

The purpose of this chapter on “Process Improvement and Management” is not about performing the systematic methodology for process improvement; it is about creating an optimal environment for effective implementation of process improvement and management within an enterprise business.

In a previous chapter, we have indicated that the (production) line activities designed to support realization of the operational concepts include projects and operations that matter the most. Projects and operations have fundamentally different objectives.

A project is a sequence of unique, complex, and connected activities having one goal or purpose and that must be completed by a specific time, within budget, and according to specification. It is a temporary effort undertaken to create a unique product, service, or result. The purpose of a project is to attain its objectives and then terminate. Projects are therefore utilized as a mean of achieving an enterprise business intended strategy. They conclude when their specific objectives have been attained. Operations are ongoing and repetitive efforts, the purposes of which are to sustain the enterprise business. When their objectives have been attained, operations adopt a new set of objectives and the work continues.

Although projects and operations sometimes overlap, both share the following characteristics: they are constrained by limited resources; they are selected following analyses of their added value in terms of costs and benefits to the enterprise business; they are performed by people; and they are planned, executed, and controlled.

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## 10.1 Characterizing and Defining a Process

Another key characteristic that projects and operations also share is that they often use common series of sets of logically related discrete elements (tasks, actions, or steps) with well defined interfaces in order to achieve their objectives. These sets of logically related discrete elements (tasks, actions, or steps) are not goals in

themselves within an enterprise business; they are meant to achieve operations and projects work. We define a process as:

*A set of logically related discrete elements (tasks, actions, or steps) taken in order to achieve a particular end.*

In this definition, a discrete element, the performance of which is measurable, is meant to be the smallest identifiable and essential piece of activity that serves both as a unit of work and as a means of differentiating between the various aspects of a project or an operation work. Each discrete element is designed to create unique outcomes by ensuring proper control, acting on and adding value to the resources that support the work being completed.

From the perspective of this definition, a process acts on and adds value to the resources that support the activities being completed by a project or an operation work. Furthermore, each discrete element of a process has two aspects:

1. Its operational definition or specific technical content, which is addressed in our next book, and
2. Its context, which is represented by everything else that surrounds and affects the specific technical content.

A process is a set of logically related discrete elements (tasks, actions, or steps) taken in order to achieve a particular end. But when most people think of process at work, it is much more than the operational definition or specific technical content of its discrete elements that they are reacting to: it is the patterns of interaction ensuing from the resulting specific technical content, plus the resulting context.

Thus a process is characterized by the patterns of interaction, coordination, communication, and decision making employees use to transform resources into products and services of greater worth. Processes include not just manufacturing processes, but those by which product development, procurement, market research, budgeting, employee development and compensation, and resource allocation are accomplished. Some processes are formal, in the sense that they are explicitly defined and documented. Others are informal: they are routines or ways of working that evolve over time. The former tend to be more visible, the latter less visible.

Processes are defined or evolve de facto to address specific tasks. This means that when employees use a process to execute the tasks for which it was designed, it is likely to perform efficiently. But when the same seemingly efficient process is used to tackle a very different task, it is likely to prove slow, bureaucratic, and inefficient. In contrast to the flexibility of resources, processes are inherently inflexible. In other words, a process that defines a capability in executing a certain task concurrently defines disabilities in executing other tasks. One of the dilemmas of management is that processes, by their very nature, are set up so that employees perform tasks in a consistent way, time after time. They are meant not to change or, if they must change, to change through tightly controlled procedures in order to avoid unproductive habits.

The best way to determine an enterprise business processes from the outside is to imagine the kinds of problems and challenges the enterprise business must have repeatedly faced and solved that have led to its success and defined its daily life.

Telephone enterprise businesses have to build and maintain large, complicated telecommunication networks that must work just about all the time. Automobile car manufacturers have to coordinate a complicated network of suppliers. Medical enterprise businesses have to gain approval for new medical devices etc. For these enterprise businesses to be successful, they must have developed ways to face challenges and solve these problems again and again. They need processes that facilitate their ability to get done what has to get done.

There are also less visible background processes that support critical decisions such as where to invest resources, how market research is habitually performed, how financial projections are created, how plans and budgets figures are negotiated internally, etc. Many of these important processes that define an enterprise business' strength are not readily observable to outsiders or, as a matter of fact, to insiders.

Thus, a listing of the recurrent problems or tasks that an enterprise business has successfully, repeatedly addressed is a visible and reasonably accurate proxy for a listing of its processes. This means that if an enterprise business has never confronted a particular problem or task before, an optimized process to complete that task would not exist.

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## 10.2 Importance of Business Processes

Most enterprise business executives struggle with the concept of why business processes are important to an enterprise business. Historically there has been little formal tertiary management education on the opportunities that business processes bring to an enterprise business or the impact on an enterprise business if they are sub-optimal.

Some of the recent literature in the process world has suggested that business processes are so important that the enterprise business structure should be turned upside down to be a process-centric organization, rather than functionally based. It is argued that changing from the traditional functional, hierarchical orientation to a process-centric orientation will mean that enterprise businesses will function with greater efficiency and effectiveness, to the benefit of management, staff, customers and all other stakeholders.

After all, a functional organizational structured view creates a silo effect within an enterprise business, and this often leads to selfish or self-centered behavior by the management and staff of each silo, sometimes to the detriment of other silo's and the enterprise business as a whole. In most enterprise businesses, there is significant effort expended attempting to minimize, or eliminate, this silo effect but it can take years and years to orientate all the management to a more holistic approach and behavior. If successful, the challenge then is to maintain this new found focus as the management and staffs come and go from the enterprise business. If this is not successfully passed from one manager to another, then the enterprise business can regress back again to a silo-like situation. After all, this is how business has successfully functioned for decades.

While a process-centric structured enterprise business can in certain circumstances significantly benefit an enterprise business this not always true. Even if an enterprise business achieved the perfect organizational structure, this is still not a guaranty for its future success. Enterprise businesses are complex and intertwined organisms with no one aspect being dominant or the warranty to solve all its challenges and issues. The continual and sustainable success of an enterprise business is a complex set of interacting events and criteria and much has been written on how to achieve synergy.

Results are driven by the synergy of the eight overarching determining factor of strategic management outlined throughout this chapter. Business processes provide an enterprise business' ability to deliver products and services to customers. In much the same as performance measures, they are the link between all aspects of an enterprise business. Processes are the link between an enterprise business and its:

1. Suppliers
2. Partners
3. Distribution channels
4. Products and services
5. People (personnel)
6. Other stakeholders.

Of course, while a "performance measure" is a necessary condition for success, it alone is not sufficient for it. We still must take informed action. This is performed through a business process. Therefore we see business processes as the central core from which business is conducted, so long as they are supported by the performance measures and resources within the enterprise business.

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### **10.3 Realizing "Process Improvement and Management" Transformation**

Enterprise businesses create value as employees use processes to transform inputs of resources into products and services of greater worth. The principle that the resources that support the work being completed, the quality, and the execution time associated with discrete elements of a process can be optimized methodically is the basis of "Process Improvement" philosophy.

