

ANALYSIS OF KEY ISSUES IN CONSTRUCTION
PROJECT MANAGEMENT OF CONSTRUCTION ENGINEERING

Xianpeng Wang*, Feiyan Yan¹, Zhijie Zhang¹, Mengyuan Li¹

*Belarusian State Technical University, civil engineering College, Business Minsk PhD

¹Pingdingshan Industrial Vocational and Technical College, China, Pingdingshan
Minsk, Republic of Belarus

In recent years, with the continuous rapid growth of China's economy and the acceleration of new urbanization, large-scale basic construction projects are increasing day by day. In the wave of market economy, the importance of construction management has become increasingly prominent. Construction management is not only related to the progress, quality and safety of the entire project, but also has a very close relationship with economic benefits. For this reason, this article analyzes the problems existing in the construction project management of construction projects, and puts forward reasonable solutions for reference only. I hope that readers can do a good job in construction management in the construction of construction projects.

Keywords: architectural engineering, construction, project management

INTRODUCTION

Construction management refers to the command-and-control system for the entire construction project, usually referring to the following links: project bidding contract, project management preparation, project implementation process, etc. In layman's terms, construction management is the process of organizing, planning, coordinating and controlling personnel, materials, technology and safety by adopting various management means and methods, so as to achieve high-quality, high-efficiency, low-carbon and safe production goals and complete the construction of the entire project to maximize the use of land resources. The quality of construction projects is related to the economic benefits and service life of the project itself, and is closely related to the safety of residents' lives and properties. At the same time, it has an impact on the harmony and stability of society and the development of the construction industry. Therefore, how to solve the relevant problems of construction project management in construction, strengthen construction management and guarantee of project quality, and create an accident-free and safe construction project target has become one of the important issues to be solved in the current construction industry.

1. Problems in construction project management of construction projects

1.1 Construction resource management lacks scientific and systematic

Construction resource management is to put labor, materials, equipment, capital and technology into construction production according to their appropriate configuration and dynamic control during the entire project management stage to meet the needs of the project [1]. Due to the transformation of the construction industry, the management of construction resources lacks a scientific system, and there is no complete set of normative systems, customized procedures and formal specifications, so that construction managers can well control people, machines, materials, methods, and the environment. As a result, the coordination of various types of work is not close enough, because of the gap between the specific project plan and the actual implementation, problems in each link have buried hidden dangers for the project.

1.2 Insufficient supervision by the quality supervision department

Engineering quality management personnel need to carry out the whole process quality supervision and management work in the early-stage survey, construction design and later completion acceptance of civil engineering projects. The construction scale of the construction project is large and the coverage area is wide, which makes the supervision work very complicated. Problems in project quality supervision and management: (1) The authority of quality supervision and management is easily limited. When there are quality problems in some links, but the authority is not enough, the quality problems cannot be dealt with in time. (2) The quality supervision and management of most construction projects the work still follows the old system and establishes a complete supervision and punishment system (3) The construction industry is moving from the original traditionalization to the direction of informatization and modernization. The party needs to determine the project content according to the construction plan and construction drawings, determine the project quality standards and supervision and management measures, and the quality supervision and supervision responsibilities are not clear. Once a quality problem occurs, the owner, supervisor and construction party will shirk their responsibilities (5) The professional quality of supervisors needs to be improved, and they lack relevant professional knowledge [2].

1.3 Labor personnel have low literacy and low professionalism

After the reform and opening up, the country has promoted all walks of life to enter the booming economic construction, and the construction industry has also flourished. The scale of the industry has expanded rapidly. The construction of construction projects requires a huge labor force, which requires many laborers. However, at present, most of the migrant workers on construction sites are migrant workers who graduated from elementary school in the 1960s and 1970s. This has led to the low level of knowledge, safety awareness and professional learning ability of the laborers, resulting in a series of construction problems. The quality of labor service personnel is low, which can be divided into two aspects: the spiritual aspect and the material aspect. In terms of material aspects: most of them just regard this job as a way to support their families, and this has led to a series of fishing phenomenon, deliberately delaying time, prolonging the project cycle, and not having a dedicated leader to organize and coordinate Divide work tasks, leading to mutual buck-passing, pulling each other, and wrangling each other. In addition, some workers took away excess construction materials from the construction site without the consent of the leaders, inadvertently touching the yellow line of the law. Spiritual aspects: Lack of cohesion, only consider their own interests, and do not think about whether to create value for the company or society. And the lack of knowledge makes them mostly use violence to solve problems when they encounter problems. They don't know which channels and methods to protect their own interests. However, violence often cannot solve some problems, and many uncertain factors determine Instability of labor force. Construction projects have a construction period. In order to save resources and time, many companies do not conduct systematic training for workers. Therefore, most laborers lack professionalism. In a project, laborers account for a large proportion of human resources. Most of them have only a very small part of management personnel, so it is difficult to carry out scientific and effective coordination work.

