Benchmarking and TQM Implementation

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All figures are taken from(unless otherwise mentioned):

Quality Management for Organizational Excellence: Introduction to total quality

David L. Goetsch Stanley Davis

Seventh edition

Benchmarking

- Benchmarking is the process of comparing and measuring an organization's operations or its internal processes against those of a best-in-class performer from inside or outside its industry.
- Finding the secrets of success of any given function or process so that a company can learn from the information—and improve on it
- Benchmarking is a tool to help establish where improvement resources should be allocated
  - For example, it is discovered that three of five processes are nearly as good as the best-in-class performers, but two are significantly off the best-in-class mark, the most resources should be allocated to these two
- Benchmarking is done between consenting companies that may or may not be competitors.
- Benchmarking is equally beneficial for both large and small businesses.

Why Benchmarking

- The rationale for benchmarking is that it makes no sense to stay locked in an isolated laboratory trying to invent a new process that will improve the product, or reduce cost, when that process already exists.
- If one company has a process that is four times as efficient, the logical thing for other companies to do is to adopt that process.
- An organization can make incremental improvements to its process through continual improvement, but it might take years to make a 4× improvement, and by then, the competition would probably be at 6× or better.
- Benchmarking is used to show which processes are candidates for continual (incremental) improvement and which require major (one-shot) changes. Benchmarking offers the fastest route to significant performance improvement.

Prerequisites to Benchmarking

- Will and Commitment of top management
- Vision and Strategic Objective Link
  - Before benchmarking is started, its objectives must be linked to the company's vision and strategic objectives, providing specific direction and focus for the effort
- Goal to Become the Best— Not Simply Improved
- Identifying Key Business Processes
  - 1. Identify the organizations' Critical Success Factors (CSFs). These are the handful of characteristics, functions, capabilities, or limitations that are critical to the success and viability of the organization.
  - 2. Identify the metrics for measuring CSFs. These metrics are called Key Performance Indicators (KPIs), and may include production output and sales data, and supporting management performance data.
  - 3. Identify the processes that drive the CSFs. There will typically be 15 or more processes in this category.
  - 4. Some of these processes may be grouped together, and others ungrouped (if they are completely independent of each other). These are your key business processes. It is from the list of key business processes that you will select your candidates for process benchmarking.

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- Understanding of Existing Processes, Products, Services, Practices, and Customer Needs
- Processes Documented – Document the processes
- Process Analysis Skills - people with the skills to characterize and document processes.
- Research, Communication, and Team-Building Skills: Research is required to identify the best in-class process owners. Communication and team building are required to carry out the benchmarking both on an internal basis and with the partners.

BENCHMARKING APPROACH AND PROCESS

- Step 1: Obtain Management Commitment
- Step 2: Baseline Your Own Processes
  - The process baseline documents the current state of the process, its steps, and capabilities. A baselined process will have complete documentation of its inputs and outputs, all of its steps and supporting information, together with process capability data. This is often called process characterization. Process flow diagrams are a key element of baselining.
- Step 3:Identify and Document Both Strong and Weak Processes
- Step 4: Select Processes to Be Benchmarked
- Step 5: Form Benchmarking Teams
  - Include people who operate the process, those who have input to the process, and those who take output from it.

