

## CONTINUOUS IMPROVEMENT OF BUSINESS PROCESSES

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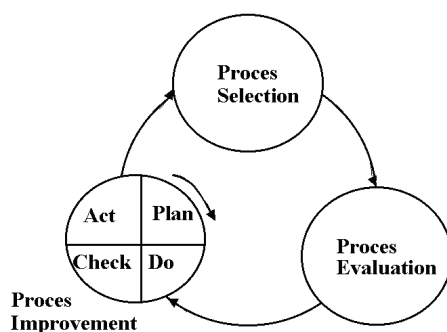
**Abstract:** Continuous improvement of business processes is necessary in order to satisfy customers. In this paper a framework is introduced to realize this successfully. By working continuously as a team according to the introduced models and tools problems will be systematically eliminated and the number of instances of doing things right the first time will increase. This article is based on the new book of the author, entitled «Total Performance Scorecard; Redefining Management to Achieve Performance with Integrity» (Butterworth-Heinemann, USA, June 2003).

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### Improvement process

The improvement process can be broken down into the following three steps (see figure 1):

- *Process Selection.* This is selecting and defining the critical business processes related to the improvement actions eligible for continuous improvement.
- *Process Evaluation.* This is the description, evaluation and documentation of the selected processes.
- *Process Improvement.* This is the continuous improvement of the evaluated business processes according to the Deming cycle (Deming, 1985).



**Fig. 1 Improvement process**

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\* Dr. Hubert Rampersad is president of QM Consulting in the Netherlands. This article is based on his book *Total Performance Scorecard; Redefining Management to Achieve Performance with Integrity*, Butterworth-Heinemann Business Books, Elsevier Science, Massachusetts, June 2003. For additional information, see: [www.qmconsulting.nl](http://www.qmconsulting.nl) and [www.Total-Performance-Scorecard.com](http://www.Total-Performance-Scorecard.com). Dr. Rampersad can be reached at: [info@qmconsulting.nl](mailto:info@qmconsulting.nl)

## Process selection

In this first step in the improvement process the emphasis lies on the selection of the critical business processes eligible for improvement. The most important activities hereby are (Rampersad, 2001):

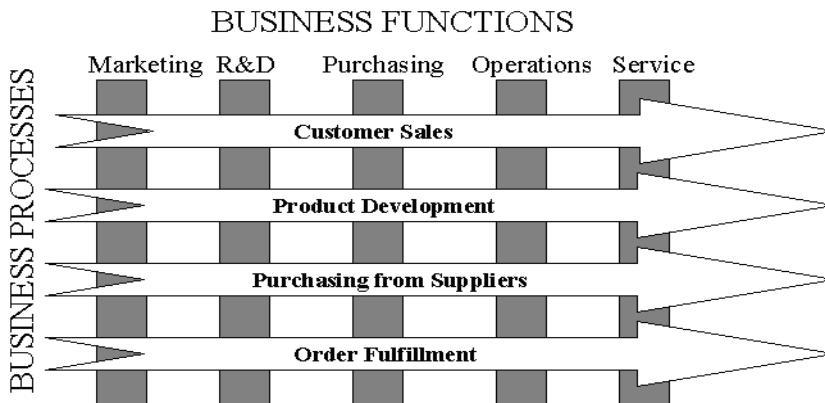
1. Form a steering group in which management also participates actively;
2. Define the critical business processes related to improvement actions; determine which business processes are relevant seen based on the Critical Success Factor (CSF) standpoint. Select the improvement actions with the highest priority number.
3. Appoint a process owner to each process selected. He is responsible for the improvement of the selected process and also functions as a sponsor. A sponsor is the one in the steering group who functions as the improvement project's counsel. He is aware that the project is important and, therefore, supports the improvement team, keeps the steering group up-to-date regarding progress and supports result implementations.
4. The steering group or the process owner then installs one or more *improvement teams* and appoints one or more team improvement actions.
5. The process owner and the team define the appointed process together and see to the process delineation.
6. Train the team in the use of improvement methods and techniques and train the team leader in effective team coaching;
7. Formulate an improvement plan, with in it, for example, the team mission, project title, improvement objectives, performance review measures, time planning for the execution of analyses, requested means, and aspects related to the creation of support for the changes and improvements (such as buy-in from top-management, resistance from the employees and consequences of the introduction); this improvement plan will be updated and further developed in the "*process improvement*" phase.
8. Gather the necessary information and analyze the customer data and complaints related to this.

The output of this phase is the foundation for the improvement plan, which will be developed further in the "*process improvement*" phase. An important aspect in this phase is defining the business processes related to improvement actions. A business process is characterized by:

- *An input*. For example: personnel, capital, materials, resources, etc.
- *A delineated process*. This deals with a series of interconnected activities.
- *An output*. Products and services.
- *The possession of internal/external customers and suppliers*. A process without customers is unimportant.

An organization can be considered as a chain of interrelated activities. Here each business process forms a series of activities, which is fulfilled by different business functions, such as making rooms available (at a hotel), developing products (in a production company), purchasing from a supplier (in a trading company) and data processing (in a bank). Make hereby the distinction between key processes (primary processes) and non-key processes (supporting processes). Key processes start and end with a customer, and are focused on adding value for the customer. Non-key processes are supportive in nature. To illustrate the above, the most important business processes of Jet Interior, a producer of airplane interiors, are illustrated in fig. 2.

