

Working upward, the program of which the project is a part is the development of a palm nut oil industry for the country, and the development objectives are economic growth and employment. (This also illustrates that the higher in the hierarchy, the less specific the objectives.)

There is one final point: The project is part of a program to develop a palm nut oil industry. Other projects in the program might include these:

- The creation of distribution systems to take nuts from plantations to factories
- The building of factories to process nuts into oil
- The creation of distribution systems to take oil from factories to customers

The palm nut plantation project will not deliver any benefit until these other projects are completed. If all we do is develop a palm nut plantation, all we will end up with is mountains of useless nuts. We can give those nuts a notional value and work out the expected return from the plantation, but we cannot realize that return until we have completed all the projects in the program. Many projects are like this; we can get the full benefit from the project only after we have completed other projects in the program.

## 1.2 THE PROCESS APPROACH

In the preceding discussion I emphasized two perspectives on management:

- The management of the routine versus the management of the unique, novel, and transient
- A discrete, internally focused approach versus a process-based, customer-focused approach

Together these two parameters define four types of management (Fig. 1.10).

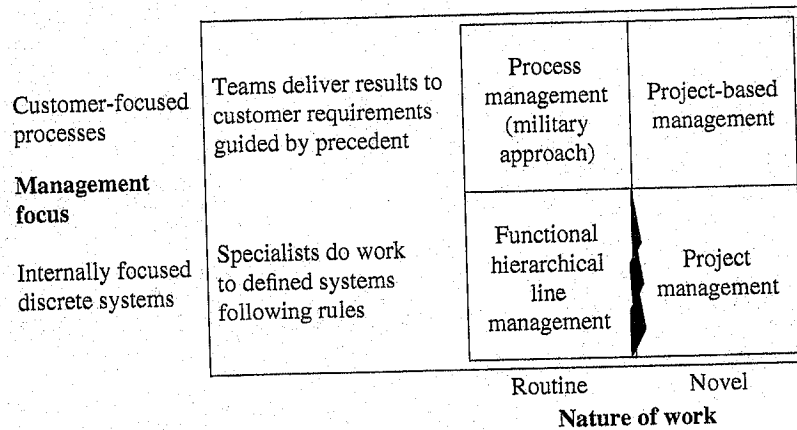


FIGURE 1.10 Four types of management.

Traditional functional, hierarchical line management, often called *classical management*, is the discrete approach to the management of the routine. The organization breaks its work into discrete steps and creates functions to undertake the work of each step. The products, as they move through production, are passed between the functions like batons in a relay race, except the baton is more "thrown over the wall" because little contact takes place between the functions as the product passes between each one. The idea of breaking the work of the organization into functions was the idea of Adam Smith (1776). He argued that it is much more efficient for the work of the organization to be done by specialist functions that become highly skilled at what they are doing. Frederick Taylor

(1913) suggested that the organization could operate as a machine, with the work processes of each function precisely defined and repeatable. The third component of classical management is the functional hierarchy created to direct the functions (Fayol, 1949). Under classical management, each function takes a predefined intermediate product from the previous function, processes it, and passes it onto the next function. As long as the design of the intermediate products doesn't change, the functions become decoupled, and each can focus on improving its work processes. Under a quality procedure such as the ISO 9000 series, for instance, each function can define its inputs and outputs and its work processes to convert its inputs to its outputs, and then can work on improving its work processes independently of the other functions as long as its inputs and outputs (the intermediate products) don't change. The organization gets better by gradual incremental improvement. However, as I said earlier, if you are second-best in the world, you don't become best by gradual incremental improvement.

When people first started embracing project management in the 1950s, they tried to adopt the functional approach with which they were familiar (the bottom right-hand box in Fig. 1.10). However, the problems associated with this approach were illustrated by the experience of a student of mine who was a quality manager with a medium-size construction company (Example 1.4). This example illustrates the following:

- In a project the management approach (or governance structure) needs to be aligned horizontally with the project and not vertically with the functions.
- Every project is different, so the project process needs to be tailored to the needs of the project. But be warned: the more you tailor the processes, the more likely you are to make a mistake; the more you use the standard processes, the more likely you are to get it right.

#### **Example 1.4** Implementing ISO 9000 in a Construction Company

My student was quality manager with a medium-size construction company implementing ISO 9000. As a first attempt the company applied the approach described in the previous paragraph. Let's say the steps in the overall process are design, procurement, and site construction. The company wrote down how each of those functions should work. Design would take instructions from the client and pass the completed designs to procurement; procurement would take the completed designs from design and pass materials to construction; and construction would take materials from procurement and pass the completed building to the client. Each function wrote down separately the work processes it would follow to convert inputs to outputs. However, no sooner had the company implemented the system than problems occurred. Difficult customers wanted the designs done and buildings constructed to their requirements. Design started saying it couldn't do what the customer wanted; it would make design noncompliant. Procurement said it couldn't take designs according to the customer's requirements, because it would make procurement noncompliant. They insisted doing what their ISO 9000 procedures required, not what the customer wanted. The consequence was that quality fell.

As a result, they reimplemented ISO 9000, but instead of writing down what each function did, they wrote down how they processed a project from receipt of customer order to delivery of the building to the customer. Rather than align the procedures vertically with the functions, they aligned them horizontally with the project process. They took a process approach. They also recognized that every project is different, so at the start of every project the project manager had to develop the quality procedure for this project, defining how the standard project process would be tailored to the needs of this project.

The company in Example 1.4 adopted a process approach to managing projects; the management approach (and project governance) followed the project process. The process approach is shown in the top half of Fig. 1.10, and it can be adopted for both routine and nonroutine work. In fact there is much less difference between the process approach for routine and nonroutine work than there is between the two for the functional discrete approach. Following the process approach, it is easy to slip between routine and nonroutine work and even combine the two in one activity.

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