

IMPROVEMENT OF RELATIONSHIP BETWEEN MAIN CONTRACTOR AND  
SUBCONTRACTOR FOR SUCCESSFUL CONSTRUCTION PROJECT  
IMPLEMENTATION

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A thesis submitted in  
fulfillment of the requirement for the award of the  
Degree of Master of Science in Construction Technology Management

Faculty of Technology Management and Business

Universiti Tun Hussein Onn Malaysia

JANUARY 2017

## ACKNOWLEDGEMENT

First and foremost, I would like to express my deepest thanks to my supervisor Dr. Norliana Binti Sarpin and co-supervisor Dr. Kamalludin Bin Bilal, who have been much more than just advisors since my beginning of this research. They also been generous in time, guidance and their support. Without their interest and encouragement, this study would never have been completed.

I am deeply grateful to Universiti Tun Hussein Onn Malaysia because give me platform to continue my study with providing a scholarship.

I would also like to thank all the construction practitioners who involved in this study for providing me a lot information about construction industry. Their co-operation and support have made my data collection going smoothly and easy process.

Big thanks also extended to my lovely husband, mother, my sister and my brother, and my daughter for their encouragement, love and support.

Finally, I convey my sincere thanks to all my friends for their support, advice and help throughout the journey of my study. Last but not least, I would like to thank everyone who has directly and indirectly contributed to the successful completion of this study.



## ABSTRACT

Cooperation between the main contractor and subcontractor to deliver the construction project within the time, quality and cost are important in the construction industry. The success of the construction project depends on the subcontractors because they are the party that execute the technical and the operation of the works. The main contractor needs to possess the ability to effectively coordinate and manages the sub-contractors. Despite to this importance, there are relationship issues between the main contractor and the subcontractor that required to be reviewed. The objectives of this research were to determine the factors leading to relationship problems between the main contractors and subcontractors in a construction project and to propose recommendations to improve the main contractor and subcontractor relationship for a successful project implementation. A qualitative method was chosen and face to face semi-structure interview was conducted by having the discussion with six respondents from both main contractors and subcontractors. The scope of this research is the housing development project in Johor Bahru. The data collected was analysed using content analysis. The outcome of this research concluded the relatives to this issues, the factors leading to relationship problems between the main contractor and subcontractor are time and cost overrun factor, delay, trust, lack of quality, lack of communication, lack of safety, shortage of construction material and shortage of skill labors. On the other hand, the recommendation to improve the relationship between both parties are skill, integrity, trust, responsibility and communication application which is mutual in a contractual relationship between both parties. In conclusion, the finding can assist in the improvement of the main contractor and subcontractor relationship for successful construction project implementation.

## ABSTRAK

Kerjasama di antara kontraktor utama dan subkontraktor dalam menyiapkan sesebuah projek di dalam masa, kualiti dan kos yang ditetapkan adalah penting dalam industri pembinaan. Kejayaan sesebuah projek pembinaan bergantung kepada subkontraktor disebabkan mereka melaksanakan secara teknikal dan operasi kerja pembinaan. Kontraktor utama memerlukan keupayaan yang efektif dalam menyelaras dan menguruskan subkontraktor. Disebalik kepentingan ini, terdapat beberapa isu berkaitan hubungan di antara kontraktor utama dan subkontraktor yang perlu dikaji. Objektif kajian ini adalah untuk mengenal pasti faktor-faktor yang membawa kepada permasalahan hubungan di antara kontraktor utama dan subkontraktor di dalam projek pembinaan dan untuk mengkaji cadangan memperbaiki hubungan di antara kontraktor utama dan subkontraktor untuk tujuan pelaksanaan sesebuah projek dengan jayanya. Pendekatan kualitatif dipilih dan temu bual semi-struktur diadakan dengan perbincangan dengan enam orang responden yang terdiri daripada kontraktor utama dan subkontraktor. Skop kajian adalah projek pembangunan perumahan yang terletak di Johor Bahru. Data yang diperolehi dianalisis dengan menggunakan analisis kandungan. Hasil daripada kajian ini dicapai dan kesimpulan dapat dibuat menerusi isu dan permasalahan ini iaitu faktor-faktor yang boleh membawa kepada masalah perhubungan iaitu lebih masa dan kos, kelewatan, kepercayaan, kekurangan kualiti, kekurangan komunikasi, kekurangan keselamatan, kekurangan bahan pembinaan dan kekurangan pekerja mahir. Selain itu, cadangan untuk membaiki perhubungan di antara dua pihak adalah aplikasi kemahiran, integriti, kepercayaan, tanggungjawab, dan komunikasi di mana boleh digunakan untuk perhubungan kontrak bersama di antara kedua pihak. Kesimpulannya, dapatan ini dapat membantu di dalam menambah baik hubungan kontraktor utama dan subkontraktor untuk kejayaan pelaksanaan projek pembinaan.



