

Effect of Time Delay in Construction Projects

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Abstract - Delay is the most common problems in Construction Project in india. Delay is define as the extension of time to complete the project. Delay is occurs when the actual construction process at site of the project slower than the planned schedule or completion of the projects is late. The causes and effects of time delay in Building Construction Projects are taken from the literature review. There are many questionnaires were used for the analysis and finding that the causes of delay of time in construction projects such as problems of cashflow, construction materials shortages, financial difficulties to the clients, lake of consultant experiences and inexperienced projectteam and so on. The study also revealed the major effects of time delay in construction projects such as time overrun, disputes, cost overrun, litigation/arbitration and project abandonment.

There is a various debates to minimize the projects of the construction time delays. The real objective of this study isto investigate the causes of the time delay and their major effects of the construction delay in projects(5).

Keywords - Construction Project Delays; Effects of Delay; Time Overrun; Cost Overrun

I. INTRODUCTION

In the construction industry Delays is one of the biggest problems. The delays in construction projects have significant financial and impact of social to all parties involving in the construction projects. Construction time delay is a major problem facing by the construction industry. In most construction projects. It is generally understood that the construction delay is the most critical factors affecting to delivery of the project at time, under the budget, and good quality. It may be found the project was finished within the time that specified in the projects (9)

Delay induced the work's disruption of and productivity loss, completion of projects is late and cost of time related is increases. delay are costly and often result in disputes and claims[6]. It is a project slipping over its planned schedule and is considered as common problem in projects of construction industries to the owner. The meaning of construction time delay is the loss of capital through inadequate of production facilities and space of rentable or a dependence on current facilities. In some cases, to the contractor, meaning of the delay higher overhead costs because of increase work period, highest costs of materials through inflation, and due to labour cost induced. Completion of the projects at time is an efficiency's indicator, but the process of construction is subject to various variables and no predictable factors, which result from many sources. Included of this sources the performance of parties, availability of the resources,the condition of the environment, and contractual relationship. However, it is rarely happen that a project is finished under the specified time.

II. EFFECT OF DELAY

Aibinu and Jagboro (2002) identify the major effects of construction time delays on project delivery in construction industry. There are six effects of time delay that were identified includes: cost overrun, time overrun, arbitration, dispute, total abandonment and litigation[1]. Koushki and Kartam (2004) concluded that time and cost overrun were the effects of the selection time of materials, their availability in the market and the presence of the supervising engineers .improvement of the specified activity duration is important according to the actual skill levels, unexpected events, efficiency of work time, mistakes and misunderstanding[3]. Delays induced negative effects on the contractors performance and contribute to negative effects in the projects such as low productivity, contract disputes and construction costs is induced[2]. From the literature review, there are six major effects of time delay in the construction projects were identified as follows

COST OVERRUN

Koushki et al., (2005) identified three main causes such as material related problems, contractor related problems and ownersfinancial constraints[2],whereas Wiguna and Scott (2005) dicovered the vary critical factors included: the price of the high inflation/increased materials, defected design, change of design by client, payment is delaye, weather conditions and defected construction work[5].

TIME OVERRUN

Regarding the time overrun Murali et al., (2007) studied that client related factors and contractor related factors such as inadequate contractor experience and owner interference have impact on time overrun[4]. On the other hand, Aibinu and Jagboro (2002) studied the effects of construction time delays on project delivery in construction industry is time overrun as

one of the major effects of delay[1].

ARBITRATION

According to Murali et al., (2007) the delays which is caused by the contractor related factors and the factors of client relate as change in order,documents, mistakes or discrepancies in contract and communication is inadequate b/w various parties which may rise the disputes will be settled through the process of arbitration. For these circumstances, it is need to have a competent third party that can settle the disputes easily[4].

DISPUTES

The effects of major causes of time delays in construction projects is dispute such as the related of consultant,related of client, the related of contractor and the related of external that may be arisenduring the construction projects among the parties of project. Inadequate communication may alsoleads to misunderstandings, conflicts and disputes. Hence it is necessary to the project managers tohave good communication skills which are one of the significant soft skills with the parties of project to involving in construction housing projects. According to Murali et al., (2007) thefactors such as lake of communication between various parties, problem with neighbors, delay in payments for completed work,unforeseen site conditions, improper construction method, delay caused by the subcontractor and discrepancies in contract papers will give riseto disputes between the parties. Furthermore, if the disputes cannot be solved easily it can lead to arbitration or litigation[4].