For each business process, make a detailed division in sub-processes and process sections up to the action level. Start with the key processes. Thus, the production process of Jet Interior is divided into the sub-processes manufacturing, assembling, spray painting, testing, and packaging. The sub-process manufacturing is then subdivided into supplying, sorting, sawing, drilling, bending, sanding etc. Supplying can again subdivided in the activities picking up, moving, putting down, fastening, etc.



Business processes form a series of activities executed by different business functions. These processes focus on delivering a product or service to an internal or external customer.

The most important business processes of Jet Interior are:

- Selling to customers; making sales planning, making acquisitions, managing business relations, visiting customers, making offers, processing sales orders, invoicing orders, receiving payments and matching those with unpaid claims.
- Developing products; communicating with customers, determining customer needs, product design, process design, and attuning the service process to this.
- Purchasing from suppliers; selection suppliers, negotiating, closing purchase contracts, placing purchase orders, receiving purchase invoices, receiving goods, reconciling payments, paying purchase invoices.
- Fulfilling the order; receiving the order, processing the order, planning production, handling distribution.

**Fig. 2 The Most Important Business Processes of Jet Interior**

With the aid of a matrix we can now determine, which operational processes are relevant from the CSF standpoint. If a process is essential, it is indicated in the matrix. Non-essential processes (those with hardly any marks in the matrix) can better be outsourced. Table 1 shows an example of this exercise concentrated on Jet Interior. With this an impression can be obtained of the most important processes that add value for the customer. Processes that create a high value-addition receive the most attention and are eligible for continuous improvement. From table 1 can be seen that order processing, distribution, and administration in this company are non-essential processes adding hardly any value; they are thus eligible for outsourcing.

For each process-CSF-combination Performance Measures (**PMs**) related to the scorecards can be defined. These measure the activities that have crucial organizational importance, and as such, deliver a valuable contribution to controllability of business processes. They give management timely signals regarding efficient organizational guidance based on measuring (process) changes and comparisons of the measurement results with the norms. For example, to a customer oriented organization belong the following PMs: number of customer complaints, how fast complaints are handled, repair time, % of completed on-time deliveries handled according to specifications, and the thereto related handling time of orders. The PMs linked to high product quality are for example: number of customer complaints, % rejects, % of damaged returns, number of process interruptions, and quality grade. The following PMs match with *motivated employees*: % sick leave, % tardiness, labor productivity, turnover, etc. Table 2 shows an example of the Jet Interior company where per process-CSF-combination, one or more possible PMs are presented.

Table 1

**Matrix CSF and Business Processes of Jet Interior**

Business Processes	Critical Success Factors (CSF)			
	Motivated Employees	Customer Orientation	Product Quality	Cost Control
1. Selling				
1.1 Order Acquisition	X	X	X	X
1.2 Order Processing		X		
2. Purchasing				
2.1 Selecting Suppliers	X	X	X	X
2.2 Closing Purchase Contract	X		X	X
2.3 Placing Purchase Order			X	X
2.4 Receiving Goods	X		X	X
2.5 Paying Purchase Invoices	X			X
3. Manufacturing	X	X	X	X
4. Distributing			X	
5. Administrating	X			

Table 3 shows an overview of some possible performance measures per scorecard-perspective. Throughput time, productivity, effectiveness, efficiency and value-added are the factors that play an essential role here. The throughput time of a process is the result of the time spent executing the work and the waiting periods in the process. Productivity is the ratio of output and input in a process, or the ratio between results and costs (Rampersad, 2002). Effectiveness and efficiency also say something about productivity. Effectiveness indicates the degree to which the objectives are realized. Efficiency is closely related to the controllability of the process, the use of resources during the execution of the process and the operational costs. The rule of thumb here is: The shorter the throughput time, the more efficient the process in question. Thus, more effective has to do with more goal-oriented and more efficient has to do with faster, cheaper and better controlled. Value-added is the difference between the retail price of a product and the purchase costs of raw materials, goods and services needed to manufacture the product.

The other activities in this improvement step deal with defining customer needs linked to improvement actions and making an inventory of customer data and complaints. The central questions in this case are:

- Which products/services do we deliver, what do we have to offer?
- Who are our customers, how do they get what we have to offer?
- What do they want, what do they expect of us?

