

Research on Construction Engineering Cost Management

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ABSTRACT. *Based on the research of engineering cost management control in construction engineering management, first, the basic content and significance of engineering cost in construction engineering management are explained. Then, it analyzes the problems of lack of management system and lack of uniformity in construction cost management in construction engineering management. Finally, in order to ensure that the construction cost management can give full play to its value and role in the construction project management, it is proposed to construct a management system, plan the internal project cost management of the enterprise, improve the project cost management standard system, strengthen supervision and management, and implement the entire process cost Effective measures such as management.*

KEYWORDS: *Construction engineering, Cost management*

1. Introduction

The issue of construction cost is very important to the economic benefits of construction companies. It is an issue that must be taken into consideration in the entire operating activities of construction companies. To improve the economic efficiency of construction companies, it is necessary to strengthen the management of construction cost of enterprises and Throughout the entire process of construction operation. With the continuous increase in the business volume of construction companies in recent years, the amount of construction projects has continued to increase, and the company's operating scale has continued to expand. How to maximize the company's profits under the state's continuous macro-control policies has become Issues management needs to focus on. At the same time, under the current situation of serious capital advancement and low profit margins of the contracting enterprises, the control of engineering cost has become one of the issues that the company urgently needs to solve. Construction project cost is the final construction cost of construction products. However, in our country, the "three supers" phenomenon of budget overestimation, budget overestimation and final budget overestimation has long been a serious problem for construction project investment management. Construction company engineering companies There are also certain shortcomings and problems. At the same time as the rapid development of the company, the company lacks the establishment and improvement of an

enterprise management system related to engineering cost. Many regulations have not been implemented to the extent of system control. Some departmental responsibilities and personnel post responsibilities are not bound by relevant documents. Human control factors account for a large proportion. As the operating department responsible for the company's engineering cost, it also lacks the corresponding processes and specifications to follow in its work. In addition, the company's supervision and restraint mechanism of the project department is not perfect enough. The project department does not understand and attaches great importance to the control of engineering cost. At the same time, there are certain problems in the procurement of materials. There is a lack of procurement plans to guide the procurement staff. There is also a lack of a supplier's survey and evaluation form, and the storage of materials has not been classified and refined according to the category; when the project is changed, there is no processing process and corresponding system that can be followed, and there is no special change claim team to resolve the change. The problems encountered in this, and the existence of these problems, have greatly affected the survival and development of enterprises. How to find and raise problems in enterprise management, so that the enterprise can well perform ex-ante control and dynamic control has become a problem that enterprises should focus on.

2. The Meaning of Project Cost

The cost of a project is the sum of all the costs required or expected to be invested in order to build a project. The construction cost is the cost price for the construction unit. The lower the cost price, the higher the profit that can be realized. For the construction unit, the construction cost is the transaction price. Under the condition of constant construction cost, the higher the transaction price is, the higher the profit of the construction unit. The engineering cost work is mainly to determine the total cost of the construction project. The ingenious object of all the factors affecting the construction cost is the construction project. "Cost" in "engineering cost" can refer to both cost and price. The definition is different when it is analyzed from the investor as the construction party and from the contractor as the construction party. From the perspective of the investor, the construction party, the engineering cost refers to the total cost of the project from the project decision-making stage to the project completion and final settlement stage, which is the construction cost of the project. From the perspective of the contractor, the construction party, the project cost is the transaction price of the construction project between the construction unit and the construction unit, that is, the contract price of the project. It refers to the completion or estimation of a certain project task or a certain project. The total of other costs such as labor costs, material costs, machinery costs that will be incurred (the price of construction work that needs to be spent from scratch to construction work).

As an investor, the construction cost management of the construction party involves all stages of the entire construction of the project. In this process, various factors will affect the cost of the project. As the contractor, the construction party,

most of the factors influencing the cost of the project are through bidding, contracting, or other forms. The final market transaction price and the price increase outside the contract that occurred during the construction of the construction project later, because Part of the price is the final labor remuneration received by the construction unit.

It can be seen that the definition of construction project cost for different participants is different, and the scope and subject of construction cost will also vary. This article studies and determines the first meaning of construction cost as the starting point. The influence factors of construction cost that have an impact on construction costs are taken as the main analysis objects. The influencing factors are classified and summarized and the impact of each impact factor on construction cost is analyzed.