And the principle that a methodic management of resulting processes could design the best rational way of performing any activity within enterprises, which would lead to enhanced productivity and profitability, is the basis of "Process Management"<sup>1</sup> philosophy.

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<sup>1</sup> The term "Process Management" is sometimes used in the media to describe an organizational or managerial approach (referred to as "Management by Process) to the management of processes and some ongoing operations, which can be reduced to processes. An organization that adopts the "Management by Process" approach defines its activities as processes in a way that is consistent with the definition of process provided above.

Thus, “Process Improvement & Management” refers to the comprehensive set of activities followed to establish, implement and optimize the performance of enterprise processes. It includes defining expectations and accountabilities, setting process capabilities, process performance standards and performance measures, and assessing results. It is the centralized and coordinated management of processes to: obtain the benefits and control not available from managing them individually and, achieve the objectives of operations and projects work necessary to realize an enterprise intended strategy.

Although a methodic optimization of a process can be done separately from a methodic management of processes, process improvement cannot be dissociated from process management within an enterprise. In other words, process improvement alone is not an end in itself. There are two aspects to the improvement and management of processes:

1. The management of processes as an integral part of the enterprise business management, and
2. The management of process improvement.

*The management of processes as an integral part of the enterprise business management* – As an integral part of the enterprise business management, the management of processes is concerned with achieving the objectives of projects and operations work critical to realizing the enterprise intended strategy. It is performed by line managers owning these processes, while middle managers perform the management of the individual processes that support operational concepts selected to achieve the enterprise intended strategy demands. Typical process management and ownership–related responsibilities include the following:

1. Specifying objectives (goals) and measures that relate to the objectives and targets to be achieved – these targets should be broken down into daily or weekly measures to enable continuous monitoring and management.
2. Communicating the objectives, measures and targets to the people executing the processes and, if necessary, providing rewards and incentives.
3. Monitoring and managing progress of the targets, and verifying whether the objectives and measures are still accurate and relevant.
4. Motivating staff to exceed objectives and deal with process disturbances.
5. Encouraging staff to identify bottlenecks and possible process improvements.

*The management of process improvement* – As management of process improvement, this aspect is concerned with the identification, development and roll-out of the benefits of “Process Improvement and Management.”

Process improvement and management within an enterprise is about providing: focus (clearer perception) and integration (greater shared and streamlined) work knowledge and insight within the enterprise businesses. Although process improvement and management might come naturally to our minds, it is not an involuntary practice within enterprise businesses.

Regardless of the drivers and triggers, shown in Table 10.1 which is adapted from (Jeston & Nelis, 2008b), a “Process Improvement and Management” initiative, in a similar vein as a “Performance Measurement” initiative described in a

**Table 10.1** Triggers and drivers for implementation of a process improvement and management initiative

Perspective	Trigger and drivers	
Enterprise business	High growth – difficulty coping with high growth or proactively planning for high growth	
	Mergers and acquisitions – they cause the enterprise business to ‘acquire’ additional complexity or require rationalization of processes. The need to retire acquired legacy systems could also contribute	
	Reorganization – changing roles and responsibilities	
	Change in intended strategy – deciding to change direction to operational excellence, product leadership or customer intimacy	
	Intended strategic objectives or goals are not being met – introduction of process management, linked to organizational strategy, performance measurement and management of people	
	Compliance or regulation	
	The need for business agility to enable the enterprise business to respond to opportunities as they arise	
	The need to provide the enterprise business with more control of its own destiny	
	Management	Lack of reliable or conflicting management information – process improvement and management and performance measurement and management will assist
		The need to provide managers with more control over their processes
The need for the introduction of a sustainable performance environment		
The need to gain the maximum return on investment from the existing legacy systems		
Budget cuts		
The need for the ability to obtain more capacity from existing staff for expansion		
Employees	High turnover of employees, perhaps due to the mundane nature of the work or the degree of pressure and expectations upon people without adequate support	
	Training issues with new employees	
	Low employee satisfaction	
	The expectation of a substantial increase in the number of employees	
	The wish to increase employee empowerment	
	Employees are having difficulty in keeping up with continuous change and the growing complexity	
Customers Suppliers Partners	Low satisfaction with service, which could be due to: High churn rates of staff	
	Staff unable to answer questions adequately within the required timeframes	
	An unexpected increase in the number of customers, suppliers or partners	
	Long lead times to meet requests	
	An organizational desire to focus upon customer intimacy	
	Customer segmentation or tiered service requirements	
	The introduction and strict enforcement of service levels	
	Major customers, suppliers and/or partners requiring a unique (different) process	
	The need for a true end-to-end perspective to provide visibility or integration	

(continued)

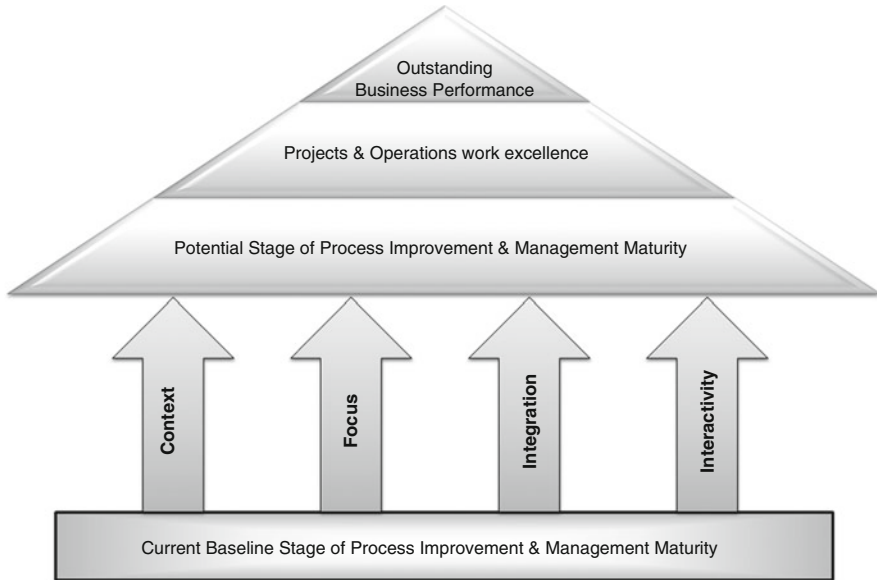
**Table 10.1** (continued)

Perspective	Trigger and drivers
Product and services	An unacceptably long lead time to market (lack of business agility)
	Poor stakeholder service levels
	Each product or service has its own processes, with most of the processes being common or similar
	New products or services comprise existing product/service elements
	Products or services are complex
Processes	The need for provision of visibility of processes from an end-to-end perspective
	Too many hand-offs or gaps in a process, or no clear process at all
	Unclear roles and responsibilities from a process perspective
	Quality is poor and the volume of rework is substantial
	Processes change too often or not at all
	Lack of process standardization
	Lack of clear process goals or objectives
	Lack of communications and understanding of the end-to-end process by the parties performing parts of the process
Technology	The introduction of new systems, for example CRM, ERP, billing systems
	The purchase of process management automation tools (workflow, document management, business intelligence), and the enterprise business does not know how to best utilize them in a synergistic manner
	Phasing out of old application systems
	Existing application system overlaps and is not well understood
	Introduction of a new IT architecture
	A view that IT is not delivering to business expectations
	The introduction of web services

previous chapter, is implemented in a social, economic and environmental context within the enterprise, and has intended or unintended positive and/or negative impacts. In much the same as with performance measures within an enterprise business, implementation of “Process Improvement and Management” initiative can be experienced in a positive or a negative manner depending on the maturity stage of the enterprise business.

