



# **THE SIX SIGMA BLACK BELT PRIMER**

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### III. PROCESS MANAGEMENT

**IT WOULD BE EASY TO DISMISS SIX SIGMA AS A FAD IF IT WEREN'T FOR THE CALIBER OF THE RESULTS IT'S PRODUCING AND THE COMPANIES ADOPTING IT.**

**PANDE, NEUMAN, AND CAVANAGH**



**III. PROCESS MANAGEMENT  
PROCESS MANAGEMENT OVERVIEW**

**II.EXTRA**

## **Process Management Overview**

**Process Management is reviewed in the following topic areas:**

- **Process management overview**
- **Stakeholder impact**
- **Benchmarking**
- **Performance measures**
- **Financial measures**

**Business process management (BPM) is a fundamental concept of six sigma. Efforts to improve individual (local) process components are replaced by systematic methods to understand, control, and improve (even optimize) overall business results. These methods have evolved from the basic tenets of quality and continuous improvement to address specific business objectives.**



**III. PROCESS MANAGEMENT  
PROCESS MANAGEMENT OVERVIEW**

**II.EXTRA**

## **Process Management Overview (Cont'd)**

**BPM is focused on understanding, controlling, and improving business processes to create value for all stakeholders. Six sigma builds on classic concepts to ensure desirable results. Juran defines three principal dimensions for measuring the quality of this process:**

- **Effectiveness: how well the output meets customer needs**
- **Efficiency: the ability to be effective at least cost**
- **Adaptability: the ability to remain effective and efficient in the face of change**

**This clearly addresses the need for business processes to provide value to both the customer (effectiveness) and shareholders (efficiency), now and in the future (adaptability). Six sigma initiatives strive to manage the entire business process to maximize these goals.**



**III. PROCESS MANAGEMENT  
PROCESS MANAGEMENT OVERVIEW**

**II.EXTRA**

## **Process Management Overview (Cont'd)**

**Most businesses are structured as functional organizations (vertical units or “silos”) based on functional groupings such as R&D, product development, engineering, production, distribution, marketing, sales, finance, administration, information technology, etc. Each vertical function also has several vertical levels from the top executive down.**

**Products (goods or services) are produced across many functional boundaries and business levels. Business process management represents a major advance in quality improvement thinking by managing the entire process including those areas between functional responsibilities.**



III. PROCESS MANAGEMENT  
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## Process Elements

The SIPOC diagram is a foundation technique for six sigma management and improvement. An example is shown below:



SIPOC is an acronym for the five major elements in the diagram:

**Supplier:** The organization providing resources to the process of concern

**Input:** The information, materials, or service provided

**Process:** The set of action steps that transforms the inputs into outputs

**Output:** The final product or service resulting from the process

**Customer:** The person, process, or organization that receives the output



**III. PROCESS MANAGEMENT  
PROCESS MANAGEMENT OVERVIEW**

**II.EXTRA**

## **Process Elements (Continued)**

**Six sigma relies on the SIPOC model to create, monitor, and improve closed-loop business systems for process management, process improvement, and process design/redesign. SIPOC can help everyone “see” the business from an overall process perspective by:**

- **Displaying cross functional activities**
- **Providing a framework applicable to all process**
- **Helping maintain the big picture perspective**
- **Providing methods for adding additional detail**



### III. PROCESS MANAGEMENT QUESTIONS

- 3.2. What key step would follow an evaluation of current practices against a benchmark?
- a. Identifying key performance factors
  - b. Selecting performance criteria based on priorities
  - c. Determining a leader in a critical performance area
  - d. Undertaking significant changes to advance performance
- 3.6. The percentages of total quality cost are distributed as follows: prevention 12%; appraisal 28%; internal failure 40%; and external failure 20%. One would conclude:
- a. More money should be invested in prevention
  - b. Expenditures for failure are excessive
  - c. The amount spent for appraisal seems about right
  - d. Nothing
- 3.13. One may say that business metrics, as opposed to process or operational metrics, would be most concerned with:
- a. Quality and costs
  - b. Throughput and costs
  - c. Quality and features
  - d. Profit and market share

**Answers: 3.2. d, 3.6. d, 3.13. d**