Discussion on Efficient Implementation of Enterprise Scientific Research Project Management Ideas and Methods

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Abstract:

With the further development of the economy, the reform of the scientific and technological system inevitably requires the optimization and reorganization of resources, leading to the deepening of the scientific research project management system and the continuous adjustment of major project management system, how to ensure the completion, the efficiency and high quality of major scientific research projects are the main purpose of the management of scientific research projects. At present, the management methods of major projects are not perfect and lack systematic views.

Keywords:

Efficient implementation of enterprises; Scientific research projects; Managementy

I. Overview of efficient project management methods

1. Important factors and characteristics

From the beginning to the end of project A, each member of each department of the project team should have clear responsibilities and arrange report nodes. The project is planned, organized, responsible, communicated, supported, guided, reviewed, monitored, and targeted trained. The implementation of project B should pay attention to the importance, urgency and timeliness of strategic objectives. The project C has a cost budget. In order to ensure the smooth completion of the project and not exceed the budget, there must be substantial progress in the stage to ensure that time is money, and it is also the benefit of the enterprise. The results of the D project are phased, and these phased results should be clearly defined to ensure that the final results of the project are successfully met (technical indicators). The project E uses targeted resources, involving specific R & D teams, enterprise resource support capabilities, and can also introduce external technology and experience. The project F must have a special person responsible for the overall structure of the project, able to coordinate project-related work or guide various departments to carry out corresponding work. Specifically responsible for project planning, management, control, communication, urging progress, revising expected results, and timely writing research and development reports. Try to avoid confusion or duplication of ineffective work on the team. Timely encourage R & D personnel to carry out targeted professional training and assessment of training effects, and formulate project reward management methods to ensure that the project is carried out in a regular and orderly manner from start to end.

2. Common methods and tools

2.1 Gantt chart

Divide a large project into several small parts, systematically plan the completion of each task and the expected completion time (one side is the start date, the other is the completion date), the milestone are marked by special symbols, and the overall bar table presents a working status chart to track the completion of tasks of each person in each department of the project at any time. Control the project with three dimensional charts or tables, such as task milestone, person in charge, and time node, and you can always know the status of the completion and progress of the specific plan, what decisions to make, who to communicate with, and who to consult when you encounter problems. A tree diagram can also present the project status picture as a whole. A standing tree trunk is named after the project, and its branches decompose the project objectives and tasks from the bottom up to outline all aspects of the project, so as to eliminate the anxiety of managers and increase the confidence of project managers.

2.2 Mind Map

Mind mapping is more flexible. Although there are no formal rules and diagrams, this method breaks down the project into small groups or smaller tasks, to-do lists or problems, and uses the mind map to insert images, link files, and hide branches to focus on a particular part.

2.3 Status Table

Focus on project status and completion process, although it does not include details such as project duration and task relationship, but also includes the person in charge of each task and the timing effect, so the project leader can find problems at any time, and find the person in charge, in order to better evaluate the performance of each member of the R & D team.

II. The significance of information construction of scientific research project management

1. Scentific research project management information can achieve classified fund management, change the passive situation of overspending. The research projects of enterprise scientific research institutions should realize the classified management of funds according to the research project budget, reduce the phenomenon of overspending of scientific research funds, and pay attention to the budget standards of funds. On this basis, it is necessary to understand the budget situation in the contract, enter the total amount of the project and the classified budget in the scientific research management information system, which can sort out the budget costs, so as to prevent cost overruns and reduce the occurrence of budget overruns caused by vague funds.

The user of the scientific research project is the staff of the scientific research project, and the person who manages the scientific research project funds is the financial department of the enterprise scientific research unit. There will be too little communication between departments, or miscommunication, resulting in confusion in the funding of scientific research projects. When the management of scientific research projects is informationized, it can make the management of scientific research projects more scientific to a certain extent.

2. Strengthen the utilization rate of scientific research data and promote the informatization construction level of scientific research project management. In the project management of scientific research institutions, scientific research data occupies a very important position, but the amount of scientific research data is quite huge, and it will take a lot of time to do scientific research management only by manual recording. Using modern management technology means to import these scientific research management data into the system and system automation to accurately make statistical charts, improve the utilization rate of scientific research data, to provide scientific and accurate data support to the scientific research management department, so that the leader's decision is more accurate and reasonable.

