

# Innovative Thinking on Communication Engineering Construction of Information Management Mode

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## Abstract

In recent years, as the national life level significantly increased, all areas of communications technology is put forward higher request, but the construction and development of communication engineering in China started in the late, over a long period of time is not very mature technology, still faces many problems in the process of construction, compared with the western countries have been at a disadvantage position. In recent years, with the increasing research on communication technology in China, the technology research of communication enterprises represented by Huawei is gradually catching up with the international ones. China's communication engineering has far exceeded western developed countries both in terms of construction volume and construction quality. But as a result of communication engineering belongs to an important part of electronic information engineering, involves all areas of the various professional is more, and all hardware and software of cohesion between more closely, science and technology update speed is accelerated, if not build a perfect information management mode, is bound to affected the quality of project construction management. Based on practical working experience, this paper first discusses the content of communication engineering construction management, then discusses some problems in the process of construction information management, and puts forward some innovative measures of management mode.

## Keywords

Communication engineering; Information management construction; Innovative countermeasures.

## 1. Introduction

Communication engineering is an important part of electronic information engineering, which plays a key role in improving information interaction ability, ensuring faster information transmission, and ensuring the security and stability of data transmission. Different from other information engineering construction, communication engineering covers more technical fields, involving different specialties and different industries. In recent years, with the continuous development of science and technology in the field of communication in China, the updating speed of hardware and software is constantly accelerating, which increases the difficulty of communication engineering design and management.

From the point of view of the actual engineering construction management, due to the influence of many factors, China's communication engineering construction management mode is not perfect, the overall management efficiency is low, if this problem can not be properly and effectively solved in a short period of time, it is bound to affect the construction quality of the whole communication engineering. It will also have a very negative impact on the development of China's information technology, so we need to overall plan the actual situation, a comprehensive review of the basic content of the current stage of engineering construction

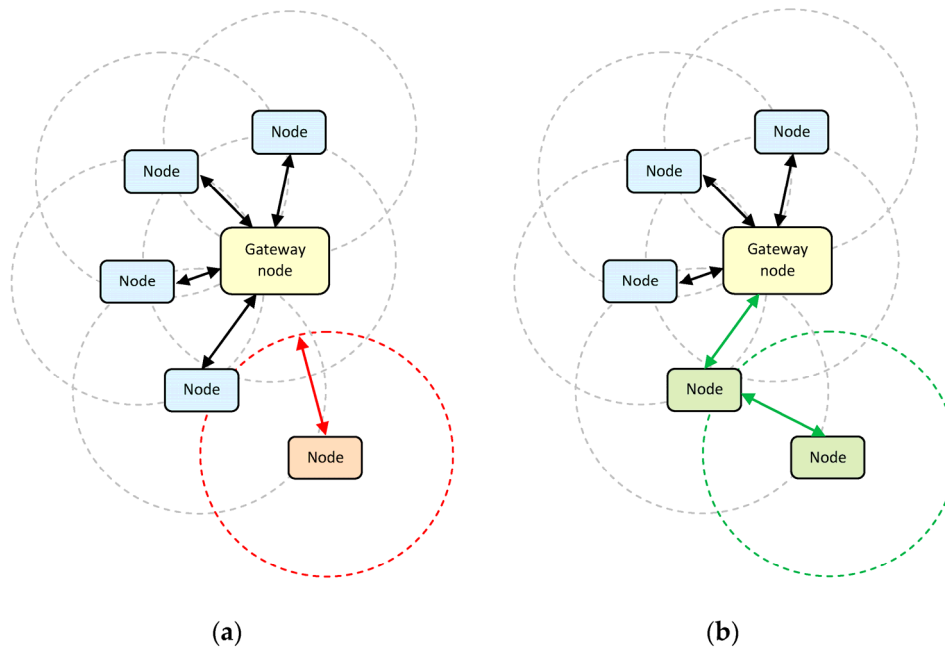
management, and seriously explore the problems faced by the current stage of construction management, innovation management mode, make up for the deficiency caused by traditional management, Steadily promote the efficient development of communication engineering construction and management.

