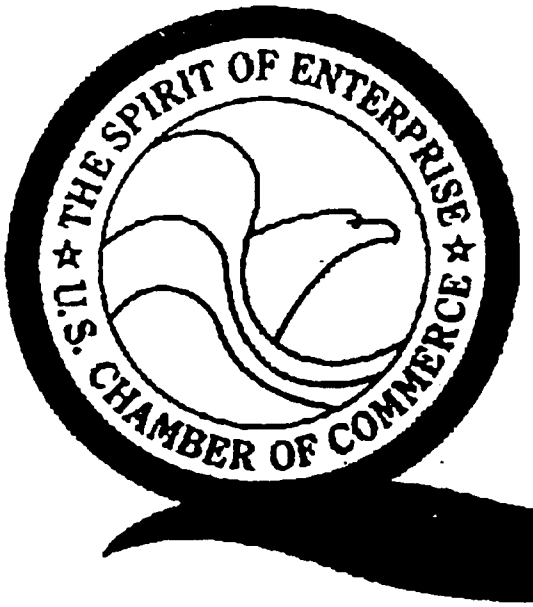
Benchmarking Articles



QUALITY LEARNING SERIES

THE QUALITY LEARNING SERVICES DIVISION
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PRESENTS

BASICS OF BENCHMARKING

with Dr. Carla O'Dell, American Productivity & Quality Center

Item #302002

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Basics of Benchmarking

INTERNATIONAL
BENCHMARKING
CLEARINGHOUSE

A service of the American Productivity & Quality Center

Basics of Benchmarking

Purpose

This interactive satellite presentation will explore how benchmarking can drive improvement in small businesses.

After participating in this program, you will be able to:

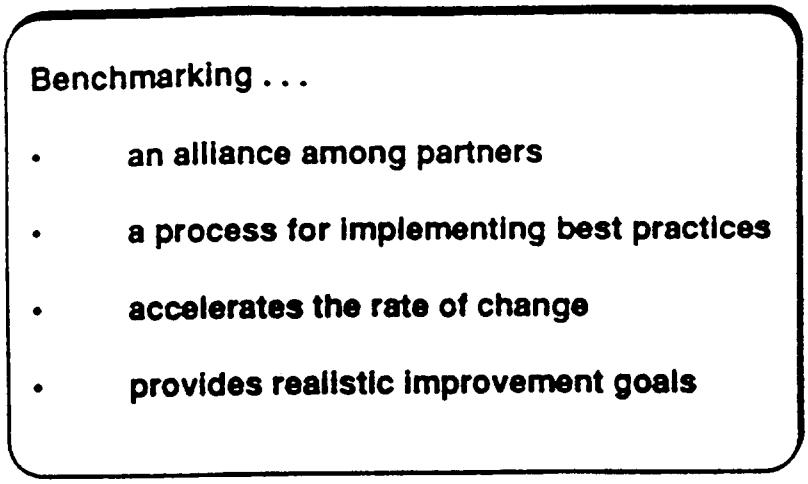
- Define benchmarking in terms of how it can be used in your organization
- Conduct a benchmarking study using a 4-phase model for process benchmarking
- Assess your organization's readiness for benchmarking

Using your Audience Guide

This Audience Guide is designed to help you follow along with the presenter. The visuals emphasize major points, and should be used as landmarks to keep up with material as it's presented. Keep in mind that this guide will serve as a reference when conducting benchmarking studies of your own.

Your Presenter

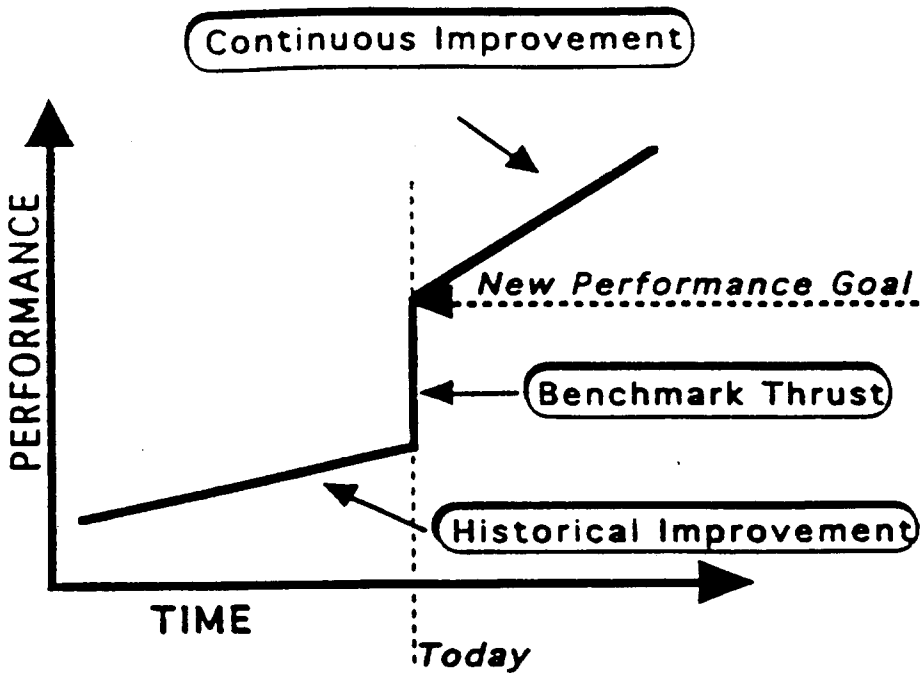
Dr. Carla O'Dell is Senior Vice President in charge of the International Benchmarking Clearinghouse, a service of the American Productivity and Quality Center. The Clearinghouse was founded to promote and facilitate benchmarking through research, common interest group studies, training, consulting, and an on-line computer network for members to match needs and share ideas.