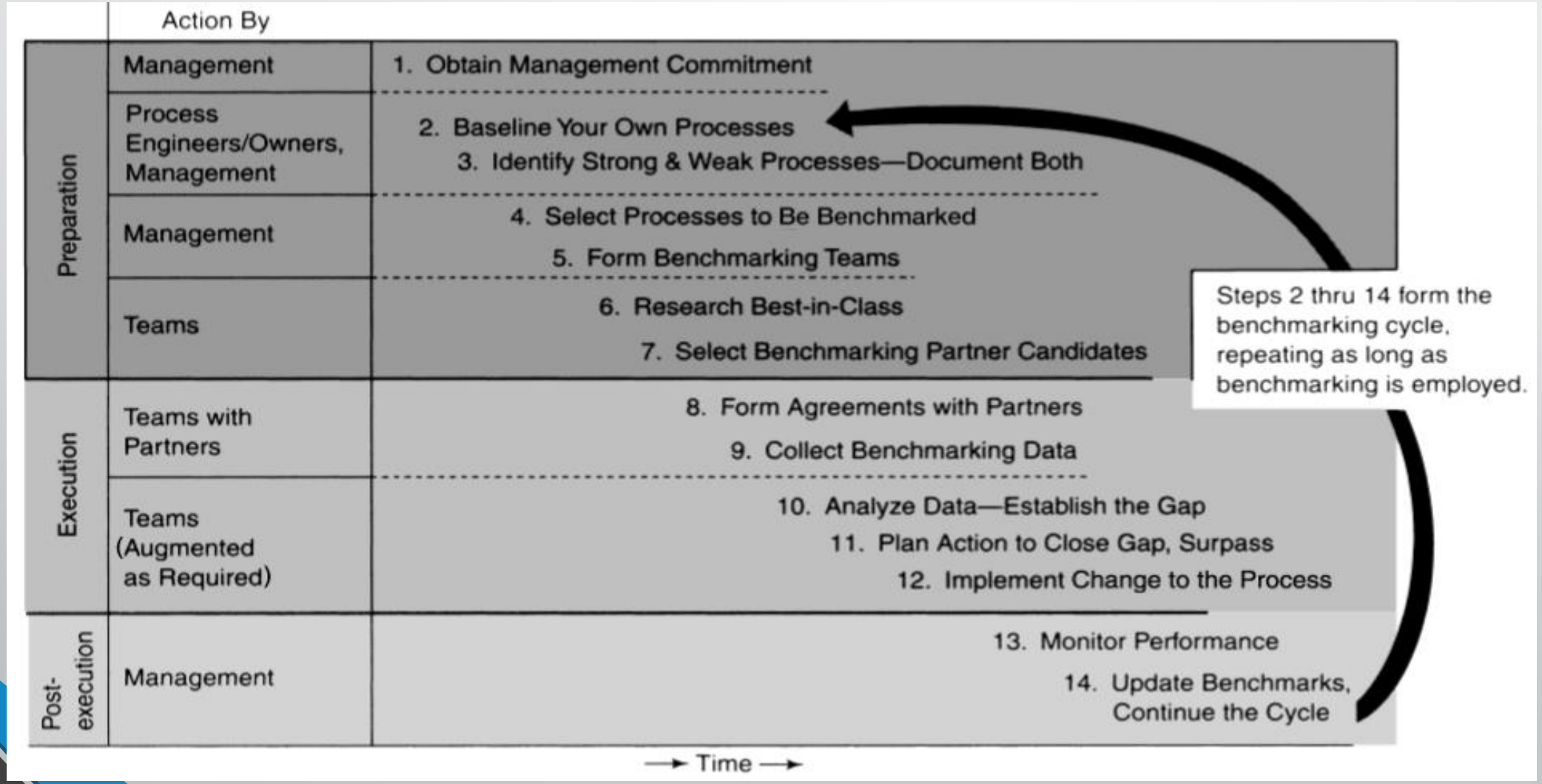
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- Step 6: Research the Best-in-Class
- Step 7: Select Candidate Best-in-Class Benchmarking Partners
- Step 8: Form Agreements with Benchmarking Partners
- Step 9: Collect Data
  - The team has already agreed to discuss a specific process (or processes). Observe, collect, and document everything about the partner's process. In addition, try to determine the underlying factors, practices, and processes: what is it that makes the company successful in this area?
- Step 10: Analyze the Data; Establish the Gap
  - The team must analyze them thoroughly in comparison with the data taken from its own process. In most cases, the team will be able to establish the performance gap (the performance difference between the two processes) numerically—for example, 200 pieces per hour versus 110 pieces, 2% scrap versus 20%, or errors in parts per million rather than parts per thousand.

