

## Imperfection of Tender Document: A Solution Towards Sustainable Construction Practice in Malaysia

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### Abstract

Nowadays, a tender document is the main duty of quantity surveyor during pre-contract stage of the project. It's shall be well prepared toward a sustainable tendering and construction process. However, there are imperfections in tender document which will affect the flow in construction and to be a problem for the project. Tender document is important in the construction, especially to appoint a suitable tenderer and it will be changed the contract document for the project. Imperfection in tender document also affects the parties involved in construction industry such as client, contractor, quantity surveyor and other parties to have discrepancies during the construction period. The aims of this study are to investigate the types, causes and implication of imperfection of tender document in our construction industry. In order to achieve the aim of this study, 100 numbers of questionnaires were distributed to the quantity surveyor who work in consultant firm and contractor firm. The data will be collect and analyse by using Statistical Package for the Social Sciences (SPSS) software. At the end of this study, expected findings regarding to this topic will be achieved and will come out with the recommendation and solution how to avoid or reduce the imperfection in tender document towards sustainable construction.

*Keywords:* Imperfection, Sustainable, Tender Document

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### 1.0 Introduction

Imperfection is refer to incomplete or errors. Imperfection in tender document is an error happen during preparation of tender document for construction projects. Tender document is actually a document that contains all information about the proposed project and use to estimate the sum for the project and all the works in the project. Tender document is also used for tendering process which the contractor is selected to build the project. Tendering is one of the stages in a construction project that requires extensive information and documents exchange. Clients typically provide contractors with a set of tender documents for a bid proposal upon which a contract may be let and executed (Laryea and Samuel, 2011). There is not always happening in quantity surveying consultant firm but we still can see the problem faced by these parties in construction industry which effect by the imperfection of tender document.

Such tender documents often contain the information about a client's project plans so that a contractor can price it. However, in practice, tender documents are not always clear, consistent and adequate. This makes the calculation of a tender programme and price for a construction project difficult (Laryea and Samuel, 2011). Sometimes, the imperfection in tender document will make others to suffer a loss. Imperfection in tender document which can be clearly see is missing item in bills of quantities, preliminaries, preambles, specification, general notes and mistakes in pricing the tender document. But, if tender have been excluded because of non-compliance, the tender board would be entitled to negotiate with sole remaining tenderer for a lower tender price (Ramsden and Peter, 2008).

Impact from the imperfection of the tender document, quantity surveyor face a problem which is to re-tender again or addendum to the tender. Addendum means a correction on the error inside the tender document after the tender has been issued. Several factors and effect will arise from this situation. Quantity surveyor needs to recheck the tender document and make a correction. The client will complain and comment regarding to tender error if there is missing in the tender document. Teamwork in a quantity surveying firm is the most important to ensure the perfect completion of tender document. Communications also important to ensure the information need in the tender document is enough for all the parties involved in the project. While, for quantity surveyor the procurement and tender document form the basis of communication with the client, the contractor and other professional (Vester, 2006). Tender document also related to contract documents which is the most important to construction. Quantity surveyor need to ensure the quality of work during the preparation of tender document.

## 2.0 Problem Statements

Although construction industry in Malaysia is good, but there are gaps in construction which is the imperfection in the tender document. Issue regarding to the imperfection of the tender document is usually not found because there is a solution if the tender document has contain an error. Poor specification writing, disparities between bill of quantities and drawings and specifications, and poorly prepared tender documents are common problems associated with tender documents (Laryea and Samuel, 2011).

Four main reasons for the decrease in quality of tender documents were identified, for example client impatience, reluctance to invest more on good quality documents, ignorance and incompetence (Laryea and Samuel, 2011). The CCPI report (1987) indicated that major problems associated with the quality of information in drawings, specifications and bills of quantities included missing information, late information, wrong information, insufficient detail, impracticable designs, inappropriate information, unclear information, provisional information, poorly arranged information, uncoordinated information and conflicting information (Laryea and Samuel, 2011).

According to Sunday, *et al.* (2013), errors in bill of quantities are caused mostly by lack of adequate documentation. The common types of errors in bills of quantities are approximation error, measurement errors, omission and ambiguity, dimensional error, random errors and arithmetic error (Sunday, *et al.* 2013). The same authors further explain, the common types of errors in specifications are design errors, poor coordination between design disciplines, missing information, abbreviation and symbol errors. The common types of errors in schedules also are pricing error, missing information and arithmetic error. Errors in drawings are caused by deficient or missing input information, incomplete drawing, insufficient planning and design work, design errors, negligence of professionals and incorrect drawings.

Quantity surveyor are always blamed by the other parties such as clients and contractor because imperfection of the tender document. According to Lauesen, *et al.* (2005), in both cases the client demands must be expressed in a requirements specification, but it is hard to write one without being either too specific or too vague. However, there is little empirical research on the quality of tender documents used in construction and the practical implications of poor quality tender documents in construction. Problems associated with technical information prepared by designers lead to the appointment of a Coordinating Committee for Project Information (Laryea and Samuel, 2011).

## 3.0 Research Objectives

The objectives of this research are as follows:

- i. To investigate the types and factors causes of imperfection in the tender document.
- ii. To determine the consequences of imperfection of tender document.
- iii. To identify the solutions taken by the quantity surveyor to avoid imperfection of tender document.

## 4.0 Research Questions

The research questions for this study are as follows:

- i. What are the types and factors causes of imperfection in the tender document?
- ii. What are the consequences of imperfection of tender document?
- iii. What are the solutions taken by the quantity surveyor to avoid imperfection of tender document?

