10.3

Relevance of Quality Programs to Project Quality

Quality | Project | Process | Management

Learning Objectives

1. Identify the similarities between process quality management and project quality management.
2. Identify the differences between process quality management and project quality management.

Process vs. Project Quality Management

Project quality refers to two distinct aspects of the project. The first aspect is the quality of the product or service delivered by the project. Does the end product meet client specifications? For example, does a software development project develop a program that performs to the client's requirements? A software program that performs the basic work functions but does not integrate with existing software would not be considered a quality product, as long as the client specified that the software must interface with existing software.

The second aspect of project quality is managing the project efficiently and effectively. Almost any client specification can be met if the project manager has unlimited time and resources. Recall that high quality means meeting the requirements for a particular grade while providing value. Meeting project deliverables within the time and resource constraints is also a measure of project quality. Developing a project execution plan that matches the complexity level of the project is the most critical aspect in developing a project plan that meets project specifications within the time frame and at the lowest costs. These two aspects of project quality have similarities and differences to quality as applied to parent organizations.

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Similarities

All successful quality programs have (1) a requirement for commitment to quality by all the employees and their partners and (2) an emphasis on error prevention and client satisfaction. To comply with TQM, Six Sigma, ISO, or other quality standards required by the client or by the project management firm, the project manager must engage in quality programs and provide documents that specifically comply with the quality standards in use. For example, a project is typically required to follow the parent organization's work processes related to procurement and document management. Any project's processes that interface with the organization's quality processes will be required to meet the quality standards of the organization.

If a large project involves repetitive processes such as repeated modules in an online training course, statistical processes control methods can be used to maintain the quality of the product. These process control methods are similar to those used by process managers in the manufacturing environment. The intent is for the work of the project to meet design specifications. The modules, for example, if repeated could be assessed to determine whether they consistently meet the quality standards of the project. The programmers design the modules to meet certain criteria that will support a structure. The criteria, detailed in the design specifications, provide the parameters that the instructional designers must meet when designing the course. On large projects the use of quality control tools and methods are critical to meeting design specifications.

Differences

Because projects are temporary, spotting trends in samples produced by repetitive processes is not as important as considering quality in the planning of the project. Instead, the project manager must be able to provide documentation that demonstrates that the correct processes are in place to prevent quality failures.

The cost of quality (COQ) must be considered in the scope document and the project budget. If the group or company that is providing the project management is separate from the client, the project budget will bear the cost of prevention while the client will reap the rewards of avoiding the costs of failure. If senior management does not recognize the

benefit to the organization of reducing cost of failure by spending more on prevention during the project, the project manager can be placed in the position of producing a product or service that he or she knows could be of higher quality.

If the cost of quality is not specifically considered and approved by senior management in the scope of the project, quality might be sacrificed during the project to meet budget goals.

Cost of Quality in a Learning Management System

At a Midwestern university, a new learning management system was being implemented. To reduce the cost of the system and avoid a late penalty, the project manager purchased and installed inferior server capacity. The less expensive system could only handle the current size of the university's processing load. Five years after the learning management system went online, the university had grown to far exceed the capabilities of their server architecture. The university did not take the time to specify the quality of the learning management system in the scope statement and was not aware of the implication of the inferior system at the time it was made. As a result, the cost of quality was lower in the prevention category but much higher in the cost of failure category. Because each party acted in their own interests instead of the interest of the university, and quality was not a priority, waste occurred and total cost increased.

Some separation of responsibility for quality is necessary. For example, if a project is undertaken to build a facility that makes something, it is important to distinguish between the quality of the work done by the project team and the quality of the items produced after the project is over. The client provides specifications for the facility that should result in production of quality products. It is the client's responsibility to provide appropriate project requirements that will result in a facility that can produce quality products. It is the project manager's responsibility to meet the project requirements. The project manager must focus on meeting requirements for project activities, but as part of the quality team, opportunities to improve the quality of the final product should be discussed with the client. If the final products fail to meet quality standards, someone will be blamed for the failure. It could be the project manager, even if he or she met all the requirements of the project specified by the client.

Cost of Prevention in Safety Training

An electronic parts manufacturer chooses to expand operations and needs to hire and train fifty employees. It uses its own human resources department to handle the selection and hiring of the employees, but it contracts with a nearby technical college to provide some of the training. The technical college is responsible for designing and delivering training on the topic of plant safety practices. The objective of the training project is to reduce the number of workplace accidents, but that is not the characteristic by which the quality of the training program is determined because the rate of accidents for employees who go through the training will not be known until after they have been employed for months or years. The criteria for determining the quality of the training must be something that can be controlled and measured by the project manager during the project.

Because projects are time sensitive, meeting activity finish dates is a common characteristic of quality work on a project that is not typical of a requirement of a process manager.

Timely Delivery Part of Quality

While developing training for a national event, certain deadlines were already set. If the event is scheduled for 6 months out, then those volunteering will need appropriate training before the event. If the training is designed and developed to specifications, but is delivered without enough time before the event, then the quality of the product is poor regardless of the effectiveness of the training.

Key Takeaways

- Both project and process quality management require commitment from all employees, including top management. They are both client oriented and prevention oriented.
- Projects are temporary and allow fewer opportunities to improve repetitive processes. Cost of prevention is often part of the project budget, but the cost of failure usually happens after the project is completed. This separation of costs and benefits can lead to taking short-term savings on the project at the expense of higher cost of failure after the project is complete.