## **2. Contents and Requirements of Communication Engineering Information Construction Management**

Since entering into the new century, in order to better meet the actual needs of the development and construction of electronic information engineering at present stage, technical staff are required to constantly strengthen the upgrading of technology, further strengthen the construction of communication hardware and software facilities, and better link the hardware and software system of communication engineering. Engineers can program measurement nodes in two basic ways: for direct or indirect communication, as shown in Figure 1. This technical feature requires that the relevant management personnel in the construction management process of communication engineering must have strong professional skills, and at the same time, they should fully master the professional knowledge in other fields, master the modern management means and management mode, and flexibly apply the modern management concept to various management activities. Greatly improve the effectiveness of communication engineering construction and management. In the process of construction project management, construction management personnel in addition to professional, quality, and the professional ability has a more strict requirements, during the period of management activities, also need to make further communication engineering construction management content of comb, specific work content, in order to avoid the emergence of various problems of the future management work. In the process of construction and management of a project, core network, access network and transmission network are important components of communication engineering. The core network is the foundation of the whole communication engineering, the change of the core network will drive the change of the whole project, so the core network is earlier than the construction of transmission network and access network. The core network should be completed at the initial stage of the whole project construction, and it usually cannot be adjusted or changed at will after the completion of the core network construction. Access network, transmission network is with the further development of science and technology, as well as the actual needs of the location, the corresponding construction scheme can be adjusted or expanded appropriately.

Compared with the core network, the access network and transmission network are more flexible and can be adjusted or expanded according to the actual needs. In addition, in the future operation process of the communication project, the project can be appropriately rebuilt, expanded and further improved according to the economic development needs of the region and in order to improve the living water level of local residents. In addition, in the future operation process of communication engineering, it can also be reconstructed and expanded appropriately according to the economic development needs of the region and in order to improve the living standards of local residents. For some communication projects with a relatively long span time and a relatively large engineering volume, the construction of a certain part is usually completed in a certain period of time, and then the strategy of segmented construction is adopted to divide a large project into several small projects, and then the construction is carried out in stages. In the process of construction and construction of small projects, construction and management personnel of the project are required to make effective changes and carry out fine division. Although the whole project is divided into several projects, the system is closely related to each other. In addition, subsystems involve relatively more fields and are widely distributed in different areas with a large span of time. In order to improve

the level of communication management, it is necessary to make efforts in the management mode.



**Figure 1.** Direct (a) and indirect (b) types of communication.

### 3. Some Problems Faced by Communication Engineering Construction Management

#### 3.1. The Supervision Function of Project Engineering Is Not Fully Developed

During the construction and management of communication engineering, in order to fundamentally improve the management efficiency, it is necessary to give full play to the role of the supervision department. Especially during the construction of the project, once the non-standard problems and unreasonable phenomena existing in the construction are found, the construction unit should be required to make effective adjustments in time. Only in this way can we improve the efficiency of communication engineering construction. As a special management of project construction, supervision behavior needs to play a role in all links of communication engineering construction. However, from the actual work, the supervision work has not attracted much attention, and the supervision function has not been brought into full play. On the one hand, this problem is due to the insufficient investment of supervision staff, which affects the normal play of supervision efficiency. Supervision and management of construction is generally carried out by supervisors. With the increasing construction volume of many communication projects and the enhancement of the construction cycle, too many, responsible for the construction site side station inspection of the personnel there are different degrees of lack of phenomenon. On the other hand, the professional quality of many supervision staff is relatively low. In the process of communication engineering construction, supervision is not paid much attention. It is also construction, and the treatment is relatively poor. Generally, the construction field pays relatively high attention to the supervision work, mainly because the construction project involves the safety of people's lives and property. Once a safety accident occurs, it will seriously affect the construction quality of the project. Therefore, most supervisors in the construction field will do their duty and dare not neglect. However, for the communication project, there are relatively few casualties caused by construction, the supervision link is not in place, but the project quality is not up to standard, so simple modification and maintenance can be completed. Due to the fluke mentality, many supervision

staff are not responsible, which affects the efficient development of project construction management. The last aspect is that the relationship between the construction team and the supervision personnel is unclear, which affects the normal play of the supervision work. The construction department and the supervision unit are mutually supervised, but in the process of long-term cooperation, many construction units often collude with the supervision unit. In the process of review or supervision and management, supervisors often relax conditions and reduce requirements.

### **3.2. The Phenomenon of Subcontracting Is Prominent**

At present, subcontracting behavior is very common in the construction of communication engineering. During the construction of the project, after contracting the whole project, the contractor will divide the project into several small projects, and then subcontract them to the third person. Subcontracting is divided into professional engineering subcontracting and labor subcontracting. Subcontracting is allowed by law, and legal subcontracting will not be prohibited by law. However, unreasonable phenomena often exist in the actual subcontracting process. During the subcontracting process, some units do not strictly grasp the Contractor's qualification, the qualified contracting level is relatively low, and lack of necessary technical facilities. In addition, in the process of project construction, in order to shorten the construction period, many subcontractors often have the phenomenon of rush period, which is likely to cause accidents and exceed the control range.