3. Basic Overview of Engineering Cost in Construction Engineering Management

During the construction of a construction project, all construction work will involve corresponding expenses. The construction project cost management is mainly to effectively monitor and manage the various costs and funds involved in the construction process, to ensure that more economic and social benefits are created for the construction operator. Different participants are involved in the construction of a construction project, so the construction cost needs to be managed from different aspects. For example, from the perspective of a project investor, the management of construction cost needs to manage and control the entire investment capital invested in the project. From the perspective of the project contractor, the management of construction cost needs to manage and control all the contracting costs of the project. In the context of the continuous improvement of China's market economy, construction cost management in construction engineering management requires the coordination and communication of multiple parties in the construction project to complete this work together, thereby creating more profits.

In construction engineering management, engineering cost management occupies an important part of it. Through engineering cost management, the economic and social benefits of the construction sector are guaranteed. During the continuous development of China's construction engineering industry, project fund-raising can be carried out in various ways, and cost management of all aspects of work is a prerequisite for creating more profits. For the construction unit, engineering cost management plays an irreplaceable role in it. The implementation of project cost management can greatly improve construction quality and efficiency, and strengthen the competitive position of the construction industry in the market.

4. Process of Project Cost Management in Construction Project Management

Cost in the decision-making phase includes two aspects: project planning and economic evaluation. Project planning refers to the transformation of construction

intentions into highly intelligent system activities, with clear definitions, clear systems, specific goals, and strategic operating ideas. The project plan mainly includes the concept plan of the project system before construction, the project management plan during the construction period, and the operation plan after the project is completed. Project planning is guided by project management theory, which not only serves the entire process of project management, but also an important prerequisite and basis for cost management. The economic evaluation of the project shall be determined according to the macroeconomic and social development, and shall be used as the economic basis for scientific decision-making of the project.

The design phase is the key link to clarify the engineering technical requirements and economic parameters, and it is also the phase where the engineering cost can be most effectively controlled. In the engineering design stage, the engineering cost engineer needs to cooperate closely with the engineering design engineer to help deal with a relationship: the advanced nature of technical requirements and the economic rationality. At the initial setting stage, multi-project technology and multi-project economic comparison should be performed according to feasibility study and investment estimates, and the preliminary design plan should be clarified; at the construction drawing design stage, technical and economic evaluation and analysis should be performed according to the approved initial content, scope and estimates

According to the Tendering and Bidding Law, for the scope and scale of the project, Party A must select the construction unit through tendering; for projects that are not suitable for tendering, Party A can directly issue a contract. Project construction bidding is divided into public bidding and invitation to bid. Public bidding, also known as unlimited bidding, means that the tenderer issues bidding notices through newspapers, periodicals, radio, television, and the Internet in accordance with the procedures, invites qualified construction contractors to participate in the bidding, and then determines the Italians and signs the contract with them. Inviting bidding is also called limited bidding, which refers to the process in which the bidder sends an invitation to bid to the shortlisted units. The number of intent bidders is limited, and then the Italians and Italians are selected and a construction contract is signed with them. If the invitation bidding method is adopted, the number of invited finalists shall be 5-10, at least not less than 3, otherwise it will be invalid. These two methods have their own advantages and disadvantages. The bidder determines the bidding method according to the characteristics of the project, and then determines a reasonable contract price.

The construction stage is the stage where the most value is created and the stage where the capital is invested the most. In the construction phase, due to the differences in construction, change negotiations, claims, engineering measurement methods, and various unforeseen situations in the construction process, cost management in the construction phase is difficult. During the construction phase, the construction unit should effectively control the construction cost by formulating a plan for the use of funds, completing project settlement on time, reducing project negotiations and claims.

5. Effective Measures of Engineering Cost Management Control in Construction Engineering Management

Construction management system In the construction engineering project, if the construction cost management wants to really play a role and create more economic and social benefits for related construction enterprises, it is necessary to build a complete management system to restrict various construction cost management work. The construction of a management system can be carried out from the following points: First, from the perspective of management concepts, corporate leaders, managers and grassroots employees need to be fundamentally aware of the important role of engineering cost management. Actively publicize the awareness of project cost management within the enterprise, and take effective measures to truly bring the project cost management to the enterprise. Second, if starting from the management work standards, it is necessary to build a standard system of project cost management work among enterprises. By improving the management system and management system, the standardization and standardization of various tasks can be greatly improved. Ensure that relevant staff members have strong professional skills and comprehensive literacy, so as to ensure the quality and efficiency of project cost management work. The economic and social benefits of the enterprise will also increase, and the competitive position of the construction enterprise in the social market will be enhanced.