Indeed, each and every function will be experienced quite differently in within an enterprise at the first or at the second stage of maturity, where leaders dictate or a command-and-control environment prevails. If employees perceive (through integration and context) that a process improvement and management initiative is in place to help them to become more effective and efficient, then the initiative will become a powerfully positive force in the enterprise.

Therefore, enterprise business executives, managers and leaders must address four aspects of paramount importance to making progress on moving the “Process Improvement & Management” initiative from its current maturity stage to “Continuous Improvement” maturity stage: Context of the initiative, Focus of specific technical content, Integration management of specific technical content, and Interactivity of the initiative, as shown in Fig. 10.1.



**Fig. 10.1** Four keys to transforming “Process Improvement and Management”

At the base of the diagram shown in Fig. 10.1 is the current stage of “Process Improvement & Management” in your enterprise business – even though there might be some enlightened process improvement projects underway. The enterprise business might have a process improvement methodology, a process management methodology (perhaps even a technology-enabled business process management one), and dedicated specialists well-trained in the application of these methodologies.

At this basic stage, enterprises can take advantage of at least some of the functionality that process improvement and management has to offer. However, in order to tap into its real power, it is important to progress far beyond this baseline stage. As the diagram in Fig. 10.1 shows, the extent to which an enterprise business can make effective use of the four keys is the extent to which it can tap into the true prospective of potential stage of process improvement and management, which will enable “Projects & Operations work excellence,” and which will, in turn, enable “outstanding enterprise business performance” – the ultimate goal of “Continuous Improvement” maturity stage.

### 10.3.1 Context of “Process Improvement and Management”

The context of a “Process Improvement and Management” initiative refers to the circumstances that form the setting for “Process Improvement and Management” event, statement, idea, constraints, social climate, or human factors, and in terms of which it can be fully understood and assessed. It is represented by everything else that surrounds and affects the specific technical content of the initiative, and it



ultimately determines the effectiveness of implementation of any initiative within an enterprise. It reflects how process improvement and management is perceived by employees and consequently how they respond emotionally to it.

How employees respond to a process improvement initiative is largely a function of how the process is used. Moreover, the context of a “Process Improvement and Management” initiative can make the difference between employees being energized by initiative or employees just minimally complying with it, and even using it for their own personal benefit.

The factors that strongly affect the context of a “Process Improvement and Management” initiative are identical to the factors that strongly affect the context of performance measurement and management. As indicated in a previous section, these are: the climate within the enterprise, the “Process Improvement and Management” expectations, and the human factor.

The climate within the enterprise – As mentioned already, it is the prevailing “atmosphere” within the enterprise, the social-psychological environment that profoundly influences all behavior, and it is typically measured by employees’ perceptions. The prevailing “atmosphere” is what best “defines” an enterprise to employees. It reflects perceptions on a variety of dimensions, including, among others:

1. The extent of formality (hierarchical structure) versus informality
2. Trust versus distrust (and cynicism) of employees
3. Open versus closed communication
4. Controlling versus collaborative decision making
5. Inward-looking versus outward-looking
6. Past focus versus future focus
7. Task-focus versus people-focus
8. Change versus rigidity
9. Risk-taking versus risk aversion

Enterprises at the “Continuous Improvement” stage of maturity are characterized by a prevailing “atmosphere” that is most conducive to improvement initiatives. These enterprises tend to be rated highly in such dimensions as openness, trust, honesty, collaboration, customer-focus, and flexibility.

*The “Process Improvement and Management” expectations* – It describe the practices, and the “rules” of conduct relative to process improvement and management within the enterprise. Although not always explicitly documented, and often unwritten, these expectations tend to reflect the enterprise’s assumptions, its deeply-held beliefs about process improvement and management. For example, expectations will prescribe what types of processes are most important for improving. In most enterprise businesses today, critical processes are still much more highly valued than non-critical ones.

*The Human Factor* – This is the most critical component of the context of process improvement and management. Processes are executed either by people or by people supported by technology. The ideas and inspirations that guide and improve processes within the enterprise businesses come from its people. Indicators of process performance measures; i.e. the actual specific measures of process

performance needed to decide on the required level of potential improvement, are of no value without human involvement. Drucker, writing in (1964), suggested that:

*Business is a human organization, made or broken by the quality of its people. Labor might one day be done by machines to the point where it is fully automated. But knowledge is a specifically human resource. It is not found in books. Books contain information; whereas knowledge is the ability to apply information to specific work and performance. And that only comes with a human being, his brain or the skill of his hands.*

It is people who will ultimately determine the effectiveness of a “Process Improvement and Management” initiative. People bring knowledge, skills, attitudes, commitment, capabilities, and experience into their execution of processes.

Transforming and optimizing (production and/or service) processes is and remains a leading concern of enterprise businesses worldwide. Enterprise businesses and companies are launching process improvement and management initiatives to optimize their processes effectiveness and efficiencies. The first thing that enterprise business executives, managers and leaders must realize is how important it is to establish an environment conducive to transforming “Process Improvement and Management” behaviors. The context of processes must also be redesigned to make their execution more appealing. Traditional production systems, which treat employees as cogs in a machine, have been notoriously making employees less eager to work and commit to any improvement initiative.

### **10.3.1.1 Improving “Process Improvement and Management” Context**

Improving the context of process improvement and management is one of the best investments an enterprise business can make, since the context affects all other aspects of any improvement initiative across the entire enterprise business. If the context is not transformed, then most people, if they use the improvement initiative at all, will just be “going with the flow” and will very likely also continue using the initiative for their own self-serving purposes.