## 5.0 Scope of Research

The scope of this research is focussed on quantity surveyor who work in quantity surveying consultant firms and contractor firms. The location of the research is limited to the firms located in Klang Valley. The quantity surveyor from any consultant and contractor company is choosen randomly to respond to the question ask regarding to this research. Since the tender document is one of the main duty of quantity surveyor, respondent is choosengave their responses regarding to the imperfection of preparation tender document. All the quantity surveyor should have experiences about preparation, manage and pricing the tender document and this can help to achieve more information. Based on this topic, the study is more focus on the types, factors causes, consequences and solutions of the imperfection of tender document.

## 6.0 Literature Review

Imperfection in tender document also related to performance of quantity surveyor in consultant firms. There are types, factors causes, consequences and solution this imperfection problem. A significant amount of tender queries, amendments and addenda were recorded. This showed that quality of tender documentation is still a problem. Based on the studies conducted, the performance, communication and skills of quantity surveyor are the most important elements to produce a quality tender document without any mistake. Such tender documents often contain the information about a client's project plans so that the contractor can price it. However, in practice, tender documents are not always clear, consistent and adequate. This makes the calculation of a tender programme and price for a construction project difficult (Laryea and Samuel, 2011).

Tendering is the process used by many construction clients to obtain the programme and price for building a project. Typically it consists of three parts which is deciding on the type of contract and the terms and conditions that would form the basis of the contractual relationship and under which the work will be done, selecting the most suitable contractor given the budget and time available, and establishing the contract price (Laryea and Samuel, 2011). According to Sunday, *et al.* (2013), errors in construction documents have had serious effects on construction projects and these effects are mostly manifested at the construction and post-construction stages of projects.

The CCPI report (1987) indicated that major problems associated with the quality of information in drawings, specifications and bills of quantities including missing information, late information, wrong information, insufficient detail, impracticable designs, inappropriate information, unclear information, provisional information, poorly arranged information, uncoordinated information and conflicting information (Laryea and Samuel, 2011). Some research has been done to examine communication between designer and quantity surveyor in terms of its implications on improving the accuracy of early stage estimate accuracy (Raisbeck and Aibinu, 2010). In organized company, the estimation team should consist of a complete staff of various professional team (Tebin, 2008).

According to Hasbullah, *et al.* (2014), quantity surveyors work alongside other parties within the construction field, in particular with clients; they have to possess a certain set of skills to deliver the project to the client with satisfaction. Quantity surveyors must show their commitment and have the initiative to work, and learn; as well as mentally and physically prepared for works. According to Enshassi, *et al.* (2005), professional estimators have access to reliable cost and productivity references for estimating labour, material, equipment and other major work components. These major cost items have a high visibility factor and consequently receive adequate attention in the preparation of the pre-tender estimate. Value management is one of the effective tools to quantity surveyors who are in a position to play an important role in ensuring that the client and designers actually consider all value and cost related aspects of construction, design specification and development options (Vester, 2006). Tender Board should not allow the amendment of a tender of the project before awarding the tenderer with the project without correction of a mistake or omission happen in tender document (Bolton, 2015).

## 7.0 Methodology

In carrying out the research, the problem statement is the first to be developed regarding to this issue then continue with determination of objectives, research question and scope of research. The information and data collected is divided into two categories sources of data which is primary and secondary data. The primary data is gathered through questionnaire survey. The data collected through a questionnaire survey from the respondents who are quantity surveyors as a professional team in construction industry. The questionnaire sent to the quantity surveyor from consultant and contractor firm by using email and also directly go to the firm. The respondents are contacted by telephone and by email. The respondents were selected through simple random method of research. Thus, mean the respondents are randomly selected from any firms to respond to this research. The confirmation is from the respondent will give through the email in order to respond to this research.

Secondary data were retrieved from the previous research papers, journals, articles, conference papers, books, magazines and website. The secondary data must appropriately read and take out from the resources. Subsequently from the data collected, analysis will carry out to conclude the finding of this research based on the objectives. The question in the questionnaire survey will be analysed by doing data analysis to get objective of this study. From the data analysis, the finding of this research will be answered. The conclusion and recommendation will be made based on findings from the data analysis.

## 8.0 Findings and Conclusion

Tender document preparation is one of the main duty of quantity surveyor and it is important because the tender document will become part of the contract document. All the information and contents of tender document must be properly done to ensure all the information follow the rules, specification, discussion by the parties involve and others. Usually imperfection of tender document will affect the tender and to be problems and effect all the parties involve in construction especially client, contractor and quantity surveyor. Quantity surveyor must ensure the tender document is in good condition and no errors because the client and contractor will blame quantity surveyor if any information in the tender document is error and incomplete.

The finding from this study shows the most type of imperfection happened in the tender document is discrepancies between bills of quantities and drawing. While measurement error during preparation of the tender document is also contribute a lot of problem during construction stage. The factor causes to this problem are inexperienced quantity surveyor and incomplete drawing received during preparation of the tender document. Hence, the major consequences affected form the imperfection is variation order in the project and will make the client suffer loss. In term of sustainable it will contribute to a lot of wastage to the paper, resources as well as money in the firm.

## 9.0 Recommendation

The solution recommended in this study are the teamwork in quantity surveying firm must be better in performance, communication, skills and knowledge in order to ensure the works flow in smooth and satisfy with another parties and prepare a proper tender document without any mistakes and error. The quantity surveyor shall recheck or proof read the document prepared. Tender document will be part of the contract document and all the pricing, contents in bills of quantities, specification, notes, condition of contract must be also referred to the current project taken. In addition the employer of the firm should observe the employee's works to ensure the tender document is perfectly prepared and it's will create the sustainable practice in our construction industry.

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