

TENDERING AND ESTIMATING STRATEGIES  
IN CONTRACTOR ORGANIZATION

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LIANA SYAFAWATI BINTI MOHAMAD AZMI

Thesis submitted in partial fulfillment of the requirements  
for the award of the degree of  
Bachelor Engineering (Hons.) Civil Engineering

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### **SUPERVISOR'S DECLARATION**

I hereby declare that I have checked this thesis and in my opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Bachelor Engineering (Hons.) Civil Engineering.

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### **STUDENT'S DECLARATION**

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged. The thesis has not been accepted for any degree and is not concurrently submitted for award for other degree.

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*To my beloved family, lecturers and friends who have always supported me.*

*Thank you very much.*

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**LIST OF ABBREVIATIONS**

CIDB	Construction Industry Development Board
PWD	Public Work Department (JKR)
PKK	Pusat Khidmat Kontraktor
NEP	New Economic Policy
CIOB	Chartered Institute of Building
AI	Average Index

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## **ABSTRACT**

The contractors' survival in the construction industry depends on number of projects they operate. If the contractors fail to secure and win the project, the company will not be able to survive in a long time. But to remain survived, the contractors have to compete to other registered contractors. The competitions among them are stiff. Therefore, this study is carried out to identify factors to improve tendering and estimating efficiency also to propose a sustainable method to win bid in tendering. The study involved the G7 contractors registered with CIDB that have been involved in project related to Public Work Department (PWD) tender in area of Kuala Lumpur. The total of 120 questionnaires was distributed and only 103 were returned answered which give a value of 86%. From the study, the factors to improve the tendering and estimating efficiency are skill and experience of estimator, and skill and experience of the purchasers and evaluate previous bidding performance, evaluation on previous bidding performance, monitoring on submitting tender and size of the project. For the factors to propose a sustainable method to win bid in tendering are contractors own plants or subsidiary companies, maintain a lower and effective opening cost, and minimize overhead cost by maintain on the required numbers, quality of staff needed.

## ABSTRAK

Kewujudan kontraktor dalam industri pembinaan bergantung kepada bilangan projek-projek mereka yang beroperasi. Jika kontraktor gagal untuk mendapatkan dan memenangi projek, syarikat kontraktor itu tidak akan mampu bertahan dalam masa yang lama. Tetapi untuk kekal bertahan, kontraktor perlu bersaing kepada kontraktor lain yang berdaftar. Persaingan di antara mereka ada sengit. Oleh itu, kajian ini dijalankan untuk mengenalpasti faktor-faktor untuk meningkatkan kecekapan menender dan menganggar juga untuk mencadangkan satu kaedah yang mampan untuk memenangi bida dalam tender. Kajian ini melibatkan kontraktor yang berdaftar dengan CIDB G7 yang telah terlibat dalam projek-projek yang berkaitan dengan tender Jabatan Kerja Raya (JKR) di kawasan Kuala Lumpur. Jumlah 120 soal selidik telah diedarkan dan 103 yang dikembalikan dan menjawab telah memberikan nilai sebanyak 85%. Dari kajian ini, faktor-faktor untuk meningkatkan kecekapan menender dan menganggar adalah kemahiran dan pengalaman penganggar, dan kemahiran dan pengalaman pembeli dan menilai prestasi bidaan sebelumnya, penilaian prestasi pada bidaan sebelumnya, pemantauan mengemukakan tender dan saiz projek. Bagi faktor untuk mencadangkan satu kaedah yang mampan untuk memenangi bida dalam tender adalah kontraktor atau anak-anak syarikat kilang sendiri, mengekalkan kos lebih rendah dan kos pembukaan yang berkesan, dan mengurangkan kos overhead dengan mengekalkan nilai yang diperlukan serta kualiti tenaga diperlukan.

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

In the construction industry, the estimating and tendering process within a contractor organization takes place between two well defined points which is the decision to tender and the submission of the tender. In between these two, there is a complex process that involved and depends on a several different recruits either within the contractor's organization itself or essential external organizations' contributions. Traditionally in the construction industry, contractor have been required to commit themselves to a price before carrying out any work on site and in most cases, many month or even years before the work is complete.

Most important tasks facing by the client when embarking on a scheme of construction work must involve making the correct choice of contractor for the project and they basically evaluate the tenders submitted by the contractors on cost. The preparation of the estimate is largely relatively mechanical operation involving the calculation of labor, material, plant and other site operating costs, the conversion into the tender by the addition



of a profit margin undertaken by management at an adjudication meeting where aspects other than pure cost are considered and a decision made on the extent of the mark up to produce a tender which must be both competitive and profitable for the contractor.

Basically, the client whether the government or the private sector is very dependent on the method of tendering because they can get a contractor who offers a reasonable price for a project. On behalf of the contractor, the reason is too much competition and high levels of competition, they had to compete and use the correct method to be able to win a tender.

According to Hillson and Murray, (2005) the most of it is industry sector. Drivers that affect the organization's culture could be external and internal influences within the construction industry. An external factor is the market competition, which is affected through the interaction between different contractors with different risk attitudes competing for the same. Competition will vary depending on the contractor's capacity to take bids, as their decision in bid pricing will be market-oriented and sensitive to the market condition.

For the estimator, the task are not just a simple calculating matter but of managing a fairly complex process of assimilation of the contract details, liaising and coordinate with all parties involved, collecting relevant data, calculating the cost involved and then presented it to the top management whom will made a final decision of the selling price. According to Smith (1986) the general procedure of the tendering process can be divided into 6 stages:-

- I. The arrival of the tender documents
- II. The decision to tender
- III. The collection of information
- IV. The preparation of the estimate
- V. The adjudication
- VI. The submission of the tender

Therefore, with the increasing number of contractors every year, competition between contractors for a project has become increasingly competitive. The probability of winning a tender will be reduced with the increasing number of contractors tendering. So, the contractors should have its own tendering strategy to enable them to acquire the project as well get a reasonable profit. Contractors also have to consider the factors taken into account by the client in selecting contractors to be more effective tendering process so that they can be win the bid.

## **1.2 Problem Statement**

Construction sector prospect in 2015 and 2016 organized strong. Malaysia CIDB project data record stated that, until end of March 2015, a total of 7,180 projects worth RM150.00 Billion were awarded. Project values that increase contributed by project size that is large especially public transport infrastructure project, energy service, oil industry and gas. Although the demand of construction building projects increasing rapidly, but it does not mean that each of the contractor organizations will stay put or remain firm in the construction industry.

This can be proven by the CIDB (2015), Construction Quarterly Statistical Bulletin record 2015 as shown in table 1.1, there are a total of 6,206 contractors registered under CIDB as G7 contractor at the end of December, 2015. Among the number of contractors, there are about 386 contractors who are newly registered, and the most important, about 472 of them are contractors who were not awarded any project during their registration period. This clearly indicated the competitive circumstances for the contractors' organization to get a job. Also, a lot of contractors are facing financial crisis or even bankruptcy after they failed to win the bidding.

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