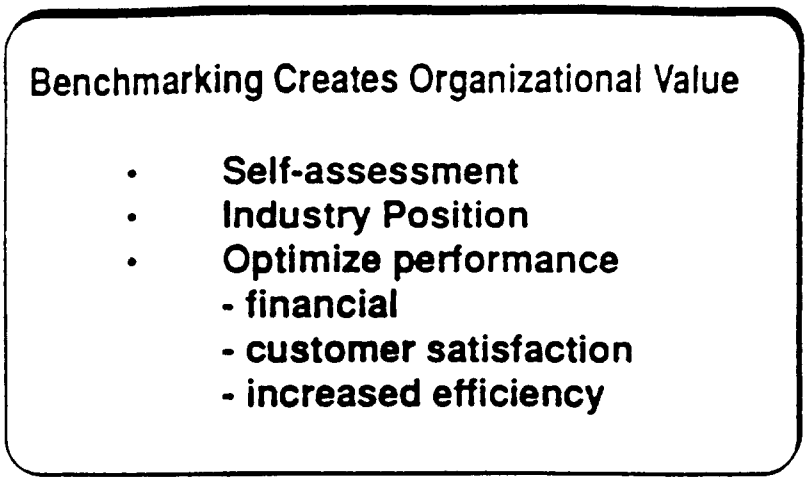
Benchmarking is an *alliance* between partners to share information on processes and measures that will stimulate innovative practices and improve performance. A *process* of finding and implementing best practices, benchmarking accelerates the rate of improvement by providing real world models and realistic improvement goals.

Or to phrase it another way :
Benchmarking is the practice of being humble enough to admit that someone else is better at something and being wise enough to learn how to match and even surpass them at it.

Benchmarking works because it helps you understand your own processes and enables you to learn from others.



Why benchmark? Because a business must change to stay ahead, and benchmarking is a system managing change. Benchmarking focuses on improving key business processes. By looking outside your organization and learning from others, you can achieve quantum leaps in performance that otherwise might take years to achieve. Businesses simply don't have that luxury of time. Innovation and change are the keys to survival.



Your organization will gain several benefits from benchmarking. For starters, benchmarking provides you with an opportunity to assess your business performance. By looking outward for improvement, you'll gain a better understanding of your relative position in the industry. Most importantly, the thrust of benchmarking is to optimize your performance--through higher profits, happier customers, and more efficient processes.

Benchmarking is an outgrowth of practices like industry analysis and competitive intelligence. Benchmarking digs a level deeper by closely examining the processes *behind* the comparative data.

Benchmarking is even enabling competitors to talk to each other. Through structured studies and shared findings, competing companies can raise the standard of excellence industry-wide.

But the greatest benefits come from looking for best practices *outside* your industry. This is where real innovation is born. For example, when Southwest Airlines wanted faster changeovers, it benchmarked INDY 500 NASCAR crews . . .

. . . emergency rooms turned to Dominoes Pizza to learn about rapid deployment . . .

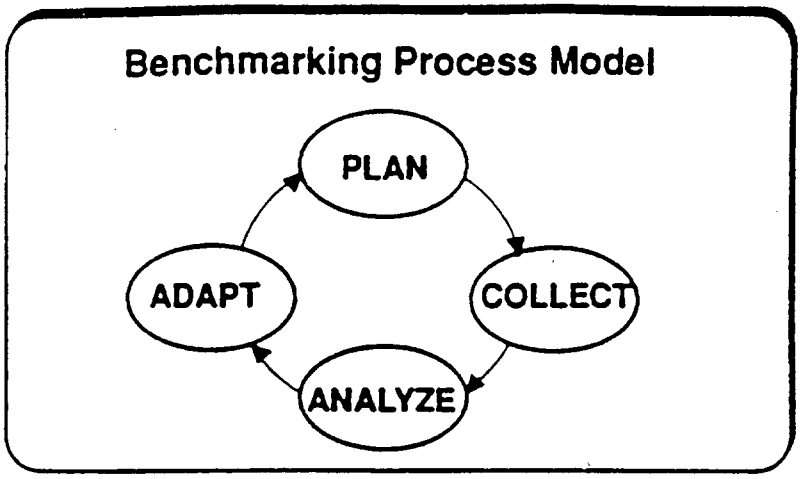
. . . a shell casing company benchmarked a lipstick tube manufacturer to learn about polishing cylinders. .

. . . and hospitals looked to Marriott and Ritz-Carlton for ideas on improving the admissions process.

How do you decide what to benchmark? Use three critical criteria. The project should:

1. Be of strategic importance to the organization
2. Make significant improvements to customer satisfaction, quality, cost, or cycle time
3. Have a high potential for success

Possible benchmarking projects include customer satisfaction measurement, delivery time, maintenance practices, capital investment decisions, training, and minimization of administrative costs.



The benchmarking process is organized into four major phases:

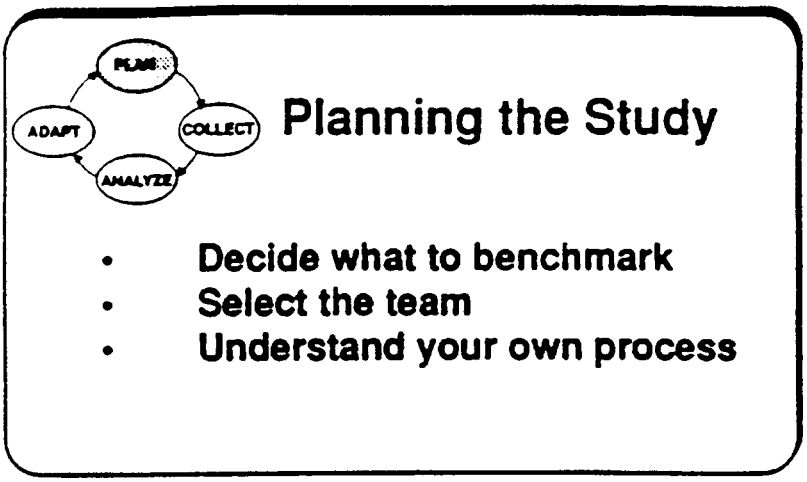
1. **Planning the study**

2. **Collecting information**

3. **Analyzing gaps in performance**

4. **Adapting improvements**

As evidenced by the model, benchmarking is not a one-time event; it's a continuous recalibration to improve the quality of products and services. For those processes that are critical to your organization, benchmarking is vital to accelerating the rate of improvement.



