

#### **RESEARCH ARTICLE**

### **Discussion on Cost Control Strategy in the Process of Engineering Project Construction**

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Abstract: Rapid socio-economic development, promoting the development of the construction industry. Companies want to stand out from the fierce market competition, must strengthen the cost control of construction projects. This paper elaborates the importance of cost control of engineering construction projects, and then proposes that the dilemmas faced by cost control management of engineering construction projects are: inadequate market research of raw materials, lack of high-quality cost management talents, imperfect cost management system, neglected cost management work, lack of supervision and regulation of cost management work, and finally proposes that the cost control strategies in the process of engineering project construction include clarifying the cost control objectives of engineering cost, cultivating professional cost control talents, deepening the innovative cost management system, increasing the supervision and regulation of cost of the whole process of engineering, and ensuring the reasonableness of the cost budget plan. We hope to further promote construction companies' attention to cost control of engineering price construction projects.

Keywords: Engineering projects; Construction process; Cost control

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#### 1. Introduction

The rapid development of the construction industry drives the progress of society, and the competition among construction enterprises has become more and more fierce, so how to better control the cost of the project and improve the quality of construction projects has become more and more important. Cost control of construction projects can effectively form the core competitiveness of the enterprise, promote the enterprise to grow in scale and stand out in the fierce market competition. However, many enterprises currently do not pay attention to engineering cost management in construction projects, resulting in construction cost budget overruns, leading to serious disconnection in cost management, cost loss control and inefficiency <sup>[11]</sup>, which seriously hinders the progress of engineering construction and further affects project quality standards. Therefore, enterprises need to strengthen the cost control in the process of engineering projects, improve the cost management system, innovate management methods and strengthen the improvement of project quality.

## 2. The Importance of Cost Control of Engineering Construction Projects

Large investment in engineering construction projects, as little as a few million, as much as tens of billions, construction consumes more funds and involves all aspects of engineering construction. Therefore, strict control of project cost is an important guarantee to save construction funds, and the project management of engineering construction is also realized through cost control management, rational call arrangement of resources to ensure the organic unity of economic and social benefits of enterprises. Therefore, construction enterprises need to strengthen project cost control management, make full use of the funds for project construction, develop the most cost-saving and efficient construction program, provide scientific decisionmaking management basis for project managers, so as to complete the construction of engineering projects, strengthen the construction cost control of construction enterprises, which can enable enterprises to form their own core competitiveness, stand out from the competitive construction industry, and achieve the stable development of construction enterprises.

# **3.** The predicament faced by the cost control and management of engineering construction projects

#### 3.1 Insufficient market research for raw materials

In engineering construction projects, the procurement cost of raw materials occupies a great proportion of the project construction cost, and the cost of materials accounts for about 65% of the total project cost <sup>[2]</sup>, which is also the link that uses the most construction funds. Therefore, when the raw material supply market has a wide range of sources and types, research on the brand, price, quality and other aspects of raw materials according to the construction standards of the project. as well as the need to prevent fluctuations in the supply price of raw materials. However, many construction cost managers in China do not pay attention to the situation of market research on the supply of raw materials, and are unable to keep abreast of the fluctuations in raw material prices, resulting in the phenomenon of overspending on raw material procurement, which makes the cost of procurement of raw materials exceed the budget at a higher rate.

### 3.2 Lack of high-quality cost management personnel

In the construction process of engineering projects, the quality of the cost control talents used in the projects varies, and the actual projects often have engineering managers who, due to lack of professional knowledge and practical management experience, fail to control the cost of each stage of the project well in time according to the progress of the project, resulting in construction cost overruns. Coupled with the fact that construction enterprises do not pay attention to strengthening the professional skills of cost management talents, there is no training and education for cost management personnel to control the construction costs of engineering projects, leading to the formation of a fault line of high-quality cost management talents in enterprises.