Planning internal project cost management of construction enterprises When implementing construction cost management work, they need to conduct detailed analysis and research on various project cost management tasks according to the actual development of the enterprise and make a reasonable plan for project cost management work. Specifically, it can be carried out from the following points: First, corporate leaders and employees need to have a clear understanding of the overall situation of construction projects and the content of construction projects to ensure the comprehensiveness of construction cost management. Then analyze and manage the various tasks of project cost management, so as to adjust and modify various tasks to ensure the smooth progress of various tasks of construction projects. Second, construction enterprises need to build a construction cost management information database within the enterprise in strict accordance with their actual development situation, collect and manage various construction cost related information, and realize the information construction of construction cost management. In order to better implement the project Provide cost management. In the enterprise's internal engineering cost management work, targeted consulting and management work can be taken on the cost management work to strengthen the engineering cost management and development work to ensure the smooth development of various engineering cost management work within the enterprise.

Improving the standard system of project cost management It is not difficult to see from the current development of construction enterprises. In some enterprises, when setting up project cost management, the fixed price system is still adopted. There are certain disadvantages to adopting this method, that is, if the price is too high or too low during the actual construction project bidding process, it will have a

serious impact on the construction cost management and restrict the better development of the construction industry. Therefore, in order to achieve sustainable development of the construction industry, better implementation of project cost management is required. Specifically, it can be carried out from the following points: First, during the construction process of a construction project, it is necessary to uniformly plan and compile the construction project quantity, which can provide a scientific basis for subsequent bidding and bidding work and project cost management. Ensure the orderly management of construction project engineering costs, and at the same time ensure the fairness and impartiality of bidding and bidding. Secondly, for the cost index and construction standard of construction projects, it is necessary to construct a sound construction project construction standard, and gradually optimize and perfect the cost index to ensure the scientificity and rationality of the later bidding prices. At the same time, the design of the cost index can provide a scientific basis for the clear price of the bidding work and ensure that the project cost management can fully play its role. Third, under the premise of a market economy, it is necessary to ensure the openness and transparency of construction project prices. In addition to the regular release of market prices, in addition to the construction cost database, the transparency and openness of price information must be guaranteed. Fourth, for project costing staff, it is necessary to ensure that all staff members have a strong working ability and comprehensive quality, ensure the professionalism of the project costing team, and improve the level of project cost management.

Strengthening supervision and management During the construction of a construction project, many building materials and construction equipment will be used, and construction materials and construction equipment will be affected by various factors in the market, which will make it difficult to better implement the construction cost. Therefore, in order to ensure the smooth implementation of construction cost management in the construction of construction projects, it is necessary to strengthen supervision and management, and at the same time implement the construction cost management mechanism within the enterprise. In addition, it is necessary to organically integrate with cost supervision and administrative supervision, and build a supervision and management mechanism on this basis. Establish a perfect supervision and management mechanism, put it in the enterprise, and ensure that the supervision and management mechanism can supervise and control various project cost management work, and create convenient conditions for the better development of enterprises.

Implementing Cost Management in the Whole Process Engineering Cost Management If you want to give full play to your value in the construction of a construction project, you need to strengthen the cost management throughout the process. Engaged in three aspects of pre-control, in-event control and post-event control to improve and optimize the project cost. For example, before the construction of a construction project, it is necessary to do a good job of inspecting the construction site, predicting and recording various building materials and building equipment and facilities used in the construction, so as to ensure that sufficient funds can be provided for all previous work. At the same time, through

pre-forecasting and control, problems that may exist in the actual implementation of project cost can be found as early as possible, and then effective measures can be given. Avoid greater risks and losses in actual construction, and control capital expenditures within a certain range. Therefore, it is necessary to ensure that the process cost management of the entire process is implemented in the construction project, thereby creating more profits for the enterprise.

6. Conclusion

To sum up, the management of construction cost plays an important role in the construction of construction projects. Therefore, leaders and managers of related construction enterprises need to recognize the significance of project cost management, and implement project cost management awareness and project cost management in all aspects of work. Ensure that every cost used in the construction of enterprise construction projects can be allocated scientifically and reasonably, creating more economic and social benefits for the enterprise.

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