

# **Analysis of the Importance of Schedule Management in Construction Management**

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**Abstract:** In the actual production and construction process of a project, there is a need to strengthen the importance of schedule management in order to fully guarantee the quality and achieve higher economic benefits. This can ensure that the project can be completed within the required time and strictly in accordance with the requirements of the production schedule, thereby improving the overall work efficiency. Therefore, it is necessary to enhance the emphasis on quality standards, material consumption and other tasks in the actual schedule management, and carry out analysis and formulate targeted schedule management programs from multiple perspectives. In this paper, actual management countermeasures are provided after the analysis of the importance of construction management and schedule management.

## **1. Introduction**

In the context of the steady development of urbanization, the number and scale of construction projects are constantly expanding, and more requirements are put forward for actual construction. As an important part of construction engineering, the quality of schedule management is closely related to the overall construction and management of construction engineering. In order to effectively solve the problems in the traditional management process, there is a need to place stress on various tasks, especially the level of construction management. It is necessary to continuously improve its management efficiency, analyze the problems in various management tasks, master various operating standards and implement them in strict accordance with the production schedule, so as to complete tasks more efficiently and improve the effect of schedule management.

## **2. The Importance of Schedule Management in Construction Management**

### **2.1 Guaranteeing the Investment Income of Construction Enterprises**

Regardless of the type of an enterprise, its main purpose is the ultimate benefits, and construction enterprises are no exception. To fully protect their own economic benefits, they should pay more attention to various tasks, especially the control of the difficulty of construction projects and the length of construction period. Only by implementing all aspects of the work can they obtain higher economic benefits. Moreover, the status quo of the project schedule management should be analyzed comprehensively on the existing basis, and relevant solutions should be proposed to ensure the maximum investment benefits. In the actual work process, the technical staff of construction enterprises must have the ability to solve problems, so as to reduce the project completion time to the greatest extent and effectively control the capital investment, thereby ensuring the smooth progress of projects and effectively playing the role of schedule management <sup>[1]</sup>.

### **2.2 Ensuring That the Construction is Completed According to Quality Standards**

In the actual construction of projects, there are often delays in the delivery due to the influence of various factors, which will affect the economic benefits of the construction enterprise and even make it difficult to guarantee the quality of the construction project. In the initial stage of a specific construction project, the contractor and contract-issuing party generally negotiate a time limit to

avoid a series of problems in the construction process. However, a series of unpredictable factors will often appear, causing the construction to not be completed as scheduled. In the process of schedule management, quality must be guaranteed and the construction period can be shortened in a variety of ways, thereby avoiding the problem of construction schedule delays and reducing unnecessary economic losses. If the project construction is not completed in accordance with the prescribed time, it will not only cause serious losses to the construction enterprise, but also have serious impacts on the budget of the construction project. Therefore, when entering the management process, it is significant pay attention to related responsibilities to ensure that all aspects of work can be implemented well and that the effectiveness of management can be improved. Only by improving the working environment and ensuring the effectiveness of construction schedule management can the construction project be completed within the specified period.

### **2.3 Controlling the Construction Cost of Projects**

In the specific management process, it is necessary to apply a variety of methods and strictly follow the prescribed management methods to manage the schedule management progress of the construction project in a scientific and rational way, so as to effectively control the cost of construction project and ensure that the budgeted cost is within the controllable range. As far as the control of construction cost is concerned, it mainly includes the control of manpower, material resources, etc. In the process of carrying out various tasks, systematic investigations should also be conducted according to the actual situation. Various forms such as material incentives and bonuses are generally good ways to stimulate the enthusiasm of staff and ensure that they can pay more attention to their own responsibilities. While improving various tasks, it is necessary to improve the efficiency of work development and avoid the effective progress of various tasks being affected by quality factors. In addition, the work efficiency of construction personnel should also be improved in the process of carrying out various tasks to ensure that the quality of the construction project can be guaranteed. Effective control of the construction cost of projects can promote the healthy development of construction enterprises to the greatest extent, and at the same time, it helps to effectively play the role of project schedule control.