To create a positive context for process improvement and management within enterprises at lower stage of maturity, enterprise business executives, managers and leaders must break with tradition, keeping in mind that the purpose of a “process improvement and management” initiative within the enterprise business is to provide clearer perception, greater shared and streamlined work knowledge and insight. Indeed, most enterprise business executives, managers and leaders consider their enterprise business to be a machine with employees as cogs. They create rigid structures with rigid rules and then try to maintain control by “pulling levers” and “steering the ship.” Creating a positive context means breaking from the employee as cogs tradition. Encourage employees to be active, think and take initiatives, and enjoy their work. Here are some ways to make this happen:

1. Recognize the difficulty
2. Assess people attitudes
3. Demonstrate visible commitment
4. Keep employees productively busy

5. Allocate the resources
6. Create a climate of involvement and appreciation
7. Maximize employee input
8. Emphasize the importance of learning
9. Encourage productive social interaction

*Recognize the difficulty* – Transforming the context of “Process Improvement and Management” from its current baseline stage to its potential maturity stage requires a very significant pattern shift from the way things are currently done in most enterprise businesses. For others than those who specialize in it, process improvement and management is not something that most people want to do or feel that they do well. Process improvement and management is a habit that must be developed

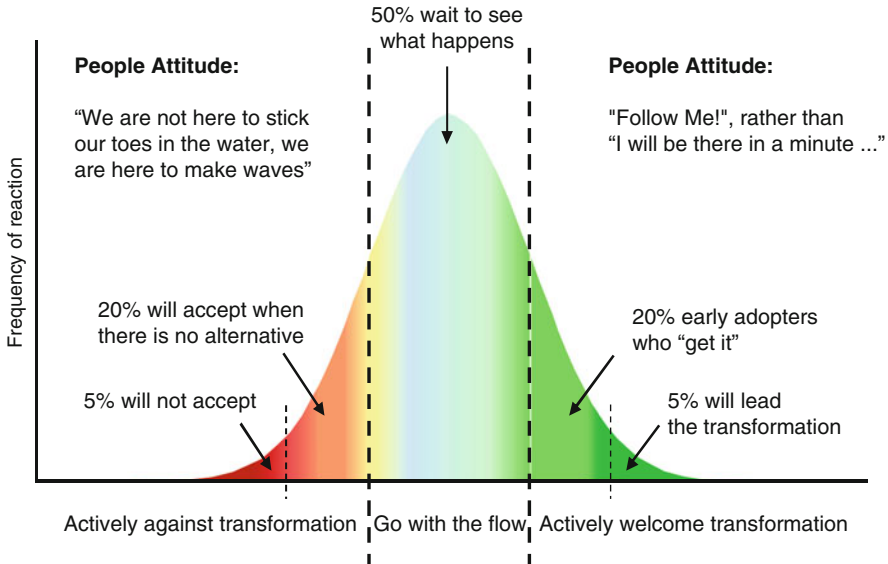
*Assess people attitudes* – As enterprise executive, manager or leader, you should consider assessing existing attitudes in your enterprise business toward process improvement and management in order to gauge how difficult the journey will be. This will also help you to determine areas within the enterprise business that might be more receptive during the early stages of the journey, and to identify individuals who might be early adopters. It is not important that the entire population of the enterprise business be “fit for transformation.”

A typical distribution of people attitudes is illustrated in Fig. 10.2. What this figure suggests is that only a small percentage of people in the organization (the right tail of the curve) will welcome a transformation effort and actively participate. Another small group (the left tail) will fight it actively. And the great majority – although they may nod and indicate their support – will be on the fence and waiting to see what is going to happen. Do not try to change those who, through blind ignorance, are clearly resistant to transforming the context of “Process Improvement and Management” – nothing is more frustrating than that. Look for those visionary managers, leaders and employees who “get it” and who are receptive – people who are likely to be the “early adopters” of transforming the context.

*Demonstrate visible commitment to process improvement and management* – Process improvement and management must be truly and authentically valued by those who lead it, or the remaining of the enterprise business populations will detect the lack of integrity. Therefore, it is important for the enterprise business executives, managers, and leaders driving the transformation of process improvement and management to become educated in the principles and practices involved in process improvement and management.

*Keep employees productively busy* – In a positive context, employees should leave work feeling that they accomplished something worthwhile. Do not allow them to be passive. Instead of letting them wait for assignments, for example, encourage them to use downtime to carry out self-improvement activities or ways to improve processes, hence activities, they are working on.

*Allocate critical resources* – The critical resources are assets such as the people, technology, products, facilities, equipment, channels, and brand required to deliver the value proposition to the targeted customer. The focus here is on the critical elements that create value for the customer and the enterprise business, and the way



**Fig. 10.2** Typical reaction to "Process Improvement and Management" transformation

those elements interact. Every enterprise business also has generic resources that do not create competitive differentiation.

Although process improvement and management has a cost associated with it, if done right, it delivers enormous value to projects and operations work critical to achieving the enterprise intended strategic demands. Do not starve the transformation initiative before it has the opportunity to take root. Allocate the critical resources, including education and training, necessary for making the transformation of process improvement and management a reality.

*Create a climate of involvement and appreciation* – Most traditional production systems provide a low level of positive recognition. Well thought out expressions of appreciation are powerful drivers of creating and enhancing positive contexts. As the context of process improvement and management progresses and the maturity stage increases, more and more people in the organization will become involved in initiative (from the lowest organizational level to the highest organizational level) and will begin to experience its positive side.

Involvement starts with the "early adopters," but it increases as additional process improvement opportunities are identified, and employees experience personal involvement in using the improved processes to achieve the objectives of projects and operations work they are assigned to. As the transformation process continues, employees will develop more ownership in process improvement and management:

1. *Maximize employee input* – Employees are a great source of ideas. And they will be committed to an enterprise business willing to listen to them.

2. *Emphasize the importance of learning about and from process improvement and management* – Learning from process improvement and management should be considered one of the key outcomes of the transformation initiative.
3. *Encourage productive social interaction during process improvement* – Interaction enhances communication and cooperation.

Transforming the context of “Process Improvement and Management” from its current baseline stage to its potential stage may take time, and we encourage enterprise business executives, managers and leaders to always start on a small prototype scale. Within the enterprise business, some functional areas are likely to be more receptive to this transformation than others.

We also encourage enterprise business executives, managers and leaders to start with the functional area of the enterprise business which is more receptive to this transformation, as a “prototype of concept.” Once the concept is shown to be effective, the remaining functional areas within the enterprise business will be more receptive to broader transformation of “Process Improvement and Management.”

### **10.3.2 Focus of Specific Technical Content**

The second aspect of paramount importance to making progress on the development and implementation of a “Process Improvement and Management” initiative is “Focus of specific technical content.” Within an enterprise business, there is a variety of processes that can be identified and a lack of focus can only leads to a waste of resources that should be assigned on the critical few high leverage projects and operations work drivers of the most important results of the intended strategy. When every process is important, there is nothing that is most important. Focusing on the right process creates enormous leverage for the enterprise business.

The purpose of focusing the specific technical content of a “Process Improvement and Management” initiative is to differentiate between the critical few high leverage processes associated with the operations and projects work that are drivers of the most important outcome of the enterprise intended strategy and the variety of other processes, the trivial many, that permeate every area of an operations and projects work within the enterprise and keep the enterprise running.

Focused specific technical content is about being effective, getting the right process captured, improved and standardized. In contrast, efficiency – which is too often the primary focus of enterprise managers – is about minimizing resources that support the work being completed, as enterprise businesses desperately try to drive out cost. While efficiency is important, effectiveness of specific technical content must come first. Indeed, there is no value in executing efficiently those processes that should never be executed at all. Anything that is not effective is waste, and reducing waste is, in turn, a key to increasing efficiency.

