

Discuss the Application of Project Management in Construction Project Management

Yixi Song

China National Aviation Fuel Group Limited Chengdu Branch , Chengtu 610212, Sichuan, China

Abstract: Along with the development of social economy in recent years, all walks of life in society have made obvious progress and development, such as the construction industry. At present, people's demand for housing construction is getting higher and higher, and housing construction has gradually developed into a necessity of life from the former luxury goods. The increase in the demand for housing construction in the market has brought new life to the construction industry, and the number of similar construction enterprises in the construction industry is increasing. This also means that construction enterprises have to constantly control the quality of their projects and improve their competitiveness in order to survive in the fierce construction market.

Keywords: Project management; Construction project management; Practical application

To improve the quality of the project, project management is needed to carry out scientific and efficient management of all aspects of the project. Project management is a comprehensive management method, mainly used in all stages of the project quality and safety and schedule management. At present, project management has become the focus of control in construction projects, and only project management can ensure that the quality of the project is up to standard. Throughout the current development of the construction industry, project management has been widely used in the construction industry. From the viewpoint of the management results, the overall effect is relatively ideal.

1. Overview of Project Management

To study the practical application of project management in construction project management, it is necessary to first have a general understanding of project management. For project management, it can be simply understood as the control of a certain project within the project through certain means and measures when carrying out housing construction projects. For the project management work, a complete management system is necessary to support the successful completion of all the contents of the management. Managers responsible for project management must be clear that before the project management work is carried out, a scientific and reasonable project management system should be formulated together with the heads of various departments according to the actual situation of the project and the current trend of social development. A scientific and efficient management system can effectively improve the level of project management, and in this process, a well-developed responsibility system should be put into place. Each person involved in the project is reasonably responsible for the division. Only after everyone is clear about their own responsibilities, they can really carry the responsibility to better complete their share of work. In the process of project management, if the responsibilities are not carefully divided, it will seriously affect the effect and quality of project engineering. Relevant managers should implement their management responsibilities and management obligations, and require themselves according to the actual situation of the project. If managers can set an example in the management work, they can effectively bring some guidance to other construction personnel in their actions. Managers can only maximize the overall project effect by effectively fulfilling their responsibilities and doing a good job as a role model.

Purpose and Features

2. The significance of project management in construction project management

The significance of project management in construction projects can be briefly divided into the following four points.

2.1 Reasonable schedule

The first aspect is the ability to rationalize the project schedule and use project resources effectively to ensure that the project can be completed within the expected schedule.

Project management is the overall management of the project from the very beginning to the final completion of the project. Therefore, the construction time can be reasonably arranged by taking into account the size of the project volume and the scheduled duration. For example, the duration of the construction project is one year, then the relevant project management person should first consider the actual volume of the project, and then make a reasonable allocation according to the one-year duration after obtaining the specific volume. In the process of allocation, the project should be completed as early as possible, because early completion can have some time for inspection. Because construction projects involve a great variety, there is a high probability that various problems

will occur during the actual construction process. After the completion of the project there will also be a system check, check out the problems need to be solved in a timely manner, the solution is to take a certain amount of time, so should try to advance the construction period.

In addition to this, it plays an effective role in the use of project resources. Project management of construction projects allows you to accurately grasp the specific construction steps of each part of the construction project. According to the concept and nature of the construction steps to choose, choose the right equipment and materials. In the selection of materials and equipment link, only if you fully understand the nature of construction and requirements of this link, you can choose the matching equipment and materials according to the requirements. If you do not understand the specific circumstances of the project, you will blindly go to the market to choose, it is very likely to cause a waste of resources. The waste of equipment and materials will add cost to the enterprise, thus reducing the ultimate benefit of the enterprise.

