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The Management of Key Enterprise Processes

Stanley Gage

The intense competition and business pressures that exist in today's global economies are creating a new realization that quality initiatives and continuous improvement programs are insufficient weapons in the battle to achieve sustained business success. The typical 5 percent to 15 percent improvement goals of most continuous improvement teams that focus on small segments of an organization's activities must be replaced by 2x, 3x, or even 10x levels of improvement in the performance of the entire value delivery chain of the enterprise. Such radical levels of change require not only a new paradigm from which managers must view their organizations but new tools that can help effect the desired change.

A focus on how work gets done

A key element in the move toward achieving large-scale performance improvements in most organizations is developing an understanding of how work really gets done in the organization. Or, in other words, what are the processes by which value is added in the development, production, and delivery of the goods or services that represent the end product of the organization's endeavors?

Most managers, when challenged with this question, defer to their organization charts with the explanation that R&D develops it, manufacturing builds it, and the sales force takes orders for delivery to the customers. But within this simplistic, metaphorical example lies the crux of much of the problem that is faced (or not faced) by managers when it becomes necessary to realize large-scale improvement in an organization's performance. Too many managers don't really understand their business. Given the emphasis on "back to basics" they may understand their customers and competition and how the products and services address these expectations. Too often, however, they do not understand in sufficient depth how their products get made, sold, and delivered.

Much of this problem, can be traced to the way in which organizations are commonly subdivided and managed according to the early twentieth-century principles postulated by Frederick W. Taylor. In *The Principles of Scientific Management*, Taylor suggested that the greatest efficiency was realized in organizations when people performing similar tasks were grouped under a single management structure. While these principles have served and

can continue to serve us well from an organizational management standpoint, the approach does not reveal the underlying flow of information and product that is actually taking place inside the organization and the underlying functions. An organization map such as depicted in figure 1 is a much more realistic portrayal of the relationship of activities that really are carried out within an organization. It is within these activities and their interrelationships, that the greatest opportunity for large-scale improvement can be discovered. However, these interrelationships are seldom recognized from a systems perspective and even less frequently managed and improved.

What is a process?

Adopting a process view of an organization represents a revolutionary change in perspective. Simply stated, a process is a set of activities designed to produce a specified output. There are some very important points that distinguish a process point of view from a hierarchical point of view. A hierarchical structure will depict the organizational responsibilities and reporting relationships whereas a process structure depicts a dynamic view of how the organization delivers value. Further, while it is not possible to measure the performance of organizational relationships and reporting responsibilities, processes can be evaluated on the basis of cost, time, productivity, and customer satisfaction. Most managers will note that they have identified processes in their organizations; and, in the better organizations, where Total Quality Control (TQC) is taking place there will be continuous improvement programs underway to realize gains in productivity or quality of these processes.

Most managers, however, fail to appreciate the varying scope of the process they are addressing. The processes depicted in figure 1, are of a much different scope from the processes commonly addressed by most process improvement teams. A taxonomy that describes processes in terms of the scope of activity addressed is shown in figure 2. The eight levels of process depicted here are somewhat arbitrary and may not apply to companies of all sizes. However, almost all organizations will have processes up through level 5. The important distinction to be derived from this set of descriptions is one of scope of process improvement efforts. For the most part, continuous improvement efforts deal with the processes described by the first three or four levels of figure 2. By contrast, the enterprise level processes where the big gains

Stan Gage is manager of the Business Process Quality Group in the Corporate Quality Department of Hewlett-Packard. He has been with Hewlett-Packard for 22 years in a variety of marketing, manufacturing, and R&D management positions.