Successful enterprise businesses have operational and managerial processes that allow them to deliver value in a way they can successfully repeat and increase in scale. These may include such recurrent tasks as training, development, manufacturing, budgeting, planning, sales, and service. Such critical processes

also include an enterprise business' rules, metrics, and norms. These four elements form the building blocks of any business. The customer value proposition and the profit formula define value for the customer and the enterprise business, respectively; critical resources and critical processes describe how that value will be delivered to both the customer and the enterprise business.

The simple approach to developing a focused specific technical content for process improvement and management is:

1. To capture the critical processes resulting from the enterprise business QFD alignment, as explained in the "Alignment" chapter, and
2. To develop the process architecture for the enterprise processes.

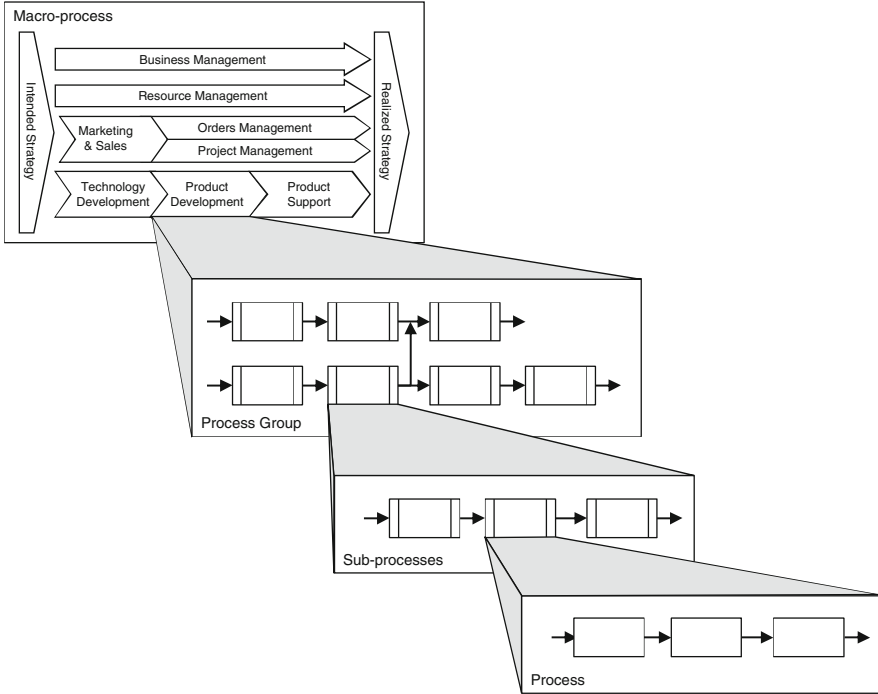
The critical processes and their documentation will form the basis for the specific technical content.

Capturing the critical processes resulting from the enterprise QFD alignment defines the enterprise process models. It also provides a structured approach to the enterprise business process models and ensures that processes are effectively and efficiently contributing to achieve operations and projects work critical to accomplish the enterprise intended strategy. Not every process within the enterprise business contributes towards the achievement of operations and projects work critical to accomplish the enterprise business intended strategy. Critical processes are the ones that do.

The process architecture on the other hand will ensure that all the relevant information, which consist of the foundation and guidelines for the process review and improvement, are made explicit and can be referred to. The process architecture is much more than a process model. It comprises a process model plus the objectives, principles, policies and guidelines that are the foundation for reviewing or creating new processes. Good process architecture for the enterprise will guarantee minimum time and effort for its use and provide a means of communicating, specifying and agreeing clear objectives for reviewing or creating new processes. All well-defined and well-managed processes have some common characteristics:

1. They have someone who is held accountable for how well the process performs (the process owner).
2. They have well-defined boundaries (the process scope).
3. They have well-defined internal/external interfaces and responsibilities.
4. They have documented procedures, work tasks, and training requirements.
5. They have performance measure and feedback controls close to the point at which the activity is being performed.
6. They have customer-related performance measures and targets.
7. They have known cycle times.
8. They have formalized change procedures.
9. They know how good they can be.

Within an enterprise business, processes are generally clustered into several major categories and hierarchies related to operational performance concepts (described in the previous section) necessary to achieve the enterprise business intended strategy demands.



**Fig. 10.3** Process clustering

These clusters – process model, process groups, and sub-processes – and their constituent processes, as illustrated in Fig. 10.3, serve as guide to apply appropriate knowledge, skills and resources during the course of projects and operations work. Furthermore, the application these process groups to projects and operations work is often iterative and their constituent processes are repeated and revised during the work.

Examples of process groups are: Corporate Governance Process, Strategic Planning and Management Process, Purchasing Process, Technology Development Process, Product Development Process, Manufacturing Process, Advertising and Marketing Process, Sales Process, Accounting and Finance Process, Technical Support Process, etc.

**10.3.2.1 Improving the Focus of Specific Technical Content**

Improving the focus of specific technical content aims at increasing the use of critical and high-leverage processes necessary to complete projects and operations work. Here are some ways to make this happen:

1. *Focus on the enterprise intended strategy demands.* Enterprise businesses at the “Continuous Improvement” stage of maturity constantly reassess and recalibrate their processes against their business model and intended strategy. Then, they

focus on the processes that are most crucial for achieving the objectives of projects and operations work critical to realizing the enterprise intended strategy demands.

2. *Encourage innovation.* Enterprises businesses at the “Continuous Improvement” stage of maturity encourage innovation in the process improvement and management system. Knowing the importance of viewing activities through different lenses, they encourage employees to discover new ways of achieving process tasks.
3. *Review/revise on an ongoing basis.* In moving the enterprise process improvement and management dimension from its current stage of maturity to the “Continuous Improvement” stage, enterprise business executives, managers and leaders must continually review and revise performance of processes in terms of how valuable they are in achieving high-leverage projects and operation work to realizing the enterprise intended strategy demands. They must change or discard poorly performing processes.

As processes become more focused and clustered, it is even more essential that they be integrated into the overall framework and structure of the enterprise business. Focus of specific technical content is necessary, but it alone is not sufficient. One of the major problems in most enterprise businesses today is the poor integration specific technical content associated with “Process Improvement and Management.”

### 10.3.3 Integration Management of Specific Technical Content

In some enterprise businesses, functions and their processes operate so independently that there is virtually no connection between them at all. Poorly integrated processes allow managers to pursue their own or departmental interests ahead of those of the enterprise business or its shareholders. The third aspect of paramount importance to making progress on the development and implementation of a “Process Improvement and Management” initiative is “Integration management of specific content” across the enterprise business; i.e., the relationships and overall trade-offs and balance among several different factors to create an optimal configuration of process clustering across the enterprise business.

As powerful as individual critical processes can be to create value, they can also become ineffective if they are not integrated into a framework that shows how they are related to other processes. It is the relationship and overall trade-offs and balance that will yield consistent, ongoing value creation over the long term. The bottom line message to enterprise business executives, managers and leaders is: if “Process Improvement and Management” is going to have a truly transformational long-term impact, it must reflect the interconnectedness and holism of the total system – and integration across the enterprise business.