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## CHAPTER 1

### INTRODUCTION

#### 1.1 Introduction

The construction industry is an important industry, which plays a vital role in the socioeconomic growth of a country. Economically, it contributes in significant improvement in the overall GDP of a country. In Malaysia, the GDP for construction industry was the fastest ranking to be compared with other industry with 7.4 % rate in quarter 2015 (Department Statistic Malaysia, 2016). It totally improves the better quality of human life as construction industry supply for the infrastructure such as hospitals, roads, schools and other facilities for necessary purpose (Wong *et al.*, 2007). Hence, it cannot be denied that construction industry has been propelled by demand for the projects (Endut, 2008).

There are so many parties involves in the construction project starting from professionals until the labors such as clients, consultants, main contractor, subcontractor, supplier and labors which can cause problems between them, for example, the lack of trust, delay, lack of communication that can cause conflict leading to relationship problems among all this project stakeholder during the implementation of construction project (Huang *et al.*, 2008).

With the rapid development in technology and increasing in many type of construction technology, the involves parties required to pay more attention in any interface problems that will occur during construction process and need to be resolved accordingly.

## 1.2 Background of Research

According to Rashid *et al.* (2006), the factors that influence the overall productivity is the quality-related, time-related and also cost-related that give significant challenges to the development of construction industry in Malaysia nowadays. As demand for construction continues to grow, the main contractor facing lots of challenges in terms of the 'relationship' between the main contractor and subcontractor.

The relationship between main contractor and subcontractor is very crucial as they are the persons who will make the project complete into reality. The management in construction projects involves a great deal of managing risks to be apply and to be practice. Managing risks involves: planning, identifying, analyzing, developing risk handling strategies, monitoring and control. Consequently, the factors that lead the relationship problems between the main contractor and subcontractor are seem to be ignore since the main contractor only focus on the organizational client need (Huang, 2008).

Thus, all related issues and factors must be resolved between both parties which involves in a development of construction site. Therefore, it is essential to rigorously categorize the relationship problems between the main contractor and subcontractor to accurately study their factors and recommendation can be made during process for successful implementation projects in order to improve the quality and productivity of the construction projects.

## 1.3 Problem Statement

Within the construction projects, where the concept of relationship is being tried to be improved, all the project participants are realising that the sharing of knowledge and information is the one of the key elements of success in a construction project. Main contractors played a significant role in the most projects in construction field, also commonly referred to subcontractors as the execution of construction works. However, the relationship between them is slightly poor (Andreas *et al.*, 2009).

According to Thomas (2011), main contractors are responsible for the construction of projects, but they rely on subcontractors and/or specialist contractors

and suppliers to execute the works. The main contractor does this to reduce their overhead and operating costs, improve efficiency, and achieve a more economic delivery of projects (Al Turkey, 2011).

Hola *et al.* (2014) also identify that there is poor level of information sharing between main contractors and subcontractors. They reveal subcontractors' unhappiness with main contractors was due to the insensitivity of their need for prompt and correct information. Costs that run beyond estimates can result in losses for construction company. Some of the largest construction contractors have significant numbers of projects based on fixed price contracts, in which they bear the risk for cost overruns. Factors such as raw material costs, economic conditions, and weather-related delays could lead to losses for construction company. The longer the term of the contract, the greater the potential deviation from original estimates (Huang, 2008).

According to Arditi and Chotibhongs (2005), many problems arise between main contractor and subcontractor concerning on the management, quality, workmanship and other related problem that will influence the relationship between the main contractor and subcontractor. The subcontractor scope of works and responsibilities are always misunderstood when there is some confusing information by the main contractor and subcontractors.

The main contractors, on the other hand, complain that subcontractors have a habit of bringing in adequate workmen to site, a practice which hampers the works and fuel conflicts (Hook, 2012). Hook (2012) added that, common risks main contractors face include weather, unexpected job conditions, personnel problems, errors in cost estimating and scheduling, delays, financial difficulties, strikes, faulty materials, faulty workmanship, operational problems, inadequate plans and specifications, and disaster. Contractors can respond to the price of risk before a construction project or after. All the situation stated had leading relationship problems between the main contractor and subcontractors.

