

# Mitigating Delay in Public Projects Delivery in Malaysia

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**Abstract:** This book presents the theoretical and empirical findings for the delay in public construction projects in Malaysia. The work starts with a critical review of the delay which is caused by contractor-related, client-related, and consultant-related factors. As public projects are a matter of interest in this research, a discussion concerning the government's commitment in public projects and public projects' performance is presented in this book. Based on the analysis of the selected 79 public projects, the research concludes that incompetent project team members in relation to technical, management, financial, time management, procedural knowledge, teamwork, and ethical practise. As a result, the implementation of public projects face numerous serious problems which has led to the delay and abandonment of such projects. The research concludes that the delay mitigation strategy should start with the formation of competent team members. The selection of team members should strictly follow the guidelines prepared by the government. The clients ought to possess the knowledge and necessary skills to manage the project. The need to promote effective team work and to reap the benefits of synergy is further suggested by the idea of having an ice-breaking and brainstorming session for team members. A competent, effective, and efficient team will ensure the successful delivery of public projects in Malaysia. Amid the pandemic affecting 2020, this research book also addresses the delays contributed by Covid-19. The chapter, however, is limited as it only provides situations based on observations and materials made available during the lockdown owing to the pandemic.

**Keywords:** Bespoke, delivery, infrastructure, procurement, time overrun

MITIGATING DELAY IN PUBLIC PROJECTS DELIVERY IN MALAYSIA



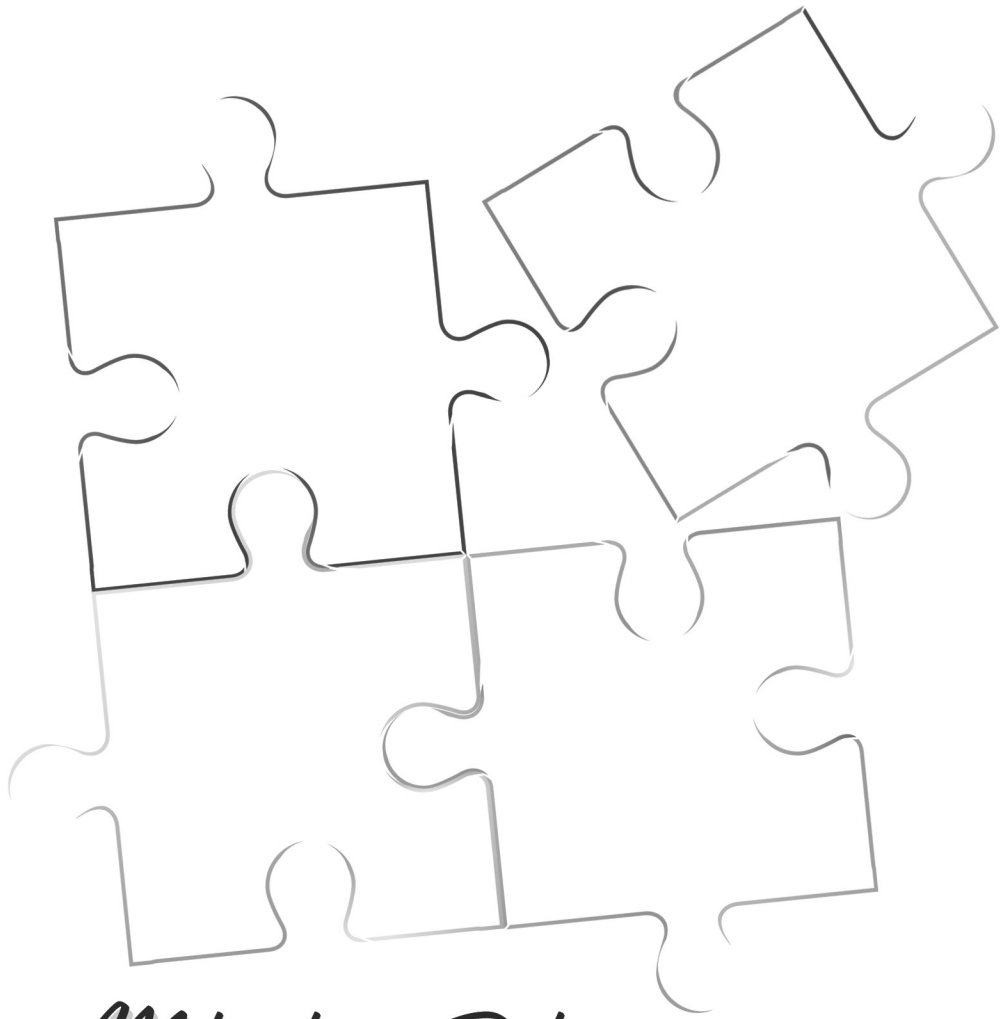
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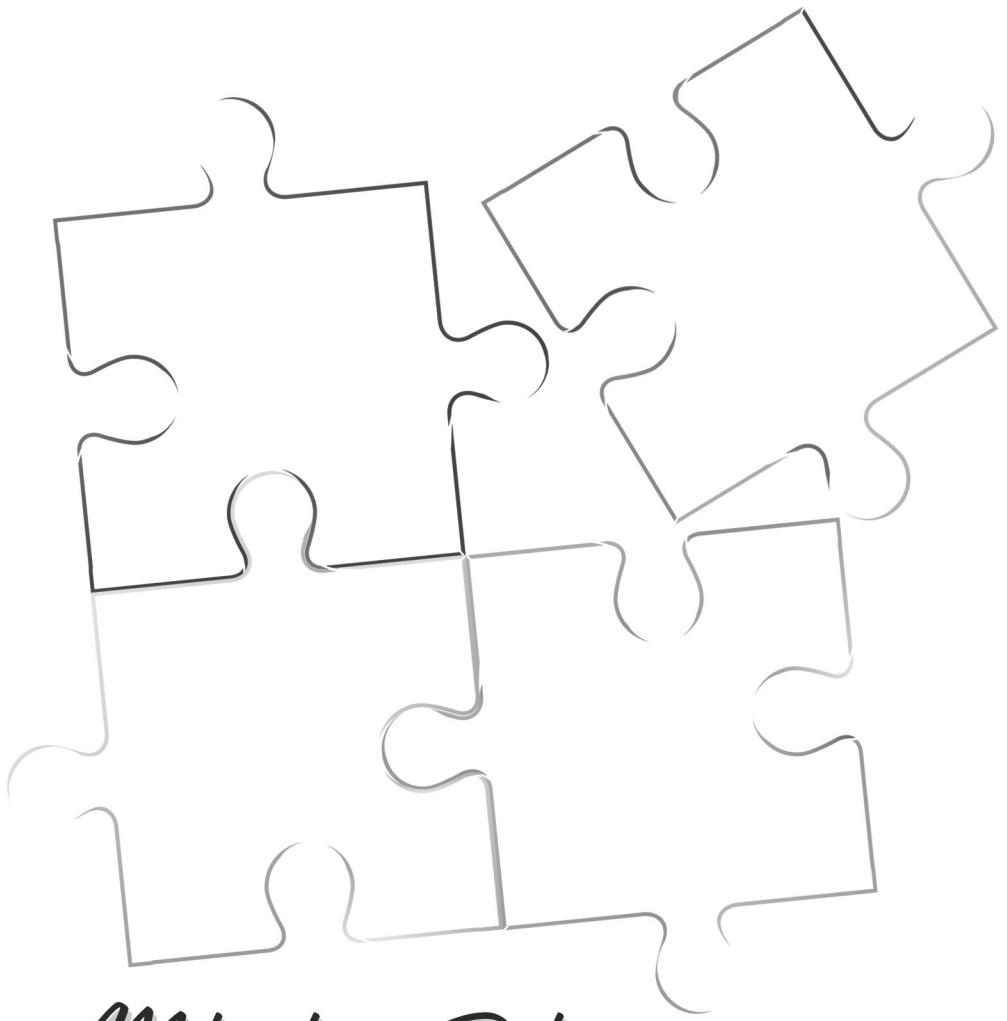
  
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# Preface

The government of Malaysia is committed to the development of the national economy. Large amounts of money has been allocated for public projects with the aim of improving the living standard of the public. For this, the Malaysian government remains the largest client in the national construction industry. This has resulted in a high volume of public projects development, which is commonly associated with delay, cost overrun and low-quality issues. This book outlines the delay in public project delivery owing to the structure, organisation, and culture of the industry. Furthermore, it addresses the people, the process and the attitude of the parties and how all these play their role in project implementation. By identifying the causes of delay, a formulation of strategy for delay mitigation can be established. In establishing an efficient strategy, it will be crucial to form a competent project team. The selection of team members should strictly adhere to the existing process and procedures laid down by the government under the jurisdiction of the Finance Ministry. The team should be able to work together inculcating, initiating, and promoting the benefit of synergy through active and efficient adoption of communication, coordination, cooperation, and collaboration. This will ensure that the project belonging and the project mission will be inherent and shared by all parties in the project. Strong teamwork and common shared values among all parties in the project will assist in the successful delivery of the public project.