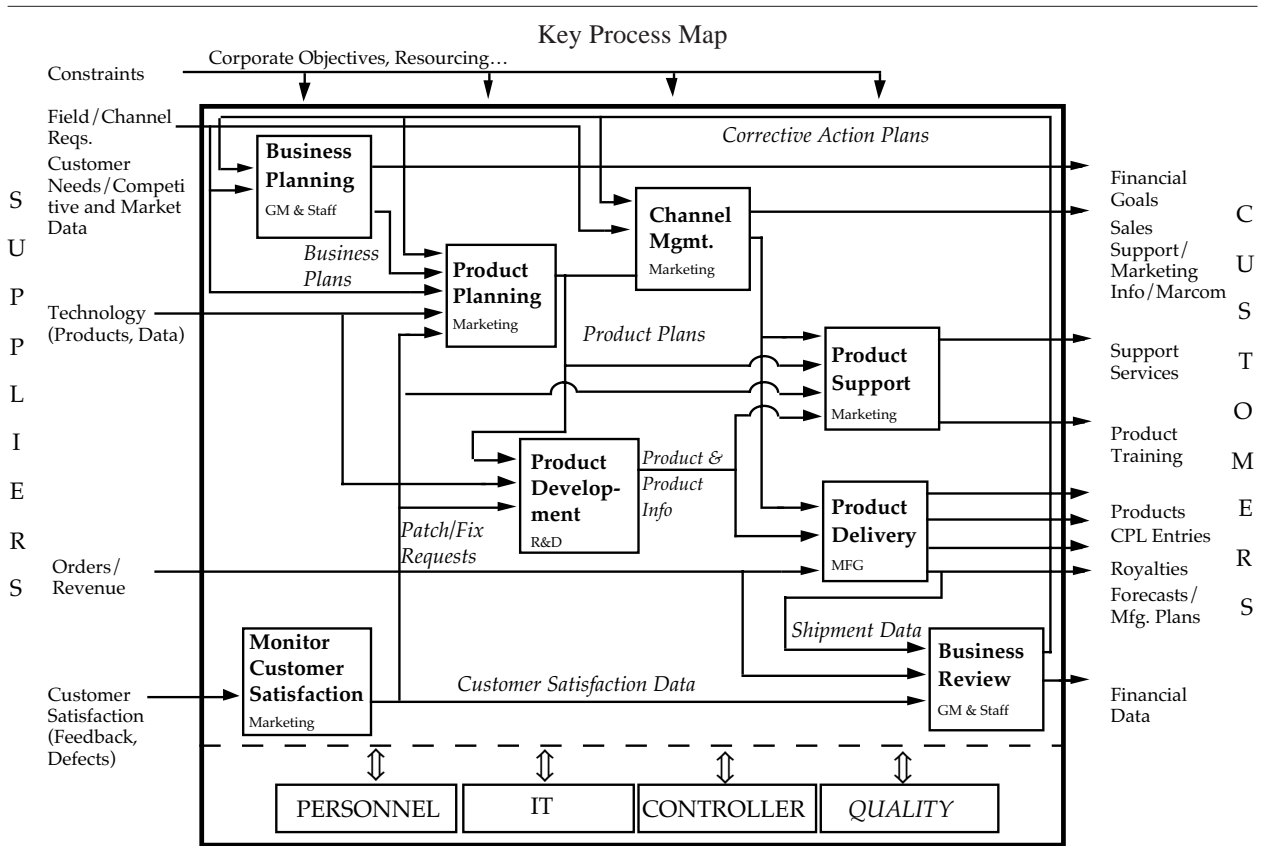


Figure 1

Process Framework

- Level 8 — **Company Wide**
 - Definition: Processes that effect all elements of an organization
 - Example: Corporate strategic planning. Company wide personnel procedures
- Level 7 — **Multiple Business**
 - Definition: Processes unique to logical grouping of more than one business entity
 - Example: Processes used in common by all divisions making computer peripheral
- Level 6 — **Single Business**
 - Definition: First level where key cross-functional processes report
 - Example: Methods for managing the set of processes that characterize a division
- Level 5 — **Portfolio Process**
 - Definition: Model for managing multiple iterations of any process over time
 - Example: Product generation process, order fulfillment process
- Level 4 — **Single Process Cycle**
 - Definition: A single iteration of a process from input through outputs
 - Example: Product life cycle, shipping a single order
- Level 3 — **Activity**
 - Definition: A related group of tasks within a process to produce a result
 - Example: Circuit design, software test
- Level 2 — **Task**
 - Definition: The basic unit of work performed by individuals
 - Example: Design capture, module functional test, assembly process
- Level 1 — **Method**
 - Definition: The basic technique used by individuals to perform work
 - Example: Analytical technique (e.g., FEA), automated testing

Figure 2

can be realized are described generally by levels 5 through 8. These higher-level processes are sometimes referred to as the key processes of the organization, because they characterize the way in which value is truly being added in the organization. These same high level processes often relate closely to the critical business issues confronting an organization.

Identifying the key processes of the enterprise

Identifying the key processes that characterize the activities of an enterprise and determining which of those processes have the greatest impact on the critical business issues are key steps in the implementation of a system of process management. Substantial time and money will be wasted if the key processes are not appropriately identified.

