

# Research on Organizational Innovation of Modern Engineering Project Management

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**Keywords:** Project; Management; Organizational Innovation

**Abstract:** The management confusion in the project construction process seriously affects the interests of project stakeholders. Therefore, in order to improve the quality of construction projects, it is necessary to innovate the organization of modern engineering project management. The root cause lies in the lack of systematic views on the design and management of engineering projects, and no effective methods and approaches for system analysis and system management. Scientific management system and efficient operation mechanism are important support for modern project management. With the deepening of reform and opening up, China's engineering construction has also developed rapidly, and played a huge role in the development of economy, social stability, improving people's living standards and building socialist modernization. Therefore, based on the concept of modern engineering project management, starting from the study of basic concepts of organizational innovation, this paper puts forward the basic direction of organizational innovation of modern engineering project management by analyzing the existing problems in traditional engineering project organization management, with a view to realizing the best benefits of engineering projects with different methods and approaches.

## 1. Introduction

In the process of project construction management confusion, poor quality, risk, loss serious problem has become a danger to project stakeholders such as the rights and interests of the important problems, its appearance is project mismanagement, its root cause lies in the lack of organization design and project management system point of view, not to form an effective method of system analysis, system management and the way [1]. Therefore, once a crisis occurs, the organization will show disorder and chaos, leading to investment mistakes, hopeless appreciation and other serious consequences [2]. Project management is to meet the requirements and expectations of all stakeholders of the project, plan, organize and control various activities of the project, and realize the dynamic management of the whole process of the project and the comprehensive optimization of project objectives [3]. With the rapid development of modern construction projects in China, various problems exposed during the construction of construction projects need to be effectively managed and solved through the project management organization model that is compatible with the development of modern construction technology [4]. The implementation of project management requires a certain organizational support system, which determines the contact mode or form of the interaction of various organic components within the project system, and can also be called the framework of the interconnection of various elements of the organization [5]. Therefore, under a typical project condition, organizational structure and organizational relationship have a dominant impact on project management performance. When new management techniques are adopted, the reorganization of workflows directly determines the operational performance of the organization along with technological changes [6].

From the analysis of the development direction of project management practice, project management is gradually penetrating into the general management field, and overcomes the limitations and shortcomings of traditional management methods [7]. As an important part of project management, the management level of project management organization directly affects the quality of project construction. Therefore, relevant enterprises and departments must conscientiously implement the scientific development concept, realize the innovation of project

management organization, and expand the connotation of modern project management so as to adjust and change the focus of work and realize the sustainable development of project construction. The purpose of the exhibition [8]. Construction project is the most typical and common project, and project management is the specific application of all project management. The scale of China's construction industry has become more complicated, and the requirements for the construction project management project content are higher. The quality of modern building technology has a very close relationship with the internal management and personnel of the construction company's financial status [9]. Through the management system, intelligent project management, the effective management of many departments is very positive, and it is also the only development trend of the construction company [10]. The innovation of the management of the eyes conforms to the trend of the times. How to adapt the construction of China's socialist market economy to market development, according to the needs of the market, the main problem of the new project management model is the urgent problem that the construction company needs to solve now.

## 2. Materials and Methods

Since the late 1980s, more and more international project enterprises have abandoned the "vertical management integration" model, followed by the rise of "horizontal integration" in the construction industry. Organizations are a series of activities or processes to establish effective organizations around fulfilling plans and objectives, and the establishment of organizational structures to meet the needs of plans and objectives is the core task of organizations. The process of organizational innovation is a very complex process of organizational learning. Organizational innovation can generally be divided into two categories: broad sense and narrow sense, as shown in Figure 1. With the advent of the era of knowledge-based economy, the construction industry in China is developing faster and faster. Modern project management, as an important part of the survival and development of construction enterprises, can only achieve rapid development of enterprises and enhance their market competitiveness by improving their management level. As an important part of modern engineering project management, organizational innovation contributes a lot to the improvement of project management level. Therefore, it is necessary to attach importance to organizational innovation, select scientific and effective measures, establish and improve organizational management system, and promote the sustainable development of enterprises to the greatest extent. The development of the idea of supply chain management of engineering projects promotes the application of the organizational mode of project management. The traditional project organization structure is a functional oriented organization structure. The supply chain organizational structure of engineering projects has made strategic adjustment to the traditional organizational structure of engineering projects: the original functional oriented organizational structure has been adjusted to the process-oriented organizational structure, and the functions of each department after the reconstruction have been repositioned according to the needs of the process.

