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# PERFORMANCE OF CONTRACTOR: PROJECT DELAY

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***Abstract:***
The performance of contractors on their projects shall build upon a foundation of experience and good values. The problem for this project is delay to complete the project by following the duration of time. The performance includes analyzing the delay of construction duration, the quality of work and the liquidated ascertained damage. The methods used for data collection were observation and document reviews. The research was carried out at a site in Klang Valley area. The objective is to analyse the performance of the main contractor in completing the project based on the duration of work. The research shows that the most prominent factors contributing to poor performance were late of payment to the workers and suppliers and improper project planning. This led to bad reputation and increased final cost to the developer, including payment to be made to the homebuyers.

**Keywords:** Construction; Defects; Delay; Extension of Time and Performance

## 1.0 INTRODUCTION

The performance of the contractors is important in avoiding overdue period of construction. Many clients have had good project delivery experience, but equally many of them have been let down on promises that they believed to be binding. Clients have to bear the extended programme works, suffered costs overruns and experienced quality problems. It is important that someone experienced in, and familiar with, the type of work involved be responsible when the activity durations are being estimated. One effective way to estimate an activity duration is to compute it by applying a crew or equipment production rate to the total numbers of units of work to be done (Fewing, 2005).

This study aims to identify the performance of a contractor. In achieving the aim, this research focuses on the delay of a project. The objectives of this study are, i) to identify the reasons for project delays and ii) to determine the consequences of the delay that portray the performance of the contractor.

## 2.0 LITERATURE REVIEW

It is very costly to solve the problems of delay during construction. According to Colley (2005), equipment and personnel standing idle while the problem is solved can cost thousands of dollar per hour. Colley (2005) added that the removal and replacement of new structures may be the only solution to a problem that becomes apparent during construction. The delay can be excusable delays, which may either due to the fault by the employer or his agents, such as late access, or delay in issuing the drawings, or on the other hand, delay which is due to a neutral event. Also, delays due to excessively adverse weather. Inexcusable delays are those which are due to fault on the part of the contractor or his agents. When it occurs, the contractor is usually entitled to an extension of time (EOT) when the delay to the completion is caused by an excusable delay, but not when inexcusable (Colley, 2005).

Most of the standard form contracts provide for financial recovery in addition to an extension of time, where when events stated in the contract occur, which give rise to additional cost (Knowles, 2012). The granting of an extension of time relieves the contractor from the liability of damages such as liquidated damages (LAD) up to the extended contract completion date. For the employer, the early establishment of an extended contract completion date prevents the contract period from becoming time at large. The conditions and events that the contractor is entitled to a claim for extension of time will be documented in the contract and these events would have been acknowledged by the employer as matters

affecting the regular progress. The contract will also require a notification of delaying events to be given as closed a time as possible to the events, as the failure to provide timely notification can affect the contractors claim for an extension of time (Trauner, 2009).

Mechanisms allowing extensions of time are not simply for the contractor's benefit alone. If there was no such mechanism and a delay occurred which was not the contractor's fault, then the contractor would no longer be required to complete the works by the completion date and would only then have to complete the works in a 'reasonable' time. The client would lose any right to liquidated damages. If the Contractor fails to complete the Works or a Section by the relevant Completion Date, the Architect/Contract administrator shall issue a certificate to that effect. If an extension of time is made after the issue of such certificate, the extension shall cancel that certificate and the Architect/Contract Administrator shall where necessary issue a further certificate (Extension of Time in Construction , 2017).

## 3.0 RESEARCH METHODS

The methods used for this research were part of the process in finding the information and analysing the data of the case study. The methods used were:

i) Observation: The main method used for this study is participatory observation by involving in the site supervision works. Ongoing activities at the site were observed and recorded and/or photographed for about four months.

ii) Interviews: The interview method was used to collect more detail explanation. The project manager and the site supervisor were interviewed in getting more information to understand the Extension of Time and Liquidated Ascertained Damages even further. Each interview took about two hours and notes were taken during the interviews.

iii) Document reviews: The documents reviewed were the documents of contract (volume 1), relevant drawings, and client/contractor correspondence.

The site of the project is situated in the Klang Valley. The study focuses on the project management which is to describe the performance of the contractor before, during and after the project. This is to determine the problem occurred at the construction site as well as to investigate how the contractor managed and planned the project. Moreover, the research method will focus mostly on the performance of the contractor based on the date of completion. The period of construction as per the contract document is from September 2014 until November 2016. However, until today, the contractor have not finalized their work and has been late in handing over the project at the time given to the developer.

## 4.0 ANALYSIS AND FINDINGS

The project chosen is situated in the Klang Valley area. The details of this project are kept minimal for this research as to avoid recognition and build trust to the participant/organisation. The start of the project as stated in the contract document is 4$^{th}$ September 2014 and should be completed on 30$^{th}$ November 2016. However, the project is delayed for more than a year due to reasons that will be described below. The contractor has applied for four Extension Of Time (EOT) to get their works completed. However, most of the duration or days they applied for the extension of time were not accepted by the Superintendent Officer (SO). This is because the delay caused by the instructions were not as long as to what the contractor has claimed. Out of four, only three (3) EOTs were approved by the SO. Another EOT was still in the process during the time of the data collection for this study. The approved EOT showed that they were reasonable excuses as tabulated below. Nevertheless, the days approved are according to the knowledge of the SO and estimation of works.

