

CHAPTER I

INTRODUCTION

1.1. Background

Costs estimation in the construction of the building is a very important aspect in order to know whether the planned costs are still within the limits of the budgeted cost. Costs estimation done by planners and contractors. Planners estimate the cost to calculate the Budget Implementation Plan (*Rencana Anggaran Pelaksanaan*), while the contractors estimate the cost to calculate the price of job offers in each auction activity.

In general costs estimation are divided into 2 (two), namely the initial estimation / owner estimation and detailed estimation. The initial estimation / owner estimation is the estimation that is created in the early stages of projects in the framework of the efforts for economic feasibility and aimed to control financing. Whereas the detailed estimation is the estimation made with a base count of the volume of work, cost, and unit price of work.

Detailed estimation usually done by dividing the project's items in the detailed work. Because it should be divided in detail then this work requires a high level of accuracy and takes quite a long time.

The problem faced by contractors is to determine the offering price in a short time before the bidding process. It is often the case in the calculation of unit price per item of work is done in conjunction with making the offering price. This has implications with often less accurate calculations in determining the offering price.

To overcome the problem above, it requires quick time to estimate the price of a construction work, although often collide at the situation where data and information projects are still minimal. The other problem is the time to study and assess a project is very limited, so there is a demand that need implementation of the development of cost model, one of which is the "*Cost Significant Model*" that is structured, effective, accurate and reliable.

Cost Significant Model used to estimate or predict the price such as budget planning and control system or are intended to assess both, before and after the contract was taken / contracted.

Cost Significant Model will produce a model of significant work items that

could affect the whole cost of the project, where from hundreds items of work, approximately 80% of the Budget Implementation Plan (*Rencana Anggaran Pelaksanaan*) are allocated to significant items (*cost significant items*).

Cost Significant Model relies on well-documented findings, in which data and information obtained by collecting the previous bidding documents for similar projects (Kushartini, 2002).

1.2. Statement of the Problem

Based on the description on the background above, then the thought arises to examine the application of *Cost Significant Model* on office building project, which is associated with the estimated cost.

1.3. Research Objective

This study aims to identify *cost significant items* in a budget implementation plan. The formulation of the cost model has been obtained is used to estimate the total cost of construction, and then evaluated the model for other projects that have been done.

1.4. Limitation of the Problem

In order for this research is more focused, so in this study are limited descriptions as follow:

- a. Data is taken from historical data at an offering price recapitulation on building project.
- b. Type of construction to be studied is the form of office building.
- c. The location of the project in the area of Yogyakarta and Central Java, as well as pricing data obtained on the building project that the maximum implementation time difference of 5 years.

1.5. Benefit of the Research

The results of this study are expected to be useful for various parties, among others:

- a. Contractors or construction services providers

Cost models can be used to estimate construction costs accurately and quickly and also can be used to plan the overall project costs in the future.

- b. Institutions and the world of science

The research is expected to add the treasury of knowledge and a wealth of scientific research in the field of building project cost estimation.

- c. For the author

In additional knowledge for Bachelor program of civil engineering construction management, because the orientation in the future will be involved in these problems, so the author will be ready in the real work.

1.6. Layout of the Research

Layout of the research will be done in this study are as follow:

CHAPTER I. INTRODUCTION

An introduction that describes research materials in general, the importance of research materials held as research objectives, constraints and usability of the research that is expected from the research.

CHAPTER II. LITERATURE REVIEW

In this chapter explains the concepts of project cost estimation and various cost estimation methods underlying the discussed issues, as well as *cost significant model* concepts that can be used as a theory that supports the research.

CHAPTER III. RESEARCH METHODOOGY

In this chapter describes the types of research, the research object, place or location of the study, the data needed, methods of data collection, data processing, and data analysis methods used in this study.

CHAPTER IV. DATA ANALYSIS AND DISCUSSION

In this chapter describes the results and discussion of research, in example research results that started the project data used in this research, data processing method, and results of data processing.

CHAPTER V. CONCLUSION AND SUGGESTION

In this chapter explains the result of the discussion from the research that has been done, which is then the conclusions will be drawn, but it also will be given suggestions that may be used for further research.