## **4. Innovative Countermeasures of Communication Engineering Construction Management Mode**

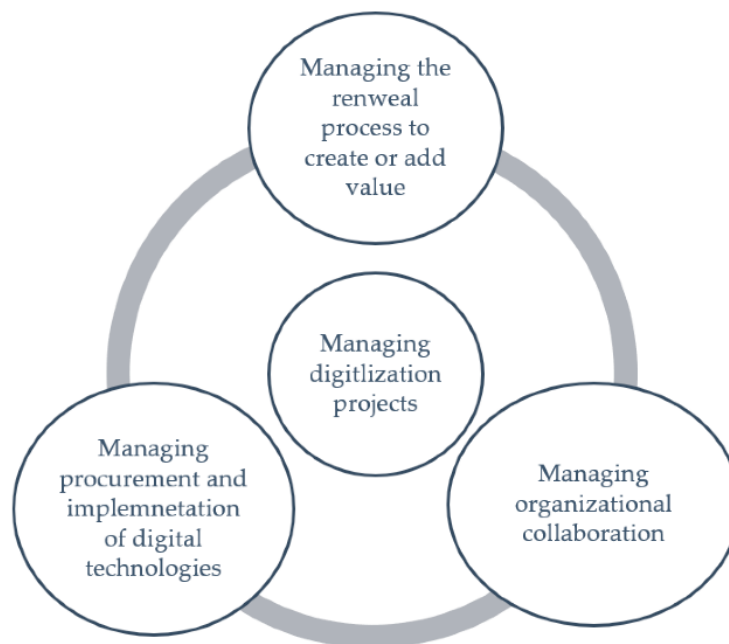
### **4.1. Implement the Rolling Project Construction Mode**

In recent years, with the continuous increase of China's economic construction level, the increasing demand for communication projects in various fields, the continuous expansion of the construction scale of many communication projects, and the rapid growth of the construction scale and quantity of communication projects, in order to ensure the orderly development of communication project construction management activities, ensure the overall construction quality and improve the management level, In the process of project construction management, it is necessary to innovate the management mode and fully apply the rolling project construction management mode. Under the traditional management mode, because it involves different links such as communication engineering survey, construction and acceptance, although this management mode can ensure the construction management quality of the project, due to many management links and complex subjects participating in the construction, the overall management quality is difficult to be effectively guaranteed. Based on this demand, in the construction management process of communication engineering in the future, The management work should be properly split to form a modular management mode. In the communication engineering construction management system, the classified management mode is adopted for design, construction and acceptance, forming a rolling construction mode. With this mode, the management efficiency can be effectively improved, the construction progress of the project can be guaranteed, and the overall construction quality will not be affected.

### **4.2. Accelerate the Establishment of An Integrated Management Model**

Under the rolling construction mode, the communication engineering construction management unit needs to adopt integrated management means, establish an information management team, effectively summarize, store and exchange all kinds of management information, so as to ensure that all managers can perform their duties, carry out targeted management activities and form a vertical management mode, Greatly improve the

management efficiency of the site. During the actual operation, we should focus on the actual construction of the project, scientifically select management talents, ensure that the management personnel have excellent professional quality and have corresponding information operation ability, adopt flexible and diverse means for effective management, comprehensively improve the management efficiency of the communication project site, and create conditions for the follow-up management activities. There are three main pillars for managing communication projects, as shown in Figure 2.



**Figure 2.** Pillars of managing digitalization projects

### 4.3. Improve the Supervision System

In order to realize the innovation and reform of communication engineering construction management mode, it is necessary to improve the supervision system, give full play to the role of the supervision department, timely find the hidden problems existing in the communication engineering construction project, and ensure the construction quality of the project. During the actual supervision work, the supervision unit should timely update the management concept, speed up the construction of a perfect supervision system, clarify the work responsibilities and responsibilities of each supervisor, ensure that each supervisor can play his own role and ensure the stable and orderly development of supervision work.

## 5. Conclusion

To sum up, the innovation of communication engineering construction management mode requires managers to deeply analyze the actual problems in the process of construction management at this stage, correctly understand from the thinking level and clarify the basic direction of innovation in combination with the basic content of construction management. On this basis, we will continue to absorb advanced working experience and working modes at home and abroad, adopt targeted management methods, effectively promote the in-depth development of communication management project management mode innovation, and lay a solid foundation for the follow-up communication project construction.

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