

Research on optimization of construction project cost control in construction enterprises

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Abstract: *As a pillar industry of the national economy, the construction industry plays an important role in promoting economic growth, social stability and improvement of quality of life of people. Influenced by the deepening reform of the market economy system and the normal prevention and control of the COVID-19 epidemic, the construction market has increasingly high requirements and the market competition is becoming increasingly fierce. The major enterprises compete with each other to obtain the project at a low price, which seriously disturbs the market order and further compresses the market profit space. In the limited market share, in order to improve their competitiveness, cost control has become the focus of construction enterprises. This paper analyzes the current situation of cost control of construction projects in construction enterprises, finds out the existing problems and puts forward countermeasures and suggestions in order to realize the dynamic cost control of the whole process of construction projects.*

Keywords: *Construction enterprises; Construction project; Whole process dynamic cost control*

1. Introduction

In the process of building enterprise project implementation, the emerging importance of cost control, perfect cost control system can promote the benign operation of the construction project to the stages through the analysis of the construction project cost, project managers can find problems in the process of project operation link, through the rational allocation of resources, adjust the construction plan, in ensuring the quality and progress at the same time, Enhance the comprehensive revenue of the project. Therefore, in the process of cost control of construction projects, enterprises should make scientific and reasonable planning, accounting and control from the early preparation stage to the late completion settlement stage, find out the causes of high costs and take corresponding measures to solve the problem of cost overruns, so as to improve economic benefits and market competitiveness.^[1]

2. Overview of construction project cost control in construction enterprises

2.1. Construction project cost control concept

Construction project cost control is to point to in the process of project construction, the cost control of enterprise target cost as the standard, the specified project management personnel for the construction project of labor, materials, machinery and other various cost accounting, supervision and control, analyzes the various factors influencing the construction project cost, under the guarantee project quality, Adopt a series of organized economic management activities, so as to strictly control the consumption of each link of the project, minimize the waste of resources, so that the project cost is controlled within the target cost range.

2.2. Construction project cost control principle

Fully control the original system. In the construction project cost control of construction enterprises, we should hold the principle of comprehensive control. Project overall control on the one hand, the project cost control is not just about business interests are about staff their own interests, to early good internal personnel involved in the project management, to make all members aware of the importance of cost control, organize employees to participate in the construction project cost control every link, boost the enthusiasm of the staff; On the other hand, the whole process of the project control, construction project cost control throughout the whole stage, only the whole process of the project cost control can

maximize the effectiveness of cost control.

Objective management principle. In the case of construction projects, cost control depends on multi-party contracts between various departments. Project preparation stage according to the actual situation to set reasonable goals and methods, to determine the tasks to complete the project construction is expected to cost level, refining the specific measures, and assigned to every department and construction team, in the process of execution constantly check the problems of cost control, timely correction target, ensure the quality and efficiency of cost control.

The principle of combining rights, responsibilities and interests. In the process of cost control of construction projects, it is often impossible to find the relevant responsible person, which increases the burden of cost control. Adhere to the principle of combining power, responsibility and benefit, refine the cost control target to specific departments and employees, implement the responsibility of cost control, and clarify the reward and punishment mechanism. Once there is a problem, I can quickly locate the responsible person and solve the problem in time. At the same time, give the relevant personnel specific authority, so that they have the right to reasonable adjustment of expenses, for the company to save costs.

Dynamic control principle. Due to the changing external environment, the cost control of construction projects should follow the principle of dynamic control. When the resources of labor, materials and machinery are put into the actual construction, the occurrence value of the cost should be monitored in real time to see if there is any difference between the comparison and the target value. If there is no deviation, the original construction plan should be carried out. If the deviation is large, the reason should be found out and corresponding measures should be taken to standardize the project cost control.

3. Problems in cost control of construction projects in construction enterprises

3.1. Low awareness of cost control

The current construction enterprises is to realize the importance of cost control, enterprise also formulated the related cost control system and method, but due to the effect of traditional ideas and the complicated external environment, in the actual project management, do not combine rights, responsibilities and interests effectively, the cost control responsibility not to each department and each post personnel.^[2] Most of the project managers in large departments unilaterally believe that the financial department is the person responsible for the cost control of the project, and other departments do not need to participate in the actual cost control. However, the financial department only pays attention to the income and expenditure of costs and the accounting after the occurrence of costs, ignoring the cost and benefit of the use of funds, which makes the cost control become a formality and the cost control level is greatly reduced. In addition, the company's responsibility division for project costs is vague. When problems occur, we pass the buck to each other, unable to investigate individuals, and unable to take corresponding measures in time, resulting in a waste of resources and increased construction costs. In addition, the lack of reasonable reward and punishment incentive mechanism to mobilize the enthusiasm of employees, employees do not have high awareness of cost control, there is a negative mood, passively execute the cost control requirements arranged by the superior, the cost control effect is greatly reduced.