By answering these questions continuously, we will understand the customer better, and the product or service will better match the market demands. It is important to define the product or service as concretely as possible. This definition indicates your actual function as a supplier. The more specific the definition, the better customer needs can be met. In the framework of this approach it is important to understand the entire customer chain; this means intimately knowing all our customers. Here the needs of each customer must be examined separately. Not only the external but also internal

Table 2

### Business Process/CSF and Performance Measures Matrix of Jet Interior

Business Processes	Critical Success Factors (CSFs)			
	Motivated Employees	Customer Orientation	Product Quality	Cost Control
1	2	3	4	5
1. Selling				
1.1 Order Acquisition	<ul style="list-style-type: none"> <li>- % Sales per sales person;</li> <li>- % Sick Leave</li> </ul>	<ul style="list-style-type: none"> <li>- % Of customers lost;</li> <li>- Number of "non-sales";</li> <li>- Accessibility of sales department;</li> <li>- % Of available marketing competences;</li> <li>- Number of customer complaints;</li> <li>- Market share;</li> <li>- Market growth;</li> <li>- Degree of customer loyalty</li> </ul>	<ul style="list-style-type: none"> <li>- Number of customer complaints regarding product quality</li> </ul>	<ul style="list-style-type: none"> <li>- % Sales returns from new products;</li> <li>- Marketing costs;</li> <li>- % Decrease in marketing costs</li> </ul>
1.2 Order Processing	<ul style="list-style-type: none"> <li>- Labor productivity;</li> <li>- % Personnel turnover;</li> <li>- Process speed</li> </ul>	<ul style="list-style-type: none"> <li>- Completing rush orders;</li> <li>- Throughput time of orders</li> </ul>	<ul style="list-style-type: none"> <li>- Number of processing mistakes;</li> <li>- % Mistakes in customers' information</li> </ul>	<ul style="list-style-type: none"> <li>- Efficiency;</li> <li>- Turnover marketing business unit</li> </ul>

Table 2 (contin.)

1	2	3	4	5
2. Purchasing	<ul style="list-style-type: none"> <li>- Level of satisfaction of purchasing personnel;</li> <li>- Training costs purchasing personnel;</li> <li>- % Personnel who find they are working under effective leadership</li> </ul>	<ul style="list-style-type: none"> <li>- Delivery speed (time between ordering and delivering);</li> <li>- Time needed for the supplier to make a firm invoice;</li> <li>- % Of orders delivered too late;</li> <li>- % Of orders where too much/little was delivered</li> <li>- Number of customer complaints;</li> <li>- Throughput time during manufacturing</li> </ul>	<ul style="list-style-type: none"> <li>- % Approved materials</li> <li>- % Returns;</li> <li>- Delivery reliability of suppliers</li> </ul>	<ul style="list-style-type: none"> <li>- Purchase vs. market price;</li> <li>- Purchase share as opposed to sales;</li> <li>- Number of suppliers;</li> <li>- Number of suppliers supplying 1 article;</li> <li>- Average order size per supplier</li> </ul>
3. Manufacturing	<ul style="list-style-type: none"> <li>- % Sick Leave for manufacturing personnel;</li> <li>- Labor productivity;</li> <li>- Value-added/ personnel costs;</li> <li>- % Personnel turnover</li> </ul>	<ul style="list-style-type: none"> <li>- % Completed, on-time deliveries, according to specifications;</li> <li>- Delivery speed</li> </ul>	<ul style="list-style-type: none"> <li>- % Manufacturing waste;</li> <li>- % Rejects during production;</li> <li>- Effectiveness;</li> <li>- ISO norms in manufacturing process;</li> <li>- Value-added;</li> <li>- Quality grade</li> <li>- % Damaged goods returns;</li> <li>- Effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>- Availability machines;</li> <li>- Quality costs;</li> <li>- % Manufacturing waste;</li> <li>- Efficiency;</li> <li>- Integral productivity;</li> <li>- Capital productivity;</li> <li>- Material productivity;</li> <li>- Value-added/ sales</li> <li>- Warehouse utilization;</li> <li>- Stock levels;</li> <li>- Circulation speed;</li> <li>- Availability of transportation resources;</li> <li>- Capital productivity</li> </ul>
4. Distributing	<ul style="list-style-type: none"> <li>- % Sick leave at distribution business unit;</li> <li>- Labor productivity</li> </ul>	<ul style="list-style-type: none"> <li>- Time needed to fix a complaint</li> </ul>	<ul style="list-style-type: none"> <li>- Effectiveness;</li> <li>- Number of administrative mistakes</li> </ul>	<ul style="list-style-type: none"> <li>- Billing speed;</li> <li>- Age accounts receivable;</li> <li>- Efficiency</li> </ul>
5. Administrating	<ul style="list-style-type: none"> <li>- Labor productivity;</li> <li>- % Of personnel who feel they have challenging work</li> </ul>			

