Research on the Impact of Project Management Scheme Selection on Project Economic Achievements Based on Information Construction

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Keywords: Information Construction, Project Management, Case Comparison and Selection, Economic Achievements

Abstract: Project management comparison and selection is the basis for achieving project objectives, increasing investment returns and avoiding investment risks, and plays a key role in scientific decision-making of the project. Construction enterprises need to do all kinds of planning work well in the whole project management process, and each planning involves the comparison and selection of various schemes, especially the comparison and selection of technical and economic schemes in the project construction management process. Scientific and reasonable management plan can increase the economic benefits of the project to a large extent, and fundamentally promote the long-term and stable implementation of the project. Based on the whole process of project management information construction, this paper summarizes the rich experience of construction enterprise management information construction for many years, and draws on the excellent scheme of domestic excellent information construction enterprises, in order to provide a reference for construction enterprise management information construction.

1. Introduction

The selection of construction scheme is the focus of construction organization design, which directly affects the quality, construction period and economic benefits of the project construction [1]. In fact, in the process of completing the project, it is easy for builders to attribute the responsibility to the organizational culture or to the top management who “don't know the situation”. After the project is successfully established or the right to implement the project is obtained through market competition, it is necessary to study and discuss the content and characteristics of the project, give full play to its own advantages in the process of planning and organizing the project, and rationally adjust its resource advantages. After obtaining the project contracting right through market competition, the construction enterprise must carefully organize and study the characteristics of the project, and do a good job of project planning under the condition of fully considering various factors and combining with its own advantages [2]. As the design budget directly determines the construction budget, the design stage is the key point of cost control of municipal engineering construction projects. The design scheme of this stage directly determines the cost of the construction stage, and indirectly determines the operation and maintenance cost after the project is delivered for use [3] The success rate of information construction projects at home and abroad is not very high. For this reason, project management has attracted the general attention of this industry. In a broad sense, we must start from the two directions of industry informatization and enterprise informatization [4]. In a narrow sense, it is necessary to introduce the concept of information technology into all aspects of relevant management, various issues, so that it presents a systematic and procedural, to fundamentally improve the management performance of the construction industry. The quality of design results directly determines the project investment, project quality, construction cycle and the economic and social benefits after the project is delivered for use. Therefore, it is of great practical significance to analyze and study the cost of the design stage.

  DOI: 10.25236/ermbfe.2019.183

2. Several Stages of Project Management Informatization Construction

2.1 Feasibility Study Phase

The main tasks of the feasibility study phase are: to identify the requirements, describe the project products, determine the progress of the phased implementation, conduct feasibility studies in terms of business, technology and economic benefits, and form a feasibility report [5]. Enter the task and time limit for a project, and allocate the use cost of resources, the cost of materials used, staff salaries, etc. to each task package at one time to obtain the complete cost budget of the project. In order to provide timely data reference for the decision-making of enterprises, so that enterprises can respond to the changes of the outside world with the times, and fundamentally achieve the purpose of improving the management level of enterprises and strengthening the core competitiveness.

Information construction is also a systematic project, including management training, business consultation, scheme design, equipment procurement, website construction, etc. Figure 1 is the basic flow chart of construction project management.

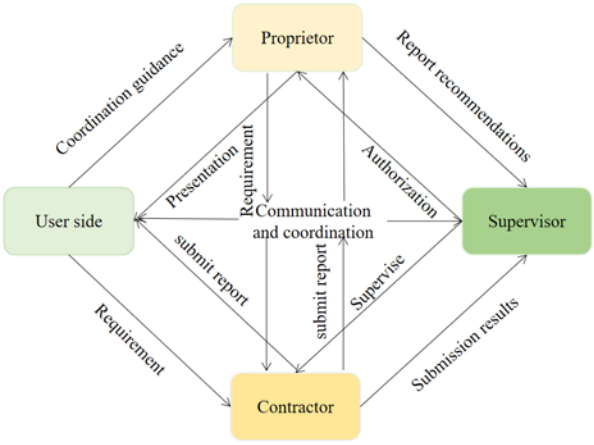

Figure 1 Basic Flow Chart of Construction Project Management

2.2 System Analysis Phase

The task of the system analysis phase is to conduct a detailed investigation of the current system, analyze business processes, analyze data and data processes, analyze the relationship between functions and data, and point out the existing problems and deficiencies of the current system. The user schedules a start date, an estimated duration, a clear sequence of tasks, and available resources for each task. The software schedules the project according to the task information and the resource information, and adjusts the schedule according to the modification of the task and the resource [6]. The exchange speed of information platform is fast and efficient, which greatly reduces the workload of daily management information of project participants, and also improves the speed of information feedback in project management system. From the perspective of overall situation and strategy of engineering projects, enterprises should make clear the objectives to be completed and determine the important events. When planning a project, it is necessary to effectively determine the management objectives, establish an organizational system on this basis, reasonably layout and optimize the selection of project implementation work areas, and optimize the allocation of professional and technical personnel, materials and equipment.

