

COST and CONTRACT ADMINISTRATION in CONSTRUCTION

Divine Perspectives

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Chapter 1

Costing a Design or Designing to a Cost

Nur Syazwani Mansor and Yahaya Mohd Yunus

Introduction

The fundamental aim of professionals involved in construction industry is to achieve the target of a project that is to achieve the completion of project within stipulated time frame and budget (Aftab Hameed *et al.*, 2011). Meanwhile, Smith and Jaggar (2007) mentioned that Client, as a person or an organisation, who initiated to construct a project, obviously aims to minimise the cost of project whilst maximising the value.

Constructing a building is not simply doing it in the literal meaning; it involves detailed process, planning and management from the beginning of the project. Many decisions should be made during the inception stage due to complexity of the process, especially the cost planning. As Smith and Jaggar (2007) said, “cost planning forms part of the broad discipline of building or construction economics”. Meaning that, it requires good understanding in cost planning when controlling the project budget.

Ferry, Brandon & Ferry (2007) stated that cost planning is complicated to define concisely as it consists of many procedures and techniques normally used by the Quantity Surveyor (QS) or building economist.

Ashworth (2004) wrote in his book that before the Second World War, an approximate estimate of the building cost is normally produced by the quantity surveyors in England, and the quantities measured from the working drawings were used to produce a Bill of Quantities (BQ), and final account was agreed after project completion on site. However, in early 1950s, the UK Government realised that the cost limits of school project were always exceeded due to many variations made, thus affecting

the cost per pupil. Since then, they proposed that for future projects, cost plan need to be prepared that would help the designer in designing according to the costs allowed.

Like England, Malaysia also practices cost planning in project cost control. In conventional method, the cost would follow the sketch or design produced by the designer during the pre-tender stage. A good cost planning is when the tender figure is closer to the first estimate, ensures the fund is available for the proposed project, and aims to achieve best value at the desired level of expenditure (Ferry, Brandon & Ferry, 2007). However, Aftab Hameed *et. al.*, (2011) cited that Malaysia is still facing some crucial issues and one of them is expenditure exceeding the budget (CIDB, 2008). They also stated that lack of knowledge in management system and lack in ability to avoid cost overruns or control the construction costs will lead to project failure (Sripraset, 2000).

Hence, to avoid the problem from getting out of control, the current practice and technique need to be reviewed to ensure that costs are effectively distributed among the elements of building. Specifically, the method of producing cost estimate of a project based on design or producing a design based on cost plan, has helped the practitioners to ensure that cost of a project do not exceed the cost limit.

The aim of the study is to identify the most effective cost control process adopted by the practitioners in achieving client's requirements, whether '*costing a design*' or '*designing to a cost*'. The following objectives are established in order to achieve the aim:

1. To study the concept of '*costing a design*' and '*designing to a cost*' and compare their similarities and differences.
2. To discover the factors that practitioners consider when choosing either of the two approaches in cost control.
3. To find out the more preferred approach in performing project cost control during design stage.

The Case for The Study

Anyone intending to construct any building or infrastructure will need to know in advance about the cost of the project and the question that is