The first phase is planning the study. This is when you actually get the project off the ground. During this phase, you define your study, form the benchmarking team, and, most importantly, understand the process that you want to improve.

A well-planned benchmarking study ensures effective results. Understanding your own process is so important, in fact, that it can take up half of the total project time.

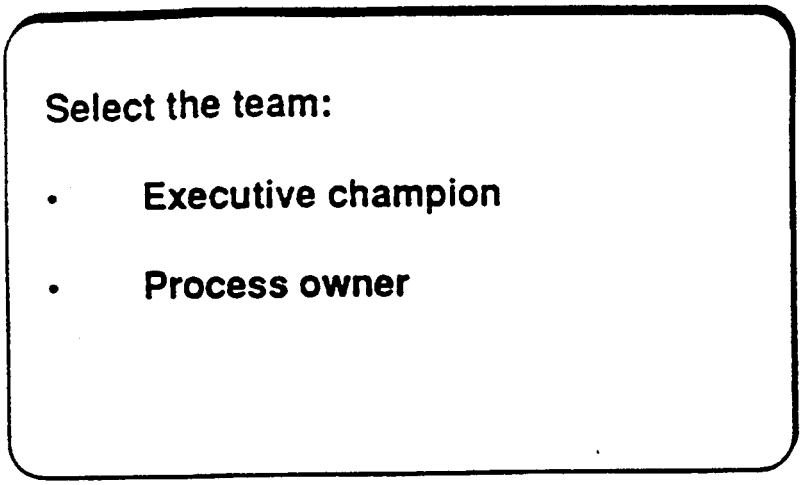
Deciding what to benchmark begins with a planning session by senior leaders to identify the organization's key business processes. These are the processes that have a direct influence on customer satisfaction, and, therefore, on the success of your business. Some examples of key business processes include on-time delivery, product development, and customer service.

Good process selection is driven by:

1. a definition of customers

2. a mission to meet and exceed their requirements

3. a clear vision of where the organization wants to be



Once senior leadership has prioritized improvement opportunities, it convenes a benchmarking team.

Every benchmarking team needs the involvement and support of two crucial players:

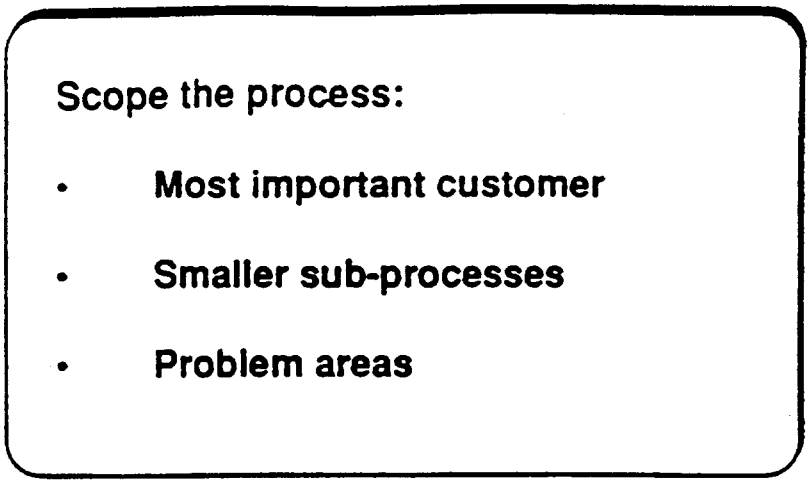
1. the executive champion (the advocate for the team's work)

2. the process owner (the person who has authority to make changes to the process)

The team should be made up of individuals who understand and work with the process being benchmarked. Because processes typically cross functional areas, team composition should reflect the key functions involved.

Good benchmarking team members are willing to seek new ideas, discover what's behind superior practices, and break through existing paradigms.

Large benchmarking projects typically last about six months, with members devoting approximately ten hours per week. Smaller, more-focused projects can be done much quicker.



As part of a benchmarking team, your first task is to gain a thorough understanding of the process to be benchmarked. At this point, many teams discover that the process they want to improve is too big to study at a manageable level. A team faced with this dilemma may ask itself a few quick assessment questions:

1. Who is our most important customer in this process?

2. Can we break down the process into smaller sub-processes?

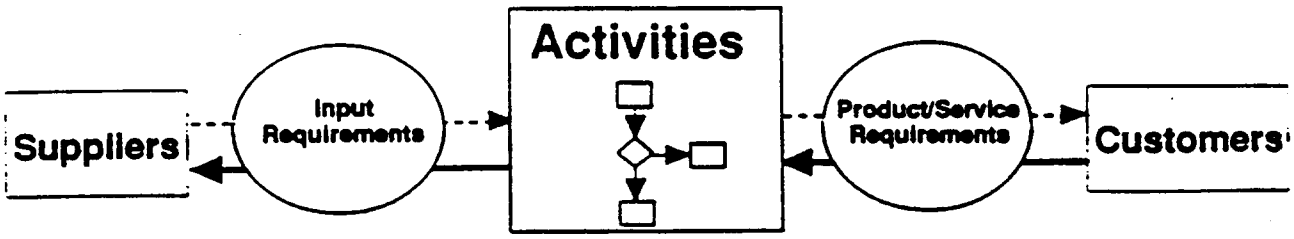
3. Which of these sub-processes is causing the most problems?

A broad process such as product development may need to be broken down into its sub-processes: market research, design, and manufacturing. Resource requirements will emphasize benchmarking areas of critical importance to the business.

Understand your process:

- Scope the project to a manageable level
- **Analyze activities, flow, and measures**

Once the scope of the process has been established, the next step is to understand how that process "works."