Although there is consensus among business management experts that identification of key business processes is critical, there is surprisingly little discussion in the literature on methods for process identification within an organization. A benchmarking study of a number of companies that have successfully implemented process management programs revealed some consistent patterns in both the approach to the identification of processes and the number of processes identified. This study was conducted as a part of the effort at Hewlett-Packard to institute a comprehensive program of internal consulting on the management of business processes. The study analyzed the process identification practices of 21 organizations that had carried out process identification efforts.

other factors. More than fifteen processes became difficult if not impossible to manage effectively. Also, a large number of processes may represent an organization on an overly granular level. On the other hand, while one or two processes would be more easily managed, they may represent the organization so broadly that effective visibility of the real process activity is not realized.

The actual methods used for the identification of processes were remarkably similar and could be generalized by the following seven steps:

- Develop a mission statement
- Gather environmental information
- Develop a comprehensive list of high level process elements and subelements
- Structure the list into natural value chain flows
- Prioritize processes based on importance to the success of the enterprise
- Select key processes based on the prioritized list
- Reevaluate key processes to ensure that the prioritization process has captured the intuitive judgment of the management team.

These seven steps represent a compilation of the process identification procedures of 21 different organizations. The process identification efforts generally resulted in a hierarchical structure (shown in figure 3) of process relationships which could then be related to the activities shown in an organization map (figure 1). Note, as well, that the processes identified and listed in the hierarchical diagram typically were at levels 3-5 of the process taxonomy (figure 2).

Hierarchical Relationships that evolve from a process identification effort

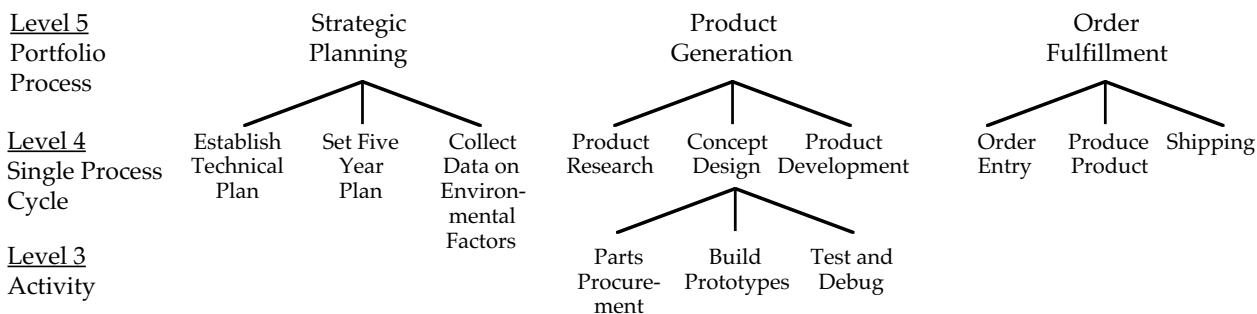


Figure 3

Most organizations characterized themselves by identifying from three to fifteen processes with the averages running at about five for individual functions within a division and up to seven processes for large companies. The interviewing process revealed that the high and low endpoints were driven more by pragmatic limitations than by any

Managing an improvement program

While the recognition that an organization can be envisioned as a system of processes and the identification of those processes are important first steps, the real goal underlying such endeavors must be the improvement of business results. Improvement activities can be viewed in many contexts and these activities are often assigned catchy names