2.2 Strengthen project cooperation

The second aspect of significance is that it can effectively strengthen the cooperation between project general contractor and project subcontractor, and improve the competitiveness and combat power of the whole project engineering. Because project management is a comprehensive management, which includes a series of human resources management communication methods. So project management also includes strengthening the cooperation between various departments and units. Because some engineering projects are jointly contracted by different units, it is very important to increase the connection between units and departments, and the lack of connection between departments and units will result in efficiency decrease of the overall construction. Project management uses its own characteristics and adopts relevant methods and measures of human resource management about communication management to develop a series of regulations to increase the cooperation and communication between the general contractor and subcontractors of the project. It can make the construction project encounter problems in the first time to connect all departments together, the person in charge of each department to discuss together to find the best solution. Scientific and efficient communication management methods can make the major departments actively involved in the construction of the project. Enhance the sense of responsibility among all departments, so that all departments realize that it is the responsibility of each department to carry out good project management related work. In the construction process, only by enhancing the cohesion and innovation between departments can construction projects have greater competitiveness and develop better in the construction industry.

2.3 Reduce project risk

The third aspect of significance is that it can effectively reduce project risks and improve the success rate of project implementation. At present, there are many construction projects in the construction market, but not every construction project can be completely successful. In the project management work content, there is a risk management of construction projects, the so-called risk management, refers to a protection for construction project losses caused by various factors in the development of construction projects. In the process of the development of construction projects, risk management is essential, and the adoption of scientific and efficient risk management can effectively reduce the impact of various external factors on the entire project. For example, when carrying out construction projects, they are often affected by force majeure adverse weather factors. Even through the weather forecast, it is not possible to accurately predict the weather conditions in the future period. After the construction project is affected by bad weather, it will cause a certain impact on the overall construction progress and construction quality. Risk management work on this problem is carried out in advance in the risk management work content involves how to solve the various effects caused by bad weather. For the impact on the construction progress, overtime can be taken to make up for the delay caused by bad weather. In the process of overtime, a reasonable design method should be adopted, and workers should not be rigidly required to work overtime, and overtime must be compensated with certain material. Give reasonable overtime cost to the builders, most of them will choose to work overtime for the sake of overtime cost, improve the impact of bad weather on the progress of the project as much as possible, and should promptly check the defects after the bad weather is over. The damaged areas should be inspected and repaired in time to ensure that there are no problems before proceeding to the next step of construction.

2.4 Identifying project problems

The fourth aspect of significance is that it can effectively detect various problems in the project construction process at the first time, and effectively control the problems to ensure the smooth development of the project. In the process of building engineering construction, there are many uncertainties, so it is naturally will encounter all kinds of problems. Although most of time, the problems do not show up, but there is already a great safety hazard in the construction. If the hidden problems are not checked and eliminated in time, once the problems appear, it will have a serious impact on the overall project quality. Utilizing project management to check and deal with the implementation of the whole process of construction, through the method of testing to check the various types of safety hazards in the construction process, and targeted to solve these problems. If there is a lack of project management, hidden problems in the construction process cannot be detected in time. If these problems can be solved before they arise, the impact on the project can be greatly reduced. But when the problems really occurred and then to solve them, it requires a lot of human and material resources, and it will also have an impact on the overall quality. However, if project management is carried out scientifically, it can effectively regulate the behavior of the construction process reasonably^[1]. After the project is completed, it can also be summarized according to the actual situation of the project, summarizing the specific construction experience and construction loopholes, and the summarized experience can be used in the subsequent construction to accumulate experience wealth for the enterprise.

3. Practical application of project management in construction project management

3.1 Clarify the functions of the person in charge

Project management has a very wide range of applications in the construction of building projects, first of all, in the ability to clearly delineate the work responsibilities of specific managers. By clearly delineating the responsibilities and specific obligations of