Table 1: EOT 1- Reasonable

| Reason | Clause | EOT and duration of delay |
|---|---|---|
| SO instructed on changes to structural design and substitution of construction drawing | 43.1 (e)<br>5.1 (a)<br>25.2(a) | |
| Delay in receiving structural drawings and delay to start work 1 floor plans and detail (Block A) | | 25 days |
| Delay in receiving structural drawings and delay to start work. Level 2 Block A | | 5 days |
| Delay to start work at Block A level 3 due to delay in starting work at LEVEL 2 | | 15 days |

Starting date: 1 December 2016
Ending date: 14 January 2017

Table 2: EOT 2 - Reasonable

| Reason | Clause | EOT and Period of delay |
|---|---|---|
| Amendments to trenches in TNB substation | 43.1 (e)<br>5.1 (h) | 7 days |
| Shifting of TNB 400 panel meter (internal to external) | 43.1 (e)<br>5.1 (h) | 9 days |
| Installation of water proofing at TNB (above RC slab) | 5.1 (h) | 21 days |

Starting date: 15 January 2017
Ending date: 20 February 2017

Table 3: EOT 3 - Reasonable

| Reason | Clause | EOT and Period of delay |
|---|---|---|
| Delay in receiving approval from SYABAS for external connection | 43.1 (e)<br>5.1 (a)<br>24.1 (a) | 16 days |

Starting Date: 21 February 2017
Ending Date: 8 March 2017

Although the above EOTs are reasonable, they however, have added delay to the overall duration of the project. Apart for the EOT duration that has been approved; the contractor was unable to complete the overall tasks given within the time frame. In order to avoid from any penalty, the contractor wanted to claim for more EOT using unreasonable excuses, such as the weather. According to the SO and project manager, the fourth EOT claimed by the contractor was pending as it was unreasonable and near to the submission for the Certificate Practical Compliance (CPC). It was observed that the overall delay of the works by the contractor is mainly due to their own poor performance. The reasons were:

*i. Shortage of experience and ethical site personnel*

In this project, the main contractor only had one project manager, one clerk of work and three site supervisors. These personnel lacked experience. One of the site supervisors was a fresh graduate and did not understand how things should be carried out on site. The other two supervisors and the project manager lacked work ethics, for examples, they could hardly be found at site and always gave impromptu instructions. They were not good in making decisions and plans. Given that this project had three blocks

of apartments with 250 houses altogether and based on the work ethics of the site personnel, it showed the factors contributing the delay. The main contractor lacked experienced and ethical site personnel.

*ii. Insufficient Man-Power*

At the beginning of this project, the contractor had about 150 labourers. Most of the labourers had working permits, following the law of Malaysia. However, in the middle of this project, the contractor had an issue with the bank when they won another project. The main contractor failed to pay the labourers' salary for about three to five months. This had caused the workers to quit from this project and find another job. Consequently, this project faced the shortage of work force. In addition to this, the remaining labourers who were unable to find job elsewhere had to stay, but they were unwilling to do any work until payment was made. Due to this problem, it had affected the main contractor in completing the project.

*iii. Shortage of Construction Materials*

During the construction progress, materials were not properly handled. When they wanted to construct the next floor, the reinforcement bar and other materials had been used. There were insufficient materials for main the contractor to use to continue the construction works and only then, the main contractor started to order from the suppliers. This showed that the contractor lacked planning skill. Another problem was the suppliers did not want to send materials to the contractor because the contractor did not pay the suppliers after they had delivered the construction materials. In addition, the construction materials that were delivered to the site were not handled and stored properly, such as door frames without plastic cover and were kept at unsuitable places. Due to this, most of the door frames they had on site were damaged.

The contractor needed to run the project by following the time given to make sure that the time of Vacant Possession and Certificate of Fitness to be completed was followed. The contractor was also under extreme pressure to reduce their delay and the Liquidated Ascertain Damages (LAD) that they had to bear. In conjunction to this, the contractor increased the speed of works. However, by doing so, they had compromised the quality of work. Due to this, every single unit of house had many defects; most noticeable are the architectural elements such as the walls, ceiling, windows, doors and sanitary appliances. The overall delay took almost a year from 30 November 2016 until 28 September 2017. Following the document contract, the contractor needed to pay LAD of RM42,000.00 per day. This had made a total of RM6,342,000.00 which consist 151 days to be paid to the developer.

Table 4: Status of LAD

| STATUS LAD TO CONTRACTOR AS TO DATE | | RM42,000/DAY | TOTAL |
|---|---|---|---|
| i) | LAD Differed<br>9 Mac 2017 - 30 April 2017 | 53 days | 2,226,000.00 |
| ii) | Lad Imposed<br>1 May 2017 - PP No. 35 (21 Aug. 2017) | 120 days | 5,040,000.00 |
| iii) | LAD To be Charged until CPC<br>based on EOT No. 4<br>1 May 2017 - 28 Sept. 2017 | 151 days | 6,342,000.00 |

## 5.0 CONCLUSION

This project indicates one of many serious project delays in Malaysia. What is more, the delay has resulted in late handing-over of the project. In order to counter these problems and avoid paying the

LAD, the contractor has also increased the speed of their work which had consequently compromised the quality of work. Since this paper focuses on the EOT and LAD, the defects of work were not discussed and mentioned. The delay of the contractor does not only incurred extra costs to the clients and the contractor but has also tarnished the corporate image of the developer.

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