Business Process Improvement Road Map

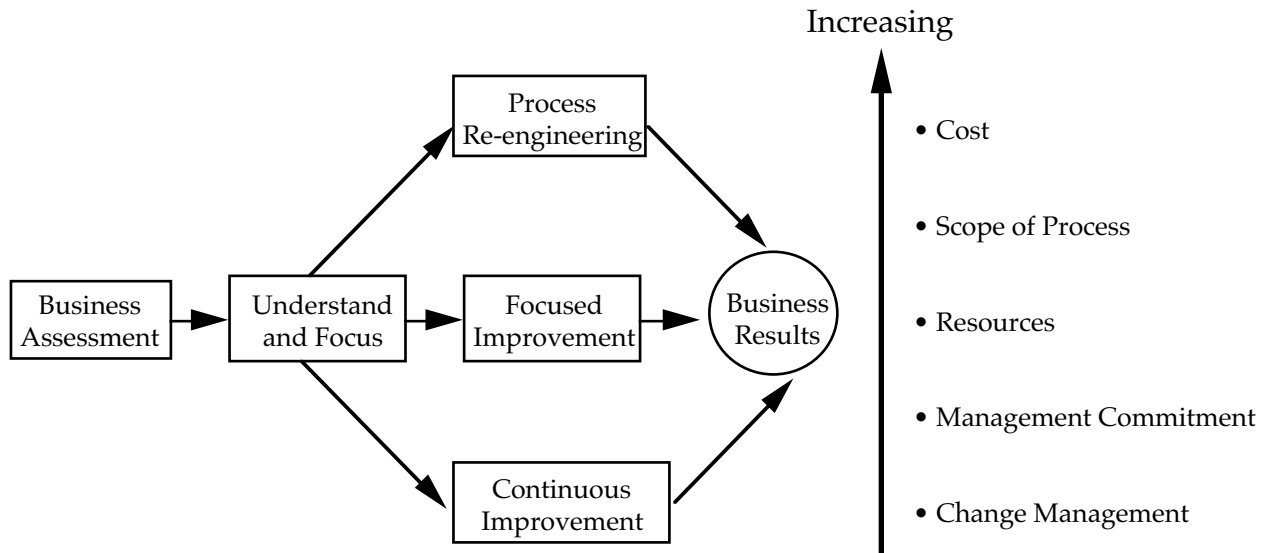


Figure 4

such as reengineering, cycle-time improvement, and so on. Most such programs can be categorized on a scale of increasing cost, risk, scope of process, resource involvement, management commitment, and need for change management. Figure 4 depicts these elements graphically and assigns improvement programs to three broad categories: continuous improvement, focused improvement, and process reengineering. While in practice these three categories exist on a continuum, for the purposes of discussion it is convenient to draw some specific distinctions at several thresholds. Continuous improvement refers to the set of improvement activities with which we are most familiar. Generally, these activities are focused on level 1–3 processes and result in 5 percent–15 percent improvement in those specific process areas. The in-

dividuals involved in the improvement effort are typically the employees who execute the processes. Focused improvement and process reengineering are efforts that are generally charted and led by the top management of an organization and are targeted at process levels four and above. These efforts address themselves to making fundamental changes to the way in which the organization’s value chain is executed. Typical improvement results can range from 2x to greater than 10x improvement and will generally show a major impact on the bottom line performance. The primary difference between the two is characterized by the starting point for the redesigned process. Reengineering argues for the “clean slate” redesign of the new process from the ground up, while focused improvement uses the

	Continuous Improvement	Focused Improvement	Process Reengineering
Cost	Low	Moderate	High
Risk	Low	Moderate	High
Scope of Process	Narrow within a department	Generally function-wide or greater	Broad, across multiple functions
Resource Requirements	Small, generally bottom-up	Moderate, requires functional management leadership	Large, requires top-down management leadership
Management Commitment and Participation	Relatively small to individual programs*	Must be sponsored by functional management	Very high for the entire program
Change Management	Generally not critical	Useful	Indispensable
Time Required	Short: 1–3 months	6–9 months	Long >1 year
Starting Point	Existing process	Existing process	Clean slate
Typical Scope of Change	Small <15percent improvement	>40percent–50percent improvement	Large-order of magnitude improvement

*While management commitment at organizations practicing effective TQC programs is, and must be, quite high this commitment is generally to the concept of TQC itself, not to any particular improvement effort.

existing process as a framework for the creation of a radically revised execution. The following table (see below) depicts how the three levels of improvement effort vary when measured against several different criteria.

The main differentiation between continuous improvement and focused improvement or process reengineering is the scope of the process under consideration. As noted earlier, continuous improvement efforts generally do not tackle broad-scope problems involving the entirety of one of the key enterprise processes. Conversely, focused improvement and reengineering typically look at the entire environment within which the target problem exists.

This is a key differentiation that should not be downplayed. Our general approach to problem solving is one that can be characterized by the term reductionism—that is, breaking a problem down into its constituent parts, working to solve each of them, and assuming that a solution to each of the parts will provide a solution to the whole problem. The following quote from Russell Ackoff in *The Second Industrial Revolution* expresses the systems viewpoint that the pursuit of a reductionist approach may actually worsen the real situation as opposed to achieving meaningful results.

