

# Dynamic Management Control Analysis of Construction Engineering Cost Based on Building Structure Design

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**Abstract:** With the development of science and technology and social progress, the pace of development of construction engineering enterprises is promoted. At the same time, competition in the construction industry of construction engineering projects is also showing an increasingly fierce development trend. Under this environment, if construction companies want healthy and sustainable development, they must continue to carry out reforms and innovations in their own management technology to strengthen the control and management of the cost of each link of the construction to promote the improvement of the overall economic efficiency of construction projects. This article will analyze the problems existing in the dynamic management of construction cost through a combination of examples and theory, and then explain the effective measures of dynamic control and management of construction cost for reference.

## 1. Introduction

The development of society promotes the pace of construction projects. As construction projects have a long construction period and a large number of construction projects, in the implementation of specific projects, once the effective control of engineering costs is not reasonable, it will have an adverse impact on the improvement of the economic efficiency level of construction enterprises. Relevant persons in charge of construction engineering enterprises must increase the emphasis on cost control in all aspects of the entire construction project, take effective measures to solve the problem of cost management, and promote the construction of construction projects to obtain greater economic benefits.

## 2. Construction Engineering Cost Dynamic Management

The dynamic management control of construction cost is a systematic management mode. Its essence is to carry out strict management and control of engineering construction design, implementation, and acceptance work from the decision-making feasibility study of engineering construction projects, to achieve dynamic management and control of engineering costs. Strengthen construction cost management for investment decision-making, project bidding, fund raising, project investment control, and project final accounts. Therefore, engineering cost consulting is of great significance in the context of the deepening reform of China's investment system and the continuous improvement of the market economy. The dynamic management and control of construction project costs is conducive to optimizing the allocation of human and material resources, accelerating the speed of construction projects, controlling the scale of infrastructure projects, promoting a virtuous cycle of input and output of infrastructure projects, and improving the economic and social benefits of project investment. Promote the cost accounting of construction projects, improve the management level, extend the maintenance period of fixed funds, and reduce the life cycle costs of construction projects. The dynamic management of construction cost is a planned means to influence the dynamics of construction cost to achieve the expected management goals. Dynamic factors of construction cost, infrastructure construction cost is divided into quantitative change factor, price change factor and fixed fee change factor. Dynamic management of construction cost is to implement full-track management of construction cost, standardize construction price behavior, and strengthen the constraint of construction cost mechanism Promote

the unification of macro and micro benefits. Cost management in construction projects is one of the important tasks in the construction unit. Good project cost management can make a corresponding balance between quality and cost. Otherwise it will cause many obstacles to the dynamic management of the construction unit. Engineering cost will be affected by various factors, and scientific methods should be adopted for dynamic management and control. Applying the dynamic management and control of construction project cost to construction project management is conducive to coordinating the relationship between cost, project progress and quality, optimizing the effect of cost management, and improving the level of project cost management.

Construction cost is a prerequisite for decision-making in construction projects, and construction budgets determine whether construction projects can obtain benefits. In the early stage of construction, the problems that may occur during construction are ignored in practice, which leads to the problem that the early stage engineering design cannot be smoothly constructed. Increased the difficulty of construction project cost control. Architectural engineering itself has the characteristics of complex construction. Changes in the design of architectural engineering will not only affect the construction projects already in progress, but also delay the construction time of construction projects, which will affect the cost of construction projects to some extent. At present, construction engineering technology is rapidly improving, but the construction cost management method has not changed, resulting in a conflict between the market downgrade and the planned economy. Consumption of labor costs and engineering materials increased, but the consumption standards remained unchanged, resulting in price errors. Many construction units lack material price review during material procurement and construction, and lack scientific methods for material management.

### **3. Problems in the Dynamic Management of Construction Cost**

Before the construction of the construction project, the initial stage of construction cost when the construction project is invested has a direct impact on the overall cost of the construction project and the actual economic benefits of the later construction projects. Therefore, in the process of controlling the cost of construction projects, relevant responsible personnel must pay great attention to the cost of construction investment. However, judging from the current cost control status of our national construction engineering enterprises, most companies focus on the cost control and management of the entire construction phase of construction, and give some neglect to the investment cost control and management of early construction projects. When this happens, over budget issues often occur in the final accounts of construction projects. The main person in charge of a construction project lacks a certain sense of advancement in the decision-making stage. There is a shortage of evaluation standards for the entire construction project construction, resulting in a serious gap in the initial investment funds, and the problem of increasing construction cost.