# CHAPTER 1

## Introduction

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### 1.1 Background of Research

Construction industry is regarded as a driver of economic growth globally, especially in the developing countries. The industry mobilises and effectively utilises human, and material resources in development endeavours to promote local labours and expand economic competency. As an effective economic indicator, the construction industry not only boosts the overall Gross Domestic Product (GDP) of a country but also improves the quality of life by providing essential facilities such as hospitals, schools, roads and other necessary infrastructure. Huge spending or investment on public projects has been a catalyst for the construction industry in every nation. This mega investment in infrastructure aims to provide better living conditions for the local people.

Many studies revealed that construction is among the foremost dynamic and the most responsive sectors amongst the various industries that build linkages with other sectors. Owing to such characteristics, construction sector is regarded as one of the most influential and the most powerful in boosting the economy. Besides fundamental advantages of this sector, construction is inherently a complex sector that involves a wide variety of stakeholders and has wide-ranging connections and strong relationships with other sectors such as production, the use of materials, energy, finance, labour, and instrumentation, etc. Being one of the larger and complex sectors, it is affected by various factors. One of the greater challenges is in the form of recent developments that has changed the anatomy of entire sector. The nature of the construction industry is frequently changing, and the industry now

# CHAPTER 2

## Delay in Construction Project

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### 2.1 Introduction

Construction industry is an important economic indicator in the growth of a country due to its multiplier effects on a community. Malaysia, for instance, has history of getting benefits from its construction projects. Recent development also witnesses of gaining many benefits from the construction industry. Currently many mega projects such as the Petronas petroleum and gas refinery in Terengganu, Petronas Twin Towers, Kuala Lumpur International Airport (KLIA) 1 and 2, and currently revived 640 km-long East Coast Rail Link project are expected to contribute in the growth of the sector by 3.7% in 2020. Other than attracting local and foreign investors, it would also boost the demand for domestic workers, both skilled and unskilled as well as construction materials which in turn creates a massive career opportunity for the local community. Locally driven development such as the Pengerang Integrated Petroleum Complex (PIPC) for instance had awarded more than 40 major Engineering, Procurement, Construction, Commissioning (EPCC) packages and 13 licensors comprising more than 200 suppliers and contractors of various nationalities. In addition, packages are awarded to 649 Malaysian subcontractors with contracts for fabrication, equipment supply, solution services, telephone communications, Food & Beverages, laundry and sundry shops; with a total value of about US\$7.35 million, transforming a region of fishing village and smallholder farmlands into a site for a “National Project of Strategic Importance” (Serina Rahman, 2018). Besides the mega development opportunities, nevertheless, large construction projects generally require substantial budgets and extended schedules involving many activities and complex procedures, and consequently are vulnerable to impending delay.

# CHAPTER 3

## Public Construction in Malaysia

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### 3.1 Introduction

Malaysia aims to become a high-income advanced nation by 2020. Construction sector was the fourth important sector in Malaysia (EPU, 2010). According to the Economic Planning Unit (2010), the construction sector contributed about RM327 billion or 5.2 percent from total Gross Domestic Product (GDP) which signifies that industry forms a significant part of the economy. The output of the global construction industry was worth an estimated \$10.8 trillion in 2017. This is not only in terms of output but also due to large scale employment provision. As an industrial sector, construction accounts for more than 10% of global GDP (6-9% in developed countries) and employs around 7% of the global workforce - over 273m people. Despite the larger stake in the Malaysian economy, the industry is not enjoying the expected perks. This is reported that project deliverable performance and execution in Malaysia reduced dramatically due to poor cost and time management of the projects. Government has always been the most important client in the national construction industry.

This chapter reviews the macro aspect of construction industry in Malaysia which include the significance of the industry to the national economy and the historical review of the industry in Malaysia.



# CHAPTER 4

## Performance of Public Project in Malaysia

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### 4.1 Introduction

Chapter 3 discussed the government's commitment in infrastructural and facilities to the public. The provision of highways that connect one place to another has improved the accessibility from rural to urban areas. This is one of the typical examples that has benefited people in Malaysia. Nonetheless, there is an inherent issue as far as the construction projects are concerned. In the construction industry, delays have become a norm and global phenomenon which led to many negative effects of lawsuits, claims, loss of productivity, revenue loss and also contract termination between all parties involved, and Malaysia is no exception. In Malaysia, delay is one of the most significant problem with major concern being given to public sector projects as it has a direct relationship with the public and the nation's socio-economic growth.