## **3. Factors Affecting Schedule Management of Construction Projects**

### **3.1 Human Factors**

During the actual construction of a project, the architectural design and construction plan play a decisive role in all subsequent work. If the engineering designer lacks professional ability, or there is a mistake in a certain link in the preliminary survey and design process, schedule management and other management will be severely affected. In addition, the work ability and attitude of the personnel in each position determine whether the process can be implemented according to the schedule. Once there are phenomena such as passive sabotage, negligence and mistakes, it is difficult to ensure the smooth progress of construction management and the effectiveness of cost management. Therefore, it is needed to attach importance to the impact of human factors on the schedule management of construction projects, so as to ensure the improvement of each link and establish relatively complete management measures, thereby making management more efficient <sup>[2]</sup>.

### **3.2 Material and Environmental Factors**

As we all know, the construction environment of a construction project cannot be determined, and each area has certain differences in the environment. Therefore, in the actual construction process, it is necessary to strengthen the analysis of material and environmental factors to avoid being affected by them and causing the construction project progress to be unable to be effectively controlled. With the development of information technology and the emergence of various new types of equipment, a variety of new technologies and new materials have emerged in construction management. These brand-new technologies and materials are often not familiar to construction personnel in terms of use and usage, and therefore, they may have potential impacts in the actual

schedule management process. These impacts may affect the smooth progress of management work and even cannot be effectively resolved. Therefore, it is necessary to pay more attention to this link in the actual management of construction projects, so as to ensure that equipment and materials can be effectively put into application. Moreover, construction and management personnel should have a relatively full understanding of the application of materials and equipment to ensure the smooth progress of constructional engineering. The influence of weather and environment is an irresistible factor, and thus it is necessary to strengthen the analysis of environmental factors and continuously improve various management principles in order to effectively control its impacts. Only in this way can the effectiveness of management be improved and the schedule management of the construction project be carried out smoothly.

#### **4. The Main Countermeasures of Schedule Control of Construction Projects**

##### **4.1 Develop a Construction Schedule Network Plan**

In the process of schedule management, there is a need to highlight the construction of network maps so that they can effectively play their own roles. The effective display of a constructional engineering plan can clarify the construction process of the building work, and network diagram helps to realize the time analysis and operation management of the engineering project. It is necessary to show the processes that affect the construction of projects to ensure that the staff have a sufficient understanding of various tasks and master various construction points. This will help resolve contradictions in the construction process and promote the stable progress of construction project management. In the process of schedule network planning, the work objectives of each link should also be optimized, and the emphasis on each construction link should be strengthened. Especially for the implementation of various procedures, regular inspections and random inspections must be carried out to ensure the effective practice of each link of the constructional engineering and effectively display the efficiency of schedule management. Moreover, in order to ensure smooth completion of a construction project within the specified time limit and the quality of the construction of each link, it is necessary to lay stress on various tasks to ensure a comprehensive summary of the situation of the constructional engineering and the design of the construction plan for the next link, so as to ensure the effective progress of the project and solve the limitations caused by the influence of various factors <sup>[3]</sup>.

##### **4.2 Reasonably Arrange the Construction Schedule**

During the construction process, key lines have a serious impact on the construction period of a project. If it is difficult to achieve effective control of the progress of constructional engineering by rigidly compressing key tasks, it is feasible to reduce the goals of the construction project. The time optimization of construction project network planning is usually carried out through the optimization and reasonable adjustment of construction organization. These methods can reduce the construction time of the project, ensure the smooth progress of the project, and win higher economic benefits for the construction enterprise. In the process of arranging the construction schedule of a project, the relatively complex tools, construction machinery and equipment and flow construction of the constructional engineering should be optimized and the emphasis on time control should be strengthened, so as to avoid the impact of key lines. It is necessary to minimize the occurrence of errors, improve the overall efficiency of project work, promote the smooth progress of the project, and reduce the adverse effects of external factors on the construction progress. The constructional engineering is characterized by large volume and large area structure. In the process of carrying out construction, it is needed to strengthen the optimal control of manpower, material and financial resources, so as to effectively reduce the construction cost and ensure that the construction project can be completed within the prescribed time limit. In addition, the schedule should be continuously implemented to ensure that a detailed construction plan can be provided, thereby avoiding being affected by other factors. This can enable the construction personnel to strictly abide by the various construction standards, ensure that the construction is

carried out smoothly, and avoid the restriction of factors that may affect the construction period of the project, such as work stoppage, and so on.

