

Using Information Technology to Promote the Innovation of Construction Project Cost Consulting Service Model

Xu Xiaofeng¹, Xu Guorong²

¹Hangzhou Qiandao Lake Engineering Technology Consulting Co. , Ltd., Hangzhou, Zhejiang, China

²Chun'an County Bureau of Housing and Urban-Rural Development, Hangzhou, Zhejiang, China

Keywords: Information Technology, Construction Project, Cost Consulting Service

Abstract: cost consultation plays a very important role in the construction project, which improves the efficiency of cost control, ensures the rationality of the overall cost of the construction project, and saves money. With the development of science and technology, people have entered the era that information technology develops rapidly. Information technology has brought opportunities and challenges to all walks of life, and cost consulting service industry is no exception. Therefore, cost consulting service enterprises should be brave to meet the challenges, and seize the opportunity to reform and innovate the traditional cost consulting service mode, so as to better adapt to the development of the times and improve work efficiency.

1. Introduction

Generally speaking, cost consulting enterprises will participate in the cost control of the whole process of construction projects, effectively solve the investment control of various investors in projects, and ensure the smooth progress of construction. From this point of view, cost consulting enterprises play a vital role in construction projects, so its working mode and working mechanism is necessary to keep pace with the times. Information technology has important advantages, which can promote the development of cost consulting towards the direction of informatization, and abandon the disadvantages in traditional mode. Combined the characteristics of the times and the needs of construction projects, efficient cost consulting work ensures the economic benefits of construction enterprises.

2. Problems in Traditional Cost Consulting Service

2.1 Outdated Service Concept

Most of the cost consulting companies in China do not have a correct understanding of their own service concept. They believe that cost consulting services rely on government support, so there is no clear market goal during the construction, and it is difficult to innovate and reform the enterprise model according to the development of the times, which seriously affects the development of cost consulting enterprises and is not conducive to its progress and update in the information age.

2.2 Problems of Cost Management Mechanism

Due to different climate, geology and geomorphology, the development situation of construction projects in different regions is not the same, and the materials needed are also different, so different schemes need to be issued in cost control. However, because cost consulting enterprises are based on the model of quota management, it is difficult to reflect the difference. With the continuous introduction of new technology and new materials, the traditional cost management mechanism is no longer suitable for the rapid development of the new era.

2.3 Problems of Cost Control Mode

For traditional cost consulting enterprises, the way to control the cost is basically by controlling the cost settlement of the project. This method has a fixed feature, that is, obvious post-control,

which is difficult to apply to the construction project with dynamic changes. Therefore, the traditional cost control mode is difficult to adapt to the development of construction projects and meet the needs of the development of market economy.

3. Challenges and Opportunities Brought by the Development of Information Technology for Construction Cost Consultation

3.1 Challenges

3.1.1 Upgrade of Various Working Software

Since the birth of computer technology, cost consulting enterprises have carried out management work for the application of computer software. With the continuous development of information technology, all kinds of work software are also facing continuous upgrading, especially the pricing software and project measurement software of construction projects. This software can save a lot of manpower and time, ensure the accuracy of data, and greatly improve work efficiency, which has greatly affected traditional cost consulting enterprises. Only by introducing advanced engineering software, can enterprises better adapt to the development of the times, improve work efficiency, and provide high-quality cost management and consulting services for construction projects.

3.1.2 Information-Based Work

With the development of information technology, the application of technology in various fields is more and more extensive, so that the work of all walks of life become gradually informationized and the requirements for the staff are gradually improved, which fundamentally changes the working mode and service mode of cost consulting enterprises. Only by using information technology to carry out work innovation and mode reform and introducing a large number of talents, can enterprises be well prepared to meet the challenges of the new era.

3.2 Opportunities

3.2.1 The Arrival of the New Era Provides Comprehensive Professional Talents

The development of the times has promoted the reform of the education field, and the society has paid more attention to the cultivation of all-round talents in order to provide more high-quality professionals for the social development. During the transformation period, the cost consulting industry is lack of talents. The arrival of the new era just provides comprehensive professionals for the cost consultation, which provides strong talent support and technical support for the cost consulting enterprises, enhances the innovation and development of the cost consulting service mode, and promotes the information construction of the cost consulting enterprises.

