

**FACTORS THAT CONTRIBUTE TO DELAY IN
CONSTRUCTION PROJECT IN JOHOR**

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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ABSTRACT

This research aim to identify the factors that causes of delays in construction project in Johor. To achieve this aim, 2 objective have been identified which is to identify the factors that causes of delay in construction project and to propose recommendation to overcome the delay in construction project. The research was focus on study the causes of delay in construction project based on contractor-related, consultant-related, client-related categories in Johor, Malaysia. The scope of the research is mainly focus on literature review and a questionnaire survey. The questionnaire survey was designed based on the causes of construction delays, effects of construction delays and the methods of minimizing the construction delays. The respondent involved in this research is contractor, consultant, and client. Through the literature review, 11 factors were selected for contractor related, 8 factors were selected for consultant related and 7 factors were selected for client related. A set of questionnaire were prepared which consist of three sections. Out of 150 respondent targeted only 104 respondent had completely answered the survey that had been distributed by hand, e-mail and link using online survey. The data was analysed using Average Index method and each factor was ranked. From the data analysis, delay in approving major changes of work by consultant is the highest average index that contribute to the causes of delay with average index value is 4.221 under the scale 'Agree'. For method to minimize delay in construction project, most of the respondent agree on effective strategic planning which has the highest value of average index which is 4.462.

ABSTRAK

This research aim to identify the factors that causes of delays in construction project in Johor. To achieve this aim, 2 objective have been identified which is to identify the factors that causes of delay in construction project and to propose recommendation to overcome the delay in construction project. The research was focus on study the causes of delay in construction project based on contractor-related, consultant-related, client-related categories in Johor, Malaysia. The scope of the research is mainly focus on literature review and a questionnaire survey. The questionnaire survey was designed based on the causes of construction delays, effects of construction delays and the methods of minimizing the construction delays. The respondent involved in this research is contractor, consultant, and client. Through the literature review, 11 factors were selected for contractor related, 8 factors were selected for consultant related and 7 factors were selected for client related. A set of questionnaire were prepared which consist of three sections. Out of 150 respondent targeted only 104 respondent had completely answered the survey that had been distributed by hand, e-mail and link using online survey. The data was analysed using Average Index method and each factor was ranked. From the data analysis, delay in approving major changes of work by consultant is the highest average index that contribute to the causes of delay with average index value is 4.221 under the scale 'Agree'. For method to minimize delay in construction project, most of the respondent agree on effective strategic planning which has the highest value of average index which is 4.462.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Construction is the process of constructing a building or infrastructure. Construction process requires a lot of team working and involvement of many parties. A construction project is usually defined as successful project when it is completed on time, within the budget, with appropriate quality, follow with accordance the specifications and to stakeholders' satisfaction. According to the Department of Statistics Malaysia (DOSM), the value of completed construction projects in Q2 2018 grew by 5.3% moderately to record MYR35.6 billion, with the biggest growth seen in the civil engineering (41.7%), residential buildings (25%), non-residential buildings (28.2%) and special trade (5.1%). Activities in the civil engineering sector, similarly, comprised 34.9% of all completed construction work, followed by non-residential buildings (30.7%), residential buildings (30%), and special trade activities (4.4%). The bulk of construction work continues to be driven by the private sector dominates 56.4%, recording MYR20.1 billion in construction projects in Q2 2018 compared to the MYR15.5 billion initiated by the public sector.

The problem of delays in the construction industry is a common issues in construction project. In construction, delay could be defined as the time overrun either exceed the completion date stated in a contract, or exceed the date that the parties agreed upon for completing a project. To the contractor, delay means higher overhead costs because of longer work period, higher material costs through inflation, and due to labour cost increases. Since Malaysia is considered as a developing country, it is important to

study the factors that contribute to delays in construction project in order to complete the project within time limit and reduce risk of cost overrun. According to news in Top News.in by Mohit Joshi (2009), it is said by the minister up to 80 per cent of projects developed by the government were facing problem with scheduled completion dates, giving rise to concerns of inefficiency in construction works in Malaysia. Construction project usually involve expensive equipment, significant overhead, essential manpower and timely demands on both the contractor. When unexpected case delay construction progress, these costs can increase, impacting more than just the budget. The consequences of delay in construction project are such time overrun, abandonment of project, reduced profit and more. Time is really important in our life, when a contract is done and the date is confirmed, the effect of delay really affects time and as the saying goes time is money. Time affects every other factor, the increase in final cost where more money has to be spent.

1.2 Problem Statement

Delay in construction project is an often problems that encountered in most construction project in Malaysia. Business organizations every year invest a lot of capital in construction of new facilities in order to expand their businesses and generate more profits by increasing their sizes of operations and also to meet up with competition. When the problem of delay occurs, the companies turn to loss large amount of money that can sometimes render the company unable to pay the debt. Contractors are constantly losing contracts due to delay or incompleteness of previous projects.

The study focused on delayed projects, which were categorized as a contractor-related problem in construction. Construction project have to be completed within the time limit of the contract period besides giving the best quality in order to ensure the satisfaction of the client. Thus, it was very important for the contractor to understand these condition so that they would not exceed the time provided and give the best quality of work as this would ensure their place in dominating the new tender by giving the best impression towards their client throughout the year. First, the factors which had contributed to time delays in construction will be identified. After that, these factors will be analysed by selected method of analysing. Kang (2010) studied causes, effects and methods of minimizing delays in construction projects which concentrate on Universiti

Teknologi Malaysia, Johor campus construction project and the problems faced in university construction site.

1.3 Objectives

This research aim to identifying the factors that causes of delays in construction projects. To achieve this aim, the following objectives have been identified:

- To identify the factors that causes of delay in construction project
- To propose recommendation to overcome the delay in construction project

1.4 Scope of Research

The research was focus on study the causes of delay in construction project based on contractor-related, consultant-related, owner-related categories in Johor, Malaysia. The scope of the research is mainly focus on literature review and a questionnaire survey. The questionnaire survey would be designed based on the causes of construction delays, effects of construction delays and the methods of reduce the construction delays. The respondent involved in this research is contractor, consultant, and client.

1.5 Significance of Research

The importance of the research are:

- i. Identifying the causes of delay in construction project, this study of result will giving the certainly parties involve, so that they will avoid any source that will happen in their project and carrying out the works within the time, budget and quality
- ii. Contribute recommendation on preventing or reducing the factors contribute to delays in construction project in order to complete the project within time limit and reduce risk of cost overrun.

Previous studies had shown that the study about the factor of time delay will help the practitioners to be more understanding in ways to reduce the causes of delays (M. Sambasivan & Y.W Soon, (2006). So, it is clear that these study will help the contractors, the consultants, and the clients to overcome any factor that could lead towards delayed in the future construction industry.

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