managers, it allows managers to give full play to their management effect and management role to ensure the smooth development and implementation of project management-related content. Scientific and efficient project management can effectively implement the systems and contents of project management, and timely adjust and improve the current situation of the development of construction projects. When carrying out project management work, each project management has a person in charge, who is generally called the project manager and has the main responsibility for the overall project management work. Although the project manager has the main responsibility, but in the actual implementation of the specific management, should also be divided into each link and content of the responsibility of each person. Only by clarifying the actual responsibilities and obligations of each person in charge can the person in charge work reasonably in the actual work process for their own responsibilities and obligations. Previously, the traditional project management would not clearly divide responsibilities, resulting in scattered construction and inefficient management of the whole construction project. Because each person has the mentality of shirking, thinking that there is no specific division of responsibility, so everyone bears a certain amount of responsibility. This kind of management effect is not ideal and cannot be used in construction project construction management. Only by strictly following the theoretical requirements for the detailed division of responsibilities can each responsible person complete his or her construction tasks according to the standard requirements. Of course, the division of responsibilities is only one part, and the other part is that after the division of responsibilities, it is necessary to check and implement the specific work carried out by each responsible person afterwards. Strengthen the construction supervision and management to ensure that each responsible person can implement their own responsibilities.

3.2 Identify specific management bodies

The second aspect of the application is manifested in the setting of scientific and efficient management institutions, for project management, it is necessary to rely on reasonable and formal project management institutions in order to carry out the corresponding work specifically. At present, some construction projects in the project management, only the arrangement of managers and responsible persons lack of specific implementation and control of the management body. To really improve the quality and efficiency of the overall project management, we must rely on the project organization to carry out the corresponding work in concrete terms. The most important feature of the management organization is that it can clearly organize and set up responsibilities and management functions. It can effectively ensure the smooth implementation of the relevant project management work, for the project management organization of construction projects, it must always check and improve it. The division of authority and responsibility of specific project managers and responsible persons through the relevant content of the management organization fundamentally improves the responsibilities and capabilities of all personnel and enhances the overall management value and management effect. Compared with simple project management, setting up a project management organization can effectively carry out all the tasks of project management and implement them efficiently, and set up corresponding basic rules to enhance the systemic and standardized nature of project management work. Coordinate the work of managers in each department, and improve the overall work quality and efficiency through coordination and cooperation. Ensure that every part of the work is implemented to improve timeliness and comprehensiveness.

3.3 Develop scientific rules and regulations

The third aspect of the application is reflected in: project management can be used to develop scientific and reasonable management rules and regulations, which must rely on the corresponding rules and systems to carry out management. The development and creation of rules and regulations can bring some guidance for the subsequent development of project management work. Through analyzing many construction projects in the implementation of project management still lack of perfect rules and regulations, the lack of perfect rules and regulations, will make the entire project management looks chaotic and disorderly. The person in charge of project management must pay attention to this problem, firstly, to develop the corresponding management system and management regulations, and secondly, should also provide practical training to each person in charge of project management. The person in charge of project management should be required to implement each and every one of the rules and regulations in the process of project management. Only when the rules and regulations are really put into practice, can the maximum value and effect of the rules and regulations be brought into play. The formulation of scientific and perfect rules and regulations can effectively ensure the smooth development and implementation of construction project management. It can also control the safety issues and quality issues in the process of implementing construction projects, and strictly teach safety and quality control within a reasonable range. Construction management system is roughly divided into safety management system and quality management system, safety management system refers to the construction process involved in all kinds of safety issues, strict control and management of quality supervision system, refers to the construction of the time to increase the quality of management, to ensure that the quality of each link are in line with the standard ^[2].

3.4 Increase the whole process management

In addition to the three mentioned above, it also shows that it can carry out systematic and perfect management of the whole process of construction. For construction projects, to carry out management work, it is necessary to carry out the management of the whole process, and all the links and contents involved in the whole process of construction projects should be scientifically managed and maintained. Only by truly ensuring the whole process of project management can the quality and efficiency of the final management be effectively guaranteed. In the whole process management, the following aspects are generally managed in detail.

The first is the management in investment, which generally refers to the initial bidding process. In the bidding process, project management will make a comprehensive consideration of the project works and give a general bidding scope. Comprehensive analysis of the scale and volume of the construction project, design the cost of expenditure funds required in the subsequent construction process. Liquidity must be prepared in advance to prevent the project from being stopped due to the shortage of funds.