3.2. The pre-bid budget is not fine

Pre-bid budget is not fine is a common problem in construction enterprises, but also a major difficulty in project cost control. Construction companies in the fierce market competition the more engineering project contracting, in the bidding stage, mostly adopt low price bidding strategy, blind pursuit of low cost high profits, rely on the past experience similar to measure of cost data, without fully considering the changes in the market and the external environment, eventually leading to the project cost budget is relatively general, no breakdown the cost target, It seriously affects the accuracy and reliability of the project cost budget. In addition, the project team does not pay enough attention to the cost budget, which mainly stays at the data level, and the budget implementation is obviously insufficient. The existence of the above problems leads to the possibility of cost overruns when the project manager issues the construction plan according to the agreed target profit in advance after the project is contracted. The budget cost does not conform to the actual situation, and the guiding role of budget management in cost control is difficult to play.

3.3. The cost of manual materials and machinery is high

The salary payment of front-line construction personnel in the project team is mainly based on the daily attendance record of the project team leader. As a result, the construction team increases the staff income of its own team by falsely increasing working hours due to human relations, and the cost accounting is inaccurate. Due to the lack of understanding of the construction site situation, the management personnel of the project team cannot detect the false reported working hours, which leads to the increase of costs. Materials are an indispensable part of the construction of construction enterprises. Some construction enterprises do not pay attention to the management and quality control of materials. The purchase of materials is not in place or the quality is not up to standard, which will bring safety risks to the future construction, and the re-purchase in the later period will increase the extra cost.^[3] Outbound personnel for the applicant to fill in the amount of actual no strict control, construction site personnel for the use of material very casual, for recipients but failed to timely use of materials, many of them are random pile construction site in the open air and, after a long exposure and rain erosion, material damage is serious, resulting in loss of the enterprise. The leasing and use of machinery and equipment also lack careful planning, premature leasing of machinery and equipment, long-term shelving will not only occupy the construction site but also increase the rental cost, the mechanical team does not regularly detect and maintain the machinery and equipment, resulting in the failure of the construction site, affect the construction progress, resulting in an increase in costs.

3.4. Sloppy completion settlement

In the link of completion settlement, the main construction work of the project has been completed, and the large cash flow expenditure has basically been terminated. Project management personnel usually think that the cost control work has been finished, and poor completion management will lead to cost increase. First of all, the settlement work is not timely, and rework is not necessary for projects with qualified quality, but the risk of capital settlement exists. If the project personnel have insufficient understanding of the acceptance terms, the completion materials in the project cannot be filed in time, the project settlement time is long, and the recovery of the final payment is difficult, which increases the management cost and financial cost. For business more construction projects, the enterprise after the completion of the subject in a single project, need to transfer the management center to a construction site, the main construction personnel, materials and equipment shall be transferred accordingly, this leads to the project quality is not up to standard, wrap up link often appear the phenomenon of lack of personnel and materials lack, cleaning not in time, directly affects the construction process, Idle personnel and machinery have a huge daily cost, which will continue to increase over time. Second, the project management personnel in settlement link to cost deviation analysis does not reach the designated position, just arrange finance staff for simple cost aggregation and settlement of accounts and other financial revenues and expenditures of the work, for, for the cost control problems that exist in the implementation process without generalizations, puts forward solution measures, is not conducive to the construction project cost control in the future.

4. Countermeasures and Suggestions

4.1. Improve the cost control system

The power and responsibility of the construction project cost control is not clear will directly affect the realization effect of the target cost. At present, although construction enterprises have established some rules and regulations on cost control, there are still many employees who cannot combine cost control with their own interests. Therefore, we can establish a cost control responsibility system to combine the responsibility, rights and obligations of cost control to achieve effective project cost control. In order to implement cost responsibility, cost assessment and incentive mechanism can be established to promote the implementation of cost control. Before the project construction, company organization head of each cost according to the predetermined target cost and profit targets, a target cost responsibility, truly will cost control target execution into daily work content, clear project managers, construction team, technology and logistics personnel should bear the cost of responsibility, and gives the corresponding control, The cost management performance is linked to the benefit of the cost executor, and the employee income corresponds to the respective cost control objectives. Working group in the construction stage, the regular check, comparing each employee actual cost and target cost index, with reference to the completion of the cost control employee compensation on the basis of an important issue in the case of

target cost overruns or delay, accountability refers to the individual and give the corresponding punishment, below the cost target in the way to give incentives, such as bonuses or promotions.

