

Research on Informatization Project Management and Implementation Strategies in the Context of Digital Technology

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ABSTRACT

With the rapid development of the new generation of information technology, the enterprise's business model and internal and external environment have undergone a sea change, the traditional information technology project management and implementation mode has been unable to adapt to the rapid innovation of digital technology, to meet the development needs of enterprises, it is necessary to conduct an in-depth study of the enterprise information technology project management and implementation strategy, to explore the new mode of enterprise information technology project management. This paper is mainly from the perspective of information technology project management and implementation of common problems in information technology project management and put forward a series of reflections and suggestions, aimed at providing experience for information technology project management and implementation.

KEYWORDS

Project management; Project implementation; Management innovation; Digital informatization.

1. INTRODUCTION

Under the background of digital science and technology, the type, quantity, and scope of information technology projects have gradually increased and become wider, and the progress of information technology improves the efficiency of enterprise management but also makes information technology project management more difficult, and the project management work has gradually become complex and diversified. The traditional project management model due to its cumbersome processes and multiple levels of management mode has been unable to adapt to today's market environment and project management requirements, so we need to further promote the effective integration of modern information technology and project management, optimize the integration of human, financial, material and other elements of the project resources, and strive to improve the operational efficiency of the enterprise information technology project management, so that the enterprise project management is more scientific and standardized, and provide new reforms for information technology project management and implementation. Project management and implementation of information technology to provide new reform ideas, and explore new innovative paths.

2. APPLICATION STATUS OF ENTERPRISE INFORMATION TECHNOLOGY PROJECT MANAGEMENT

Currently, China is in a period of comprehensive digital transformation, from the construction of digital infrastructure to the Internet of Things, cloud computing, 5G, and other new technology applications, which brings new opportunities and challenges for the management and implementation

of information technology projects, and the traditional information technology project management and implementation model still has some common problems.

2.1. Project scope management out of control

The project scope includes the management of all activities related to the project, the project scope is the benchmark for subsequent work, cost, and schedule estimates based on the scope of the project, and even to a certain extent determines the success or failure of the project, so we need to extraordinarily strengthen the project scope management.

Project implementation process, the first need to transform customer demand into project goals, objectives into project scope, the formation of work plans and project management control based on the plan, and ultimately through the delivery of products to meet customer demand, however, the actual project scope management out of control phenomenon is extremely common, the reasons are mainly reflected in the following points:

First, the scope of the contract is too vague, the lacks of detailed description, the details of the functional modules are difficult to define, and there is a certain degree of understanding bias between the two sides;

Second, the degree of management of scope changes is insufficient, lacking effective change processes and standards;

Third, the implementation of the work of dogma, completely according to the contract content, the contract inside the must do, the contract does not have must not do;

Fourth, the interpretation of the contract is not in place, for the customer's ideas without guidance.

The above problems often lead to the failure of the project's scope management, the scope of the project is the project implementation work of the baseline standards and bottom-line basis, only with good scope management, the subsequent project work can be carried out in an orderly manner.

2.2. Progress management overruns are serious

The project completion effect is reflected by three dimensions, first, the delivery rate of the project, that is, whether to complete the project acceptance of the project will be handed over to the customer; second, the extension rate of the project, whether to complete the project according to the initial schedule plan and the duration of the project completion; third, the customer satisfaction of the project. That is, not only to deliver but also to deliver on time, not only to deliver on time but also quality delivery.

Information technology projects need to be implemented before the implementation of a clear implementation of the master plan, the project to do stage division, to determine the milestone nodes and milestone node deliverables, etc., the implementation of the beginning of the research situation for the needs of research with the customer will be further refined, the project overrun based on the judgment of the project master plan, the master plan can only be a rough estimate of the actual work to be carried out before the accuracy is low, the project can not be completed within the specified period by the customer's requirements of efficient and high quality, the project schedule overruns. As a result, the project could not be completed efficiently and qualitatively according to the client's requirements within the specified period, and the phenomenon of project overruns was common.

2.3. Low efficiency of cross-functional synergy

Project management work interface positions, the need for the company's entire business chain of related positions to cooperate, the links are linked to each other, each other coordination, the enterprise in the interdepartmental coordination of the work of the lack of clear boundaries of

authority and responsibility, there is no specific content of the handover, the lack of process management, resulting in information in the process of communication has been omitted, there is a lag, the lack of a unified channel for the flow of information and the synergies of the process, from time to time, the occurrence of the work of The phenomenon of shirking responsibilities.