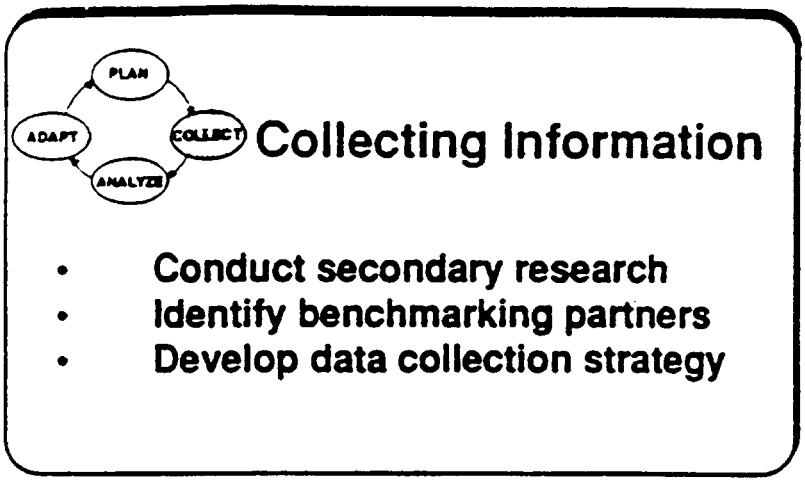


Use this process model as a guideline:

1. **Identify your customers**
   Develop a thorough understanding of your customers, analyzing them by market segment, demographics, trends, etc. Phone interviews, surveys, and focus groups are good sources for obtaining customer feedback.
2. **Determine their requirements for the products/services you provide**
   These are your customers' measures of success. These measures provide the basis for determining how well you're meeting customer expectations. Measures are typically grouped into three categories:
   1. *Quality (error rates, # complaints)*
   2. *Cost (labor costs, material/supply costs)*
   3. *Cycle time (production time, delivery time, response time)*

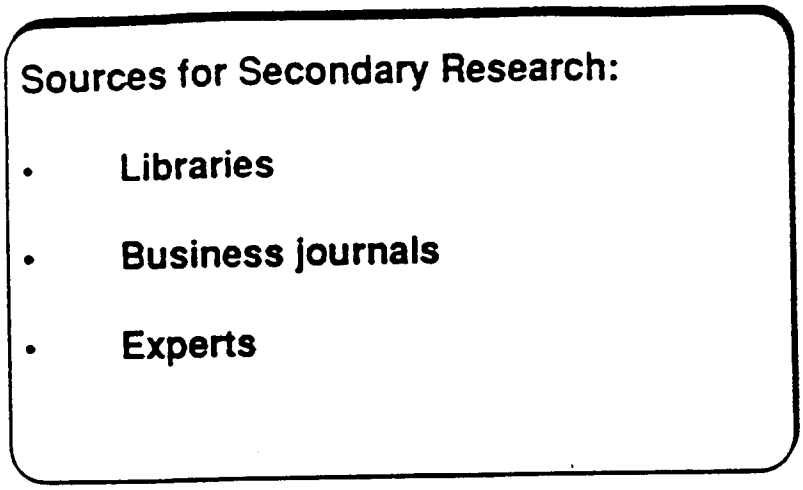
   Identify measures that will provide you with a meaningful basis for comparing your process with other organizations.
3. **Analyze the activities that produce customer output**
   This means defining the beginning and ending points, and understanding every activity in between, including who performs it and how long it takes. A flow chart provides a visual tool for communicating with key process players.
4. **Determine input requirements**
   List all the products/services you need to produce output. Identify the measures of success for each.
5. **Identify your suppliers**
   Process improvement requires a similar desire to improve from your suppliers. Your suppliers are often sources of valuable information about industry trends and best-in-class performance.

As you analyze your process, it's likely you'll immediately discover key areas for improvement therefore, benchmarking.



This moves us into the second phase of benchmarking: Collecting Information.

During this phase, you embark upon a full-scale investigation to research best practices, identify benchmarking partners, and develop a strategy for collecting information to improve performance.



You begin by collecting information about your process--who might be good at it both inside and outside your industry. This kind of information can be collected through secondary research of libraries, trade and business journals, and experts in the field. Reading articles and talking to experts helps you identify potential partners who appear to be excellent at a process.

You then decide how many partners you need and can afford. This helps you narrow down your l. potential benchmarking partners to those organizations that exemplify superior performance in the proces being benchmarked.

Establishing Benchmarking Partners:

1. **Common Interest Groups**
2. **Established alliances**
3. **Local Chambers of Commerce**

Benchmarking partners are established through several channels, including:

1. Third party sources, such as the International Benchmarking Clearinghouse, who serve as a neutral base for common interest group studies--for example, customer satisfaction measurement, new product development, and accounting & finance.

2. Formal and informal alliances already established with other organizations.

3. Local Chambers of Commerce and other business groups.

Library databases, trade associations, and government agencies are great sources of information. If you don't have your own business library, the American Productivity & Quality Center provides information services to help you.

Small companies with limited resources often find strength in numbers. Joining forces with other small organizations enables a greater latitude for sharing information--both for immediate improvements, and ongoing networking relationships. In addition, small companies can ask to share benchmarking information from customers or suppliers. It's in large companies' best interest to improve the overall quality of products and services of their suppliers.

To better understand your benchmarking partners, you can develop a Best Practice Matrix *(example on next page)*. Companies are rated on criteria your organization deems relevant, such as customer satisfaction, process innovation, and quality improvement initiative.

Remember: to establish effective partnerships, you must be willing to share information. Most organizations are eager to exchange information with their peers out of natural curiosity and their own desire to improve.

Best Practice Matrix Example

Co.	Understanding of Process	Process Innovation	Measures	Customer Satisfaction	Information Technology	Quality Improvement Initiative	External Search for Imprvmt.	Company Average
A	3	4	1	3	3	3	3	2.9
B	3	1	1	2	2	1	1	1.6
C	2	2	3	2	2	1	1	1.9
D	3	1	3	2	2	1	3	2.1
E	2	1	2	3	2	3	1	1.9
F	3	2	3	2	1	2	1	2.0
G	3	3	4	3	1	4	4	3.1