Table 3

**Examples of possible performance measures per BSC perspective  
(Rampersad, 2003)**

Perspectives	Performance measures
1	2
Financial	<ul style="list-style-type: none"> <li>• Shareholders value</li> <li>• Return</li> <li>• Return on investment</li> <li>• Investment level</li> <li>• Cash flow</li> <li>• Revenue growth</li> <li>• Sales</li> <li>• Operational costs as a percentage of sales</li> <li>• Margin</li> <li>• Profitability = sales / costs + interests received</li> <li>• % Deviation from the budget</li> <li>• Productivity = output / input = result / costs</li> <li>• Actual productivity = actual result / actual costs</li> <li>• Expected productivity = expected result / expected costs</li> <li>• Result = output = (all produced units x sales price) + dividends</li> <li>• Labor productivity = result / labor costs</li> <li>• Labor costs = man hours x hourly wage</li> <li>• Capital productivity = result / capital costs</li> <li>• Capital costs = annuity value of used capital goods</li> <li>• Material productivity = result / material costs</li> <li>• Material costs = purchased material – storage costs</li> <li>• Miscellaneous productivity = result / miscellaneous costs</li> <li>• Miscellaneous costs = energy, maintenance, insurance, etc</li> <li>• Integral productivity = result / (labor costs + capital costs + material costs + miscellaneous costs)</li> <li>• Effectiveness = actual result / expected result</li> <li>• Gross value-added = sales - used raw material, goods and services needed to produce these products</li> <li>• Net value-added = gross added value – depreciation (consumption of durable capital goods)</li> <li>• Value-added per annual sales</li> <li>• Purchase share as % of sales</li> <li>• Circulation velocity of stock</li> <li>• % Inventory</li> <li>• Purchasing price versus market price</li> <li>• Purchase share in relation to sales</li> <li>• Number of suppliers</li> <li>• % Revenue from new products</li> <li>• Market share</li> </ul>

Table 3 (contin.)

1	2
Customers	<ul style="list-style-type: none"> <li>• Market growth</li> <li>• % of customers who terminate their relationship with the organization due to dissatisfaction</li> <li>• Number of highly satisfied customers</li> <li>• Satisfaction degree of customers</li> <li>• Number of potential customers</li> <li>• Potential revenues</li> <li>• Time needed to answer to a complaint</li> <li>• Time needed to solve a complaint</li> <li>• Degree of customer loyalty</li> <li>• Number of “non-sales”</li> <li>• Costs associated with losing a customer or gaining a new customer</li> <li>• Sales loss as a result of dissatisfied customers</li> <li>• Number of visits to important customers</li> <li>• Number of meetings with customer groups to be informed about their demands, requirements, ideas, and complaints</li> <li>• Number of concrete objectives with regard to customer satisfaction</li> <li>• Number of guidelines related to optimal customer satisfaction</li> <li>• % Of cases where the telephone is answered within 3 rings</li> <li>• Accessibility</li> <li>• Costs of marketing</li> <li>• Sales marketing department</li> <li>• Level of satisfaction of internal customers</li> <li>• Delivery time (time between placing an order and delivery)</li> <li>• Time needed to make an offer</li> <li>• % Of orders delivered late</li> <li>• Response time to a service request</li> <li>• Number of customer contacts</li> <li>• Number of customer surveys</li> <li>• Number of warranty claims</li> <li>• Number of customer complaints</li> <li>• % Customer returns</li> <li>• % Customers satisfied with communication</li> </ul>
Internal processes	<ul style="list-style-type: none"> <li>• Efficiency = expected costs / actual costs</li> <li>• Throughput time = processing time + inspection time + movement time + waiting/storage time</li> <li>• Manufacturing cycle effectiveness = Processing time / Throughput time</li> <li>• Down time</li> <li>• Number of breakdowns</li> <li>• Availability = MTBF / MTTR</li> <li>• MTBF = Mean Time Between Failures</li> <li>• MTTR = Mean Time To Repair</li> <li>• Failure rate = (number of failures / total number of products tested ) × 100 %</li> <li>• Failure rate = (number of failures / operating time ) × 100 %</li> <li>• Actual processing times vs. waiting times</li> </ul>



Table 3 (contin.)

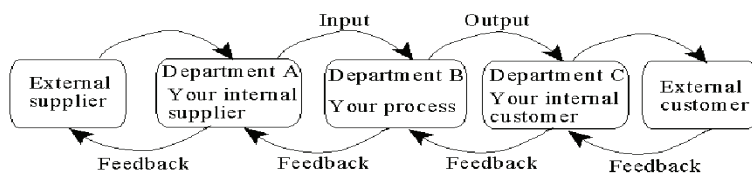
1	2
Internal processes	<ul style="list-style-type: none"> <li>• Machine availability = <math>\{(production\ time - stoppage\ time) / production\ time\} \times 100\ \%</math></li> <li>• Throughput time of failures = dispatch time – notice time</li> <li>• Invoicing speed</li> <li>• Delivery time: time between order and delivery</li> <li>• Time needed to present an offer</li> <li>• % of delayed orders</li> <li>• Response time to a service request</li> <li>• Lead time for product development</li> <li>• % Sales from new products</li> <li>• Time needed to launch a new product on the market (time-to-market)</li> <li>• % Sick leave</li> <li>• % Late comers</li> <li>• Satisfaction degree of employees</li> <li>• % Personnel turnover</li> <li>• % Of personnel who find that they are working under effective leadership</li> <li>• % Of personnel who find that they do challenging work</li> <li>• % Of forms filled in correctly</li> <li>• % Correctly performed function oriented behavior</li> <li>• Quality grade = <math>\{(production\ quantity - number\ of\ defects) / production\ quantity\} \times 100\%</math></li> <li>• % Rejects or % approved</li> <li>• % Scrap</li> <li>• % Damaged</li> <li>• % Returned</li> <li>• % Injuries due to dangerous work</li> <li>• % Safety incidents</li> <li>• % Environmental incidents</li> <li>• % Of processes which are statistically controlled</li> <li>• % Of processes with real-time quality feedback</li> <li>• % Delayed orders</li> <li>• Delivery reliability; percentage deliveries completed, on time, and according to the specifications</li> <li>• Quality costs consisting of:             <ul style="list-style-type: none"> <li>- Internal failure costs; costs linked to correcting mistakes before delivery of the product, such as: scrap, rejects, adjustments, downtime of equipment, labor sitting idle while waiting for repairs, and sales discounts for inferior products.</li> <li>- External failure costs; costs which regard the adjustments of malfunctions after delivery of the product, such as: repair costs, travel and lodging expenses, replacement costs, stock spare parts, lost goodwill of customer, guarantee &amp; warranty costs, and dispatchment costs.</li> <li>- Prevention costs; costs which are related to occurrence of the above mentioned costs such as: designing the product and the related process for quality, planning the quality control process, preventive maintenance costs, capital costs, quality training, and standard working procedures.</li> <li>- Judgement costs; costs which have to do with measuring and evaluating products and processes to guarantee that these meet certain standards such as: input check, laboratory tests, acquiring special testing equipment, receiving inspection, reporting on quality, and ISO-audits.</li> </ul> </li> </ul>