This chapter analyses the performance of selected public projects highlighted in the National Audit report over the last 10 years. This chapter discusses public project performance in Malaysia as to provide a real picture of delay in public sector development in Malaysia. A discussion is supported by real cases or real projects to clearly illustrate the problems associated with the public sector. The analysis is based on real projects which provides real pictures of the problems associated with the public projects undertaking.

Some studies suggest that construction delay has been a long discussed problem for the Malaysian construction industry and it was revealed that 80% of public sector projects are behind

# CHAPTER 5

## An Analysis of Delay in Selected Public Projects in Malaysia

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### 5.1 Introduction

The focus of this chapter is to explain causes of delay in selected public projects in Malaysia. A sample of completed public project is used to explain delay which is theoretically discussed in Chapter 2. The background of Malaysian construction industry and public projects undertaking in Malaysia is presented in Chapter 3 and 4 of this research book.

The analysis is performed based on the important aspects of the project delivery and based on type of procurement for the projects especially while computing the causes of delay. The basic premise of the analysis is delay caused by parties in the project undertaking, which in turn, the causes of the delay may be under the control of the party and some are beyond their control. Thus, each party and causes related to them are explored separately and discussed in detail in this chapter. The causes of delay and their effect on the selected projects have been identified and ranked by the person in charge of managing the project.

### 5.2 Background of the Projects

In this research, 79 public projects are selected those were completed but experienced delay. The background information of the selected projects is shown in Table 5.1. The Table 5.1 expresses that there is quite a balance of infrastructure and buildings in the dataset. These two are the main category of construction in the public sector. The projects are located around Malaysia from Peninsular Malaysia to Sarawak. Although, it would be interesting

# CHAPTER 6

## Delay Attributed by Covid-19

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### 6.1 Introduction

The Novel Corona Virus Disease 2019 (COVID-19) has been described as the biggest danger to the financial stability and induces economic crisis to the global economy. As the global economy is interconnected than ever, the outbreak is expected to have immediate and far-reaching consequences. The whole world felt the pinch of the outbreak as an impact on economic output that slowly became visible. An outbreak of COVID-19 affects the world and is expected to change the way of life and living standards dramatically. The World Health Organisation (WHO) declared COVID-19 as pandemic on 11th March 2020. Throughout the world, lockdown has been imposed as an effort to curb an escalation and spreading of COVID-19. In this continuation, Malaysia has also announced the Restriction of Movement Order (Order) on 16th March 2020. The MCO has been in place since March 18 and after three extensions, is now slated to end on May 12 but later prolonged to 9 (or 12) June 2020 and prolonged with recovery till end of the year. During the lockdown, the entire country observed shuttering down of economic activities as people were forced to stay at homes.

This current pandemic has caused unprecedented and unforeseeable economic and social disruption. Disruption of supply chains (e.g. food, products and services), manpower shortages, the closing of offices, factories and suspension of construction works on sites are among the serious consequences. Most of these cases have culminated in the hardship for individuals and business entities to fulfil contractual obligations. This chapter dedicates

# CHAPTER 7

## Mitigation Strategy and Conclusion

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### 7.1 Introduction

This research explores delay and its causes in Chapter 2. The causes are elaborated and discussed in detail according to the appropriate classification. As the research is concerning public projects in Malaysia, Chapter 3 was dedicated to reveal the scenario of public projects development in Malaysia. This includes examining the allocation delivered by the government to provide facilities and services to public in attempt to upgrade the standard of living in Malaysia. Huge allocation has been provided but public implementation seems to be surrounded by various issues. The issues are discussed in Chapter 4 and the focus is on exploring issue related to delay. Chapter 5 presents an analysis based on information on projects gathered during the research. As the world is facing pandemic COVID-19, Chapter 6 discussed the impact of pandemic on project progress and impact of the pandemic on projects and parties in the contract. This chapter presents a mitigation strategy for delay in public project implementation.

### 7.2 Summary Causes of Delay

As discussed in the earlier chapters, public sector, which is the leading employer in developed countries, is challenged by restricted resources, mission dynamics, characteristics and leadership capacities, income, public faith, quality and effectiveness, inefficiencies in project performance. Time and cost overrun together with quality concern are common issues that are surrounded public project development. The need for public facilities such as infrastructure is increasing as the

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