2.3 System Design Stage

The task of the system analysis phase is to answer the “how to” question of the system. According to the functional requirements specified in the system specification and considering the actual situation, the technical scheme of realizing the logical model is specifically designed, that is, the physical model of the new system. The task of the system analysis phase is to answer the “how to” question of the system. According to the functional requirements specified in the system

specification and considering the actual situation, the technical scheme to realize the logical model is specifically designed, that is, the physical model of the new system [7]. Most software can track a variety of activities, such as wishes for the completion of tasks, expenses, resources consumed, work assignments, etc. The common practice is that the user defines a benchmark plan. In the actual implementation process, various reports and charts will be automatically generated according to the current resource usage or the completion of the project. Project management informatization can make the information such as project content and construction period appear in front of all participants in an all-round way, thus enabling people to widely obtain the right to know and understand the whole picture of enterprises and projects [8]. During the specific implementation period, it is necessary to refer to and learn from the experience of other projects, comprehensively evaluate various plan plans, determine economic indicators and technical indicators, etc. Only by doing the above work can the final plan be formulated.

2.4 Development and Testing Phase

The development and test stage is the specific work of putting the physical design scheme into the system implementation, including the development and debugging procedures, and the purchase of hardware [9]. In addition, talented project managers or members need to allocate working time in multiple projects. In this way, not only can the subjective initiative of the collective be mobilized, but also it is convenient for managers to find problems and propose solutions faster. Not only that, project management informatization also simplifies the process of exchanging information among project participants, making communication more convenient, thus ensuring the efficiency of information transmission.

2.5 Installation and Debugging Phase

This phase includes: installation and debugging of hardware equipment and software platform, user training, data file conversion, system debugging and conversion, etc. By sorting, users' can browse information according to their needs, such as displaying task and resource information in alphabetical order. Through filtering, users can specify the information to be displayed and hide other information. At the same time, in the information age, any industry has its own information publishing circle. By sharing and exchanging cutting-edge information in certain industry-specific platforms, it can provide managers with more current latest trends and integrate software through work.

2.6 Operation and Maintenance Stage

After the system is put into operation, regular maintenance and evaluation are required to record the operation of the system, make necessary modifications to the system according to certain procedures, and evaluate the quality of the system's work and economic benefits. Some project management software has a security management mechanism, which can set passwords on project management files and basic information in files, restrict access to project files or some data items in files, and prevent project information from being stolen by illegal persons. In the new era, the project management should strive to ensure the project quality with the least cost and the fastest construction speed, so as to maximize the economic benefits of the enterprise and improve the living standards of employees.

3. Functions and Tasks of Project Management Comparison and Selection

3.1 Function of Project Management Comparison and Selection

On the basis of market and resource research, study and determine the product plan and construction scale; Provide conditions for the follow-up analysis of investment estimation, financing plan, financial benefits, economic benefits, social benefits, environmental benefits, etc.; Having the necessary equipment and professional and technical capabilities to perform the contract; Having a good record of paying taxes and social security funds according to law; Qualitative and quantitative indicators and economic indicators of the completion of the project, so there are many

schemes comparison and selection problems in each link of project management planning. There are many reasons for the low landing rate and operating rate of many construction projects. Generally speaking, social capital still needs to improve its understanding of the project, its future development, its ability and the spirit of performing the contract. Comparing and selecting repeatedly carried out technical and economic comparison, project management can not only improve project management, but also optimize the economic indicators of the project and other objectives, so as to provide basis for the preliminary design of the project [10]. As the project management informatization focuses on the overall supervision and management of the whole project, it effectively complements the traditional management mode for the overall lack of control, so as to integrate all employees involved in the whole project, and enhance the team awareness and cooperation of the enterprise. A good project management is the foundation to achieve the project objectives, increase investment returns and avoid investment risks. Therefore, the quality of project management comparison and selection often plays a key role in the scientific decision-making of the project.

3.2 Project Management Comparison Tasks

The comparison and Selection Research Office of construction project management refers to the whole process of analyzing, comparing and optimizing various project management of the project and adopting the best scheme. The task of project management research is to optimize and select more than two possible project management models. Select the unit with the most comprehensive strength, because the higher the basic quality is, the higher the execution and completion degree of the project management plan proposed by this unit is, which is the most basic guarantee for the project to create economic benefits. Before purchasing, the person in charge of the material supply group shall review the purchasing plan, and then submit it to the project manager for review. Purchasing personnel and material suppliers sign purchase contracts and register according to the approved material purchase plan. In order to realize the informatization of project management, a set of management platform conforming to the idea of project management is needed. The core mechanism of the leading enterprise execution and communication platform is to realize the informatization of project management, which can manage not only life-cycle projects but also routine affairs. According to the characteristics or complexity of the industry and the project, the content of the above project management research can be adjusted or simplified. When comparing and selecting project management, project management research should be combined with investment estimation and project financial, economic and social evaluation to perfect each other and select the best project management.