4.2. Improve the awareness of cost control

For construction enterprises, the responsibility of cost control is not only the task of a certain department or the leadership, but also requires the participation of all employees. Due to the large number of participants in construction projects, grassroots employees account for a large proportion and the uneven level of education, the establishment and strengthening of cost control consciousness must go through long-term unremitting efforts. On the basis of improving the cost control system, the company should pay attention to the improvement of employees' awareness of cost control, and guide employees to actively participate in the cost control work of construction projects. Can two forms through education and propaganda, let the staff really understand the connotation of cost control, fundamentally change the view of cost control, understand the cost control and the relationship between its own interests, and in the early stage of the project preparation, construction, completion and settlement of the link cost awareness, always keep through consciousness to strengthen the implementation of cost control process and measures. The main measures are as follows: 1. Strengthen the education of cost control for project personnel and create a good atmosphere for all personnel to learn cost control. By inviting external experts to carry out seminars, cost control training meetings and courses, employees can be trained on the knowledge of cost control theories, methods, influencing factors and measures, and they can be regularly organized to conduct cost control tests and inspections, and those with outstanding performance can be rewarded to stimulate employees' awareness of cost control. 2. Increase the publicity of cost control. Enterprises can hang propaganda slogans related to cost control on the construction site, formulate corresponding propaganda slogans for each project team, or emphasize the importance of project cost control to all employees in the form of crosstalk and skits in related cultural activities, strengthening their awareness of cost control in a subtle way.

4.3. Implement dynamic cost control of the whole process

Preliminary project preparation phase. Enterprise before the bidding work, must to fully understand the entire contents of the tender documents and the thorough analysis, in order to guarantee the accuracy of the standard cost budget before, must carry on the field of engineering project, full access to relevant information, is to do good, not calculate, don't calculate leakage, ensure the veracity and reliability of budget cost, provide a reasonable reference for bid quotation. Companies won the bid of the project, shall promptly organize relevant personnel responsible for project cost control target, based on the standard cost budget before, appoint specialized financial personnel to carry out the cost of work, with the help of other functional departments and construction team, timely grasp the market information and project situation, to enhance the accuracy and reliability of the cost budget and enforceability, In addition, the overall goal of cost control will be decomposed layer by layer, implemented to all functional departments and construction teams, and even refined to each project member, to clarify the cost task.

The construction phase. First of all, the enterprise should combine the characteristics of the project and construction experience, formulate a set of construction personnel employment assessment standards, to avoid unnecessary waste and loss caused by the quality of personnel can not meet the needs of the post. From two aspects of price and quantity to establish scientific and reasonable artificial accounting standard, and combining the internal and external environment changes constantly modification and adjustment, specify the specific department or personnel of artificial cost accounting work for regular or irregular inspection, with standard cost accounting behavior, ensuring the accuracy of the artificial cost accounting, reduce the human cost of the project construction. Secondly, the enterprise needs to prepare the raw material demand plan at the beginning of the project, strengthen the implementation of quota management system, and strengthen the storage and use of materials to avoid unnecessary waste. Finally, the enterprise can prepare the use plan of machinery and equipment according to the needs of the project, calculate the type and quantity of construction equipment required by each production and construction item every day, and connect the construction time, timely maintenance and safety inspection of machinery and equipment, so as to eliminate hidden dangers. Project management personnel should also make good construction records, master the construction progress in real time, and fill out progress reports such as daily reports, weekly reports and monthly reports. Cost analysis method or deviation analysis method can also be combined to further strengthen the control of construction progress.

Completion settlement phase. Project subject after completion, the enterprise should make corresponding inspection and maintenance for the construction site, the site construction personnel,

construction materials, mechanical equipment and the rational allocation of resources, make the final finishing touches, put an end to the happening of the accident cost, timely collecting, sorting and summary of all information needed for the completion acceptance, speed up progress of acceptance and settlement, shorten the acceptance and settlement period. Assign special person to be responsible for the collection of project funds, and strive to recover the funds as soon as possible. In addition to the most basic financial settlement work, the acceptance list and other data should be summarized, and the cost differences should be analyzed and summarized systematically, so as to play a reference role in future projects in similar situations, which is more conducive to the long-term benefits of the enterprise.

5. Conclusions

For construction enterprises, cost control involves a large scope, covers a large number of personnel, and the cycle of each link is long, which makes cost control more difficult. Thus the current stage of construction enterprises also need to further strengthen cost control work, to work on cost control in time, to establish and improve a set of scientific and systematic cost control system, implement the cost responsibility to individual, at the same time strengthening the cost control measures, by using the information means to carry out scientific and reasonable cost control.

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