CHAPTER 1

INTRODUCTION

1.1 Introduction

Construction project is a complicated and complex process, which required good cooperation and high commitment among stakeholders. These processes have many and different stages that become more complicated to manage. There is five stages of the construction processes which is pre-construction, foundation, framing, interior and exterior work, and from near completion to hand-over (Canadian Home Builders Association). These processes must be managed wisely following the scope and schedule as deal by the owner, consultant, and contractor.

As pointed out by others researchers, design is the important thing in improving the development of the construction project. The best design will enhance value of generation, reduce illegal and dispute, and smoothing the work process. As the designing work is undertaken, there are possibilities of the design having a change. The more changes made the more project process will be affected. The changes may occur due to the need specified by owner to reduce project cost or to rectify the mistake (Wang and Soh, 2000).the design changes may cause contractual disputes, time of completion delay, cost overrun, compromising on quality and frustration. To the parties involved, the changes will need to submit the fresh claim on extra work done that can give difficulties in claim management.
The owner, consultant, and contractors are very concern about the cost and risk on their contract. Risks that are related to design changes are very important things that should give more attention to avoid it. This risk should be taken seriously and must take the best solution to handle it because design changes can cause the performance of the project become worse. Cost of repair project will be higher if the changes after the construction process finished.

Usually the condition of construction is constantly changing. Companies must develop and improve continuously to become succeed. Changes must be based on knowledge of both the environment and one’s own work. In this situation possible solution to avoid design changes is necessary and very important. Effective actions can be taken to improve the process with this knowledge (P.-E.Josephson & Y.Hammarlund, 1998).

1.2 Problem Statement

Nowadays, the problems of design changes in a construction are still exist. These changes can give huge impact in construction project performance which is can cause the project completion time delayed and cost overrun. Design changes also can make the quality of the project becomes discrepancies and legal dispute. These design changes usually request by owner and consultant. Mostly, project skate holders cannot manage these changes properly and lead to the construction performance becomes worse.

As stated in New Straits Times 21st Oct 2015 by Minderjeet Kaur, “The project of constructing KLIA2 that began since 2009 had several delay due to the design changes and extensive earthworks”. Malaysia Airports has to date forked out RM76.5 million repair works at KLIA2 since the airport opened last year May. This shows that design changes give more problem once it occurred such need to spend money to rectify these poor quality and give bad impression to the customers and the future customers.
1.3 Objectives

There are 3 main objectives obtained from the problem statement above:

i. To study the causes of design changes affecting the performance of the construction project

ii. To obtained the information about the causes of the design changes

iii. To analyze what are the causes of design changes that affect the performance of the construction project

1.4 Scope of Study

Related to objective obtained, the scopes of this research will cover the area in Peninsular Malaysia. This study is only focusing on engineering consultant perspective only. The suggestion is focusing on the method how to improve the management of design change order in the engineering consultant practitioners. The questionnaires will be prepared and some interview will be conducted with person involved in this project and the person should have 5 years and above working experiences in construction.