). By conducting this study, the planner or project manager will be able to avoid it.

During the last few decades, not only several methods and theories have been developed and created such as Gantt Bar Chart, Program Evaluation and Review Technique (PERT) and Critical Path Method (CPM), but a variety of software packages as well, for instance Microsoft Project, Asta Power Project, Primavera. And yet many constructors do not accomplish the project on time; however the main purpose of construction is to finish the construction as prescribed in the project plan.

In the research made by CIOB (December 2007 - January 2008), further awareness in the industry of time management has been done. There are grounds for concern for effective management of time using network-based programming on construction. The majority of delay-related costs are perceived to be predominately at

the risk of the constructor, and in many cases the contractor was perceived to be predominately to blame.

### **1.3. Purpose of the study**

The main purpose of the study is to identify and categorize the factors and effects of delay in construction industry in Indonesia since a recent study conducted by Alwi (2003) toward 99 respondents working in the construction project showed that Indonesian contractors are facing problems in relation to delays to schedule.

However delay is a common phenomenon all over the world, and because without knowing the exact causes, giving solutions will be hard and non-efficient. So that here are few steps of aim that I will follow to achieve this research to acquire the necessary knowledge and be able to suggest some ideas the time management.

Explore the relationship and communication between the 3 main parties: owner, contractors and consultants. Determine the use of available technology. Need and support for training and accreditation of planners and project schedulers and estimate their opinions about the suggestions.

Identify the current level of understanding of the importance of project engineers and project schedulers in the management of time.

**The specific aims of the study are to:**

- a. The primary objective of this research is to better understand and identify the main causes of delays in construction industry in Indonesia and test the importance as well in small and large projects.
- b. After identifying the effects of delays to all the participants of the projects so that suggestions could be given about time control issues.
- c. Determine the use of available technology in time management methods
- d. Planning the sequence of works

**1.4. Scope of study**

The scope of study will concern some international funded projects at Yogyakarta city located in Indonesia. This study focuses on understanding the delay completion including all the parties whether small or large company (subcontractor), consultant and contractor. Questionnaire will be distribute to the management team include site engineer, project manager, safety officer, supervisor and others.