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ABSTRACT

The coordination process for tall building construction is a very complex process. It involves many parties and special construction method and technology. However in today's current practice of tall building construction, many problems have occurred and contributed to the failure of the project. The common problems faced are delays in completion, cost over run and poor standard quality. One of the reasons is due to inefficient or poor coordination process especially during construction. Therefore, this study is carried out to investigate the challenges in coordination process in tall building construction. The methodologies adopted for this study include interview with expert panel and questionnaire survey distributed among those who are experience in tall building construction. The finding from this study revealed that the construction industry particularly in Malaysia need to be improve with regards to the coordination process. Currently, there are there are a lot of problems associated with coordination process of tall building construction especially during construction stage. These problems have been identified in this report. Then this study also makes some proposal for improving current coordination process. Among the proposal identified in this report are close tracking and monitoring for work program, implementation of quality management system such as ISO certificate and also implementation of new industrial building system (IBS).

ABSTRAK

Proses koordinasi dalam pembinaan bangunan tinggi adalah proses yang kompleks. Ini adalah disebabkan banyak pihak yang terlibat serta penggunaan kaedah pembinaan dan teknologi yang berlainan. Walau bagaimanapun, dalam pembinaan bangunan tinggi pada masa kini, banyak masalah-masalah selalu timbul yang menyebabkan kegagalan dalam sesuatu projek. Antara masalah-masalah yang sering dihadapi adalah seperti kelewatan dalam menyiapkan projek, kos yang berlebihan dan kualiti yang tidak memenuhi piawaian. Salah satu sebab adalah kelemahan atau ketidakcekapan dalam proses koordinasi terutama semasa peringkat pembinaan. Oleh yang demikian, kajian ini dijalankan untuk menyelidik cabaran-cabaran dalam proses koordinasi dalam pembinaan bangunan tinggi. Kaedah-kaedah yang digunapakai dalam kajian ini adalah termasuk temubual dengan pakar-pakar dan juga borang soal selidik yang diedarkan dikalangan mereka yang berpengalaman dalam pembinaan bangunan tinggi. Hasil daripada kajian ini didapati industri pembinaan khususnya di Malaysia memerlukan penambahbaikan terutama bagi proses koordinasi. Pada masa kini terdapat banyak masalah-masalah berhubung dengan proses koordinasi bagi pembinaan bangunan tinggi. Masalah-masalah ini telah dikenalpasti di dalam laporan ini. Kajian ini juga menyenaraikan cadangan-cadangan bagi menambahbaikan proses koordinasi. Antara cadangan-cadangan yang dikenalpasti adalah seperti pengawasan dan kawalan yang rapi terhadap program kerja, perlaksanaan pengurusan kualiti seperti ISO dan juga penggunaan sistem perindustrian dalam pembinaan (IBS).

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Demands in tall buildings are really significant nowadays especially in urban development. There are many reasons contributed to the increase in demand for tall buildings which due to the scarcity of land in urban areas, increasing demand for business and residential space spur by economic growth created a short supply situation. Other motivations for the demand of tall building are the desire for aesthetics in urban settings, the concept of city skyline, the cultural significance and prestige and simply the aspiration of human to build higher structures (Buyukozturk, 2004). Tall building construction is a complex activity which evolved with different kind of construction methods and technologies. Due to the complexity of the construction, an efficient coordination needs in order for the project to be successful. In tall building construction project, the client's objective has to be the main criteria to be focused on. Many goals are been set and beside the building concept, building efficiency and etc. The main aspect to be considered in building construction are controlling delays, controlling the costs and ensuring the quality standard of the building. In construction of the project, cooperation between stakeholders involved is an essential factor for project success, more particularly in coordination. (Sylvain

Kubicki, 2005). However in today's current practice of building construction, many problems has occurred and contributed to the failure of the project whether delays in meeting the time frame, building cost overrun, poor standard of quality. One of the reasons is due to the poor coordination from client representatives during construction stage. Since it is a common problem under a building construction project, it is significant to study the current practice of coordination and develop a suggestion to overcome and identified problem in order to achieve the goal and objective of the building construction.

1.2 Problem Statement

The construction industry performs badly with respect to low productivity, low degrees of innovations and learning, high degrees of delays, and poor in standard of quality. It is in general, believed that the present interaction between the agents in the building process is not optimal and hence market based interaction should be replaced with team collaboration and cooperation. The relationship between contractor and client must be improved in order to reduce the discrepancy and disputes in the construction works. The above mentioned associated problem can be solved with effective coordination between stakeholders.

Project completion on time, standard of quality and cost within the budget allocated are the common goal of construction project. However, in common practice the contractor and consultant often do not coordinate as they been awarded the job. Many problems may be encounter on a larges construction project, making it necessary to coordinate the efforts of many involves parties, including the owner, contractors, designer, supplier as well as authorities. Due to the above problem, a study needs to be carried out to investigate on coordination of tall building construction.

1.3 Aim and Objective of Study

The aim of the study is to analyze the importance of coordination and its current state in tall building construction project. The aim is supported by the following objective:

- (i) To identify the major process in tall building construction coordination.
- (ii) To evaluate major problems related to coordination issues in tall building construction.
- (iii) To suggest the strategies for improving the coordination process in tall building construction.