Integration management of specific technical content includes characteristics of unification, consolidation, articulation and integrative actions that are crucial to process execution, successfully achieving operations or projects work objectives. It



deals with the relationship and overall trade-offs and balance; i.e. making choices about where to concentrate resources and effort execution of a specific process, anticipating potential issues or process shortcomings, dealing with these issues before they become serious.

Clusters of processes and their constituent processes are often presented as discrete components with well-defined interfaces; while in practice they overlap and interact in complex ways, the description of which extends beyond the scope of this chapter. Integration management is primarily concerned with effectively integrating the constituent processes among the process clusters that are required to accomplish projects and operations work objectives within the defined procedures of the enterprise business.

The need for integration management of specific technical content becomes evident in situation where individual discrete components interact. For example, a cost estimate of a project work needed for a contingency plan involves integration of the planning processes associated with cost management process, time management process, and risk management process. When additional risk associated with the use of alternative resources to support the work been completed by the process are identified, then one or more of the planning processes must be revised.

The integrative nature of processes can be better understood if we think of the other processes been executed while completing operations or projects work. Most enterprise businesses are composed of functional silos. They typically evolve from small simple ones to large complex ones. As separate functions emerge, each function wants to own its share of processes and resources. Functional boundaries become strong and more entrenched. Traditional disciplinary thinking creates and reinforces individual departmental factions. People tend to “see” the enterprise business through their own functions, roles, and processes, i.e., by their job descriptions and what they need to do to achieve success.

Therefore, we encourage enterprise business executives, managers and leaders to continually remind people in different functions within the enterprise to look beyond their processes. Cross-functional communication will help. But whatever steps are taken, none of them will be truly effective – at least not for long – unless the integration management of specific technical content of “Process Improvement and Management” is performed. Without integration management of specific technical content, the enterprise business will inevitably be at risk of operating at cross-purposes, often imperceptibly, wasting resources that could be focused on mutually creating real value.

There are actually two types of integration management of specific technical content: vertical and horizontal. Vertical integration involves the connection between intended strategy and critical processes up and down through the enterprise business. Horizontal integration is the connection of processes across the enterprise business functions and processes. Both of these forms of integration management can be obtained by mapping and capturing the critical processes associated with the enterprise QFD alignment described in a section above. Using the QFD alignment as framework and the process architecture developed for the enterprise processes to focus the specific technical content for process improvement

and management, the enterprise business can further purchase a process-modeling technology tool to facilitate the integration management and enable better enterprise-wide processes execution.

We must clarify at this stage that the integration management of specific technical content is about establishing a holistic process improvement and management system that must exist within a positive context; it is unequivocally not primarily about technology. Of course any breakthrough in enterprise process improvement and management will eventually require technology, but technology “solutions” are not real solutions unless the social enablers are in place. Technology should support the holistic process improvement and management system – it is not the system!

As we have illustrated throughout this “Process Improvement and Management” section, significant process improvement and management can be achieved without the use of a technology process-modeling tool or software. The technology is helpful for enabling people to better deal with the complexity of enterprise processes and the proliferation of data, and to assist in mining data for insights. It can assist in performing some tasks that people cannot perform effectively themselves, or perform inefficiently. For instance, the technology can automate data collection process; reduce data handling errors; perform intricate analytics (including modeling “what-if” scenarios); enable simulation and predictive modeling; present data in virtually any form, with impressive visualization capabilities, even customized for each stakeholder group; zoom in on process detail, zoom out to see the big picture.

Technology can definitely reduce human intervention where it does not add unique value, and prepare information so that it is ready for the kind of interpretive activity that people can do best. One of the keys to success for enterprise businesses is to recognize when to rely on technology, and when to recognize and work around its limitations. It is not a matter of choosing between technology and people; it is a matter to using each appropriately.

### **10.3.3.1 Improving Integration Management**

Improving the integration management of specific technical content is not primarily about isolated processes, but about increasing progress toward one integrated process improvement and management system, including replacing the functional “silo” processes and their data repositories. However, nothing is more difficult than overcoming the forces of functional parochialism and data politics.

As activities become more complex, enterprise businesses need to divide up functions. Operating a complex enterprise business requires excellence from many functional areas: human resources, production, sales, marketing, accounting, finance, inventory management, compliance, risk management, and more. Enterprise businesses also need people to lead and manage those functions.

As responsibilities grow for each department, so does the pressure and accountability to meet local goals. At some point, out of necessity and in response to daily pressures and demands, the managers and leaders of those departments may start to focus much more on their functional goals than on the enterprise overall goals.

When this happens, making sure that their part of the process is done correctly may become all that really matters, even at the expense of mission success. The department or function may not only lose sight of the connection between its work and organizational outcomes; it may even stop caring about what happens outside its silo. The department or function then defines its world by the piece, not the puzzle. This condition is referred to as functional parochialism.

Parochialism develops when a group views the world strictly through the lens of its functional goals, and it judges the relative importance of other activities by the way they affect the group’s objectives. Parochialism limits the group to a narrow reference point – ultimately, everything is viewed from that filtered local perspective. Furthermore, if an enterprise business is already suffering from functional parochialism, then competition over resources can become intense. When this occurs, managers and leaders may start to lose sight of what is best for the business and focus just on what is best for their small part of the organization. Loss aversion kicks in, creating a natural tendency to protect and maintain excessive control over headcount and resources. If allowed to continue, the result may be territorialism, or the exertion of control over one’s silo to an extent that harms others in the same business.

When a functional parochialism situation occurs within an enterprise business, as it often does, moving forward with the integration management of specific content is enabled by the following factors:

1. Holistic view
2. Development and use of process frameworks
3. Cross-functional processes
4. Cause-and-effect understanding
5. Ongoing strategy alignment

*Holistic view* – Enterprise businesses at the “Continuous Improvement” stage of maturity are working hard to take a holistic, “big picture” view of process improvement and management, increasingly improving process constructs that reflect a broader understanding of all essential value creation activities and being more aware of their trade-offs.

*Development and use of process frameworks* – Enterprise businesses at the “Continuous Improvement” stage of maturity realize that isolated processes must be integrated into larger “process frameworks.” These frameworks include both vertical integration (the connection of processes up and down through the enterprise business) and horizontal integration (the connection of processes across the enterprise business functions). Enterprise businesses at the “Continuous Improvement” stage of maturity are finding that they are often dealing with abstract concepts, exploring in areas where many do not feel very comfortable, and adopting new processes in areas of considerable uncertainty. Process frameworks enable enterprise businesses to address these issues.

*Cross-functional processes* – Most of what adds value in enterprise businesses today is cross-functional. In enterprise businesses at the “Continuous Improvement” stage of maturity, cross functional processes contribute greatly toward breaking down

long established functional silos. New cross-functional processes, which are viewed as a key to collaboration across the enterprise business, are being regularly adopted.