Table 3 (contin.)

1	2
Knowledge & learning	<ul style="list-style-type: none"> <li>• Labor productivity = result / labor costs</li> <li>• Value-added per labor costs</li> <li>• Value-added per number of employees</li> <li>• Value-added per labor time</li> <li>• Revenue per employee</li> <li>• Sales per employee</li> <li>• Availability of strategic information</li> <li>• Experience level of employees regarding exchange exchange</li> <li>• % Communication failures</li> <li>• % Available competencies</li> <li>• Number of necessary skills</li> <li>• Number of required or followed training courses</li> <li>• % Qualified employees</li> <li>• % Of employees that are trained in essential skills</li> <li>• % Of employees with the need for crucial skills</li> <li>• Training costs of employees</li> <li>• Training costs of executives and managers</li> <li>• Training costs as a percentage of sales</li> <li>• Number of solved problems</li> <li>• Number of suggestions per employee</li> <li>• Number of suggestions implemented</li> <li>• Usable strategic information as a % of available information</li> <li>• % Of employees with a competence profile</li> <li>• Degree of existence of innovative technology</li> <li>• % Available strategic skills</li> <li>• Average time that someone stays in the same position</li> <li>• % Of personnel with personal ambition linked to shared ambition of the organization</li> </ul>

customers should be considered. In fact, if the company does not satisfy the needs of its internal customers, how can the organization comply with the needs of external customer? All employees determine the degree of customer satisfaction. Employees of different sections and within different business units must be considered as customers and suppliers of each other. The customer is the next link in the chain of production activities. By bringing individual employees together as customers and suppliers, the traditional barriers between business units will be broken. Each employee delivers something to a colleague, whereby one functions as the internal supplier and the other as the internal customer. Fig. 3 shows that business unit C functions as the internal customer of business unit B, and that business unit A is the internal supplier of business unit B. Strengthening this relationship results in an internal network of customer/supplier relationships, which is beneficial to the quality of services provided to the external customer. Everyone in the organization must learn to think in terms of: *Who is my internal customer and how can I satisfy his/her needs?*

As a supplier, you should try to figure out what the customer needs and wants. Here communication is very important. Talk to your customers; ask them what they think of your product or services, try to figure out how they use it, try to find out what they really want, which gains they are looking for in your product, which needs your product satisfies, and what motivates them to keep buying your product and stay loyal



Customer-supplier-relationship

**Fig. 3 Internal and External Customers**

to you. Listen attentively to what they have to say and indicate which customer-supplier relationships need improvement. The central questions here are: Which needs/expectations do your customers have? Which ones are you aware of? To what extent do you comply with the needs/expectations of your customers? If you do not satisfy their needs, what are the reasons according to your customers?

From the above can be seen that gathering information about the opinion of customers regarding your product or service is of essential importance. Complaints from customers should be considered here as something positive, as a chance to learn from our mistakes and, based on this, improve the process in such a way that those complaints will not surface again. Therefore, complaints from customers form an important source of information for improvement.

### Quick Scan Customer Orientation

Table 4 shows a customer orientation audit consisting of 73 painful questions regarding your customer orientation (Rampersad, 2003). The questions are divided into the following five dimensions: 1) *general*, 2) *management style*, 3) *strategic vision*, 4) *internal processes*, and 5) *human resources*. Based on this, determine your organization's customer orientation and try to figure out as a team why this is characteristic of your organization. Afterwards develop a plan to improve your organization's customer orientation.

Table 4

**Quick Scan Customer Orientation**

Quick Scan Customer Orientation	Yes	Some-what	No
1	2	3	4
<b>I General</b>			
1. Do you know who your customers are and how many there are?			
2. Do you listen effectively to all your customers and do you familiarize yourself with their situation?			
3. Do you routinely conduct surveys among your customers about your products and services?			
4. Do all your employees know about the results of these surveys?			
5. Did you segment your customers based on their needs?			
6. Are more than 75% of your customers satisfied?			
7. Do you anticipate customer needs?			
8. Do you consider each customer a unique partner?			

