

Application of Information Technology in Construction Cost Management



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Abstract

With the continuous development of China's economy, people have higher and higher requirements for living and working environment. The construction industry plays an increasingly important role in social development. However, there are some practical problems in the construction process due to the inadequate application of the information technology of project cost management and the lack of unified management, which affect the cost, efficiency, quality and progress of the construction project. This paper analyzes these problems and puts forward corresponding suggestions and measures for reference and to provide reference and guidance for future related research work. At the same time, it will also start with project cost control and talk about the current situation of engineering construction in China and make a prospect for the future development trend through the application of information technology in construction project cost management, The author hopes that this paper can contribute to the healthy, stable and sustainable development of China's construction industry.

Keywords

Information technology, Construction engineering, Cost management

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1. Introduction

With the rapid development of China's economy, the construction industry is also constantly improving. The information technology of construction cost management has become an indispensable part of the current construction project. At present, many enterprises in China do not pay enough attention to cost control. Although some information technology means will be used in the construction process to provide effective guidance and supervision to ensure the smooth completion of the whole project, due to the lack of professional personnel and insufficient experience, there are certain loopholes in these systems, which will further affect the improvement of the overall level of the construction industry. Therefore, it is necessary to improve and improve the relevant technologies to make the project cost management informatization better applied.

2. Theoretical basis of information technology

2.1. Generation and function of information technology

With the continuous development of society, the construction industry has also developed rapidly. In this era, information technology is gradually used by various enterprises. The information technology used in the construction project cost management mainly realizes the project objectives through the information processing and transmission through the computer network communication system and the analysis and calculation of the data involved in the implementation of the project. At the same time, the modern electronic software technology is used to transform the traditional manual operation into automatic program control, thereby improving the economic efficiency of the enterprise [1].

2.2. Meaning of information technology

In a sense, the informatization of construction project cost management refers to the comprehensive and whole process monitoring of the project through computer technology, information technology and network communication.

Under the traditional mode, there are many problems in the construction industry that many information resources are not mastered and used properly by enterprises. However, with the continuous improvement of social and economic level, the acceleration of scientific and Technological Development and the intensification of market competition, some disadvantages have also been exposed.

2.3. Advantages of information technology

The application of information technology in the construction cost management can provide more information for the construction of the project, thus improving the work efficiency. Specifically, the first point is to improve the ability of construction enterprises to collect, analyze and process relevant data through information technology; The second point is to use the Internet, computers and other tools to apply it to the construction process of construction projects. It is helpful to realize the effective utilization value of engineering cost control and prediction analysis; The third point is that under the information technology, the project management can be more standardized, thus reducing the waste of human and material resources and promoting the construction quality level [2].

2.4. Key links of information technology

In the information technology of construction project cost management, it is mainly to collect the information of the project and update the data according to the actual situation. By combining these data with the previous construction process and applying them to the construction industry, relevant measures such as resource sharing and optimal allocation can be better realized; At the same time, it can also improve work efficiency, reduce costs, improve quality level and promote the maximization of economic benefits; In addition, it should also be noted that in the information technology, the overall process of the project should be effectively integrated, and the corresponding software should be used to realize the exchange and intercommunication of information data.

3. Information technology and construction cost management

3.1. The application of information technology

Information technology refers to the use of advanced information technology to realize the sharing of information resources on the basis of computer networking and communication automation, and to optimize, reorganize and integrate systems on this basis.

The application of information technology in the construction cost management mainly includes two aspects: first, the dynamic control of the project construction process in the engineering design stage. Secondly, the modern digital electronic measurement method is used to analyze the construction drawings and other data. In addition, modern computer network technology and communication automation software can be used to improve work efficiency, reduce human cost and information transmission error rate, so as to bring greater economic benefits and social effects for enterprises.

3.2. Information technology and construction cost composition

The construction cost mainly includes direct cost, indirect cost and profit. Among them, the investment cost of the project is an important part of the total expenditure of the project, which will affect the construction units and enterprises in the whole construction process. In the construction project management, we must invest a lot of money to com-

plete the design and planning of the project; At the same time, relevant issues such as costs incurred in the later stage of operation shall be considered; And the construction cost can also directly affect the level of social and economic development and the quality of people's life [3].

3.3. Information technology and classification of construction cost

In the construction project cost management, the application of information technology is mainly to control the project cost reasonably, so as to maximize the investment benefit of the whole project. However, many construction enterprises have not mastered this technology well in the actual work process. Compared with the traditional mode, information technology has obvious shortcomings, which leads to its failure to be effectively implemented in the construction cost management; In addition, because China is still in the development stage, many factors such as the small scale of project construction and the poor construction environment affect the information management effect and the level of cost control, it is necessary to collect, sort out and use the relevant data [4].

4. Case analysis

4.1. Brief introduction of information technology

With the development of society, the construction industry is also making continuous progress. The informatization of project cost management has become an inevitable trend. Advanced information technology and network construction are used in construction projects. To achieve the target cost control of the project through a series of work such as information collection, analysis and processing; At the same time, it can effectively improve the utilization rate of resources and the level of economic benefits.

4.2. Case 1-Baosteel Project Cost Calculation

Baosteel's project cost management is a series of management work during the implementation of construction projects, including the preparatory work, construction stage and completion settlement.

The first thing to be clear is: the preparatory work. The main content is to determine the design scheme, design drawings and related materials, etc. Secondly, select appropriate materials and equipment according to the actual situation and make corresponding records, etc. Finally, it is a cost management problem involved in the construction stage and completion acceptance, which needs to be strictly controlled to ensure that the project can be successfully completed and meet the expected requirements.

4.3. Control of project cost

The control of construction cost mainly refers to the feasibility study of the project, so as to determine the specific content of the construction stage. In actual work, the construction of corresponding projects should be completed according to relevant requirements and design drawings. At the same time, the cost and investment budget should be combined; In the process of construction, it is also necessary to consider the expenses and capital investment caused by various materials, mechanical equipment and other factors; Finally, it is necessary to effectively control the construction project cost, which must be managed in a market-oriented way, so that it can adapt to the ever-changing economic environment [5].

5. Conclusion

To sum up, the development of construction project cost management informatization is an essential and important link in the progress of the construction industry in the future. In engineering construction, the use of information technology can improve work efficiency and quality. At the same time, it also brings economic benefits and social value to relevant enterprises; In addition, it can promote the continuous progress of construction technology, reduce costs and reduce environmental pollution; Finally, it will help the overall development of our national economy. This paper mainly discusses the significance of construction cost management informatization for the future of the construction industry, analyzes the existing problems and their causes, and puts forward corresponding solutions.

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