With the problem stated above, therefore this research is undertaken to look into the factors that lead to relationship problems between the main contractor and subcontractor that always occur in construction industry. The main contractor and subcontractor relationship needs to be maintained throughout procurement process and construction to enable a strong interface within the project team, which signifies a positive move away from the traditional adverse relationships.

#### **1.4 Research Questions**

Based on the problem statement outlined above, the research questions for this study are as follows:

1. What are the factors leading to relationship problem between main contractor and subcontractor in a construction project implementation?
2. How to improve the relationship between main contractor and subcontractor for a successful construction project implementation?

#### **1.5 Research Objectives**

The aim of this research is improvement of relationship between the main contractor and subcontractor for successful construction project implementation. Following are the objectives in order to achieve this aim:

1. To determine the factors that lead to relationship problems between main contractor and subcontractor in a construction project.
2. To propose recommendations to improve the main contractor and subcontractor relationship for a successful project implementation.

#### **1.6 Research Scope**

This study focuses on housing project which involve of respondents from the main contractor and subcontractor who practice in the construction industry in Johor Bahru, Johor. There are many individuals and companies owner are grown very fast to expanding their demand on the market such as residential housing construction, commercial construction and many types of development especially in Johor Bahru. Johor Bahru was chosen because many developments are in rapid progress if compared to other states in Malaysia as statistic shown in Figure 1.1.

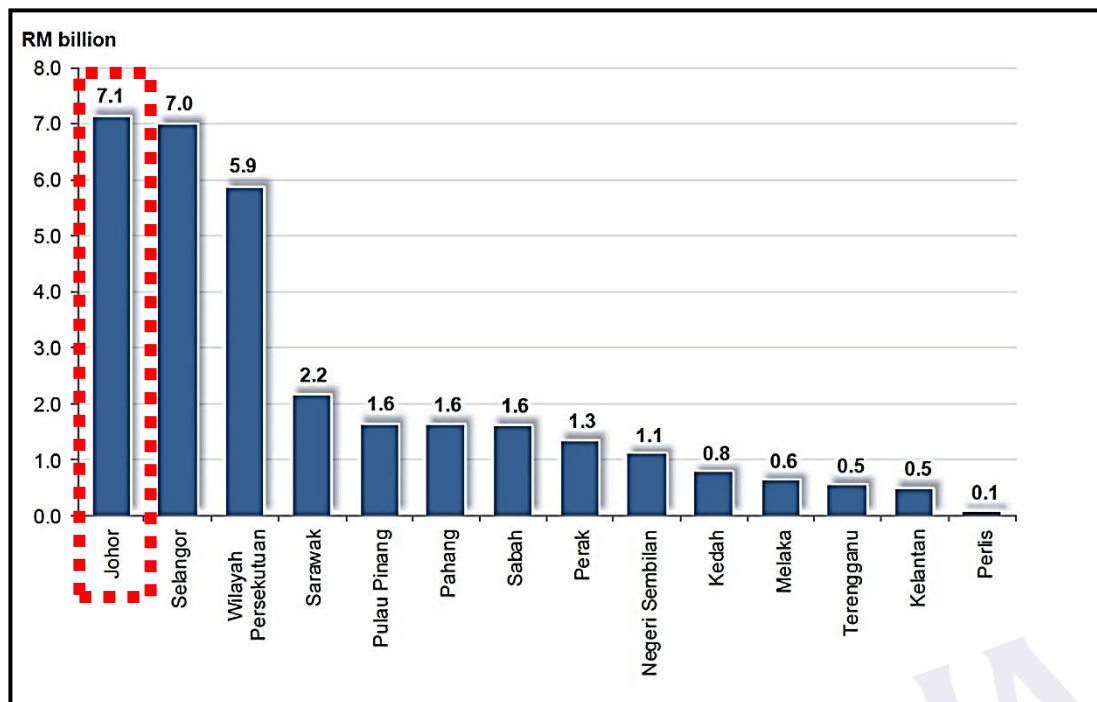


Figure 1.1: Value of construction work done by location of project for Q3 2016 (Department of Statistics Malaysia, 2016)

In order to make the project into reality, many parties needed to be involved to implement the structures and this is include main contractor and subcontractor. Therefore, the study is to find out the factor that lead to relationship problems between main contractor and subcontractor at construction site for successful project implementation. This research, focuses on two groups of respondents, the main contractors and also the subcontractor, consist of the selected sample represented all classification categories of the main contractors from Grade 5 and above. For the second population of subcontractors, the selected subcontractors represented did all specialties of works such as shuttering, building, plastering, tiling, painting, mechanic, and electrical, aluminum, carpentry and ironmongery.