1 = weak in this area

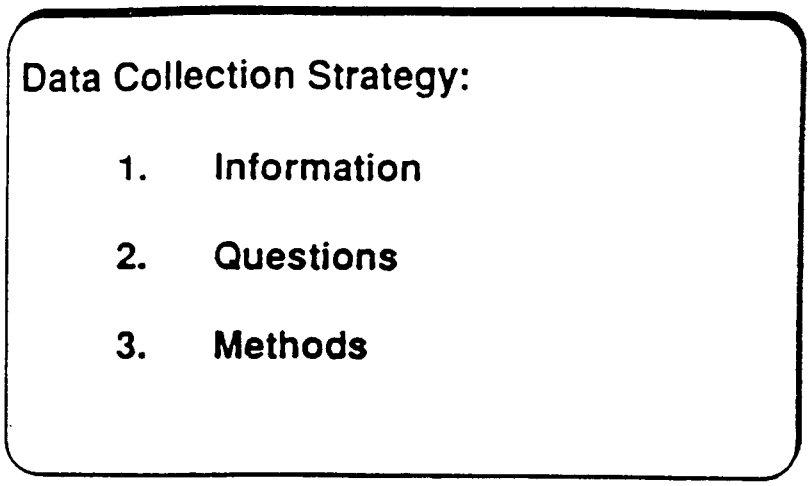
2 = roughly at the same level as our company

3 = above average

4 = excellent performance

1. What are we looking for in a benchmarking partner?

2. What companies best fit our definition of "best practice?"



Once benchmarking partners have been established, the team develops a strategy for collecting information.

Typically, this strategy has three components:

1. Information to gather
2. Questions to ask
3. Methods to use

First, you decide what information you really need. It's important that you don't waste your partners' time by asking for information that is readily available in the public domain. Information such as size, profits, and major programs are generally available from the local library or trade association.

The more information you gather up front, the richer and more targeted the information you can gather when interfacing with your partners.

Asking the right questions is critical. Really focus on what you want to know; avoid long sets of questions.

Methods of communication include telephone surveys, mailed questionnaires, and site visits. These give the team opportunities to dig deeper to uncover enablers *behind* superior performance. A well-communicated benchmarking plan helps establish a productive, long-term relationship with benchmarking partners. The next three pages provide you with guidelines for working with partners, as well as a Code of Conduct for ethical benchmarking.

Contrary to popular belief, many benchmarking studies are conducted without ever going on a site visit. A well-investigated study can uncover sufficient information through questionnaires and telephone interviews.

What distinguishes benchmarking from competitive analysis is the mutual sharing of information to uncover specific activities for process improvement.

Guidelines for Working with Partners

1. **Before contacting the partner prepare:**
   - An opening statement (introduction) and summary of purpose
   - An explanation of why that partner has been selected
   - What you are willing to share with partner

2. **Make the contact**
   - Find out the process owner for that process
   - Recognize that person's sense of pride/level of knowledge about the process
   - Let the contact know what he/she can do to prepare

3. **Finalize an interview plan**
   - Set the objectives
   - Review all available data
   - Prepare a list of concise, non-leading questions
   - Be prepared to answer why a particular question is asked

Things to Watch Out For . . .

- Referring to another organization or to its information while visiting a third-party organization
- Giving information in a public forum about a benchmarking partner without the partner's specific permission
- Asking for information that you are not willing to provide
- Initiating contact and setting up a visit without first doing your internal benchmarking "homework"
- Bypassing the designated host of your benchmarking partner to change the agenda or to set up side activities beyond the agreed-upon benchmarking event
- Requesting last-minute changes or additions to the visit agenda

Benchmarking Code of Conduct

Preamble

To guide benchmarking encounters and enhance the professionalism and effectiveness of benchmarking, the International Benchmarking Clearinghouse, a service of the American Productivity & Quality Center, and the Strategic Planning Institute Council on Benchmarking have adopted this common Code of Conduct. We encourage all organizations to abide by this Code of Conduct. Adherence to these principles will contribute to efficient, effective, and ethical benchmarking.

Code of Conduct

Individuals agree for themselves and their company to abide by the following principles for benchmarking with other organizations.

1. Principle of *Legality*

- If there is any potential question on the legality of an issue, don't do it.
- Avoid discussions or actions that could lead to or imply an interest in restraint of trade, market, and/or customer allocation schemes, price fixing, dealing arrangements, bid rigging, or bribery. Don't discuss costs with competitors if costs are an element of pricing.
- Refrain from the acquisition of trade secrets from any means that could be interpreted as improper, including the breach or inducement of a breach of any duty to maintain secrecy. Do not disclose or use any trade secret that may have been obtained through improper means or that was disclosed by another in violation of a duty to maintain its secrecy or limit its use.
- Do not, as a consultant or client, extend one benchmarking study's findings to another company without first obtaining permission from the parties of the first study.

2. Principle of *Exchange*

- Be willing to provide the same type and level of information that you request from your benchmarking partner to your benchmarking partner.
- Communicate fully and early in the relationship to clarify expectations, avoid misunderstandings, and establish mutual interest in the benchmarking exchange.
- Be honest and complete.

3. Principle of *Confidentiality*

- Treat benchmarking interchange as confidential to the individuals and companies involved. Information must not be communicated outside the partnering organizations without the prior consent of the benchmarking partner who shared the information.
- A company's participation in a study is confidential and should not be communicated externally without its prior permission.

(continued on next page)

4. Principle of *Use*

- Use information obtained through benchmarking only for purposes of formulating improvement of operations or processes within the companies participating in the benchmarking study.
- The use or communication of a benchmarking partner's name with the data obtained or practices observed requires the prior permission of that partner.
- Do not use benchmarking as a means to market or sell.

5. Principle of *First Party Contact*

- Initiate benchmarking contacts, whenever possible, through a benchmarking contact designated by the partner company.
- Respect the corporate culture of partner companies and work within mutually agreed upon procedures.
- Obtain mutual agreement with the designated benchmarking contact on any hand-off of communication or responsibility to other parties.

6. Principle of *Third Party Contact*

- Obtain an individual's permission before providing his or her name in response to a contact request.
- Avoid communicating a contact's name in an open forum without the contact's permission.