Table 4 (contin.)

1	2	3	4
9. Are complaints addressed within two business days and resolved within one week?			
10. Do you stimulate dissatisfied customers to notify you of their complaints?			
11. Do you undertake unsolicited additional actions and do you provide additional unsolicited services to satisfy your customers?			
12. Do you have a customer helpdesk or a call center?			
13. Do you know the percentage of customers who terminate their relationship with your organization because of dissatisfaction?			
14. Are complaints systematically registered and analyzed in your organization?			
15. Did you establish procedures for handling complaints and are these routinely used in your organization?			
16. Do you measure the degree of customer loyalty?			
17. Do you regularly advise customers about your products/services that best fit their needs?			
18. Do you know what the costs are when you lose a customer?			
19. Do you know what the costs are to gain a new customer?			
20. Do you know how much sales you lose due to dissatisfied customers?			
21. Do you maintain relations with your customers and do you expand them?			
22. Do you regularly organize meetings with customer groups to learn about their needs, wants, ideas, and complaints?			
<b>II Leadership style</b>			
23. Is there commitment at top-management to customer orientation?			
24. As a manager, do you know how many complaints are received yearly?			
25. Is management convinced of the importance of satisfied customers and do they act accordingly?			
26. Did you integrate customer satisfaction into your organization's core values?			
27. Are these norms and values clearly communicated to all your employees and customers?			
28. Does management recognize notable trends and do they anticipate these in a timely manner?			
29. Does management set a good example regarding customer friendly behavior?			
30. Is management open to suggestions and ideas of customers?			

Table 4 (contin.)

1	2	3	4
31. Does management personally reward those employees who deliver a valuable contribution to increased customer satisfaction?			
32. Are relationships of management with customers supported and eagerly stimulated?			
33. Is management at all times available to the customer?			
34. Do all managers have regular personal contact with customers?			
35. Does customer satisfaction also belong to the evaluation criteria of management?			
36. Are the customer wishes continuously taken into consideration when taking decisions?			
37. Does top management also personally handle complaints of customers?			
<b>III Strategic Vision</b>			
38. Are there at least 5 strategic objectives and related performance measures formulated in the corporate scorecard?			
39. Have all managers formulated at least 3 personal objectives and related performance measures in their Personal Balanced Scorecard?			
40. Have you developed E-business strategies for the coming years to increase customer satisfaction?			
41. Is the strategy regarding customer orientation continuously communicated to all employees?			
42. Do you have a partnership relation with all your customers based on mutual respect and trust?			
43. Do you guarantee your customers a minimal service level and/or complete satisfaction?			
44. Do you continuously benchmark with regard to customer satisfaction?			
45. Do you involve your customers with the execution of company improvement processes?			
46. Are all of your employees involved with the improvement of customer orientation?			
47. Do you have guidelines regarding optimal satisfaction of the customer?			
48. Do you consider customer information a strategic asset?			
49. Do you have an up-to-date databank in which all customer characteristics are registered?			
<b>IV Internal Processes</b>			
50. Did you appoint process owners for controlling processes?			
51. Are products/services delivered within the period expected by the customer?			

Table 4 (contin.)

1	2	3	4
52. Does your phone, fax, internet and other E-business tools match the way your customers prefer to communicate?			
53. Is the phone in your organization answered within 3 rings in more than 80 % of the cases?			
54. Is every process in your organization arranged in such a way as to optimally comply with customer expectations?			
55. Do these expectations form the basis for performance measures?			
56. Are these indicators continuously measured and analyzed?			
57. Do you use measured customer satisfaction as an indicator for process improvement?			
58. Do you involve your customers in the development of new products/services?			
59. Do you also measure the satisfaction of your internal customers?			
60. Are employees personally responsible for solving customer problems?			
61. Do you translate customer needs to product and process improvements and the development of new products and services?			
62. Do supporting departments within your organization guarantee quality of the work they deliver?			
63. Are your marketing employees free to spend what is necessary to correct a mistake made with a customer?			
<b>V Human Resources</b>			
64. Does customer orientation belong to the competence profile of all employees?			
65. Do you give extra rewards to employees who continuously perform in a customer-oriented manner?			
66. Do you regularly organize trips to your important customers for your employees?			
67. Are your customer service employees free in taking decisions in order to satisfy customers?			
68. Are the employee's interest and the interest of your customers related?			
69. Do you stimulate your employees to generate ideas regarding the increase of customer satisfaction?			
70. Do you have an introduction program in which new employees are also educated concerning the importance of satisfied customers?			
71. Is training mandatory for each employee in your organization?			

Table 4 (contin.)

1	2	3	4
72. Are customer orientation and continuous work towards improvement criteria for promotion?			
73. Do your marketing employees receive a training of at least two weeks each year in customer orientation?			