For managers, the information between departments is not accessible, the information is not transparent, it is difficult for managers of various departments to have an insight into the overall situation of the project, it is difficult to timely and accurately coordinate the resources of various departments, and quickly grasp the key information of various departments, which leads to inaccurate, untimely and poor quality of the work arrangement, thus further affecting the team's effectiveness and the efficiency of the enterprise.

2.4. Insufficient supervision at the upper level

The Project Management Committee (PMO) is involved in the project management process to achieve standardization of the development and supervision of project implementation of the organizational structure, the specific functions of the PMO vary in different organizations, and the degree of control and influence on the project also varies.

PMO plays an important role in the strategic design, implementation, transformation, and other aspects of the enterprise, different types of organizations PMO functions are different, however, there are many enterprises without project management committee organization or weak participation in the management of the project, the management level is weak, insufficient intervention in the project, lagging behind the prevention of risk, project risk prevention measures also lag, so that the project management of many aspects of the supervision is a formality. Supervision is a mere formality.

Lack of professional project management personnel within the enterprise or insufficient management capacity, the management team is mostly promoted from within the company, the project management of the various aspects of the need to control the key points of unclear, mostly rely on personal subjective judgment and experience to make project decisions, and the internal managers are not united in their thinking, varying ability, lack of professional knowledge.

3. IMPROVEMENT SUGGESTIONS FOR ENTERPRISE INFORMATIZATION PROJECT MANAGEMENT

In this paper, from the definition and characteristics of informatization project management and implementation as well as the problems and challenges facing informatization project management and implementation in the new era, we analyze the reasons for the problems of the project management process and put forward the following improvement suggestions and innovative paths.

3.1. Agile Project Implementation System

Given the above problems, the key processes and steps of project implementation are extracted from the Agile delivery theory, and an Agile project implementation system driven by key results is formed, which consists of the following contents: 1 project success yardstick, 2 types of project plans, 3 communication mechanisms, 4 milestone nodes, and 5 key driving results:

"1 project success yardstick" that is, the fundamental goal of the project, the project objectives include the customer's management requirements, the realization of the system's key application points, and the application of the system's bottom line, the project success yardstick as the origin to guide the project work.

"2 types of project plans" refers to the main project implementation plan and special work plans, the implementation of the main plan from the overall planning of the project to complete the task,

duration, and the responsible person and deliverables, while the special plan is from a more detailed point of view of the specific project activities for the development of the plan.

The "3 Communication Mechanisms" refers to the internal communication mechanisms, which are the weekly project meeting, monthly summary meeting, and special penetration meeting. The weekly project meeting controls the progress of the project with the smallest granularity, summarizes the work of the week and the work plan for the next week; and the monthly summary meeting summarizes the achievement of the management indicators and supervises the implementation of the project plan every month. The monthly summary meeting summarizes the achievement of various management indexes in a monthly cycle and supervises the implementation of the project plan. The special penetration meeting is to discuss difficult problems at irregular times, to find the most accurate solutions with the highest efficiency.

"4 Milestone Nodes": The four milestone nodes are project startup, blueprint planning, system online, and system acceptance, corresponding to the four major meetings, namely, project startup meeting, program debriefing meeting, online mobilization meeting, and project acceptance meeting, to drive the whole project process.

"5 Key Achievements": drive the project process through key achievements, strengthen the control of key achievements, increase the review and evaluation mechanism of key achievements, complete the project charter at the project initiation stage, and set clear implementation goals. The blueprint planning phase completes the business solution, which serves as a benchmark for the scope of project acceptance. The establishment of the online planning program marks the achievement of online milestones, and the completion of the acceptance summary report marks the imminent achievement of project acceptance. The rollout plan determines the subsequent rollout of the project. The achievement of key results drives the achievement of project milestones. Only by grasping the progress and quality of each key result can we ensure the success of the overall project.

3.2. "3L" Project Management Optimization System

Project management is the guarantee of enterprise operation, in view of the general status quo faced by the current information technology project management, to clarify the work focus and direction of different functional lines, the project control process according to different functions, split into three business lines, respectively, from three dimensions of the project process to exert influence on the project from three dimensions to contribute to the success of the project, "3L" refers to three lines of work, respectively, project management line, project implementation line and customer relationship line, to ensure the success of the project and win-win must have the "3L" project management optimization system. " refers to three lines of work, respectively, the project management line, project implementation line and customer relationship line, to ensure the success of the project and win-win situation there must be a variety of factors to protect, mainly through these three main lines of advancement to ensure the successful implementation of the project. 3L project management methodology of the system structure:

3.2.1. The "1L" Project Management Work Line

Setting up a project management committee (PMO) to effectively supervise and guide the execution of the project, the PMO's scope of responsibility is to provide project support services or directly manage the project according to the project situation.