7. Principle of *Preparation*

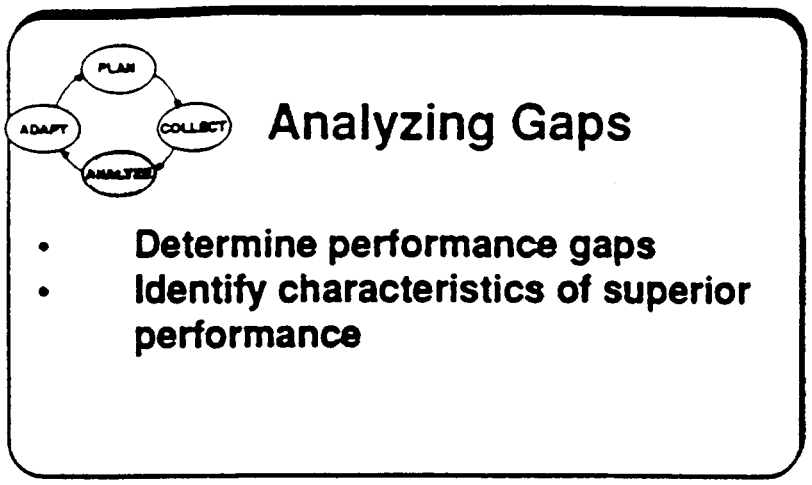
- Demonstrate commitment to the efficiency and effectiveness of benchmarking by completing preparatory work prior to making an initial benchmarking contact and following a benchmarking process.
- Make the most of your benchmarking partners' time by being fully prepared for each exchange.
- Help your benchmarking partners prepare by providing them with an interview guide or questionnaire and agenda prior to benchmarking visits.

8. Principle of *Completion*

- Follow through with each commitment made to your benchmarking partners in a timely manner.
- Complete each benchmarking study to the satisfaction of all benchmarking partners as mutually agreed.

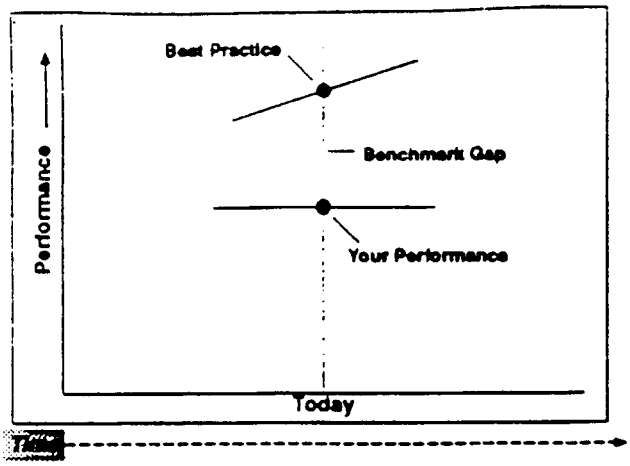
9. Principle of *Understanding and Action*

- Understand how your benchmarking partners would like to be treated.
- Treat your benchmarking partners in the way that each benchmarking would like to be treated.
- Understand how each benchmarking partner would like to have the information he or she provides handled and used, and handle and use it in that manner.

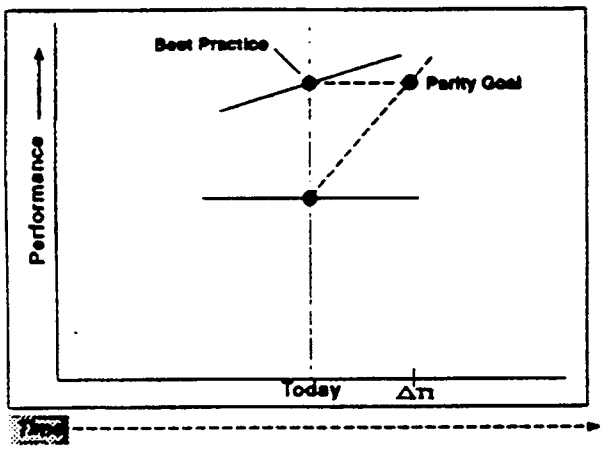


Once the information is collected, you're ready to analyze the results. During this phase, you compare process performance to find the gaps and determine what magnitude of improvement can be achieved. This phase is the crucial link between identifying superior performance and actually adapting it to the organization.

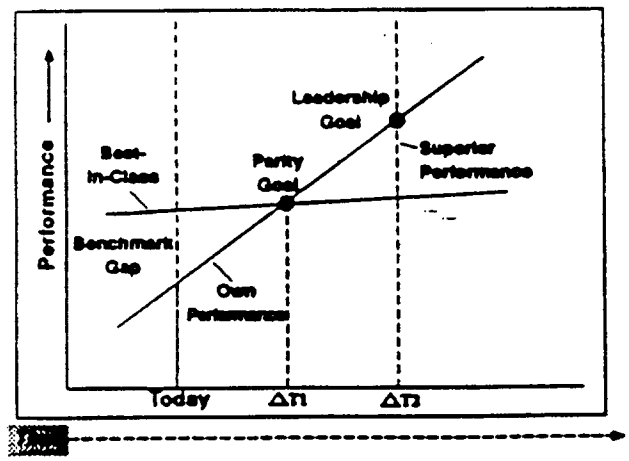
Determine Performance Gaps



In comparing your process to the benchmark, you'll identify specific gaps in performance. This chart illustrates the benchmark performance level and trend line compared your company's current performance.



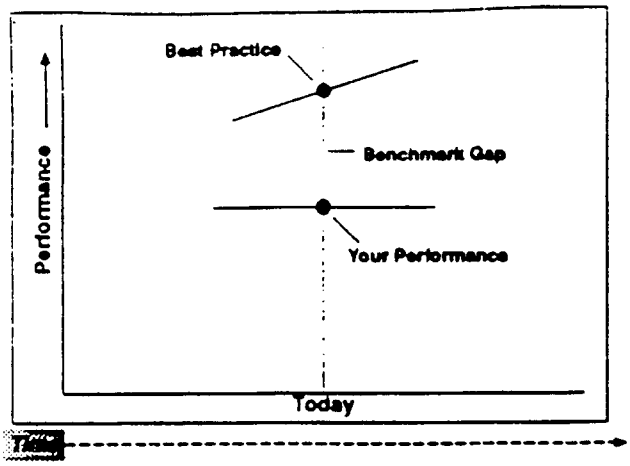
This second chart projects a future point in time when your company will achieve parity with the benchmark. It's important to keep in mind, however, that the benchmark is likely to continue improving as well.