## 1.7 Significance of Research

To complete the project, the main contractor and subcontractor are the most important team in construction site to ensure all the project are completed on time, provide good quality and also follow the time schedule.

This research will provide many information in the construction industry especially who are practicing in construction site which involvement of main contractor and subcontractor in many specialists. Among of the issues which arise are the relationship between main contractor and subcontractor. In addition, this research list all the relationship problems between the main contractor and subcontractor. Therefore, this research discover the factor that lead to the problems of relationship between main contractor and subcontractor in a construction project. This research is also hope can solve the problems that arise between the main contractor and the subcontractor through the recommendation given by the main contractor and subcontractor based on their perspectives.

### 1.8 Research Methodology

Research process and method of approach were used as guidelines to meet the objectives of the study. Every step has been organized to make sure all the data and information could be done in systematic ways. The steps of the research methodology are shown in Figure 1.1;

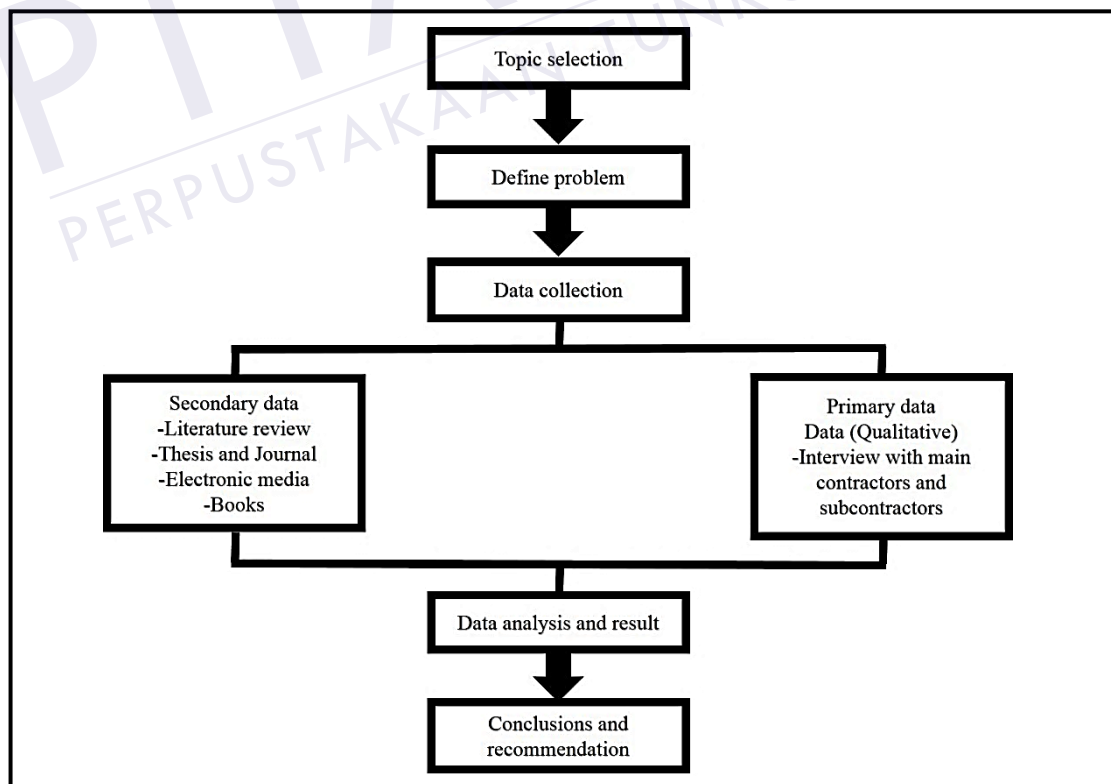


Figure 1.2 The stage of research methodology

Figure 1.2 shows, when the topic has been selected, the problems were identified at the beginning of the research. At the same time, the objectives of the research were establishing. Then data collection was divided into primary data and secondary data. The primary data was collected from the qualitative method which is interview session. Interview with the practitioners of the construction (main contractors and subcontractors) was conducted face to face and the question was given by the researcher to gain more information from the respondents. The sources of the secondary data basically come from the literature review, thesis, journal, electronic media and books. Then the data were analysed using the content analysis, table and paragraph to get the result. Conclusions were given after data analysis finish analysed and the recommendations were made to end of this research.

### **1.9 Outline of Thesis**

The outline of this thesis has five chapters which was covered in this research study. In general, this study focused on improvement of relationship between main contractor and subcontractor for successful construction project implementation.