#### **4.3 Strengthen the Attention to Preparations**

There are many links involved in the development of a construction project. In terms of schedule control, it is needed to implement all aspects of the construction work strictly and effectively, so as to ensure the effectiveness of the construction and avoid multiple impacts that restrict the smooth progress of the project. Therefore, more attention should be given to the preparatory work in the early stage of construction plan management. Various influencing factors can be analyzed in the implementation and preparation stage, so as to avoid the occurrence of influencing factors such as forced suspension due to insufficient construction preparations of the project. In the process of constructional engineering, the owner should fully prepare the bidding documents and actively communicate with local governments or departments to grasp the current status of various projects, so as to make comprehensive optimization, which can provide guarantee for the smooth progress of the later work of the construction project and the effective development of schedule management work <sup>[4]</sup>.

#### **4.4 Introduce Management Talents and Enhance the Awareness of Construction Progress Control**

At the current stage, it is necessary to ensure that high-quality management talents can be used in the actual construction management to improve management quality, thereby effectively guaranteeing construction schedule management. Therefore, managers must pay more attention to the introduction of professional talents and provide effective training for them on the existing basis, so as to improve their awareness of schedule management and ensure that they can effectively master related skills. The key to schedule management is the effectiveness of talent utilization. Construction enterprises need to raise their requirements for talents to ensure that high-quality management talents can be introduced through means such as raising salaries and providing various policies. This can comprehensively improve the construction management level, effectively promote the steady progress of the construction schedule, and avoid the non-standard construction schedule management due to the influence of various factors, thereby promoting the healthy development of the construction enterprises.

#### **4.5 Establish the Supervision and Management System**

In the actual schedule management, construction enterprises must strengthen their schedule management and regulatory systems. Attention to work can fully guarantee the efficiency of schedule management, and at the same time help it avoid being affected by other factors. Therefore, construction enterprises must continuously standardize the supervision system and formulate targeted inspection countermeasures in the process of specific management. It is necessary to put forward a comprehensive plan and carefully conduct supervision to avoid the management of the entire construction project being affected by insufficient schedule management in a certain link. Managers of the construction enterprise also need to visit specific construction sites in real time, continuously improve their management level and ensure the efficiency of construction management, so that the engineering can proceed smoothly without being affected by other factors. In addition, driven by the steady development of construction enterprises, the scale of construction projects is constantly expanding. In order to fully guarantee the effect of the supervision and management system, it is necessary to strengthen the analysis of various tasks and continuously perfect the supervision and management system, so as to ensure that it conforms to the schedule management of constructional engineering, thereby laying a good foundation for the healthy development of enterprises <sup>[5]</sup>.

#### **4.6 Implement Safety Management System to Ensure the Safe and Stable Progress of Construction Projects**

In the actual implementation of schedule management of a construction project, it is not only

necessary to strengthen the emphasis on cost and quality management, but also to ensure the safety of the engineering, with the purpose to avoid potential safety hazards and various accidents that affect the life safety and construction quality of construction personnel and even cause construction delays. Therefore, construction enterprises should strengthen the management and education of safety personnel according to the actual situation in the early stage of actual construction, so as to ensure that the safety management system can be implemented in all links. It is necessary to strengthen the analysis of main uncertain factors in the construction process to ensure the safe and stable operation of project. It is important to implement each link of construction strictly following the construction schedule and effectively play the role of management.

## **5. Conclusion**

All in all, in the management process of a construction project, schedule management is not only a management activity that can improve the effectiveness of project management, but also has a close relationship with the level of construction operations and management. At the same time, it can drive the healthy development of the enterprise to some extent. However, in the actual management process, the schedule management of the construction project is unstable due to the influence of various factors. In order to effectively solve this problem, there is a need to strengthen the importance of schedule management, ensure that the schedule management system is improved on the existing basis, guarantee the stability of the construction market and improve the effectiveness of schedule management, thereby providing more support for the healthy development of enterprises.

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