Agile thinking in the Key Result Driven Delivery methodology provides a customer value-driven, flexible, iterative, and continuous improvement approach to project management, which manages continuously changing project goals and scopes and reduces the complexity of the project through iterative implementation.

Project management work and project implementation work interact, the main focus is on the control of the project process, the implementation of agile delivery methodology how to combine agile

thinking and project management ideas, in the implementation of the specific management process to promote a different focus:

- a).Project schedule management: The agile development process to development process is divided into several short iteration cycles, frequent delivery of new software versions, shortened project to the user cycle, the iteration cycle according to the project demand priority delivery of incremental development of usable versions of the system to the customer, to shorten the project schedule.
- b).Project scope management: the constraints on the project scope, not only contain the functional scope but also around the product needs to complete the specific project work content for clear definition and planning.
- c).Project quality management: through specialized tools and management tools, through iteration to continuously improve the quality of the deliverable version of the software, by reducing the cost of refactoring to increase the adaptability of the software, and continue to deliver the project.
- d).Project Communication Management: Manage communication activities through management measures to achieve efficient collection of information, and efficient and effective communication of information.
- e).Project Integration Management: Project management is based on the supervision and control of the project, based on the project management rules defined in the project preparation process to ensure that the project implementation is completed on time and as needed, and to ensure satisfaction with the project process.

Adhering to the goal of enhancing customer value, the system implementation line, from planning to implementation, mainly focuses on the implementation scope defined in the specific project contract to carry out specific implementation work and guarantees the quality of implementation and the realization of the project value target through the execution of the implementation tasks.

The use of scenario-based delivery thinking, that is, any key results using "user scenarios", restore the real work scenarios, focus on scenarios, problems, and demands, based on the scenarios to build solutions, based on the customer's success perspective of the review program, to present the actual results, and rapid delivery of the customer's demands. We focus on solving the problems of uncontrolled project scope, low efficiency of demand research, serious deviation from customer understanding, etc., and improving the conversion rate of demand research.

3.2.2. The project implementation line has the following main links

- a).Project preparation and startup: to do a good job for the project in the early stages of information collection, environmental preparation, and research work; do a good job of the project plan, so that the subsequent implementation of the work can be followed.
- b).Requirements Acquisition and Analysis: Sort out customer management and business support as well as the need to customize the personalized needs of the customer needs to be analyzed to determine the way to achieve.
- c).System scheme and design: formulate the system realization scheme according to the result of demand analysis, and finally reflect the application value of the system.
- d). Development and unit testing: the system program and design development, the smallest testable unit in the software to check and verify.
- e). Integration and User Testing: Integration of the system as a whole and user verification process of the system's realized functions.

3.2.3. The "3L" Client Relationship Line of Work

The main goal of the customer relationship line is to consciously understand the customer in the process of the entire project, to understand its organizational culture, business content, and key

processes from shallow to deep, to truly understand and master the language of the customer, to establish effective customer relations, and to promote the promotion of the subsequent cooperation projects and the application of the system. This line is a continuation of the project output value, which is conducive to promoting the derivation of our customer output value and business value.

The customer relationship line requires conscious and purposeful understanding and mastery of the customer, to achieve reasonable thinking, establish effective communication, and carry out subsequent project planning for the customer, which is a strong guarantee for the smooth promotion of the project and application planning. In the actual project process needs to be a project management line, project implementation line, and customer relations line of work integration and unity. In the specific project implementation process, only the project implementation line is explicitly shown, the other two main lines are fused in the process of the various phases, the project manager needs to be flexible to apply and appropriate tailoring to use.

4. CONCLUSION

Under the background of digital technology, when implementing information technology projects, project management personnel should stand on the overall height of the internal and external resources of the enterprise, seize the market opportunities, control the direction of project management, clarify the management objectives, coordinate the various functional departments to carry out project management work efficiently, and effectively improve the quality and efficiency of information technology project management and implementation, to make the enterprise's information technology project management towards digitalization, standardization, and efficient development in a sustainable direction. The project management of enterprise informationization is developing continuously in the direction of digitization, standardization, and high efficiency, to enhance the core competitiveness of the enterprise and promote its steady development.

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