That brings us to the third chart, illustrating that the improvement your company needs must be faster than the improvement rate of the benchmark just to achieve parity.

Once a gap has been identified, you investigate *why* it exists so that you can plan an effective strategy for making improvements. Throughout the benchmarking process, tools such as brainstorming, cause and eff analysis, root cause analysis, and other quality tools well help you analyze your areas of weakness. A br explanation of these tools is provided in the appendix of this Audience Guide.

Determine Performance Gaps



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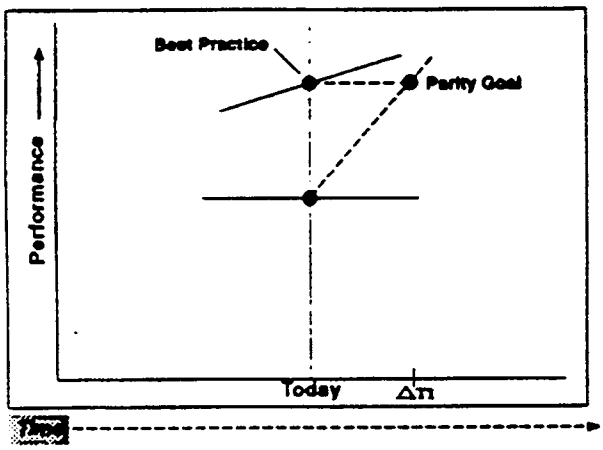

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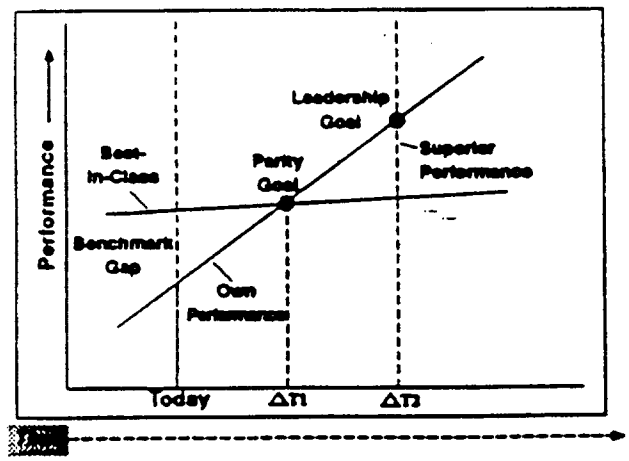

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Enablers:

Factors and practices that facilitate superior performance.

Your job now is to discover the factors and practices that enable other organizations to achieve superior performance. These enablers translate into specific improvement opportunities. An organization cannot improve its processes by simply imitating its benchmarking partners. You must understand *how* enablers such as training, information technology, management leadership, and job design facilitate superior performance in order to adapt them to your own organization's unique culture.

As your formalize your recommendations for improvement, you should be able to break them down into specific tasks. These tasks are analyzed in terms of cost and resources needed.

At this point, ask yourself:

1. *Who is the key stakeholder for each task?*

2. *What change do we want this person to support?*

3. *What methods will ensure that we're able to gain his or her support?*

Once your benchmarking team has completed the study, you need to follow through coordination of improvement implementation.

The Action Plan presented on the next page is a form for coordinating the change effort. This form summarizes the study results and identifies the objective of the project. The short-term goal, perhaps a parity with the current benchmark, is identified along with a longer-term goal. Each strategy to achieve the objective is identified along with its targets and milestones. The strategy elements roughly correspond to the enablers identified during the benchmarking study.

Benchmarks are, by nature, time-dependent. What once was a standard of leading edge performance becomes, over time, a basic performance level. Benchmarking is a part of the continuous improvement process.

Benchmarking Action Plan

PROCESS:
Critical Success Factor:

Process Owner: **Date:**

Summary of Study Results:

OBJECTIVE

BENCHMARK

Company:
Date Observed:

GOALS

Short-term:

Long-term:

STRATEGY (Owner)

TARGETS AND MILESTONES

Benchmarking Action Plan

PROCESS:
Critical Success Factor:

Process Owner: **Date:**

Summary of Study Results:

OBJECTIVE

BENCHMARK

Company:
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GOALS

Short-term:

Long-term:

STRATEGY (Owner)

TARGETS AND MILESTONES

Self-Assessment Survey

1. How would you characterize your organization for the following features? Rank your organization's current situation on a scale of 1 - 5, as indicated below, for each of the following features:

Feature	Rank	Low 1 2	Medium 3 4	High 5
Decision Making	_____	Autocratic	Participative	Consensus
Structure	_____	Centralized	Decentralized	Multi-business Conglomerate
Teamwork	_____	Functional Only	Project & Functional Only	Cross Functional
Flexibility	_____	Static Reluctant	Open	Dynamic
Information Handling	_____	Hard Copy Files	Central Computer Files	Local Network Files
Strategic Change Management	_____	Management Directed	Middle-mgmt. Initiated	Employee Initiated
Information Use	_____	Internal Information Only	Internal Plus Traditional External Sources	Robust Use of All Sources

2. What are the top three organizational strengths that you anticipate to be able to build Benchmarking upon?

_____

_____

_____

3. What alliances among strategic business partners, suppliers and major accounts will be most useful to your Benchmarking efforts?

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

4. Which managers in your company would benefit most from Benchmarking? Rank these managers using a scale of 1 - 5 (low to high) in terms of importance of their personal buy-in to Benchmarking and their potential ability to serve as an executive champion for Benchmarking.

Name	Buy-in Importance	"Champion" Ability
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Appendix

Brainstorming

What is it?

Brainstorming is a technique for generating ideas. A good metaphor for brainstorming is to imagine sparks lighting a fire. Ideas are thrown out, igniting more ideas. As thoughts begin to come together, innovative solutions are born.

How do I do it?

1. Assemble a group of 5-7 people.

2. Identify a problem to solve or a desired goal.

3. Throw out as many ideas as possible relating to your purpose. Encourage a free-wheeling, relaxed atmosphere. **Consider all ideas; don't be judgmental.**

4. Record the team's progress on a flipchart, overhead, or white board.

5. When all thoughts have been exhausted, begin grouping similar ideas.

Process Flowchart

What is it?

