# **CHAPTER VI**

## CONCLUSIONS AND RECOMMENDATIONS

This thesis has discussed the finding of contractors' problems in Cambodia and Thailand. The discussion is mainly on the problems which contactors has encountered with their construction project participants in the construction industry, problems natures in both countries, also the similarities and differences between Cambodia and Thailand's contractors' problems are made. This chapter will summarize the finding in previous chapters and provide some suggestions.

#### 6.1 Conclusions

On the long way to develop the whole construction industry all over the country, Cambodia needed lots of factors to fulfill the lack nowadays and also for the future. That is why Cambodia needs many study to find and help improve in the nation construction industry. The case study of contractors' problems in Cambodia is one benefited study that will help government and all contractors working in Cambodia understand well about what has occurred during their business. Contractors are the ones that have secured the projects by bidding and contracting to directly build and control the construction of buildings and infrastructures.

The data used in this research are based on the contractors' problems which they face with their project partners and participations. In this study, interview survey is conducted to help drive problems finding at both industry level and project level. The data to be gathered for this research has divided into two steps. First step was conducted in Cambodia. The interviews with contractors were conducted with some recommendation for problem solving advices. There were amount 15 contractors (5 big, 5 medium and 5 small contractors). Whereas, the data from Thailand, conducted by questionnaires with 11 contractors, including the interviews with 5 contractors for getting more contractors' problem details and using in comparison.

As a result, an inventory of 55 problems was categorized under 2 different levels, 7 categories with 30 contractors' problem were found at industry level and 6 categories with 25 contractors' problem were found at project level. The 7 categories at industry level are construction regulation, government, human resources, material/machinery resources, financial, coordination and communication and construction marketing. And the 6 categories at project level are owners, consultants, subcontractors, material resources, human resources, and communication.

It was used to examine the most significant problem causing the problems, such as delay, cost overrun, project quality in the major projects in Cambodia. The finding showed that most problems related to the owners, consultants, materials and labors were much among other problems. Among many problems that construction project face worldwide includes shortage of human resources, machinery and equipment and construction materials. However, there are additional factors causing the contractors' problems in Cambodia from questionnaires and interviews such as lack of finance, technically incompetent and less experienced local engineers, companies, and an underdeveloped business environment, complexities in legal and regulatory systems.

Furthermore, the result of comparisons showed the similar and different problems in both industry level and project level. At industry level, the main categories of differences were problems of construction regulations, problems by government, materials and machines, human resources and construction marketing, whereas, the main categories of similarities were mostly problems of financial, coordination and communication. In addition, at project level, the main category of different problems was found in the material resources. However, the main categories of similarities were found in many categories such as problems by owners, consultants, subcontractors, human resources and communication.

The Cambodia government should also seriously consider extending assistance programmes to other members of the supply chain within the industry. In addition to developing emerging contractors, other players such as new suppliers and plant hire entrepreneurs etc, equally need support as they form a critical sector of the industry. This will help reduce monopolistic tendencies among few suppliers that may result in poor delivery at the procurement level.

Training of labors and engineers ranks as the most important intervention at this stage by the contractors and government. The policy must ensure that labors and engineers who benefit from these schemes have undergone training provided by Government institutions established for this purpose. Especially, the production quality engineer from the university is the most concern with the enough quantity to support and involve in the construction projects.

### 6.2 Recommendations

It seems be true because of the different countries and geographical locations have their own set of socio-economic and political factors, their own structure in the construction industry, local construction practices and, more importantly, the project characteristics which together influence the problems that usually occur on a given projects. So, different countries would have different problems. However, the similarities could be found also between two countries, especially the neighboring countries as in this research, Cambodia and Thailand.

## 6.3 Limitations of the Study

A literature review and findings from the analysis show that the factors causing contractors' problems in Thailand are mostly identical with only 8 contractors and in Cambodia with only 15 contractors. So the data collection may encounter some gaps. Nevertheless, the finding of this research should be interpreted in the context of the Cambodian construction industry.

Also the comparison has conducted by comparing only the problems nature to find their similarities and differences. That date of comparison is not digit number, they are all problems description. That is why the comparison could have some points hard to compare, hard to define whether is similar or different. Moreover, this is because different countries and geographical locations have their own set of socioeconomic and political factors, their own structure in the construction industry, local construction practices and, more importantly, the project characteristics which together influence the problems that usually occur on a given project.

While interpreting the results, one should also note that the data were collected from a several major project which was chosen as a case study. So some contractors may provide different opinion and their different kind of construction work experience. Also, data were collected over a limited period of time while the project was near its expected completion. This may have influence respondents' perceptions about which problems where causing the contractors' problem on the project.

The constraint of this research resulted also from the duration of data collection and research period. The period of this research is not so long as well as the data collection from the responding contractors is not so enough. The problems were collected based only on some construction project and companies, but for it is hard to cover the whole construction industry in Cambodia.

### 6.4 Further Study

In the following section some recommendations are made for furthers study

- Strategic planning and development in construction industry in Cambodia is
  also a way for the economic development, so it should have a study which
  conducts on this strategic planning of construction industry for the next decade.
- Especially, the exploration of whole construction industry for Cambodia and comparing with other developing countries will be the good research for construction industry development in Cambodia.