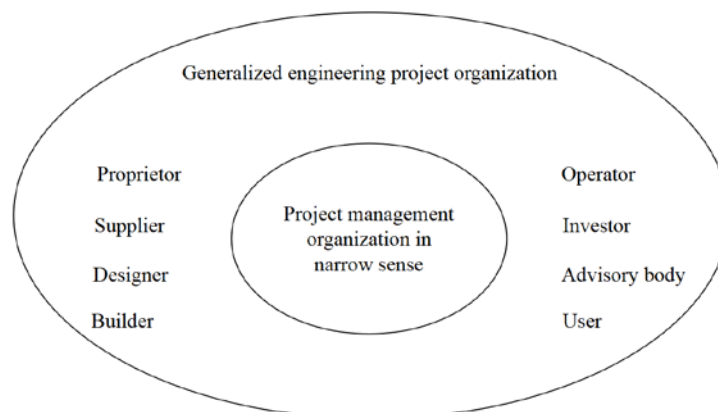


Fig.1. Understanding of the concept of project organization

The theory of organization management holds that the establishment and implementation of organizational activities are mainly to provide services for the realization of goals. This requires that enterprises must do a good job in organizational structure innovation. In the organizational structure innovation of modern engineering project management, it is required to define a supervisor to provide services for the transformation of enterprise management mode, and to do a good job in the company's enterprise process reorganization and the establishment and improvement of the quality system and information support system. At the same time, the corporate restructuring office and cultural leading group will be set up inside the enterprise to provide strong support for shaping corporate culture and improving the level of information management. The enterprise temporal information circulation is not smooth is its transformation information management way must overcome the problem, this requests the modern engineering project management, must take the Internet information technology as the premise condition, to the existing resources technology to make full use of, carries on the knowledge management information transmission system establishment. The organization information flow transmission system of the construction project has a great influence on the organization and management of the project. The interaction of information between individuals in each organization can be shown in Figure 2. There are various problems in project management of construction enterprises, such as lack of determination, separation from reality, and low management level. A combination of these problems should be a key breakthrough in management. In the face of the management problems of construction enterprise projects, combined with the actual situation of starting enterprises, according to the basic principles of follow-up, and looking for new methods and new methods and measures. Enterprise management to the fullest potential development, the improvement of the overall management level, should be more rational allocation of company assets, to achieve a high level of economic efficiency of production factors.

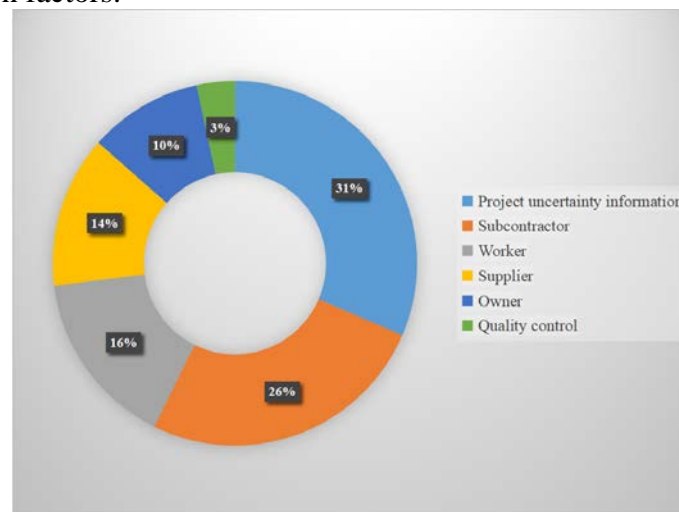


Fig.2. Information structure of project managers and other members

### 3. Results

When Turner traced the development of management mode, he believed that "great changes have taken place in the management paradigm in the second half of the 20th century". From the late 18th century to the mid-20th century, the functional paradigm and administrative paradigm commonly adopted were transformed into project-based paradigm. Traditional management ideas are impacted by project and project-based management ideas. In this process, project-based organizational change has become a crucial issue. But at present, the research of project management focuses on the research of hardware technology strategy and rationality analysis of project management, but few studies focus on project management from the perspective of software management of project management organization. Internationally, the problems existing in an engineering system are often analyzed and diagnosed from four aspects: organization, management, economy and technology.

As a general organization structure in which project stakeholders coordinate and play together, the project organization performance must reflect the recognition of different stakeholders and different stakeholders of the project, and enable stakeholders' interests to be obtained from the project. A balance is achieved during the organization of the project. The division of project stakeholders is shown in Table 1. The organizational structure also plays the role of “framework” in the entire management system. It determines the contact or form of interaction between the various organic components within the project system. It can be said that organizational structure is an important factor in generating organizational efficiency.

Table 1 Division of project stakeholders

Stakeholder subsystem	Stakeholder
Internal stakeholder subsystem	Owner
	Investor
	Contractors and suppliers
	Operator
	Producer
External stakeholder subsystem	Government
	User
	Project Peripheral Organizations

The innovation of project management organization cannot be separated from the support of advanced ideas. Only by integrating the innovation idea into the construction of modern project engineering management organization can the innovation of management mode be promoted. For the engineering project organization, it is the core department of the construction engineering system, as well as the coordination department of the construction progress and various construction factors, so it is necessary to strengthen the internal supply chain of the project management organization. The effective management of construction project is realized from every link of construction project. Virtual construction mode is a revolution of traditional project construction mode and a development mode of future project construction. Virtual construction mode with the support of modern information and communication technology, through the sharing of project information and knowledge and effective management, for saving construction investment, shorten the construction period and improve the quality of the project has certain significance. In the management of construction enterprises, it is necessary to clearly manage various factors of complex relations. Firstly, we should focus on the important issues, innovate the simple and unnecessary traditional management mode, change the management mode and improve the efficiency. In this process, project management and responsibility management costs are implemented, and a sound management model is also important. Construction enterprises must insist on continuous reform, economic responsibility project managers need to make full use of their authority, should strengthen control measures, strictly monitor the abuse of power, and clearly aggregate responsibilities.

#### 4. Conclusion

Although the long-term development of the construction industry is generally good, the competition of the construction company is still fierce. With the continuous development of the construction market, the project management environment is becoming more and more complex. In order to improve the project management level and meet the development needs of China's construction industry, enterprises engaged in project management should actively explore the research on project management organization construction. Construction companies must develop new project management, and finally rectify major issues in accordance with economic principles, standardization and scientific principles, in order to improve health project management and strengthen the development of security enterprises. To sum up, as an important basic industry of national economic modernization, engineering construction should adapt to the development needs

of modern industrialization. As an important part of modern engineering project management, organizational innovation plays an increasingly important role in engineering construction quality while enhancing organizational innovation. Based on this, we must constantly improve the level of organization and management, comprehensive innovation, so as to meet the current stage of engineering construction demand to the maximum extent, in order to fully play the role of project management organization innovation.

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