#### 3.3 The cost management system is not perfect

At present, many construction enterprises in China have not been able to form a perfect cost management system during the construction stage, and cannot prepare a more perfect project cost control plan according to the actual project progress and construction stage, which leads to a chaotic and disorderly project cost control management at the back and cannot accurately control the cost of each construction link and process, so the construction unit needs to pay great attention to the dynamic nature of contract management <sup>[3]</sup>. The imperfection of the cost management system is an important issue facing the current cost control management. In addition, many people in charge of engineering construction projects pay too much attention to engineering problems and completion time, neglecting to combine the actual situation of the project to improve and innovate the cost management system, using traditional cost management methods to manage new projects, and not keeping up with the times to make changes, so that they cannot play the main role of cost management control in cost control, which damages the economic efficiency of enterprises and is not conducive to the long-term development of enterprises.

#### 3.4 Cost management is neglected

As an important part of engineering and construction

management, cost control affects the whole process of construction and directly influences the quality of the project, which in turn can become the core competitiveness of the enterprise. In the actual project construction, as a good real-time cost management work requires huge labor costs, and complex work, cost management personnel require a wealth of experience and strong professional knowledge, in view of this, most of the enterprises have engineering project construction process cost management work is ignored, so can not play the role of cost control, making the enterprise construction costs increase, the whole process of engineering construction cost control measures can not be implemented.

#### 3.5 Lack of supervision over cost management

The implementation of measures require effective supervision, which is an important guarantee for the implementation of measures. Therefore, it is necessary to supervise the whole process of cost control of engineering construction. At the same time, a clear reward and punishment mechanism is established, which causes an increased possibility of engineering changes due to the lack of supervision of engineering rationality <sup>[4]</sup>. For example, the project construction site cost work management personnel need to supervise all aspects of the project, especially in the control of raw materials, for the waste of raw materials to stop the behavior, while supervising the quality standards of the engineering construction project process, the need to timely correct and report to the enterprise does not meet the engineering quality construction standards, while requiring project management personnel to adjust the construction personnel, to avoid the need for subsequent reworking of the entire problematic project, increasing the cost of construction. And now the construction industry are lack of supervision and monitoring of cost management, which also adds many unnecessary costs for enterprises, making the cost of engineering cost rise.

#### 4. Cost Control Strategies in the Process of Project Construction

#### 4.1 Clarify project cost control target

The development of strategies are centered on promoting the completion of the target, so the need to clarify the cost control objectives of the project is the first priority. Cost control of construction projects is a complex and systematic work, and cost control is prior, dynamic and active <sup>[5]</sup>, which requires all departments of the construction unit to be closely related, so each department needs to clarify the goal of the project to carry out cost control, and through the cooperation and communication between all departments, close cooperation can accomplish this goal. Therefore, it is necessary to pay attention to the cost management work at the project establishment stage, and clarify the cost control target, fully recognize the importance of cost management within the enterprise, and require the project management staff to strictly comply with the visa system, strictly control the cost, and implement the cost control work to the whole process of engineering construction.

#### 4.2 Cultivate professional cost control talents

In the modern construction industry, to stand out from the fierce competition in the industry, talent training is an indispensable part, high-quality talent can help enterprises to form their own core competitiveness, to achieve the stable development of enterprises. First of all, enterprises need to base on talent training strategy, train cost management personnel to form a correct cost control concept, fully understand the importance of cost control in engineering projects, and strengthen the innovation of cost management methods, strictly in accordance with the prescribed cost limit standards for control, to prevent the emergence of wasteful behavior of raw materials, reduce material losses, and save construction costs for enterprises. At the same time, enterprises should strengthen the introduction of high-quality engineering cost talents, train and learn the engineering cost management personnel of existing enterprises, and guide the personnel to master the knowledge of cost control theory, which can improve the professionalism of engineering cost management staff to a certain extent and facilitate the all-round and allprocess cost management of engineering projects, so that the built projects can maintain the ability of sustainable development in the future <sup>[6]</sup>.