3. Scientific research project management informatization can simplify the workflow of scientific research projects and improve the work efficiency of scientific research projects. Before the informatization of scientific research project management, some processes are quite cumbersome for researchers, such as before the use of scientific research funds, each cost needs to be approved at various levels, and it needs to be signed by multiple management departments. However, after the informatization of scientific research project management, the cumbersome workflow can be simplified, such as: to use the items in the administrative warehouse, only entered the number of items, the price can be obtained and the deduction fee can be realized. The information-based scientific research project management system can liberate a lot of tedious work for managers, simplify the workflow of scientific projects, and thus improve the efficiency of scientific research management.

III. Methods for efficient implementation of enterprise scientific research project management

1. Strengthen project fine management

Most of the project management does not perfectly combine the objective management system and the evaluation result application system. The core of efficient management is the use of "allocation" and "appointment" two means to improve work efficiency, the management process is very principled, fully reflected in the performance assessment results to determine the allocation, performance management has the principle of rigidity, but also has special flexibility and timeliness, so that each gets his own money, each is in his proper place. Fine management is a kind of enterprise philosophy, a kind of management culture, with the basic principle of "fine, accurate, meticulous and strict", to strengthen the internal control system of the enterprise, and improve the overall management level of the enterprise. Fine management has the following characteristics: fine is to achieve excellence, the pursuit for better, accurate is timely and accurate error-free, fine is to be rigorous, fine management, fine process. Strict means the ability of execution, strict implementation of management system and process and control.

2. Improve project risk awareness

The R&D team generally rarely holds a project schedule risk discussion and confirmation meeting to prevent the risk from becoming an unstoppable problem, such as: clarifying the project outline and various risk issues in the business R&D process, whether the R&D process has signed a confidentiality agreement, whether the data in the R&D process is backed up and kept confidential by a responsible person and a special person, whether a labor or employment contract should be signed in the R&D process to avoid the loss of phased results, whether the daily expenses of different R&D projects are clearly demarcated, and the risks caused by emergencies in the R&D process.

3. Strengthen effective communication

Effective communication is the information exchange made by both sides in the same dimension to achieve win-win situation and achieve the same goal. There are four factors

affecting communication: psychological background, physical background, social background and cultural background. Psychological background refers to the other person's mood, attitude, character, etc. Physical background refers to place and time; Social background includes identity, position, relationship between two parties; Cultural background includes education, value orientation, family background and way of thinking. Five principles of effective communication: ① I listen to your opinions in attitude; ② The more you talk in technology, the more you can fully express your ideas; 3. You are an expert at compromise; ④ Psychologically, you love to express opinions and need recognition; ⑤ Self-confidence and modesty in communication are respected and welcomed. Through the above communication rules, strengthen the effective communication of the R&D team to ensure the smooth and pleasant development work. ① Project members should actively, clearly and politely state their views, so that other participants can understand the description as much as possible, and personal feelings should not increase the tension. ② The project leader should check the work frequently, and communicate with relevant personnel weekly, monthly or quarterly to submit project forecast reports or progress reports or problems. ③ The project leader and the project team, project inspection team, market or users should maintain smooth dialogue and communication to prevent temporary emergencies or omissions. ④ Multi-dimensional communication, so that the person in charge to enhance the large-area thinking, both control the details without losing the overall situation, establish a height, overlook the overall situation, pay attention to the authorization of others, pay attention to the progress, the expected completion degree and the communication.

4. The project plan should have a sense of bone, combined with time to have substantive measures and progress

The project plan must clearly reflect the three elements: ① quality management and results (results of indicators or performance requirements); ② Cost (resources and budget); ③ Schedule (control the allocation of target tasks and time in each stage between the results of the development stage). Transparency of project management measures, such as the disclosure of the completion of the task process, progress, funds, supervision and inspection, assessment, etc.

Conclusion

Only through efficient project management can the project be perfectly successful, bring corresponding benefits and honors to the enterprise, and what is more exciting is that all R&D personnel have been recognized for their work day and night, and have also won the greatest professional praise.

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