Many of the recommendations related to this checklist also apply to your relationships with external suppliers. Treat your suppliers as though they are an integral part of your organization. Listen to their ideas on how you can work closely and productively together, create joint improvement teams with them, invite suggestions from them, assist them in improving their own processes, build mutual trust and respect, reward them if they achieve improvements, let them participate in the celebration of success, involve them in the development of new products & processes, and become a better customer yourself. Expanding your culture of continuous improvement & learning to all your suppliers will ensure that the quality of your inputs is sufficient to meet your own improvement objectives. If possible, minimize the number of suppliers; go with the few best and improvement-oriented suppliers with a demonstrated continuous improvement culture and effective leadership by top-management, based on a long-term partnership contract.

### Process evaluation

In this second step of the improvement process (see figure 1), the selected process is described in detail and checked whether the process is clearly understood. This is done based on measurements. Here we verify if there is a business process that can satisfy the needs of the customer. With this the defined process is mapped and process performances are measured. The performance measures defined in the first step function here as a starting point. During this phase, intensive use is made of improvement methods and techniques such as flow charts, fishbone diagrams, etc. (see Rampersad, 2001). Especially flowcharts are frequently used to display business processes and related process steps. In this should also be determined where measurements must be taken in order to control and manage process variations. In this step is also checked to what extent certain procedures should be adjusted based on this process review. These procedures are necessary in order to insure that the process can be executed in a similar way every time. The currently used and best working method should be recorded extensively in order to prevent that one reverts back to old habits. The working instruction should include relevant norms that are based on measurements and related to customer needs. Relevant control limits should also be determined for each measurement, based on customer information and process capacity. In this way the process performance can be measured and adjusted if needed. Essential points here are:

- communicating the procedures to the employees;
- promoting this within the organization;
- training of employees in its use;
- making procedures available and imposing its use.

The most important activities in this step are thus: describing the selected process, measuring the process performances based on the described performance measures, analyzing the available process data, performing cause and effect analyses and identifying root cause.

## Process Improvement

In this step in the process improvement the selected business process is continuously improved (see figure 1). For this purpose Deming's PDCA-cycle is continuously gone through. This consists of the following phases (Rampersad, 2001):

**Plan.** Update the improvement plan that was formulated in the step "process selection" and flesh it out based on the Organizational Balanced Scorecard. Clearly define the problems in it, determine improvement objectives, indicate the improvement actions chosen, and how they are related to the critical success factors. The expected results, effects, peripheral conditions, and control factors (time, money, quality, and organization) need also to be addressed here. An adequate problem definition is of essential importance here. This aspect is explained more clearly in the box below. The problem solving cycle on which this is based is shown in figure 4. Don't forget to also take into account management in your analyses. For, according to Joseph M. Juran, approximately 80 % of all organizational problems are caused by management!

**Do.** At first, execute the improvement plan on a limited scale, test chosen solutions, possibly conduct experiments, and train team members in using the improvement methods and techniques.

**Check.** Review the results of these improvement actions based on performance measures, check to what extent improvement objectives can be realized with this, and compare the results with the norms or the theory. If necessary start over.

**Act.** Implement the results, that is, introduce the proven improvement, bring the process under control, assess results, document the lessons learned in this phase, continuously improve and monitor the process, and standardize possible process changes. This last one implies that the existing working procedures should be adjusted or replaced and that all employees involved should know about this. As soon as possible, make these new procedures available to all employees and train them in using these procedures. Communication, giving feedback and creating buy-in for the improvements and changes are essential in this step.

Because the PDCA-cycle is worked through constantly, the process variability also decreases without stopping; due to this the results are improved continuously. In this phase continuous rapport with the customer is essential in order to comply with their needs all the time. Therefore, the cycle initiates again with the step "process selection" in order to keep track of the strongly changing customer needs and to select the critical process to be improved next. This can be seen with the line going back to the starting point in figure 1. This implies that a new business process is selected and considered eligible for continuous improvement. Through this approach the customer is continuously satisfied. Moreover, the organization constantly gets to know itself and its surroundings better through this.

## Problem Solving

Systematically solving problems encompasses a phased and cyclic process consisting of 9 steps, see fig. 4. The first two steps in the problem solving cycle, explained below, relate to problem definition.

First of all, it is necessary to appoint an improvement team or an improvement circle, and define the problem as a team. A precise problem definition is essential to find the exact cause for which an effective solution can be generated. For a clear problem description, the team needs to know which problems should be solved, where the problems occur and which aspects play a role here. Try to get as much information as possible about the problem. Therefore, it is necessary to consult several information sources regarding the subject, such as customer survey results, customer complaints,