The second aspect is the management of quality. Quality is the soul of the whole construction project, so the management of this aspect must be increased. Only by ensuring quality can the overall value of the construction project be improved.

The third aspect is the management of the construction schedule. Whether the project works can be completed within the time specified in the schedule determines the final benefit of the enterprise. Therefore, the construction progress must be strictly controlled in the construction process. There are many factors affecting the construction progress in the construction process, and project management will analyze the factors affecting the construction progress, reduce the impact of external factors on the construction progress through a series of measures to ensure that the project is completed within the scheduled construction period. In construction management, strict quality control must be carried out for each layer of the link to ensure that the quality of each link meets the standard requirements, which can effectively ensure the construction progress.

4. Optimization solutions for project management

4.1 Create a scientific system

Looking at the current application of project management in construction project management, there is still some room for progress, so it should be scientifically and reasonably optimized. First of all, the optimization of project management can be carried out by creating a scientific operation system. In the process of construction project management, the operation system is the guarantee of project management, and only by establishing a scientific and reasonable operation system can ensure that the subsequent project management can be carried out smoothly. At present, many people in charge of construction projects have carried out project management work, but due to the lack of a perfect operation system as a support and guarantee, the overall project management work is difficult to carry out^[3]. Therefore, an efficient operation system must be developed according to the actual situation of construction projects. Through a scientific and efficient operation system to enhance the strength and role of project management and reduce the emergence of various unexpected situations in the subsequent project management process. Effectively grasp the strength and actual situation of project management, so that the overall management effect is more ideal.

4.2 Implementation of supervision and management

The second aspect is to implement supervision and management, supervision of the entire project to carry out the greater role of supervision. In the process of engineering construction operation, after the implementation of the project management program, if the lack of scientific and efficient supervision and management will make the overall effect is not ideal. Only by combining supervision and management with the specific content of the project management program, can the project management program play a greater role. In the process of project management, project managers, in fact, are under a lot of pressure, and need to consider whether they can be recognized by the builders, but also to ensure that their overall quality can meet the standards of managers. Therefore, only the combination of a specific construction program and strict management supervision can ensure that project management plays a greater role^[4].

4.3 Optimize resource allocation

The third aspect is to optimize the allocation of existing resources. Project management in construction projects is not carried out arbitrarily, but according to the specific operation and development of the market to develop a scientific project management plan. In the process of project management work implementation, the relevant management personnel should combine the actual situation of the current social development to carry out specific management work, only in line with the current trend, in order to get the approval of the builders. When carrying out the actual management, combine the actual situation of their own construction projects, the management content formulated in advance to make appropriate adjustments to ensure that the content of the management plan can meet the actual situation of the construction project, only then can we obtain better management results. Improve the professional quality of management personnel and adopt the scientific market dynamic theory to formulate standard management rules and management requirements. We strive to achieve scientific and reasonable project engineering management, and fundamentally improve the quality and value of construction projects.

5. Concluding remarks.

The role played by project management in construction projects is irreplaceable, and the person in charge of relevant construction projects must be aware of the importance of project management and really put project management into place when actually carrying out construction projects. The person in charge and the manager should rule according to the market development and the actual situation of the construction project, and develop a scientific and reasonable project management plan. Construction project management institutions, project management-related work is really implemented in place. Continuously improve the comprehensive quality of project management personnel and enhance the quality of the overall project management work.

References:

-
- [1] Chen, Lan-Yan. Application of project whole process cost control in construction project cost audit [J]. Construction Knowledge, 2016, v.36;No.247(03):214.
 - [2] Huang Bing. On the effective application of project whole process cost control in construction project cost audit [J]. China collective economy, 2018, No.560(12):140-141.
 - [3] Wang Junmin. Application of project whole process cost control in construction project cost audit [J]. Jiangxi building materials, 2018(1).
 - [4] Feng Zengwei. Effective application of project whole process cost control in construction project cost audit [J]. China Construction, 2016(7):108-109.