I am going to call this thing a mess. Then we say that what reality consists of are messes, not problems.

Now, what is a problem? Let's take a mess for a moment, which is what you're confronted with in the morning when you come to work, and let's analyze it. Remember what analysis is – to take something apart. So if we take a mess and start to break it up into its components, what do we find that those parts are? The parts are problems. Therefore, a problem is an abstraction obtained by analyzing a mess.

Then what is a mess? That's the significant thing – a mess is a system of problems. Now the significance of this is that the traditional way of managing is to take a mess and break it up into problems and solve each problem separately, with the assumption that the mess is solved if we solve each part of it.

But remember . . . if you break a system into parts and make every part behave as efficiently as possible, the whole will not behave as effectively as possible. Therefore, the solution to a mess does not consist of the sum of the solutions to the problems that make it up. And that is absolutely fundamental.

Reducing a problem to its constituent parts of-

ten results in a loss of the perspective of the potential scope of the problem being addressed. One can hardly expect a team that is working to improve the performance of its individual part of a process to ask and seriously consider the question, “Should this piece of the process even exist, and if so should it exist in the form and with the input/output relationships that are currently in place?” These are questions that must be addressed by a higher-level team looking at the process from a broader perspective. But, unfortunately, these are often the questions that don't really get addressed. Most managers and process improvement teams work from the standpoint that the existing process structure is sacrosanct. It is a fundamental tenet of continuous improvement teams that they should, in general, address only that which is under the direct control of the members of the team. Who then has the responsibility for addressing the bigger picture? It must be and can only be the higher-level management structures within the organization. Studies show, however, that most senior managers spend less than five percent of their time addressing the management of these key enterprise-level processes.

The role of the highest-level managers in the enterprise in the introduction of a program of process improvement should include:

- Leading the effort to identify the key enterprise processes
- Appointing process owners and serving as process owners (leading by example)
- Expecting the use of process measures in evaluating process performance as well as in setting standards for individual performance and rewards
- Regularly reviewing the performance of each of the key enterprise processes in conjunction with a panel of the process owners
- Ensuring that the work environment supports a process perspective
- Implementing a process planning effort similar to the level of effort devoted to the planning of other elements of the business activity.

Ownership of key enterprise processes

All of the key enterprise processes need to have clearly identified process owners who are responsible for the efficiency and effectiveness and possible redesign of the cross-organizational aspects of the process. The specific roles of the process owner are to:

- Develop, monitor and report on a set of process performance measures that will ensure that the process is meeting both customer expectations and internal goals

- Ensure that the process functions optimally across the normal internal functional boundaries, which often become barriers to effective and efficient performance
- Ensure that a permanent team representing all of the involved functions is continuously evaluating the process performance and recommending improvement possibilities
- Develop a plan for the application of multiple levels of improvement effort to the process, ranging from continuous improvement through reengineering when necessary.

The selection of the process owners is a very critical activity because of the pivotal role that the owner must assume. The process owner role is very similar in nature to that of a project manager or a product manager in that it involves cross-organizational or matrix types of responsibility. Unlike the latter roles, however, the role of the process owner is relatively permanent, whereas projects and products tend to be more transitory. Process owners need to exhibit the following qualifications:

- They should be in a senior management position . . . preferably key functional managers or vice presidents.
- They must have the ability to influence people from outside of their direct area of management responsibility.
- They should hold a position of influence and equity for a major portion of the process and probably should manage the largest number of people working in the process.
- They should be respected for their understanding of the entire process not just the portion within their functional domain.

- They should have a good perspective of all of the environmental influences on the process such as customer expectations, internal stakeholder expectations, and so forth.

Conclusion

As it becomes increasingly difficult to sustain leadership in the technical arena, the ability to improve company proprietary processes faster than competitors do will become a key business differentiator. It is incumbent on the highest levels of management in an enterprise to sponsor and lead their organizations toward a realization of the importance of process management and process improvement.

Too often, in our short-term, bottom line-oriented management style, the immediate response to business downturns is to cut costs. And, of course, the fastest way to do this is to cut staff. But if staffing is reduced without a real improvement in the productivity of the remaining work force, something else will eventually have to give, generally either in the quality or quantity of the product produced. This is a self-defeating downward spiral to oblivion into which far too many contemporary companies are falling. Effective identification and management of processes before the onset of crisis can provide organizations with a much more productive work force that is highly empowered and continuously improving. ■



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