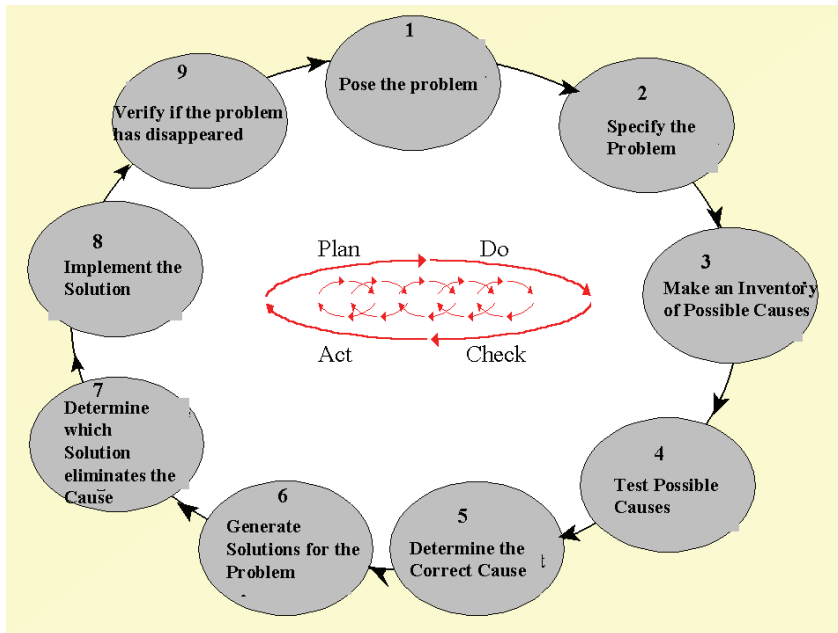


Fig. 4 Problem Solving Cycle © H. Rampersad

data regarding process performance, and discussions with internal customers. Gather all this information, analyze it, define the delineations of problem areas, define the problem as concretely as possible and formulate the desired final situation (objectives). Discuss these with the problem owner so that you have an accurate problem description. An inaccurately formulated problem definition may lead to wrong solutions. An accurate problem definition, however, identifies problem characteristics, determines its consequences, focuses on the difference between how it is and how it should be, and consists of a global measurement of the problem (how frequently, how many, when). For accurate problem definition it is also important to know how the process is presently being executed. Therefore, it is necessary to map the process in flow charts, whereby all stages from input to output are illustrated. The team should also consult with employees directly involved in the process. It is also important to know whether the measures taken resulted in an improvement. This will require taking measurements at different steps in the process as indicated in the flow chart. So you can, for example, put down the number of complaints received daily. It is necessary to understand problem details and translate customer needs into measurable and concrete specifications. Brainstorm the problem from all angles. The five Ws (*When? Where? What? Who? Why?*) guarantee that all relevant questions about the problem are posed: When does the problem occur? When did it first appear? Where does it occur? Where is the biggest need for a solution? What is the problem? What are the causes? What are the boundaries? Who causes it? Who is currently struggling with the problem? Who had caused it? Who is responsible for finding a solution? Why does it occur? Why must it be solved? By asking these questions you'll get a clear specification of the problem.

#### References

1. Deming, W.E., *Out of the crisis*, Massachusetts Institute of Technology, Cambridge, Massachusetts, 1985.
2. Rampersad, H.K., *Total Performance Scorecard, A Search for Self-Knowledge and Competence Development of Learning Organizations*, Scriptum Management, Schiedam, May, 2002 (in Dutch).

3. Rampersad, H.K., Total Quality Management; an executive guide to continuous improvement, Springer-Verlag, New York, February 2001.

4. Rampersad, H.K., The links between individual learning, collective learning and ethics, Training and Management Development Methods, Vol. 17 No.1, UK, 2003

5. Rampersad, H.K., Total Performance Scorecard; Redefining Management to Achieve Performance with Integrity, Butterworth-Heinemann Business Books, Elsevier Science, Massachusetts, May 2003.

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## **Постоянное усовершенствование бизнес-процессов**

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**Ключевые слова и фразы:** меры по проведению менеджмента всеобщего качества; процесс менеджмента; удовлетворение потребностей.

**Аннотация:** Постоянное усовершенствование бизнес-процессов необходимо для удовлетворения потребностей. В этой работе вводится схема их успешной реализации. При постоянной работе команды согласно предложенным моделям и инструментам количество проблем будет систематически уменьшаться. В основе данной статьи лежит новая книга автора, озаглавленная как «Результаты оценки полного выполнения; новое определение менеджмента для достижения целостности выполнения» (Butterworth-Heinemann, США, июнь 2003).

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## **Ständige Vervollkommnung von Businessprozessen**

**Zusammenfassung:** Ständige Vervollkommnung von Businessprozessen ist für die Konsumentenbefriedigung nötig. In dieser Arbeit wird das Schema ihrer erfolgreichen Realisierung betrachtet. Bei ständiger Arbeit der Mannschaft wird sich die Problemenzahl gemäß der vorgeschlagenen Modelle und Instrumenten systematisch verkleinern und die Zahl der positiven Beispiele wird sich vergrößern. Dieser Artikel stützt sich auf das neue Buch des Autors. Es heißt “Ergebnisse der Schätzung der Vollerfüllung; neue Bestimmung des Managements für die Erreichung der Erfüllungsganzheit” (Butterworth-Heinemann, USA, Juni 2003).

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## **Perfectionnement continu des business-programmes**

**Résumé:** Le perfectionnement continu des business-programmes est nécessaire pour la satisfaction des consommateurs. Dans ce papier on introduit le schéma du succès de son réalisation. Le travail continu en équipe d’après les modèles et les outils permet de diminuer les problèmes et d’augmenter le nombre d’exemples positifs. Cet article est basé sur le nouveau livre de l’auteur intitulé “Résultats de l’évaluation de la performance totale; redéfinition du management pour la performance achevée et pour l’intégration” (Butterworth-Heineman, USA, Juin 2003).

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