

Challenges of cost management technique implementation during pre-tender in Klang valley construction project

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Abstract. Poor cost management could lead to the jeopardize of the fundamentals of managing the construction project. Many countries are facing many problems with cost performance which one of them was a cost overrun in the construction projects. Cost variation from the initial cost budget and cost plan has been known as common in the construction industry and it creates a concern to stakeholders on needing maintaining cost projection. This paper aims to identify the challenges of cost management which effect project costing during the pre-tender for landed residential building construction projects in Klang Valley. The research methodology used for this research is the quantitative method. One hundred forty-seven (147) respondents from the industry such as Clients, Contractors, Architects, Quantity Surveyors, Engineers and others from different organisations. The findings revealed that the challenges on cost management effecting to cost, is budgeting in a dynamic situation.

1 Introduction

Looking at the modern state of managing the real estate market, the decrease of economic growth, the rise of fixed costs, inflationary load, and the collapse of credit policy, etc., a type of excellent cost management in the intense rivalry in the sector is vital. The intensity in the construction industry, for the most, part appeared at cost rivalry, a rivalry has gotten progressively furious [23].

Cost management process is alluded to as cost control [7]. Accomplished projects are frequently seen as those which are conveyed to the necessary quality standard, on schedule, and inside spending plan. Competent cost management hence is fundamental to the outstanding result of building projects. Clients would always anticipate the concluding cost of the projects to be close to the initial evaluation and, without a doubt for some, this might be the Client's primary need. The construction industry is believing to become an important

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part of generating prosperity, improving the condition of life to the country that is fundamental for the development of the country and as well in meeting the fundamental needs of the people [14].

Taking part in development projects produce a significant monetary obligation and subsequently, depend upon genuine thought for any client simultaneously, the assessed expenses of a development project, are a fundamental deciding variable that impacts both the client's ability and decision to build. A project which surpasses the designer's or expert anticipated expenses or potentially the client's established project spending plan, as a rule, must be re-evaluated, overhauled or even deserted inside and out - including the architects or quantity surveyor in additional expenses or monetary loss. It might at last raise doubt about the architects' and quantity surveyor proficient judgment and their validity [1].

Nowadays, in every Malaysia project constructed, the stakeholder must play their role for the project can be accomplished by achieving the three parameters – quality, time and cost. Each stakeholder must decide their roles, requirements and anticipation and handle their power in connection to the condition [18]. This can be related to [11] statement which mentioned that cost management is not practiced in isolation or stand-alone process. It is a vital piece of general management methodologies and their usage. Failed or destitute stakeholder management can prompt to many serious issues causes cost to overwhelm and deferred.

This paper is specifically designed to explore the challenges of cost management technique implementation during pre-tender stage in Klang Valley landed residential Construction Project effecting the construction cost.

2 Literature review

The main principle of Clients develops a project is profitable and enhancement of the maximal rate of the effectiveness [6]. Cost is the basic and most important study for the whole lifetime of the project. Subsequently, it is critical to keep cost control and management from the starting point of the project as the absence of cost management cost overruns and time delayed. Thus, Botin et.al [5] mentioned that cost management is essential to the profitability of any project.

Cost is prime essential in planning, designing and constructing a project [8]. Similar statement saying that the cost is one of the important principles for measuring the achievement of any project [22]. Cost considerations are ceaselessly brought forward from the idea spending plan, through to successful building occupation and use. The article also stated that it exemplifies definite cost planning and cost control services to guarantee construction projects are offered, reported and finished inside a pre-agreed cost system and in the most prudent way steady with program prerequisites and tasteful contemplations.

2.1 Cost management techniques during pre-tender stages

Construction cost management is the foundation of practical capital expenses of construction projects [8]. Cost management is not done in a vacuum. It plays a vital role in the development and implementation of management strategies [11].

A success for any type of project would depending on the project achieving its fundamental criteria which normally is to complete within estimated cost [4]. According to Lock [15], the acceptable success of the project would be determined according to how well the project accomplish the three primary objectives.

- a) Complete within the approved cost budget
- b) Finished on time
- c) Good performance, in term of satisfaction of its quality and specification

Hence, Project Cost Management processes are required to ensure that projects are completed based on Client's primary objective. This is supported by Girma [10] which stated that cost management is a major role in project success. Major factor of project success and vital cornerstone of project management is the capacity to deal with effectively the project cost [19] & [20]. Cost management [3] is characterized as the way of planning, evaluating, organizing, supervising, and reporting of all expenses related parts of a project to ensure that the project is finished inside allowed allocate financial. Exercise to unsure project assets is utilized ideally in the cost management process to achieve the suitable outputs are needed by cost management practices approaches. Project Management Institute (PMI) or the Royal Institute of Chartered Surveyors (RICS) published standards have similar approaches in many countries due to the same references. The cost management process (CMP) is made up of a series of interconnected procedures that detail cost management in three phases: cost estimation, cost planning, and cost control. Cost estimating, cost budgeting, and cost control are the stages of the CMP, as per Project Management Institute (PMI) Body of Knowledge [3]. Previous studies advised for the inclusion of a framework phase in the cost management cycle, which was confirmed in the new estimation suites at the cost estimation phase. Reviews on CMP from all above, suggest that there are four fundamental cycle stages, in particular: cost setting, planning, budgeting and control and could be connect with the predesign, design and development periods of project delivery.