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- Step 11: Plan Action to Close the Gap or Surpass
  - Implementation will require some planning to minimize disruption while the change is being made and while the operators are getting used to the new process
- Step 12: Implement Change to the Process
  - Initial performance may fall below the benchmark. After people get used to the changes and initial problems get worked out, performance should be close to the benchmark
- Step 13: Monitor Results
- Step 14: Update Benchmarks; Continue the Cycle

The complete cycle



Implementing TQM

- Three phase process
  - Steps 1-11 : The preparation phase
  - Steps 12-15 : The planning phase
  - Steps 16-20 : The execution Phase
- Each step has fixed action points and must have a defined duration (except step 1)

The implementation steps

- Step 1- The top executive must make the commitment of time and resources
- Step 2: Formation of the Total Quality Steering Committee
  - Action - Top executive designates immediate staff (direct reports) to be the total quality steering committee, with himself or herself as chair.
  - Duration – It will be a permanent entity
- Step 3: Steering Committee Team Building
  - Action - Usually may involve outside consultants
  - Duration – 1-3 days

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- Step 4: Steering Committee Total Quality Training
  - Action: training in total quality philosophy, techniques, and tools
  - Duration : 2-3 days of intensive training
- Step 5: Creation of the Vision Statement and Guiding Principles
  - Action : The objective is getting the steering committee's thoughts, refining the language, and concluding with short, meaningful documents that embody the hopes and aspirations of the company.
  - Duration : 1 day
- Step 6: Establishment of Broad (Strategic) Objectives
  - Action : From vision statement o objective
  - Duration – A few weeks
- Step 7: Communication and Publicity
  - Action : Make sure that everyone in the organization knows about the vision, the guiding principles, the objectives, and total quality.
  - Duration : Throughout the lifetime

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- Step 8: Identification of Organizational Strengths and Weaknesses
  - Action: The steering committee must objectively identify the strengths and weaknesses of the organization.
  - Duration : 1 day
- Step 9: Identification of Advocates and Resisters
  - Action : Identify those in key slots who are likely to be total quality advocates and those who are likely to resist total quality
  - Duration : Should not require more than few hours
- Step 10: Baseline Employee Satisfaction/Attitudes
  - Action: The steering committee should attempt to gauge the current state of employee satisfaction and attitudes
  - Duration : A week
- Step 11: Baseline Customer Satisfaction
  - Action : Select customers and obtain feedback
  - Duration : Allow 2-3 months based on medium of survey
- Step 12: Plan the Implementation Approach—Then Use Plan–Do–Check–Adjust (PDCA Cycle)
  - Action : Start planning the implementation of total quality, correct/adjust after seeing result etc.
  - Duration : As long as the process exists

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- Step 13: Identification of Projects
  - Action : Selecting the initial total quality projects, based on the strengths and weaknesses of the company, the personalities involved, the vision and objectives, and the probability of success.
  - Duration : Few days
- Step 14: Establish Team Composition
  - Action : Establish the composition of the teams that will execute them
  - Duration – Will continuously go on
- Step 15: Provide Team Training
  - Action : Training should cover basics of total quality and tools appropriate to the project
  - Duration : Few days
- Step 16: Team Activation and Direction (Use PDCA Cycle)
  - Action : Teams work on their assigned projects using the total quality techniques they have learned.
  - Duration : Days, week sor months depending on complexity of project

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- Step 17: Team Feedback Loop to the Steering Committee
  - Action : the project team closes the loop with the steering committee by providing feedback information on progress and results.
  - Duration : Specific projects may have finite lives of weeks, months, or longer.
- Step 18: Customer Satisfaction Feedback Loop
  - Action : Special project teams are deployed to obtain customer feedback information, covering both external and internal customers.
  - Duration : Perpetual
- Step 19: Employee Satisfaction Feedback Loop
  - Action : Another special project team periodically takes the pulse of employee attitude and satisfaction
  - Duration : Perpetual
- Step 20: Modify Infrastructure as Necessary
  - Action : Based on feedback to the steering committee from steps 17, 18, and 19, make modifications

  Duration – Perpetual