3.2.2 Cost Consulting Management's New Working Mode Brought by the Emergence and Development of Bim Technology

Based on information technology, BIM technology uses 3D technology and engineering information data as a basis to build a data model, which has the characteristics of visualization, coordination, and simulation. It can present a simulated data model for the cost consulting industry, and is convenient for the effective development of cost control and management. BIM technology is gradually improving as the continuous development of information technology, and its application in the management of the cost consultation has brought a new working mode and the cost consulting service mode. The model established by BIM technology can be used to carry out construction statistics and cost analysis, so that exploring a set of cost consultation and management scheme based on BIM technology and promoting the development of cost consultation industry.

4. Innovation of Cost Consulting Service Mode with the Help of Information Technology

4.1 Building Enterprise Database

The cost consulting service needs to participate in the whole process of construction project to control the cost, thus generating a lot of data information, which contains some information bidding schemes, settlement prices and quotations of construction projects. Therefore, enterprises can use information technology to build its database and transform it into electronic data for filing. The database is able to take advantage of information technology to audit and test the input information data to ensure the accuracy of it. In future work, the database of the enterprise can provide important basis for the whole process of project cost consulting service, assisting the staff to carry out project planning and project cost management, perform well in project cost budget, and formulate feasible technical scheme.

4.2 Using Bim Technology to Carry out Cost Consulting Service Management

Using BIM technology to carry out cost consulting service in the stage of design, construction and operation management of construction project can effectively promote the sharing of data and information, speed up decision-making and ensure the quality of the project. Therefore, in the innovation and reform of cost consulting service mode, enterprises can make full use of BIM technology to give technical support, and realize the sustainable development of cost consulting enterprises in the information age. In the early stage of bidding, BIM technology can be used to build the BIM model of construction project, so that the bidding unit can make clear all information of the project and directly obtain the data of the project quantity. At the same time, it is also convenient to carry out the cost budget work in the early stage of the cost consultation work. The bidder can use BIM model to recheck the project, ensure the rationality and accuracy of various data, and provide more comprehensive services for the bidding work. In the construction stage, BIM technology can be used to simulate the whole progress of the project, and other science and technology can be added to enrich the data of the model, so that the cost consultants can make clear the current project data information, do better in cost control, and directly modify some changes. Combined with the actual situation and requirements of the project, the emergency plan shall be formulated to control the cost of the whole process of the project and provide true and complete economic data, gradually improving the efficiency of cost control.

4.3 Using “Internet Plus” to Promote Innovation in Cost Consulting Service Industry

In the new era, cost consulting enterprises can use the “Internet plus” to build information technology working platform and innovate the traditional cost consulting service model. Enterprise should conduct a scientific and reasonable use of big data, do a good job in data analysis, extract the value hidden in the data, and use the thinking mode of big data to innovate the cost consulting service mode. Cloud computing services can be added to automatically process a large number of cost data, which is conducive to analyzing, sorting and storing work, and providing relevant data for future cost consulting work.

5. Conclusion

All in all, the development of information technology has brought challenges as well as opportunities to the traditional cost consulting service of construction project. Only if enterprises dare to meet the challenges, seize the opportunities, use information technology efficiently to innovate the cost consulting service mode, and abandon some disadvantages in the traditional mode, can the information construction process of cost consulting enterprises be promoted, gradually improving the work efficiency of cost control, and ensuring the economic benefits of construction projects.

References

- [1] Guo Chenjian.(2016).Using Information Technology to Promote the Innovation of Construction Project Cost Consulting Service Model . Project Management, no.04,pp. 20-23.
- [2] Lu Yanjie, Liu Jikun.(2018).Thinking on Improving the Consulting Service Capability of Construction Project Cost . Sichuan Cement, no.12,pp.246.
- [3] Chen Jiequn.(2016).A Brief Discussion on Methods to Improve the Consulting Service Capability of Construction Project Cost . Low Carbon World, no.19,pp.234-235.
- [4] Shan Honglan, Yu Hongmei.(2019).Study on Development Concept of Engineering Cost Consulting Enterprises under the New Situation . Engineering Cost Management, no.03,pp.15-21.
- [5] Fan Yue.(2018).Research on Application of BIM in Information Management of Cost Consulting Enterprise . North China University of Technology .no.10,pp.12-14.
- [6] Zhang Xinyue.(2018).Research on Driving Factors and Propelling Countermeasures about Informatization of Engineering Cost Consulting Enterprise . Chongqing University.