*Cause-and-effect understanding* – It is through understanding the relationships and the trade-offs among process factors that enterprise businesses can gain valuable predictive insights from their process improvement and management systems. They realize that the key to the transformation of process improvement and management is to “understand first; execute second.” One of the indicators of process improvement and management maturity is that the causal relationships are being frequently being hypothesized and tested. Too many organizations hypothesize, but do not test. Insight into important cause-and-effect relationships and healthy skepticism about these relationships are features of process improvement and management maturity.

*Ongoing intended strategy alignment* – In enterprise businesses at the “Continuous Improvement” stage of maturity, there is ongoing commitment to increasing deeper understanding of the key strategic drivers of the enterprise business success. This is not a one-shot alignment exercise, but an ongoing process. One of the major contributions of QFD alignment has been to gain greater awareness of the importance of increasing the alignment on the enterprise intended strategy. However, as you have seen, this is just one element of process improvement and management maturity.

### **10.3.4 Interactivity of “Process Improvement and Management”**

The fourth aspect of crucial importance to making progress on the development and implementation of a “Process Improvement and Management” initiative is “Interactivity.” It represents the social communicative aspects of “Process Improvement and Management” which occurs through the search for shared knowledge or understanding of processes.

Because processes need to be integrated across an enterprise business, functions and people supporting the work been completed by those specific processes within the enterprise business need to become more interactive through dialogue. This interaction around them is what will turn the development and implementation of a “Process Improvement and Management” initiative within the enterprise into a transformational and effective reality.

Unfortunately, as we mentioned with in the performance measurement chapter, very few people are skilled at dialogue, and very few enterprise businesses currently have a strong capacity for dialogue. In fact, dialogs in most enterprise businesses are suppress in favor of debates, the more formal and adversarial processes which are antithetical to dialogues, because the purpose is for one individual to win an argument.

In order to take advantage of the interactivity that should occur at every stage of the development and implementation of a “Process Improvement and Management” initiative, enterprises business executives, managers and leaders must

endeavor to enhance and consolidate a positive context of “Process Improvement and Management” initiative through dialogue.

Dialogue thrives on openness, honesty, and inviting multiple viewpoints, as we indicated already. In dialogue, diversity of perspective is almost always good – whether it be functional, cross-functional, local, global, systemic, etc. The more perspectives involved, the richer the dialogue can be around the specific technical content of a “Process Improvement and Management” initiative. Dialogue as interactivity should incorporate: learning, understanding, defining, listening, modeling, hypothesizing, balancing, linking, and integrating.

Although most enterprises have a long way to go on the development and implementation of a “Process Improvement and Management” initiative, some enterprises at the “Continuous Improvement” stage of maturity have been identified as being more effective than most in “Process Improvement and Management.” These enterprises at the “Continuous Improvement” stage of maturity are more successful because of how much more effectively they use processes as a critical part of managing and doing projects and operations work on a continuing basis.

#### **10.3.4.1 Improving “Process Improvement and Management” Interactivity**

Enterprise businesses that are improving the interactivity of processes are well on their way to the “Continuous Improvement” maturity stage. Most of them have already improved through some degree of transformation of the context of the initiative, focus of specific technical content, and integration management of specific technical content. Now, they are looking for new and better ways to “socialize” process improvement and management. These enterprise businesses are using interaction to develop and continually review new process improvements, supplemented by the appropriate use of technology.

Enterprise businesses at the “Continuous Improvement” stage of maturity have typically established a “social architecture” to promote discussion of aspects of process data and information. This formal or informal structure enables enterprise operation managers and project leaders to carry on regular dialogues about process improvement and management issues.

Process improvement and management is built into the social fabric of the enterprise business, and is no longer just a program or an add-on. Most of the mistakes and shortfalls in attempts at the transformation of process improvement and management from the baseline maturity stage to the “Continuous Improvement” stage of maturity have, in fact, been due to a lack of interactivity. The factors which contribute to transform the interactivity of “Process Improvement and Management” include the following:

1. Frequent Interactivity
2. Effective and robust dialogue
3. Incremental and ongoing review and improvement of process frameworks
4. Collaborative learning
5. Appropriate use of technology

*Frequent Interactivity* – Operation managers and project leaders realize that process improvement and management is primarily about clearer perception, deeper understanding, and greater shared insight, knowledge, and wisdom.

*Effective and robust dialogue* – As Larry Bossidy and Ram Charan have pointed out, how people talk to each other absolutely determines how well the enterprise business will function. A lot of this interaction occurs through dialogues. Regular dialogue meetings within teams, groups, and between functions will help to integrate functions and lead to higher levels of collaboration and performance in process improvement and management.

*Incremental and ongoing review and improvement of process frameworks* – Enterprise businesses at the “Continuous Improvement” stage of maturity realize that what is optimal at a particular time might not be optimal in a month or a year, so the refinement of the process frameworks must be continuous. Processes must be continually calibrated and realigned with strategy, and then integrated across the entire enterprise businesses.

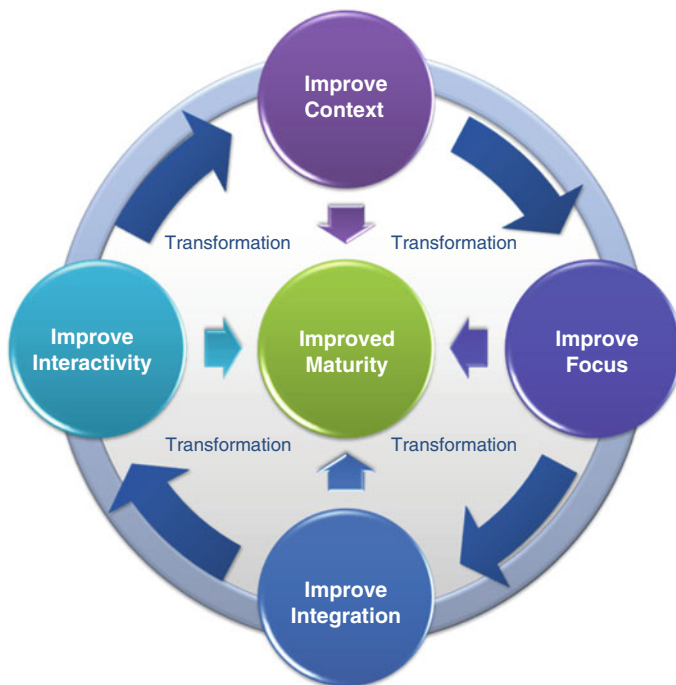
*Collaborative learning* – Most learning from process improvement and management is “collaborative action learning.” Through using and continuously improving processes, people in enterprise businesses at the “Continuous Improvement” stage of maturity are engaging in both single-loop and double-loop learning, and they are not afraid to challenge the traditional assumptions about process performance and existing process frameworks. There are regular “dialogue” meetings between functions to discuss existing processes, develop actions plans, review process frameworks, and consider process improvement issues. Enterprise businesses are finding that dialogues about their process frameworks will help identify cross-functional processes that will make a transformational difference to the enterprise. Nothing will break down the traditional functional barriers like collaborative learning through cross-functional processes.