Every one of these cases comprises three sections: information, processing and output. The output of each segment is the contribution of the next segment. Resource planning decides resources, including labour, materials, equipment, and their number to finish every one of the project's activities. Cost estimates from the expenses of the resources expected to finish project activities that are related to uncertainty. The level of uncertainty in each period of a construction project is unique [2]. The procedure of cost budgeting the total estimated cost for any project is designate independently to every one of the project activities with the goal that the reason for the cost to be characterized [16]. Based on cost management techniques by [21] & [24], consist of the following during pre-tender stage:

- a) Cost planning and control
- b) Estimating
- c) Budgeting
- d) Cash flow forecasting
- e) Financial reporting and cost reporting
- f) Value management
- g) Pre-contract cost management

3 Research methodology

A Quantitative approach was adopted in this research. Data was collected through a structured and closed-ended survey questionnaire. The questionnaires were distributed to target respondents through electronic mail and social media. The respondents targeted for this research comprised of construction professionals working in contractor firms located in Klang Valley, Malaysia. A total of 207 sets questionnaires were distributed, and 147 respondents had participated in the survey. The collected data was analysed under Descriptive Analysis using Statistical Package for Social Science (SPSS) software.

4 Result and discussion

4.1 Type of cost management used during pre-tender

Figure 1 shows the type of cost management used during the tender. the most cost management types used during pre-tender are estimating which shows 81.63 percent of respondents followed by Pre-contract cost management and client cost control with 10.2% and 4.08% respectively. It is to see whether the techniques often used by the respondent.

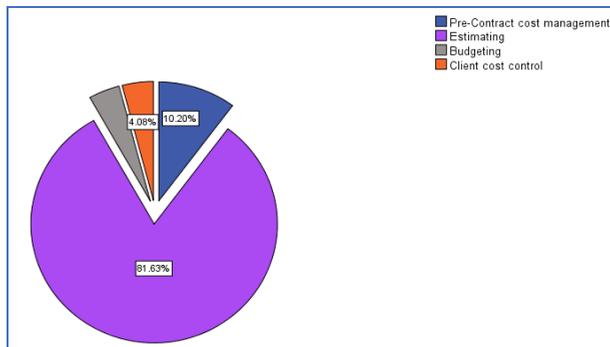


Fig. 1. Type of cost management used during pre-tender

4.2 Challenges of cost managements implementation effects to project costing

Table 1 shows the results on the challenges of cost management implementing in a project in terms of cost. The results indicate that the respondent agreed that the budgeting in dynamic situation has been the ultimate barriers in implementing cost management in project with mean scores of 3.78, followed by accuracy in estimation of direction and indirect cost at 3.76, constraints create by budgeting at 3.69, failure to forecast at 3.65, cost is shaped by action rather than result from action at 3.61, inaccurate activity cost estimate at 3.59, allocation of direct, indirect and joint cost at 3.51, ineffective frequency of project budget updates at 3.37 and wrong method of estimation at 3.24. The results indicated that the respondent considers budgeting in a dynamic situation as the main challenges of cost management implementation effects to project costing. This is consistent with Albtoosh [9] & Mondejar [17] who mentioned that having a budget has created negative scenarios among stakeholders due to each activity involved related to the budget.

Table 1. Challenges of cost managements implementation effects to project costing

	N	Mean	Std. Deviation	Rank
Budgeting in dynamic situation	147	3.78	.792	1
Accuracy in estimation of direct and indirect cost	147	3.76	.824	2
Constraint create by budgeting	147	3.69	1.038	3
Failure to forecast	147	3.65	.963	4
Cost are shaped by action rather than result from action	147	3.61	.754	5

Inaccurate activity cost estimate	147	3.59	.834	6
Allocation of direct, indirect and joint cost	147	3.51	.814	7
Ineffective frequency of project budget updates	147	3.37	.828	8
Wrong method of estimation	147	3.24	1.083	9

5 Conclusion

This research has highlighted on the cost management technique implementation during that impact to cost in current pre-tender phase in the Malaysia construction industry. Cost must be managed and controlled throughout the project's life cycle because it is one of the most critical aspects affecting construction performance. Thus, the success of a project can be ensured by cost management. Budgeting is the main important factor that can lead to the efficiency of cost management implementation in construction projects. Hence, findings from this research serve to improve the management during pre-tender phase in preparing cost estimates. Different studies can be done in the future with different elements to indicate other factors or to undertake extensive studies for the same factors to help stockholders in construction projects understand cost management and how to apply it throughout the project's life cycle.

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