

Research and Application of Cost Consultation Based on the Whole Process of Construction Project

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Abstract: Effectively control the cost of construction projects and shift the focus of control to the earlier stage. It is necessary to pay attention to and strengthen the investment estimation in the decision-making stage of the project, and strive to improve the accuracy of the investment control number in the feasibility study report; it should be clear that the budget estimation work should not only reflect the design, calculate the project cost, but also actively affect the design and optimize the design. The author mainly expounds the connotation of construction project cost, analyzes the difficulties in the process of construction project cost management, combines years of work experience, and puts forward several countermeasures for the accuracy of project cost for reference only.

Keywords: Engineering project, cost consultation, whole process.

1. INTRODUCTION

As we all know, with the rapid development of China's social economy and the acceleration of the urbanization process, construction companies have also emerged. The construction scale, building volume, and number of projects are constantly expanding compared with before, and the construction market competition has also changed. It has become increasingly severe, and vicious competition in the market has become the norm. It is inevitable for construction companies to participate in vicious competition. Under the background of such a construction market, how do construction companies do cost management in the entire process of construction engineering, as well as various construction links? Engineering cost control work has become the focus of attention of construction companies, which runs through the entire process of construction projects and is related to the economic benefits of construction companies and the survival and development of construction companies. Based on the current situation of engineering cost management in China, this article analyzes the main problems in engineering cost management and control during engineering construction, and proposes practical countermeasures to improve it to ensure the scientificity and rationality of engineering cost management. Based on the quality of the construction project and the progress of the project, it will obtain the greatest economic benefits and promote the further development of the enterprise.

2. BACKGROUND

At present, the cost consulting agency for engineering projects in China is not sound enough, and there are still certain problems in the cost management of project construction. For example, the role

of engineering cost consulting companies has not yet been fully recognized by the society, and there are few companies that can simultaneously undertake the entire process of cost consulting management from pre-project feasibility studies to survey and design, bidding agency and project settlement, and final accounts. Most of the cost companies are relatively small in scale and the technical level is not high; the industry management system has a monopoly blockade by industries, regions and departments; the quality of employees is low, and the management capabilities and specific practices of the entire process and comprehensive project cost control are poor. Less experience; the cost engineer's knowledge structure and professional qualities are poor, especially the lack of knowledge and ability in economics, law, management, etc., and the comprehensive coordination management ability is weak, which seriously hinders the development of engineering project cost consulting industry.

3. FACTORS AFFECTING PROJECT COST

The increase and decrease of project cost are dynamic factors of project cost. Any construction project is from decision-making, design, construction to completion acceptance. The main factors are as follows:

- ① In the case of inadequate preparatory work in the early stage of the project, in violation of the basic construction procedures, hurriedly launched, not talking about the economic benefits of the project, only the progress of the project.
- ② Engineering design is affected by objective conditions, subjective factors, and unforeseen factors.
- ③ Determining the project cost not only involves many management departments, but also is driven by interests. Each construction unit, design unit and construction unit have their own economic goals, and their willingness to reflect the project cost is different.
- ④ The main components of the project cost are equipment materials, changes in the source of equipment materials, changes in ex-factory prices, and changes in the transportation unit price of loading and unloading fees all directly affect the changes in equipment materials pre-settlement prices, thus affecting the increase or decrease in project costs.
- ⑤ Although the labor wage accounts for a small proportion of the project cost, the change in its unit price is also a dynamic factor that cannot be ignored.
- ⑥ Changes in cost standards such as the necessary budget, fixed budget level, planned profit rate, indirect rate, and tax rate are also important factors influencing project cost.

4. COST CONTROL OF THE WHOLE PROCESS OF PROJECT CONSTRUCTION

4.1 Cost control at the stage of project investment decision

To do a good job in the whole process of project engineering cost, first of all, the cost control of the project's investment decision-making stage. Choose a reasonable project costing method, compare and analyze the data of the proposed project and the existing project, determine the best structure, geological and topographic conditions, process level and equipment, etc., and then determine the appropriate project costing method. Do a good job in the feasibility study report of the project, evaluate the feasibility of the project in terms of economy, technology, and efficiency, optimize the plan, prevent and reduce waste caused by incorrect decisions, and improve economic efficiency. Starting from reality, considering the market situation and the price fluctuation coefficient reserved

during construction, scientifically analyze the benefits of project construction, compile project investment estimates, and determine the total investment limit of the project during the feasibility study period. Control the total investment of the project.

4.2 Engineering cost control at design stage

In the design stage of the project, the strategy of quota design, design supervision, promotion of standard design, and optimization of design schemes are promoted. According to the approved investment appraisal, the initial design, technical design and construction drawing design of the construction project of the institute are properly controlled, and the design is controlled according to the allocated investment limit to ensure that the total investment amount is not broken through. Design supervision is carried out at the project feasibility study stage, reasonable suggestions are proposed, developers are assisted in investigation, investigation and project establishment, to reduce defects and mistakes in the design process, improve design quality, and effectively control the project price. To better implement the national technical and economic policies, make reasonable use of energy, resources, materials and equipment, and determine whether the design scheme technology is feasible and whether the function meets the requirements through design tenders, design scheme campaigns, and technical economic evaluation of the design scheme , Whether the use is safe and reliable, whether the economy is reasonable, etc.

4.3 Engineering cost control at the bidding stage

In the bidding stage of the project, determine the bid base reasonably, clarify the financial scale of the owner in the bidding project in advance, establish a perfect bid evaluation system in the bidding of the project, make an objective and fair bid evaluation, and use scientific bid evaluation , Select the best and most suitable contractor correctly, and try to make the owner's expectations match the actual project cost of the bidding project. The implementation phase of the project went smoothly.