*Appropriate use of technology* – In enterprise businesses at the “Continuous Improvement” stage of maturity, technology is viewed as an enabler of a robust process improvement and management system, but not the system itself. The emphasis is on automating routine processes and administrative functions, and on performing advanced analysis and reporting, but not replacing the uniquely human capabilities or detracting from the social aspects of the transformation of process improvement and management. Care is taken that technology facilitates interactivity of process improvement and management, and does not diminish it.

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## 10.4 Conclusion

We have indicated that the purpose of this section on “Process Improvement and Management” is not about doing the systematic methodology for process improvement; it is about creating an optimal environment for its effective use of process improvement and management.



**Fig. 10.4** Transformation process for “Process Improvement and Management”

Attaining the optimal environment requires a specific and intensive set of actions – a transformation process depicted in Fig. 10.4, and adapted from Dean Spitzer, as a continuous improvement loop; progressing from improving context, to improving focus, to improving integration, to improving interactivity – the four aspects of paramount importance to making progress on moving the “Process Improvement & Management” initiative from its current maturity stage to “Continuous Improvement” maturity stage.

This transformation process for “Process Improvement & Management” does not necessarily occur in this particular order, it is important that all four aspects of crucial importance be improved incrementally and on an ongoing basis. While the transformation cycle is occurring, maturity (in the center of the diagram) is also increasing. The transformation must be ongoing, or it will stop when the initiative is deemed implemented. The achieved maturity can be assessed in an ongoing basis the maturity assessment questionnaire given in Table 10.2 below (adapted from (Spitzer, 2007)).

The questionnaire is divided into four parts, one for each of the key aspects discussed in this chapter: Context, Focus, Integration, and Interactivity. The assessment score gives an indication of the extent to which the enterprise business has progressed overall and in each key aspect of the transformation. Although comparing the enterprise business’ total score to the maximum score of 250 will give

**Table 10.2** “Process Improvement and Management” maturity questionnaire

	#	Observation	Rating
Context maturity	01	Process improvement and management is widely used by all levels of employees throughout the enterprise business	
	02	The importance and value of process improvement and management are widely appreciated	
	03	Employees perceive process improvement and management as relevant, timely, and actionable in their jobs	
	04	Employees actively use process improvement and management in their jobs	
	05	Understanding and acting upon process improvement and management outcomes are viewed as key responsibilities of all employees	
	06	Process improvement and management is generally viewed as a positive force in the enterprise business	
	07	Process improvement and management is used to empower and enable self-management	
	08	Process improvement and management is rarely used to identify culpability	
	09	Fear of process improvement and management is low	
	10	Process improvement and management is trusted	
	11	Use of process improvement and management for self-interests is low or nonexistent	
	12	Process improvement and management outcomes are discussed openly and honestly	
	13	Employees are educated about process improvement and management	
	14	Employees are given the time and other resources they need to improve processes	
Focus maturity	15	This enterprise business addresses critical and high-leverage processes and not those that don't matter	
	16	Process improvement and management accurately reflect the most critical aspects of the operations and project work for achieving the enterprise intended business strategy	
	17	Processes are regularly reviewed and revised or eliminated (as appropriate)	
	18	This enterprise business has the right number of processes (not too many nor too few)	
	19	Routine processes are reduced when new high leverage processes are added	
	20	Routine processes are being increasingly automated	
	21	Progress is being made in capturing and improving processes associated to the measures of intangible assets	
	22	Experimentation with emergent processes is encouraged	
	23	Transformational and improved processes are being widely adopted and used	

(continued)



**Table 10.2** (continued)

	#	Observation	Rating
Integration maturity	24	There is a holistic approach to process improvement and management across the enterprise business	
	25	Processes are becoming more integrated	
	26	Employees understand the cross-functional implications of their processes	
	27	Cross-functional processes are developed and used	
	28	There is increasing understanding of the relationships and trade-offs between processes	
	29	There is widespread commitment to understanding the causal relationships among processes	
	30	Integrative process frameworks are developed and used	
	31	Ongoing effort is being made to align process frameworks with intended strategy, and keep them aligned	
	32	Progress is being made toward creating one integrated enterprise-wide process improvement and management system	
	33	Process improvement and management integration efforts have enterprise-wide leadership	
Interactivity maturity	34	There is widespread and frequent interaction throughout the enterprise business about process improvement and management	
	35	Frequent interactivity occurs regarding the selection of processes	
	36	Developing and revising process frameworks are highly interactive	
	37	Insights from process improvement and management information are discussed in many forums	
	38	The organization places a high priority on learning from process improvement and management	
	39	Time is made available to learn from process improvement and management	
	40	There are frequent and high-quality dialogues about process improvement and management	
	41	Executives are deeply engaged in process improvement and management related dialogues	
	42	Process frameworks are continually and interactively reviewed and revised when appropriate	
	43	Interpretation of process outcomes is as highly valued in this enterprise business as data collection and analysis	
	44	Collaborative cross functional learning from process improvement and management occurs throughout the enterprise business	
	45	Revealing questions are constantly being asked about process improvement and management	
	46	Process improvement and management experiments and pilot projects are occurring throughout the enterprise business	
	47	The enterprise business has effective social mechanisms for translating process improvement and management outcomes into appropriate actions	

(continued)

**Table 10.2** (continued)

#	Observation	Rating
48	The capability of the enterprise business for converting process improvement and management outcomes into actionable insight is high	
49	The enterprise business is effective at sharing insights from process improvement and management	
50	Technology is being used appropriately to support interactivity around process improvement and management	

**Use the standard five-point rating scale:**

5 = Strongly agree; 4 = Agree; 3 = Neither agree nor disagree; 2 = Disagree; 1 = Strongly disagree

**Interpretation key:**

Highest score is 250

210–250: Your enterprise business may just be at the cutting edge of process improvement and management, or you may be kidding yourself about how well your enterprise is doing. Very few enterprise businesses score this high

160–209: Your enterprise business is doing well, with some room for optimization. Focus on those areas among the four determining factors where your enterprise business is weakest for improvement

105–159: Your enterprise business is in dangerous territory, because it got here by scoring “3” in almost all areas, which is not very good. You might conclude that your enterprise business is average. In fact, it is probably shining in one or two contextual areas and doing poorly in the others

50–104: This is worrying; these scores are typical of enterprise businesses at low stage of maturity, authoritarian and where employees are viewed as expenses, not assets. Your enterprise business has major problems, and it is best to focus on one weak area at a time. The good news is that you have got a great opportunity to optimize process improvement and management within your enterprise business. We suggest, perhaps counter intuitively, that your enterprise business begins with addressing the context of process improvement and management initiative to build credibility

managers and leaders some idea of the “Process Improvement and Management” maturity, the primary purpose of this assessment is to help make the improvement initiative more visible, not to provide a static measure of the current stage of “Process Improvement and Management” maturity.

By administering this assessment over time, as “Process Improvement and Management” is being transformed, from its current maturity stage to the “Continuous Improvement” maturity stage, operations managers and projects leaders should be able to discern improvements. More importantly, this assessment questionnaire should be used for diagnosis and to foster dialogue about crucial “Process Improvement and Management” issues.