1.4 Scope and Limitation of the Study

The scopes of study are as follows:-

- i) The coordination issue in tall building construction which focused on client's perspective.
- ii) Despite the issue in coordination are involved for the whole project life cycle, however only the construction stages are considered in this study.
- iii) The data collected are only limited to developers, consultants and government agency located within Klang Valley and Selangor.

1.5 Brief methodology of Study

In this study, the methodology adopted are involves literature review, interview with expert panels and questionnaire survey. An appropriate choice of methodology largely depends on the objective to be achieved. Figure 1.1 shown the flow chart of the adopted methodology that have been used.

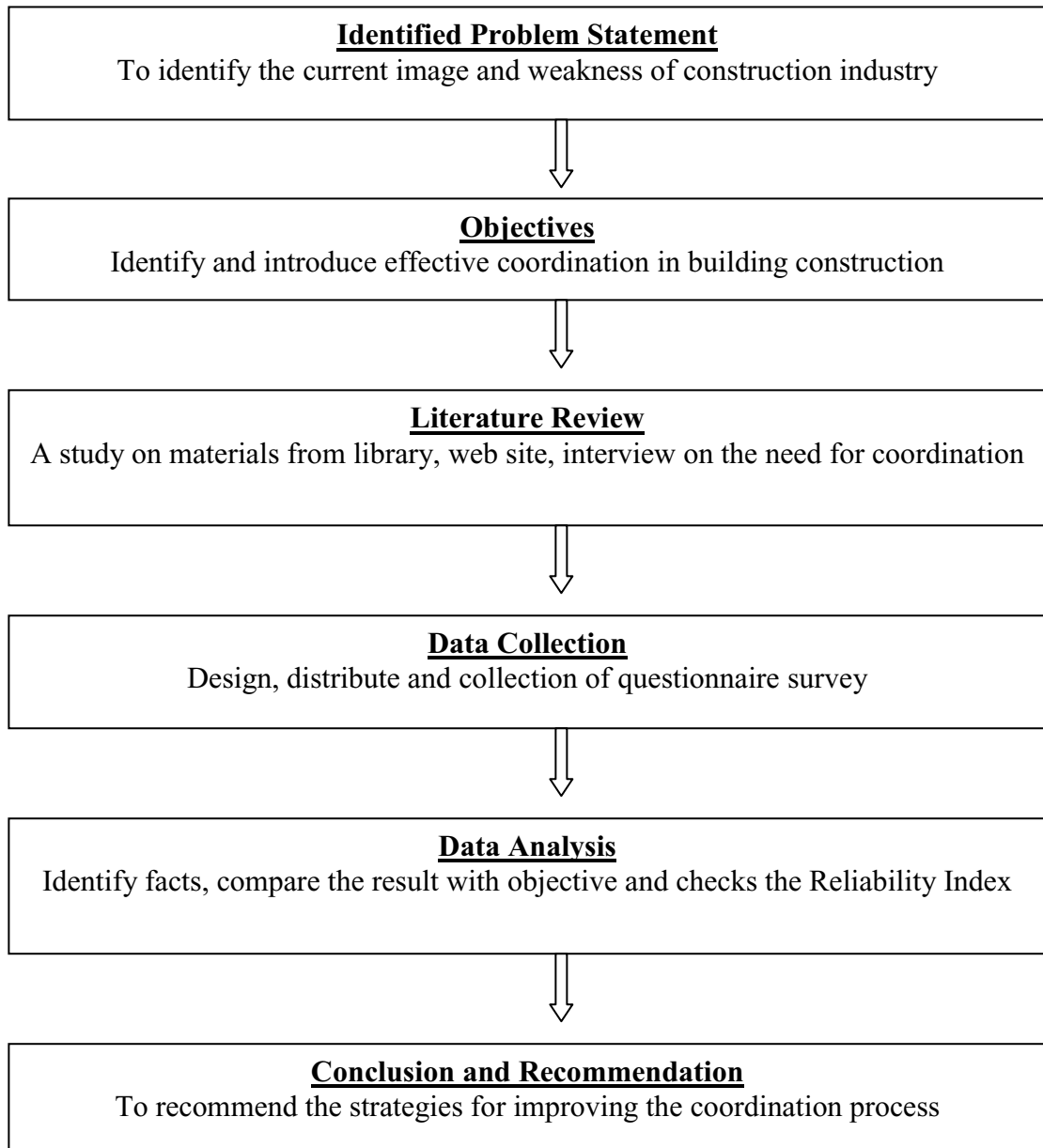


Figure 1.1: Flow Chart for Research Methodology

1.6 Summary of the Chapter

This study will be divided into six (6) main chapters which describe as follows:-

Chapter one described the introduction of the study, objective, scope and limitation of the study and methodology adopted in the study.

Chapter two describes on literature review on the current coordination process and also describes brief of tall building construction.

Chapter three describes in detail the methodologies of study to achieve the objectives. It includes methodology for data collection and data analysis for interview with expert panel and questionnaire survey.

Chapter four discussed on the analysis of the data collected from chapter 3 with specific method of analysis.

Chapter five discussed in detail on the analysis in the chapter four and the presentation of result and finding from the collected data.

Chapter six discussed on the conclusion of the overall study and suggestion on the strategies for improvement the coordination process.