After the construction engineering project puts forward the implementation decision, the focus of its cost control must be placed on the entire construction project design. However, there are still many problems in the cost of the construction engineering design stage, which are mainly reflected in the following aspects: In the actual construction engineering construction design process, the person in charge of the company paid too much attention to technological innovation, and the designers Cost control has not been recognized to a certain extent; During the design process of most construction engineering projects, companies have not made relevant normative standards for limit design, and attach great importance to the feasibility of construction technology. However, However, to a certain extent, the rationality of the economic aspect has been neglected to a certain extent. Architectural engineering-related designers have a strong sense of risk control, but most of them will adopt traditional conservative architectural design schemes; New equipment products and new materials in the market are constantly increasing, and prices are constantly changing. In the process of rectifying materials and equipment, it also causes large differences in the final accounts and budgets of the entire project; In the initial design stage of the construction project, Relevant design units often adopt the successful construction engineering design schemes in the past, and the depth of their design is often inconsistent with the actual engineering project. Furthermore, in the

specific implementation process of architectural heroic projects, it is easy to change. Problems, which further deviates from the actual construction budget of the construction project.

#### **4. Main Measures for Dynamic Management and Control of Construction Cost**

In the decision-making phase of the construction project, the cost control personnel of the enterprise are involved in the management process of the whole process, and in this process, the cost control personnel of the development of the construction project must be organic with the decision-making personnel of the construction project. In the preparatory stage of the project, a full analysis of the overall project plan, environment, and actual energy consumption is conducted. With reference to the overall investment plan of the construction project, it is combined with the project support decision system to obtain alternatives. Program. At the same time, a reasonable analysis of the economic performance of the project is carried out, and a cost control plan for the project is initially formulated, so that a scientific decision can be made at the investment stage of the construction project.

Before carrying out the construction design of the construction project, the relevant designers must take the actual situation of the construction project as the main starting point and carry out an effective study on the feasibility of the construction project. The purpose is to be able to be used in the development process of the construction project. Improve reliable design. However, in the design phase of a construction project, attention must be paid to the application of advanced design concepts, which can not only provide certain technical and economic support for the smooth progress of the design of the construction project, but also improve the implementation of the construction project. And the perfection and reliability of the design concept. At the same time, in the design process of the construction project, it must be carried out under the premise of ensuring the functionality of the construction project and the actual construction quality of the construction project, so as to better control the cost of the entire construction project design stage.

Construction project bidding stage. The preparation of bidding documents and control prices play a key role in the entire construction project stage. The formulation of various documents during the bidding stage must strictly comply with relevant national laws and regulations, and must be strict in the bidding contract. Indicate the material adjustments, contracted projects, instructions for the provisional amount, and the order of interpretation of the contract, etc. The compilation of the bidding quantity list should be accurate and effective, and it should be compiled on the basis of plan review as much as possible to ensure the reasonable construction quantity. And the accuracy of engineering payments.

The design phase determines the subsequent construction execution process and the cost of the construction phase. Since the construction phase is the longest time-consuming phase in the entire project development, it affects the effectiveness of the engineering cost during the construction phase. The main problems affecting the dynamic control of project cost during construction are problems such as poor construction materials and equipment management. The dynamic management of construction project cost should first determine the scale of the construction project and select the construction area of the construction project. When determining the scale of a construction project, economic conditions must be taken into account to accurately assess the economic benefits. The construction area of a construction project should be as close to the raw material site as possible to reduce the cost increase caused by material transportation and inconvenience. The dynamic cost management in the design phase is divided into a preliminary design phase, a technical design phase and a construction drawing design phase according to the design progress. The preliminary design phase is the foundation of the building construction. The improvement of the preliminary design is based on the preliminary design, and the later stage construction is mainly based on the preliminary design. The preliminary design phase is a key link in the entire design phase. The designer should fully consider the cost of the project and formulate an optimized initial design plan to ensure the integrity and scientificity of the design phase. Reduce the substantial modification of the preliminary design scheme in the later period. The technical design stage is the stage with the highest technological content, mainly including the basic design

and the design of the bidding documents. In some construction projects, the impact of the design stage on the construction project cost accounts for more than 70% of various factors. Therefore, great attention should be paid to the cost management in the technical design stage. The scientific design of construction drawings is a prerequisite for effectively carrying out construction budgets, signing engineering contracts, and preparing construction schedules. When drawing construction drawings, designers should combine previous experience of other similar construction projects with full consideration of factors that may affect construction work. Reference Related information files. Minimize costs.

## **5. Conclusion**

Construction cost is the core content of construction project management. With the progress of society, the scientific rationality of construction project cost has attracted widespread attention from the construction industry. Therefore, the dynamic management of construction project cost uses scientific methods to more flexibly manage construction cost. The dynamic management of construction cost is more convenient for the construction project.

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