CHAPTER I
INTRODUCTION

1.1 Introduction

Construction projects have always been a very important part of human civilization. The rapid technological developments of the last hundred years have resulted in a growing number in construction projects of enormously complex nature. The last decade has seen a steep rise in the quantity and complexity of construction projects in Asia as a result of spectacular economic development of the whole region. Finding the right project manager for a construction project is therefore a major task in project implementation. Furthermore, with the growing complexity of the project, increasing international collaboration within the building industry and growing concern of client's satisfaction, management of construction projects has become an increasingly important issue. One factor contributing to successful project management is the effort spent by a good project manager (Kwok, 2004).

The construction project manager clearly possesses responsibility for the overall project, in all its dimensions. At the top level of construction project, construction project manager concentrates on the schedule, cost and technical performance of the system within the context of a safe project environment. The first place to look in terms of exploring the desired attributes of a construction project manager is the set of tasks that a construction project manager must be able to carry out and the required competencies to execute the tasks. In other words, the project manager is the leader of the contractor's project team and is responsible for identifying project requirements and ensuring that all are accomplished safely and within the desired budget and time frame. To succeed this challenging task, the project manager must organize his or her project team, establish a project management system that monitors project execution, and resolve issues that arise during project execution. These duties of project manager require a lot of useful knowledge and competencies to implement such tasks.

Managing projects with quality requires the implementation of sound project management practices. For any project management system to be effective, a project

must be managed by a project manager who exhibits high quality of knowledge and competencies. Knowledge is one of the most important resources for both managerial decision-making and competitive advantages of any organization (Awazu, 2004). Individuals however have a differing competency-based and experiences thus leading to different problem solving processes and decision-making. Additionally, the fundamental concept on which project management is based is that a single individual, the project manager, is accountable for the success of the project. In this regards, success is achieved when the project satisfies what Rosenau (1984) calls the triple constraint, comprising performance specification, time (schedule), money (budget). As such construction project managers play a crucial role not only in the operational activities of architectural and engineering construction companies but also the development of infrastructure in every country. Although he or she is accountable for the success of the project, the effectiveness of the project manager is only one of many factors that impinge on the outcome of the project. It is therefore of crucial importance that strong competencies required of the construction project manager be clearly known or elaborated in order to make the improvement of inadequacy.

1.2 Problem Statements

Project management is the application of knowledge, tools, and techniques to the many activities required to complete a project successfully. Project management is really crucial for all of components of the whole construction project because it is an approach of planning, organizing, and managing resources to bring about the flourishing achievement of specific project goals and objectives. In construction, project success generally is defined in terms of safety, quality, cost, and schedule. Project management is a long procedure that needs involvement of many persons and required an efficient plan to be followed; otherwise the whole project can go to a chaos. However, many unexpected problems always occur in construction project management; especially in developing countries. The difficult inherence in the project management situations are compounded by the increasing complexity of environmental, regulatory, project financing, and political issues.

Cambodia is officially considered as a developing country in the world. In the current year, the construction industry has been intensively booming in this country; such as building, road, bridge, and so on. Most especially, there are a lot of structural

buildings booming in Cambodia consisting of housing buildings, commercial buildings, condominium buildings, and small towns which are called economic zone development. Simultaneously, many problems have dramatically appeared in construction projects in Cambodia. According to the previous study, Phann (2008) assumed that there are plenty of construction problems occurring in Cambodia due to many factors. Two major problems are accordingly human resource and material resource problems. Human resources problem consists of most of unskillful domestic labor, low productivity of local workmanship, low quality of local engineers, lack of local engineers and experts, and poor design of local engineer in large project. Material resources problem comprises shortage of materials in the country, high cost of machinery, inadequate production of raw material in the country, low quality of local materials, lack of high-technology mechanical equipment, lack of competent suppliers, and so on.

All of these problems must be appropriately managed and dealt with by many capable people and organizations. There are several participants in the construction process, all with important capability in developing a successful project such as, the owner, the designer, the prime contractor, subcontractors, and supplies. Especially, the compulsory need for handling the whole project is mainly effective construction project manager who is the leader of the contractor's project team and is in charge of identifying project requirements and ensuring that all are accomplished safely and within the desired budget and time frame. However, several construction projects may fail because of external factors that are beyond the control of the construction project manager or because he or she possesses low competencies to implement the overall construction project. As Phann (2008) revealed construction project manager's problems frequently occurring in Cambodia, consist of lack of responsibility, poor leadership, inefficient decision analysis, unrealistic project schedule, poor project planning and control, lack of project manager's experience, and unreasonable risk analysis.

Like other developing countries, Lao People's Democratic Republic (Lao PDR) has many construction projects being implemented in various sectors; such as housing projects, dam projects, and some small bridge projects. Undoubtedly, many project management problems have been occurring in construction projects in this

developing country. In this case study, the construction project managers are studied in terms of into account in project management to deal with such problems.