TOTAL ABANDONMENT

The abandonment is the most critical effect of time delays in construction projects that could be temporary or in worse condition for permanent duration. The major causes of client related, contractor related, consultant related, and external related may lead to project leaved that will lead to delays in construction housing projects. Aibinu and Jagboro (2002) studied the effects of construction delays on project delivery in construction industry. They identified the major effects of time delay total abandonment[1].

LITIGATION

According to Murali et al., (2007) when the delays caused by client related, external related, the related of labor, the related of contract, and the factors of contract related such as problems with site conditions ,delay in payment for completed works, and less of labor supply where eventually rise the disputes to be settled by the litigation process. The involving of the parties in the construction housing projects use of litigation as a last alternative to settle the disputes[4].

III. FINDINGS

All the major effects of time delay in construction projects based on the literature review, there are the six major effects of time delay in construction projects included overrun of time, overrun of cost, dispute, arbitration, total abandonment, and the identifying of the litigation. These critical effects as shown in the diagram.

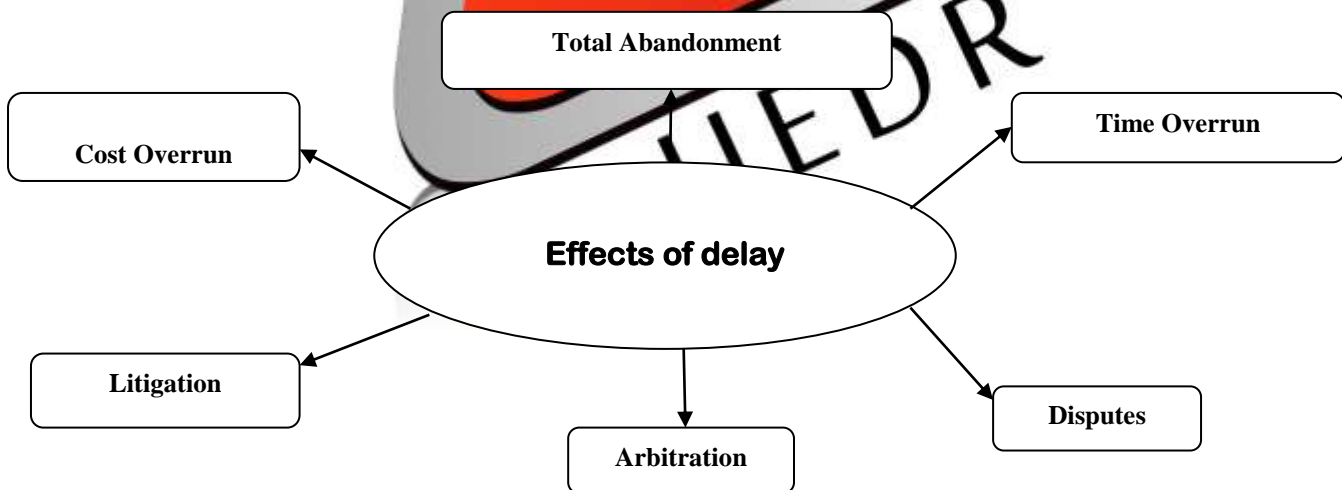


Figure :Diagram of six effects of the construction delays

IV. CONCLUSION

A construction project is successful when the aim of the construction project is achieved in terms of planed objectives that is the construction project is done at time, under the budget and specified quality in accordance with the specifications and for the stakeholders' satisfaction. Delays is One of the most important problems that may arise in the construction project and the magnitude of these delays varies considerably from project to project. According to delay categories that were consultant related, contractor related, client related,labor related, documents related and the related of external, the study revealed the six major impacts of the construction delay that were time overrun, overrun of the cost, arbitration, dispute, total abandonment, and

litigation[6]. We believe that the results of this study can be very helpful for the freshers (consultants, clients and contractors) and academicians. The practitioners can better understand the management of project is dynamics and try to reduce the incidences of the construction time delays in construction housing projects.

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