4. Analysis on the Impact of Project Management Scheme Selection on Project Economic Results in Information Construction

4.1 Qualification Comparison and Selection of Units Participating in Project Management Scheme

The units participating in the project management plan shall first meet six basic quality requirements, which are as follows: first, they shall have the ability to bear civil liability independently; second, they shall have good business reputation and sound financial accounting system; however, during the construction process, there are often inconsistencies between the construction site and the drawing data information, which will affect the site construction, which needs to be changed More drawings. To strengthen cost control, the optimal design scheme must be selected. According to statistics, the gap between design schemes can lead to the total cost gap of the project between 15% and 25%, which has a great impact. For example, special requirements on procurement: suppliers, legal representatives/principal responsible persons participating in government procurement activities shall not have criminal records of bribery within the previous 5 years; In the process of project tracking, operations with quality assessment requirements can be filtered out in advance, so that the construction contractor can make technical preparations for

quality construction and arrange manpower and material resources in advance. The construction supervisor shall make preparations for site supervision and acceptance in advance; Therefore, it is necessary to continuously measure the performance relative to the project benchmark plan in this process so as to compare the actual performance with the benchmark plan and take corresponding corrective measures based on this.

4.2 Comparison and Selection of Construction Concepts of Project Management Schemes

The comparison should be based on the basic principles of environmental protection and quality first according to different geographical locations and different functional requirements of the project. It is also necessary to compare various design drawings and select the best technical and economic scheme, which can not only realize the project cost control but also realize the function control. In order to control the cost in the design stage, the following points should be done: First, the most suitable design unit should be selected. At present, the designer is generally determined through bidding or campaigning. Bidding or campaigning should be “fair, open and fair” to avoid monopoly or unfair competition. The project management plan is in line with the development trend of the current era and can be recognized by the current people, then it can be effectively selected and utilized, and can be returned with the fastest speed. At the same time, the design concept that can stand the test of time can also grow stronger over time. When using the information platform to manage the construction team, the construction team leader can easily and quickly check the real-time data of the construction site without rushing to the first site at any time. The management personnel of the construction department can follow the schedule. To meet the development strategy of the project owner and the requirements of the project function, profitability and other investment aspects; to meet the requirements of advanced technology, applicability and certain forward-looking; to meet the requirements of technical availability and rationality of technical trade; to achieve the real sense of dynamic management and real-time monitoring, achieved good results, and laid the foundation for the construction of multi project management platform.

4.3 Comparison and Selection of Technical and Economic Schemes of Project Management Schemes

The technical scheme proposed by the unit participating in the comparison and selection of project management scheme must be responsible for the safety, applicability, feasibility and economy of the project. Let the reviewer know the real feasibility and economy of the project; for classified management technical scheme, it is necessary to establish a management professional group during the actual construction period, whose function is to divide each scheme level, and select the best technical and economic scheme through scheme comparison, so that the construction scheme involving safety can be divided into general risk, greater risk and greater model risk level. The cost control in the construction stage is the decisive link of the total cost control of the project. In the construction stage, the following control points must be done well to ensure reasonable cost control. With the development of construction industry, technical and economic work not only includes technology and economy, but also needs deep integration with knowledge in management, finance, law and other fields. Each comparison and selection level includes several comparison and selection factors. For different types of projects, even if the comparison and selection levels are the same, the comparison and selection factors may be quite different. Therefore, when comparing and selecting project management, we should not only pay attention to the comparison and selection level, but also pay attention to the comparison and selection factors. Relying on modern advanced communication technology and computer technology can change this passive situation, establish a multi-project management information platform, and realize high integration and sharing of multi-project management information. The core mechanism of leading enterprise execution and communication platform is to realize project management informatization, which can manage not only life cycle projects but also routine affairs, establish products or customers as projects, and even carry out project management on specific employees.

5. Conclusion

In the process of information platform implementation, in order to ensure the realization of the overall function of the system, we need to attach great importance to the organization of information, that is, each project must complete the upload of basic project data according to the plan. In order to attach importance to the information project construction, the senior managers should be more inclined to the project manager side in the power balance between the functional manager and the project manager. If the same work can be managed by standardized project management method, compared with the general management method, it can effectively save cost, improve work efficiency and guarantee quality, and the more complex the project, the more valuable the project management mechanism. Therefore, when implementing cost control, it is necessary to comprehensively control and manage the cost expenditures from the aspects of design economy, technology economy, equipment economy and material economy, and the project department needs to carefully analyze the cost budget of the whole project and reasonably formulate the economic management control scheme. Appropriate modifications can be made according to the actual conditions of the project to minimize adverse effects and ensure the economic applicability of the project.

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