Another country, Thailand is an emerging economy and considered as newly industrialized country. There are plenty of construction projects booming in this country consisting of high rise building projects, condominiums, hotels, shopping centers, factories, and long-span bridge projects. Simultaneously, Ogunlana (2002) posted that Thailand has inadequate and ineffective control strategies for project management problems. The operational modes of contractors are mainly based on sole ownership, headed by entrepreneurs lacking efficient expertise in construction management. Additionally, Ogunlana (1996) concluded that resource supply problems are by far the most acute problems of construction industry in the boom years in Thailand. Projects suffer delays because materials, especially cements, are in short supply, technical personnel are over stretched, having to do so much so soon in their careers. Demands from construction owners for frequent changes also create design and coordination problems for field staff. The result was that many projects are poorly managed and exceeded time forecasts. Construction consultants also create problems for contractors. Some of the problems are however not special problems limited to developing economies but are accentuated by the shortage of technical personnel and other infrastructures which are taken for granted in developed countries. Contractor-caused delays are due mainly to the low technical and managerial competency of contractors in developing countries. This study will focus on the construction project managers who are mainly responsible for dealing with these problems.

That is why it requires effective construction project manager who particularly possesses high knowledge and competencies to effectively and efficiently deal with problems which often occur in developing countries. Furthermore, the existing knowledge and competencies of construction project manager in each country can be possibly different or similar depending upon the area situations including different geographical location, construction regulatory, socio-economic, and political factors. Therefore, all engineers or construction project managers should be well aware well of the insufficiency of knowledge and competencies of construction project manager in their countries so that they (engineers) are able to learn how to become effective

construction project managers and also they (project manager) are able to improve their performances in order to undertake the management of project without any failures or risks in each region. Moreover, in Thailand, Cambodia, and Lao PDR, there is indeed no research that focuses on this issue. That is why this research is accordingly conducted by studying the current knowledge and competency level of construction project managers in these three countries in order to improve their performances.

1.3 Objectives

The main objectives of this research are:

1. To rank the important knowledge areas of construction project manager of contractor as perceived by significant actors in the construction industry (the contractors, the consultants, and the owners) in Cambodia, Lao PDR, and Thailand
2. To explore the current level of competencies of construction project managers of contractor based on the ability to apply their knowledge in construction project activities from the perceptions of three principle construction participants; the contractors, the consultants, and the owners
3. To propose the recommendations for improving the insufficiency of competencies of construction project managers of contractor in Cambodia, Lao PDR, and Thailand by obtaining some suggestions from the perceptions of the contractors, consultants, and owners.

1.4 Scope of Research

It involves the construction project managers' perspectives based on their knowledge and their competencies to apply the knowledge in managing the whole construction projects. The scope of this research empirically covers the competencies of local construction project managers of contractors working in these three countries; Cambodia, Lao PDR, and Thailand. The necessary information and data will be actively collected from building construction projects as one of project types in accordance with the perceptions of the contractors, the consultants, and the owners.

1.5 Research Methodologies

This is a case study which includes the literature reviews, interviews and relevant information gathered from questionnaire survey. This study particularly focused on the exploration of the competencies of construction project managers. The research would be done step by step as shown below:

1. Review the pertinent literature and interviews with some project managers to find the important knowledge areas needed for construction project managers from various sources. The available sources are text books, journals, and international conference papers. They are able to be searched from previous studies, internet websites, online libraries, and electronic database. All of involved literature reviews are entirely presented in Chapter 2.

2. Develop a questionnaire survey based on the relevant literature reviews and interviews. The questionnaire is clearly designed and transmitted to those who play a role as contractors, consultants, and owners in Cambodia, Lao PDR, and Thailand. This questionnaire is officially used to gather the ranking of important knowledge areas and the level of competencies of practical construction project managers. It is also used to collect some evidence used for result validation. Similarly, expectations are obtained from questionnaire.

3. Along with the questionnaire, it is necessary to visit and interview with contractors, consultants, and owners working in construction projects located in Cambodia, Lao PDR, and Thailand to explore the detailed perceptions of the competencies of construction project managers.

4. Analyze the gathered data and information in order to find the ranking of important knowledge of construction project managers and to successively explore the level of their abilities to apply the knowledge in controlling the project activities. The tools used to analyze the data are Analytic Hierarchy Process (AHP) for important knowledge and Average Scoring for level of competencies. The details are clearly illustrated in Chapter 3.

5. Validate the results of competency level by using evidence of each knowledge area as demonstrated in Chapter 3.

6. Enhance the inadequacy of competencies of construction project managers in these countries in accordance with the results by proposing some useful recommendations obtained from the gap between important knowledge and competency level and from the expectations from the contractors, the consultants, and the owners.

7. Conclusions, limitation of study, and further study, are provided in the last section of this research.

1.6 Expected Benefits

The future benefit of this study can be:

1. The recommendations for prioritized improvement of competencies of local project managers in Cambodia, Lao PDR, Thailand

2. In case of international projects, the project managers will be selected to implement the work in construction projects based on their suitable performances which match the required competencies in each country.