1.4 Safety management measures are not standardized enough

At present, China's construction safety management system is not perfect. The safety awareness of the construction workers is very weak at the construction site. They often do not wear safety helmets, do not wear safety equipment according to the regulations, fall accidents from heights, hit objects, and have various safety problems such as within the dangerous distance of lifting devices. The training of labor services for construction personnel is not enough. Even if the construction personnel are trained, they lack professional qualifications and do not follow the rules and regulations. At the same time, if the construction process is not arranged reasonably, it will increase the danger of the construction site and cause congestion of personnel and machinery. The probability of danger in the construction process increases. The phenomenon of temporary power consumption in construction sites cannot be eliminated, but at present, there are many problems in temporary power consumption, such as multi-use of the first

line, random pulling and placement of cables, failure to allocate distribution boxes in time, and insufficient buried depth of lines, etc. And did not follow the basic requirements of "one machine, one gate, one box, one leak".

2. Countermeasures and suggestions for construction project management of construction projects

2.1 Scientific and systematic management and construction resources from equipment and environment

There is a gap between design and implementation. Before construction, BIM technology can be used to change the previous joint review of 2D drawings to 3D model and drawing joint review. Before construction, all the data of the site environment can be reflected in BIM, which can make more reasonable and scientific arrangements. For temporary construction facilities, how to stack materials reasonably. It can also dynamically monitor whether the operations of on-site personnel during construction can be mapped one by one with the construction drawings and specific construction parts. Building management personnel have a set of scientific and effective management concepts and processes for equipment account, maintenance, regular inspection, verification, maintenance records, use records, scrap management, utilization rate, failure rate, and equipment life. The equipment users must be trained and assessed before use, and untrained personnel are prohibited from touching the equipment.

2.2 Optimizing the Quality Supervision Program

During civil construction, the construction party, supervisor and owner shall use the big data system to establish a suitable and unified project quality supervision and management system according to the actual situation of the project. Effectively improve the supervision mode to ensure real-time sharing of data information, improve the transparency of data information, and promote the smooth progress of various projects. At the same time, the construction party has paid attention to improving the information technology level of relevant personnel in information supervision and management, doing a good job in team building of relevant personnel, and improving the professional quality of the construction team. Before taking up the job, it is necessary to conduct pre-job training for the quality supervision and management personnel, so that the quality supervision and management personnel are familiar with the detailed construction process. At the same time, after obtaining the corresponding qualification certificate, start its work, and conduct regular assessments on all links before construction, after construction, and during construction. Report to the competent department as soon as possible, and send a copy to the construction unit and construction unit. The supervision unit should also issue a rectification notice to solve related quality problems. Based on the digital age, we can simultaneously use big data to establish mobile databases, share resources, and establish relevant quality management systems, so that departments at all levels can grasp the actual situation of engineering projects in real time and improve work efficiency.

2.3 Cost control of construction materials and cost

In the process of building construction project management, it is necessary to take project cost management as the basis, focus on the cost improvement of various items in construction project management, control the consumption of its resources, abandon the traditional cost control method, and use information technology. Accurately improve the comprehensive cost control management mechanism, and use the data-based process to simplify the project cost approval process. Through various data investigation, research, accounting and other work, it is necessary to avoid errors and ensure the premise of engineering design requirements and quality. In order to reduce the use and consumption of building materials, construction machinery and materials by controlling the application quantity of building materials in various ways [3] . At the same time, the material budget personnel need to accurately calculate the various construction steps of the project, the calculation of the materials used in each project should be as accurate as possible, multi-party verification, to ensure that the error is small and other related content and systems, all employees participate in the cost control work, and cost control

and The concept of green and environmentally friendly buildings is integrated to ensure that it can be recycled and reused as much as possible .

2.4 Carry out professional education and three-level safety education for service personnel

The safety of the construction site must be the top priority, and the safety of life is the first priority. This requires repeatedly emphasizing that construction should not cut corners and materials. All workers must wear qualified safety helmets and safety ropes. For more dangerous projects, special construction plans must be reported, and corresponding safety measures must be taken to reduce the risk to a minimum. lowest. Relevant construction authorities should also strictly check the qualifications of professionals and the relevant records of three-level safety education. The construction unit should strengthen safety education and professional education and training from the level of laborers, improve the quality of laborers, and send professionals to provide correct safety guidance education and professional education on the thoughts and lifestyles of laborers. The construction unit and the construction unit should formulate reasonable learning policies, complete the training of laborers within a certain period of time, improve the training system, formulate different training programs according to different types of work, and teach students in accordance with their aptitude. Or implement a reward system to improve the initiative and enthusiasm of laborers in learning. And carry out strict supervision to ensure the implementation of various measures.

CONCLUSION

To sum up, the construction project management of construction projects involves all aspects, not just the work of one unit, but also the cooperation of multiple departments. To solve the huge management organization system of construction projects and avoid various problems at the construction site, not only must coordination and cooperation be carried out in all aspects, but also modern management shall be carried out using scientific methods, strict quality control, and relevant construction costs shall be well controlled. Safety education and professional training. In order to promote the important role of project management in urban construction.

REFERENCES

1. Liu Rongquan. Analysis of the Importance of Construction Organization Design in Civil Construction Management [J]. Engineering Technology and Management, 2021.06179-181;
2. Zhang Mingming. Analysis on Quality Supervision and Management of Housing Civil Engineering [J]. Real Estate World, 2022, (15): 102.
3. Huang Chaojie. Optimization Measures for Building Construction Project Management Based on Lean Construction Concept [J]. Housing and Real Estate, 2023, (Z2): 133-135. 104.