

CHAPTER III

RESEARCH METHODOLOGY

This chapter discusses methodology of this research. Started with reviewing literature and previous research, data collection then was performed. Analysis is then conducted to the data obtained from previous steps. Comparison and suggestions come up after the analysis section. This chapter ends with conclusion of the research and suggestion for future research.

3.1 Literature Review

Literature review was conducted by searching information from other related research as well as searching information from World Wide Web. The information being reviewed is current practice of online bidding in several countries. Literature review also covers previous research concerning online bidding in construction industry.

3.2 Preliminary Data Collection

Preliminary data collection was required in order to get idea of implementation and utilization of online bidding in Singapore. These first two pre-activities aim to determine the problem statements and construct the objectives.

3.3 Research Data Collection

Data collection was conducted in Thailand, Philippines, Indonesia, and Singapore by doing interview to the related parties of online bidding.

1. Visit and interview the government bodies in Singapore, the Philippines, Thailand, and Indonesia. Interview was conducted to Ministry level as the regulator and Department level as the user (owner). This information has been obtained.

- Government perspective of advantages and disadvantages of using online bidding compared to conventional method.
 - Procedure of online bidding in all stages: bidding invitation, document distribution, document submission, as well as winner selection and contract award.
 - Experiences of implementing online bidding in the initial stage.
 - Laws and policies related to collusion practices in public projects.
2. Visit and interview government agencies or private companies who provide services for online bidding. The information achieved are:
- Advantages and disadvantages of implementing and utilization of online bidding from provider perspective.
 - Systems and procedures used in online bidding utilization in all stages.
 - Training and development of system and software
3. Visit and interview contractors in each country to get general comments of utilization of online bidding from user's point of view. The information achieved are:
- Advantages and disadvantages of joining bidding in online bidding.
 - Required preparation in joining the online bidding process.

3.4 Data Analysis

Data were analyzed and categorized based on country. Because there is similarity in bidding method found between some countries, analysis was also conducted based on the bidding method. Analysis was conducted in three methods.

- Process comparison

In this method, all data in each country were categorized and placed in the matrix to make easy in comparing between countries. The comparison covered the criteria mentioned below.

- At implementation stage:
 - Purposes of implementing and utilization of online bidding,

- Service provider selection,
- Technical setting, and
- Training and development.
- At utilization stage:
 - Tender invitation process,
 - Document distribution process,
 - Prequalification process,
 - Price quotation and winner selection process, and
 - Reporting and documenting bidding documents

The comparison will support to select the better practices between countries by comparing easiness and simplicity of the process. The system is considered simpler and easier when the number of claims and disputes in the bidding processes, related to the utilization of the system, are less. The figure below shows the matrix for process comparison method.

Table 3.1 Matrix of process comparison

Criterion	INA	PHI	SIN	THAI
Purposes				
Registration				
Service Provider				
Bidding method used				
Invitation to bid				
Bid documents obtaining				
Pre-bid meeting				
Bid submission				
e-bidding				

- Defining common problems and proposing solutions
From the side by side comparison, common problems can be found. In this stage, solutions are proposed to address the problems.

- Defining critical issues on preparing and operating online bidding from government side.

This stage will provide a scheme of critical points in preparing and operating online bidding at government side.

3.5 Result Validation

Validation of the proposed method and schemes of critical issues have been sent and discussed with officer in City Government of Surabaya (i.e., Mr. Eri, bidding expert of Construction Development Division of City Government of Surabaya).