### 4.3 Deepen the innovative cost management system

To better control the cost of engineering construction, deepening the innovation management system is essential. First, engineering cost management personnel need to prepare a cost control plan that takes into account the actual situation of the project, construction standards and the dynamic nature of building construction to prepare a feasible plan that can manage the cost in real time, reasonably control the construction period, make a good progress plan and strictly implement the management<sup>[7]</sup>. Through the supervision of on-site cost management personnel, we can grasp the construction cost, labor cost and other costs of engineering construction projects in real time and implement dynamic management to avoid the problem of excessive costs. Secondly, in the procurement of construction raw materials, the cost staff need to go deep into the front line of research, and clear engineering construction standards, reasonable purchase of raw materials, and the origin of raw materials, prices, performance and other aspects of multi-faceted comparison, good program for the record. When the purchase price of purchased raw materials fluctuates and increases the cost of construction, the alternative plan is adopted in a timely manner and reported to the enterprise for approval or by deepening the material supply cooperation with material suppliers and ensuring that the price of raw materials is not affected by the fluctuation of market prices causing the rise of project construction costs by signing long-term supply contracts for raw materials to facilitate the supply of cost of raw materials by cost estimating staff.

### 4.4 Increase the cost supervision and supervision of the whole process of the project

To increase the supervision and regulation of the project cost is an important guarantee to realize the cost management. First, increase the supervision of engineering cost, clarify the scope of responsibilities of supervision of each unit of the enterprise, expand the scope of supervision of the project by the cost staff, strictly require the construction in accordance with the standards specified in the program in the site of the engineering construction project, and follow the relevant legal and regulatory documents to ensure the reasonableness of changes occurring<sup>[8]</sup>. At the same time, verify whether the price of each part of the project exceeds the cost of construction, and immediately rank and report any errors found, so that the supervision and management of the project is checked before construction and verified after construction. Secondly, in the cost control of engineering cost, every expenditure needs to be recorded and kept according to the corresponding management system of engineering cost, so as to facilitate the price settlement of the project later, and at the same time, sufficient funds need to be left for the normal development of the project, so as to avoid the phenomenon of insufficient funds causing the project to stop construction.

## 4.5 Guarantee the rationality of the cost budget plan

The prerequisite for the current construction work is to have a project cost budget plan, so the enterprise needs to prepare a feasible budget plan with the actual situation of the enterprise itself. Therefore, when preparing budget proposals, enterprises need to strictly refer to the budgeting guidelines, combine the actual situation on the basis of market research, and use dynamic methods for comparison <sup>[9]</sup> to ensure the accuracy and reasonableness of the budget proposal. At the same time, before the enterprise carries out the budget work, the enterprise needs to carry out field survey on the geology of the construction site as well as the traffic environment, collect relevant information, make good planning on this basis, combine the design drawings with the site conditions, calculate the amount of engineering construction, and list the engineering list. After the completion of the budget plan, carry out a careful check and erratum to avoid missing quantities and ensure the reasonableness of the cost estimate. In addition, combining the experience of previous engineering projects, comparing the various engineering costs and budget costs of previous engineering projects, so as to select the appropriate management method to carry out the construction of engineering projects, which greatly improves the reliability and reasonableness of the cost budget and reduces the construction input of engineering projects. At the same time, the cost budget link can collect and organize the information of various cost expenditures with the help of modern information technology, analyze and carry out the cost budget work intelligently, further improve the deficiencies of the cost budget scheme, facilitate the cost management personnel to further control the cost of the project, reduce the cost of the project, ensure that the cost management of construction projects is standardized, scientific and reasonable <sup>[10</sup>], and improve the economic efficiency of enterprises.

#### 5. Summary

In general, the cost control in the construction process of engineering projects, throughout the whole process of construction, the cost control focus of each construction project is different, so you need to choose the appropriate management method to control. In addition, construction enterprises, as contractors for the completion of engineering projects, need to pay attention to the role of engineering cost control, to control costs in a reasonable interval, and vigorously train cost control talents and pay attention to the training of relevant talents. Enterprises combine the actual situation to innovate cost control methods, improve the cost control system, optimize the project cost management process, improve the quality of construction projects, form the core competitiveness of enterprises, and further promote the stable development of China's construction industry.

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