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Discussion on the Application of Computer Information Technology in Construction Project Management

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Abstract:

At present, information technology has been effectively integrated with various industries, and the field of construction engineering is naturally no exception, which is of great significance for improving the efficiency and quality of construction engineering work. With the continuous improvement of modern construction engineering management requirements, higher requirements are put forward for the application of computer information technology. How to comprehensively improve the overall effectiveness of construction engineering management through the efficient and scientific application of computer information technology has become one of the focus topics of widespread concern in the industry. In order to do a good job in construction project management and leverage the positive role of informatization, this paper conducts corresponding research.

Keywords:

Construction engineering; Management; Information technology

Introduction:

With the continuous acceleration of China's urbanization process and the continuous expansion of the city scale, the scale and quantity of construction projects are also rising rapidly. In the context of the continuous development of science and technology, various information technology and information management modes have also been applied to a large extent in the design, construction and management of construction projects. In today's society, the quality of economic development is significantly improved, so that the construction project management is facing a new development situation, and the construction project management measures are facing severe challenges and tests. Under the current situation, it is necessary to accurately grasp the application advantages and characteristics of computer information technology, comprehensively use refined information technology methods, and comprehensively improve the overall quality and efficiency of construction project management.

1 Current situation and problems of construction project management informatization

1.1 The concept of construction project management informatization still needs to be improved

Although various information technologies and related software networks have been applied in many construction enterprises, due to the fact that some management personnel in construction enterprises still have outdated ideas and have not kept up with the times to adopt information technology management philosophy for management work, the simple and crude management mode still exists. Obviously, in this case, there is a serious disconnect between the application of technology and the management philosophy. This disconnection phenomenon leads to the appearance of information technology in these construction enterprises and can not be effectively applied. In addition, some construction enterprise management personnel have the problem of short-sightedness, these managers do not realize that the use of information management concepts and technology can bring long-term sustainable benefits to their own enterprises, but only see the short-term investment of information management mode, so they are unwilling to take measures to promote the implementation of information management mode.

1.2 Some managers have cognitive biases

Due to the relatively late start of the application of information technology, many managers of construction companies lack sufficient understanding and awareness of the management informatization of construction projects, and the connotation of the construction management information is even less understood, resulting in the actual information construction work being mere formalities and difficult to implement. Some managers of construction enterprises believe that the use of network technology and software for timely communication and

exchange is equivalent to the realization of construction project management information. But in fact, this is only a branch of the construction project management information construction work. Under this very limited mindset, it is difficult for informatization to further develop in construction project management, resulting in the construction project management has not been effectively improved, which often has an impact on subsequent management work.

1.3 Lack of high-quality informatization talents

High-quality informatization talents are the key basis to ensure the effective implementation of the information construction of construction project management. However, due to the relatively late start of construction project management information construction in China, the number of high-quality informatization talents is not enough to fill the gap. At present, many construction enterprises in charge of information construction staff, its predecessor is the traditional construction project management personnel, only to learn some relatively shallow information technology management knowledge, began to carry out construction project management information construction work. These rushed to the battle of information workers, their work ability is quite limited, it is difficult to cope with the high level of information technology work. Obviously, these staff can not essentially improve the level of information construction of construction project management. Not only that, there are still some management personnel of construction enterprises have not realized the importance and necessity of the construction of informatization talents for the construction of enterprise management informatization, and do not pay enough attention to the recruitment of talents in this field, nor do they pay much attention to the training of talents in this field. The above problems have led to the process of construction project management information construction in China being restricted and entering the bottleneck period.

2 Discussion on the application strategy of computer information technology in construction project management

2.1 Promote the integration of computer information systems

Computer information system is the core and foundation of supporting construction project management and plays a guiding role in deepening the application of computer information technology. Therefore, within the scope of relevant technical standards and combined with the objective and actual needs of construction project management, the integration of computer information system should be continuously promoted, and the technical means with construction project management as the main object-oriented and computer information system as the main carrier should be established to analyze and process the quota data and standards of the construction engineering industry, local and national levels. Implement necessary project cost calculation. Under the basis of computer information system integration, the entire implementation process of construction projects will be comprehensively monitored, and continuous and dynamic control of quota costs, materials and equipment, technical processes and subcontracting management will be achieved. Through the establishment of a complete data processing center, the construction project management workflow will be reshaped.

2.2 Promote the multi-layering of computer information technology management platform

In the current field of construction project management, there are many types of elements involved, and there are many stakeholders involved in the project, so it is necessary to establish an orderly communication channel and platform between the construction party, the designer, the supervision party and other units by promoting the multi-layering of the computer information technology management platform, and carry out an orderly connection between the contract management, budget management, and mechanical equipment management. The multi-layering of the computer information technology management platform needs to realize the functions of remote monitoring, on-site construction, unit information, knowledge management, etc., establish a common cooperation body, and enrich the functions of the network information platform and software system. At the same time, the computer information technology management platform should be evaluated and analyzed in stages for the multi-layer operation effect, and its effectiveness in favorable data analysis should be mastered, and make the information management play the role of data resources.

2.3 Application of process method in computer information technology

In the construction project management, we should strictly comply with the relevant technical standards and specifications, combined with the actual operating environment of computer information technology, carry out reasonable planning for the overall project management system problems, highlight the scalability and availability of each subsystem, and complete the drawing catalog, drawing design description, equipment list and catalog. Process method is one of the important methods of modern control basic theory, and plays an extremely prominent role in the practice of computer information technology. The control application of construction project management process method can break down the information in the construction stage into a number of different information input and output

processes, so as to achieve a high degree of connection and control of each subsystem and sub-link. Under the concept of process method, the application of computer information technology in construction engineering management can make the construction process, debugging process and maintenance management process accurately and effectively understand and grasp, scientifically optimize the key process elements of the process, and deepen the design process.

2.4 Build an integrated information system

Due to the complicated construction process of engineering construction, it is usually necessary to comply with the rules and regulations of the industry and relevant departments during the project bidding and project approval, which makes the management system too complicated and the amount of data calculation too large. Therefore, how to use the relevant procedural provisions is a problem that construction enterprises need to focus on solving, and this also provides data support for enterprises to calculate project costs. During the construction of a construction project, there are many contents involved, such as managing construction personnel, planning construction progress, and making design changes. All these work are the tasks that need to be completed in the process of project management. Therefore, it is required to take all these factors into account when constructing the construction information system. When setting up the data center and workflow, it is necessary to closely integrate the various departments together to facilitate the implementation of all-round monitoring work and provide a good external environment for the management work.

2.5 Realize the workflow of data

Engineering management is actually the transfer of data between the various project participants. In the past management mode, information transmission usually relies on telephone, documents and other ways, but also needs to cooperate with each other, which can not ensure the first time to obtain effective information. In order to improve the efficiency of the work and ensure the timely completion of the information transmission work, the data management must be implemented in the process of the establishment of the information system. Take the work that needs to be done by the project participants as the proof of data management, ensuring that everyone knows their job responsibilities, so as to achieve the automatic flow of business.

Peroration

To sum up, there are still many weak links in the application practice of computer information technology in current construction project management, which hinders the optimization and improvement of the overall effect of construction project management. Therefore, the relevant personnel should combine the historical background of the development of construction engineering, dig deeply and realize the application advantages of computer information technology, innovate the application process and model of computer information technology, straighten out the operation process of various data information in construction engineering management, lay the foundation for comprehensively improving the overall efficiency of construction engineering management, and escort the harmonious and stable development of the economy and society.

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