The chapter 1 was present about the introduction, background of research, problem statement, research questions, research objectives, research scope, significance of research and research methodology. In this chapter, the researcher want to explain what the research is all about and the description of the research.

In chapter 2, the focused more on literature review. Literature review involves the systematic identification, location, and analysis of documents containing information related to the research problem. The term is also used to describe the written component of a research plan or report that discusses the reviewed documents. These documents can include articles, abstracts, reviews, monographs, dissertations, other research reports, books and electronic media. Besides, the purposes of the literature reviews are act as benchmark for comparing the results of research study to other findings.

In chapter 3, research methodology was explained about introduction, research process, problem definition, research approach, respondent selection, research instrument that suitable for this research study, data collection which is divided into primary data and secondary data and data analysis to get the result.

In chapter 4, the results of the data analysis are presented. The data were collected and then processed in response to the problems posed in chapter 1 of this research. The findings from the qualitative data was presented in this chapter demonstrate the potential for merging theory and practice by using content analysis.

In chapter 5, the conclusions and recommendations was suggested in this chapter. This chapter consist of conclusion, limitation of study, recommendation and closure. This chapter was highlighted any interesting, new or unexpected findings which did not discover in conducting the literature review.

In conclusions, the outline of thesis is a road map list in order to provide a good process and important element in writing of research study. An outline of thesis also helps to target the research areas, always keep within the scope without going off-track, and it can also help to keep the argument in good order when writing the essay.

### **1.10 Summary**

Construction nowadays create too many problems especially at the site between the main contractor and subcontractor. Normally it will involve the practitioners on site construction. In this chapter, the introduction of the research explained about the factor and issues in the industry, followed by research background, statement of problems, objectives of the study, the scope, significant of study, research methodology and outline of the thesis in this research study.



PERPUSTAKAAN AL-ITIMM  
PERPUSTAKAAN AL-AMINAH

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter aims to provide an overview of the literature review related to this research. This chapter also briefs with the scenario in our construction industry, the challenges in the construction industry and the importance of time, cost and quality. This chapter will also review on the concept of relationship between all parties which involved in a construction project and most importantly the relationship between the main contractor and their subcontractor. The issues between main contractor and subcontractor create many conflict among them. The problems mostly faced in the construction industry are usually from the design process and the construction process. Both problems can give bad impact to the productivity of the construction industry later. Lastly, this chapter will explain the recommendation to improve the relationship between the main contractor and the subcontractor for successful project implementation in the future.

#### **2.2 Current scenario in construction industry**

Construction industry is one of the major contributors that motivate and expand Malaysia's national economy. Nowadays, the construction industry acts as the engine of the country economic growth (Memon *et al.*, 2013) where buildings and structures have enabled mankind to meet their special needs for shelter, economic to feed the nation's investment needs, as well as in satisfying corporate objectives.

Activities in the construction industry play an important role in achieving the national socio-economic development, such as providing shelter upgrading and improving the infrastructure system and providing employment opportunities

especially for the locals. In accordance to the literature review, the construction industry activities give tremendous impacts in every aspect of the economy; which is why it is one of the industries that has been categorized as economic driver, particularly in developing countries (Rangelova, 2015).

The results from the construction investment that gives effects through the local and national economy, is from the appropriate planning that involved many parties whom connected with many available construction resources (Teplicka *et al.*, 2012)

### **2.2.1 Challenges in construction industry**

Construction industry is one of the industry that contributes the most to the ecological problem especially to our environment as compared to other sectors. However, according to Johnston (2007), most construction project nowadays has already practiced the sustainability to the environment when doing the construction work. Plessis (2007), in her studies has mentioned that Malaysia's continuous growth to achieve the vision 2020 has caused most developers to exert more priorities on the economic issues as compared to the sustainable agenda of the country.

The labor crisis is not a new issue, in fact it has been reported years ago, To date, the issue regarding labor crisis such as lack of skills and low number of local labors in the construction industry are still a big concern to the industry. Nevertheless, most experts predicted that it will continue to be better in 2016 and beyond, as talent deficit requires multiple years to fill up again (Menk, 2016).

Volkov (2013) had explained about Building Information Modeling (BIM) where according to him, BIM has been a growing trend for years, as it is no longer relegated to large firms. Experts have also stated that BIM is capable in providing tangible business benefits. Many organizations agreed with BIM's ability to provide consistent, accurate and less time-consuming project documentation. Moreover, BIM users can also expect a better collaboration and coordination among the different parties such as consultants and contractors that are involved in that particular project.

The opportunities in construction are growing, but so is project complexity. With companies already operating under razor-thin profit margins, a single production

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