4.4 Construction cost control during construction

In the process of engineering project construction, engineering changes are inevitable, but effective control is required. Keep out of control during the audit to prevent loopholes in the construction drawings. Strengthen design change management and control design changes as early as possible in the design stage. Strengthen the overall management of the project and standardize the behavior of the owners. Control the changes in project cost due to factors such as changes in construction conditions, climate and environment, changes in construction schedule and equipment, differences in standard documents and construction drawings, and delays. Under the premise of ensuring the construction quality, make a comparative economic analysis of various construction schemes and select the best manpower, financial and material resources. Using new technology and new technology construction equipment to maximize labor efficiency. On the basis of ensuring the quality of materials, strictly control the prices of materials and determine reasonable prices of materials. According to the schedule of construction drawing design and the actual progress of on-site construction, strictly review the construction drawing budget of the project, adjust or correct unreasonable control targets, and dynamically control the project cost.

4.5 Later completion acceptance, settlement and post-evaluation control

In the later stage of the project construction, do a good job in completion acceptance and final accounts and post-evaluation. After the project construction process, organize the completion acceptance work in accordance with the designated completion acceptance criteria, standards and completion acceptance procedures. During the calculation of completion, the value of the newly added assets shall be correctly verified. Reasonable treatment shall include surveys, equipment, materials, structural parts and sub-standards and warranty costs caused by design reasons and construction costs. In the final stage, post-evaluation of project construction, on the one hand, analyze the factors that affect the cost management of the whole process in terms of cost control, find out the reasons and solutions as much as possible; on the other hand, summarize the effective control and comprehensive management of cost during the entire project construction period. Experience, comprehensively evaluate the entire construction project, and summarize the project cost.

5. COUNTERMEASURES TO ENSURE THE ACCURACY OF ENGINEERING COST

From the above, we have clearly seen the importance of project cost management in building construction, and clarified the main problems in the internal management of China's construction enterprises. In order to ensure the successful completion of the project and improve the economic benefits of the enterprise, it is necessary to take practical and feasible countermeasures to manage it.

5.1 Make good project budget and decision, check the drawings

The selection of project budget and decision-making is an important prerequisite for enterprise construction and the basic link of project cost. Only budget and decision-making can ensure the reasonableness of project cost. Therefore, construction companies must accurately study the current market situation, clarify the cost of project construction, and reduce the possibility of risk before the project starts. In addition, the enterprise must strictly review the design drawings to ensure that the drawings are reasonable and standardized, and to avoid runaway costs caused by design problems. So as to ensure the accuracy of the project cost and improve the economic efficiency of the enterprise.

5.2 Improve the cost management standard

As the saying goes, "No rules can't be achieved." Anything you want to do well must be based on sound and complete rules and regulations, as is the accuracy and rationality of construction engineering cost. Therefore, construction enterprises should formulate their own enterprise construction quotas, and formulate standardized and complete cost management goals, regulations, and systems in accordance with their enterprise construction quotas, and do a good job in all aspects of project cost management to ensure that the cost management personnel have evidence. According to, lay the foundation for the completion of project cost management and control.

5.3 On the basis of ensuring the lowest cost of the project, the quality and the progress of the project are well controlled

There are many projects involved in the construction of construction projects, and some construction companies continue to reduce the quality of materials in order to obtain benefits, resulting in frequent occurrence of quality accidents in construction projects. Therefore, the project construction party must properly handle the relationship between the project quality, schedule and investment, not only to grasp the progress, ignore the cost, but also only to rebuild the cost and underestimate the quality.

After all, quality is the foundation for enterprises to stand. Only by controlling the quality of construction projects can the future maintenance costs be reduced. In short, only by ensuring the organic combination of the three and forming a complete management chain can the maximum economic efficiency of the enterprise be achieved.

5.4 Strict review of construction technology and construction organization

Essentially, the accuracy and reasonableness of project cost must be achieved by the technical staff and construction organizers of the construction enterprise. They are the leader of the project and the executor of project cost control. Achieve the management and control goals of project cost. Therefore, construction enterprises should strictly review the cost management and organization personnel in accordance with the actual situation of construction projects, and establish an inspection team to review the construction technicians and construction teams to ensure the scientificity and enforceability of the construction plan.

5.5 Do a good job in the cost check of the project completion acceptance stage

The completion and acceptance stage of the project is the last link to ensure the smooth completion of the project. Checking the amount of the completed project is the key to ensuring accurate cost. Therefore, it must be accurately checked to avoid any loopholes. In this regard, the final review personnel of the construction cost of the construction enterprise should conduct a comprehensive and careful quantity and price check on the construction cost according to the actual project and the requirements of its corporate regulations to ensure the authenticity and accuracy of the construction cost.

6. CONCLUSION

In short, the cost control of construction projects runs through the entire process of the project, including the project decision-making stage, project design stage, project bidding stage, project implementation stage and project completion stage. According to statistics, during the project decision-making and design stage, the possibility of affecting the cost of construction projects is 30% to 75%, while the possibility of affecting the cost of construction projects during the implementation stage is 5% to 25%. In order to ensure that the construction enterprise is invincible in the competition and that it is not eliminated from the competition, it is necessary to strictly control the project cost, find the main problems in the cost management and control during the construction process, and adopt practical and feasible Countermeasures and measures, constantly improve and optimize the management and control work, so as to ensure the maximum economic benefits of construction enterprises, and promote the continuous development and growth of enterprises.

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