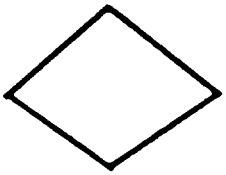
A flowchart is a way of visually analyzing your current process. By mapping each and every step, you can identify places where there are inefficiencies. A flowchart helps you understand your process as it is, and identify the areas that need improvement.

How do I do it?

Use the following flowchart symbols:

Start/Stop point

One step in the process (a change)

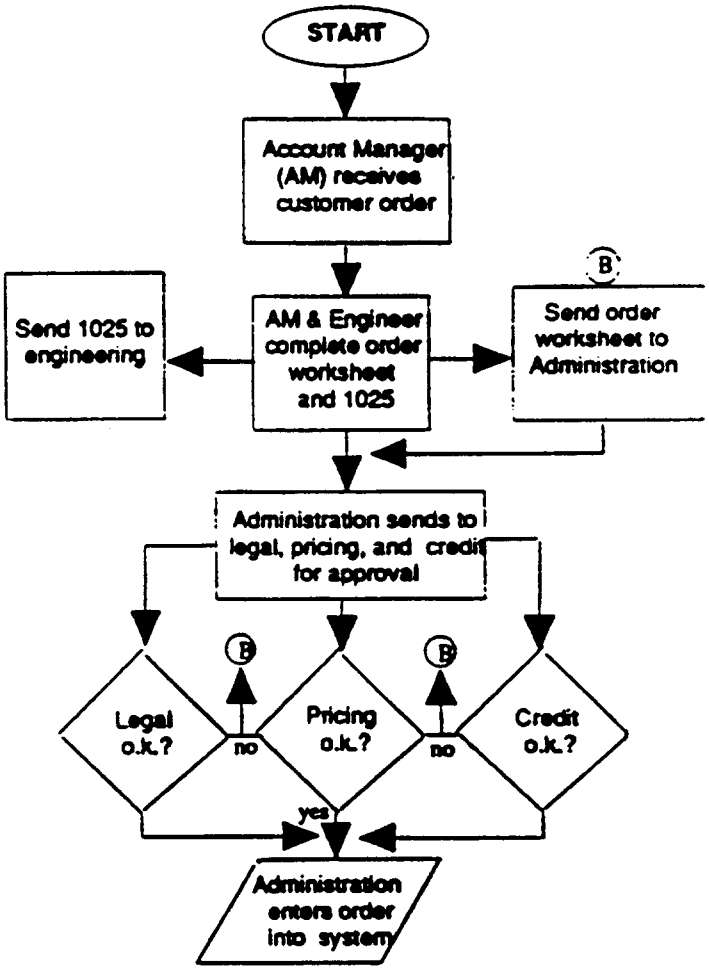


Decision point

Output

Connector

Flowchart Example
Manufacturing Widgets



Cause & Effect Diagram

What is it?

A Cause and Effect Diagram (also called "fishbone diagram" due to its shape, and "Ishikawa diagram" after the man who championed its use), is a brainstorming tool that guides you in organizing your thoughts. The cause and effect diagram takes a consequence (the effect), and explores all its possible causes. The diagram is a visual aid in helping you flesh out ideas through branching.

How do I do it?

1. Determine the effect that the team is addressing. This could be either a problem you're trying to solve, or a goal you're trying to achieve.

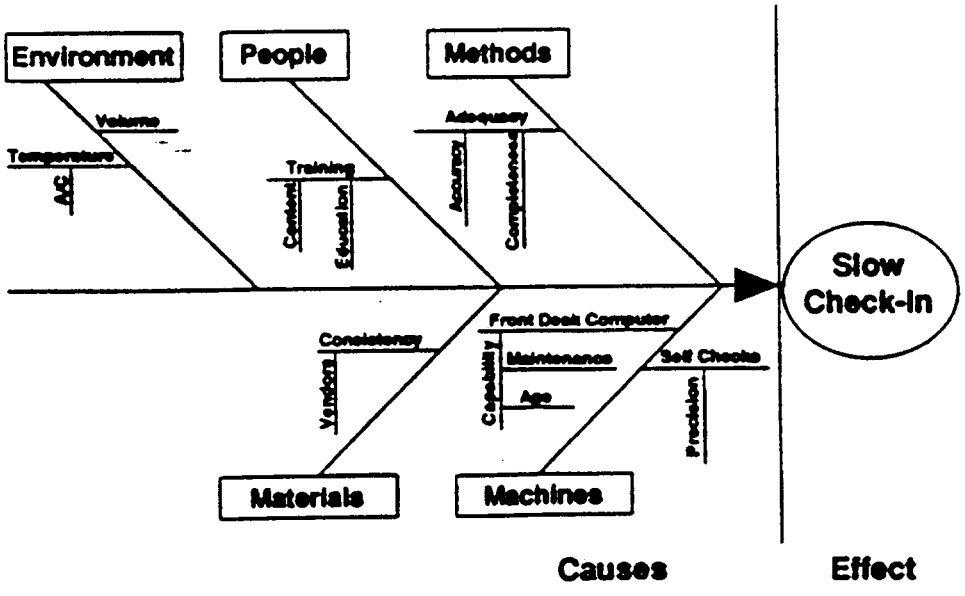
2. Put the effect in a box to the right hand side of the paper, drawing an arrow from left to right pointing to the effect.

3. Decide upon major categories around which to group your ideas. Typically, these categories include: People, Materials, Methods, Equipment, and Environment.

4. Put the major categories in boxes and direct a branch arrow from each box to the main arrow. Brainstorm causes under each category, branching out from each idea. Categories large clusters indicate problem areas.

5. Remember that the goal is to cure the causes, not the symptoms.

Cause and Effect Example
Problem: Slow Check-in



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International Benchmarking Clearinghouse

Common Interest Groups

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Quality Function Deployment: This is the newest CIG. The idea for the CIG was generated from numerous requests by Clearinghouse members over the electronic network. This group will focus on discussing their experiences related to this topic. Some of the companies participating include: Deere, Cincinnati Bell, AMP, and UNISYS.

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Benchmarking Articles

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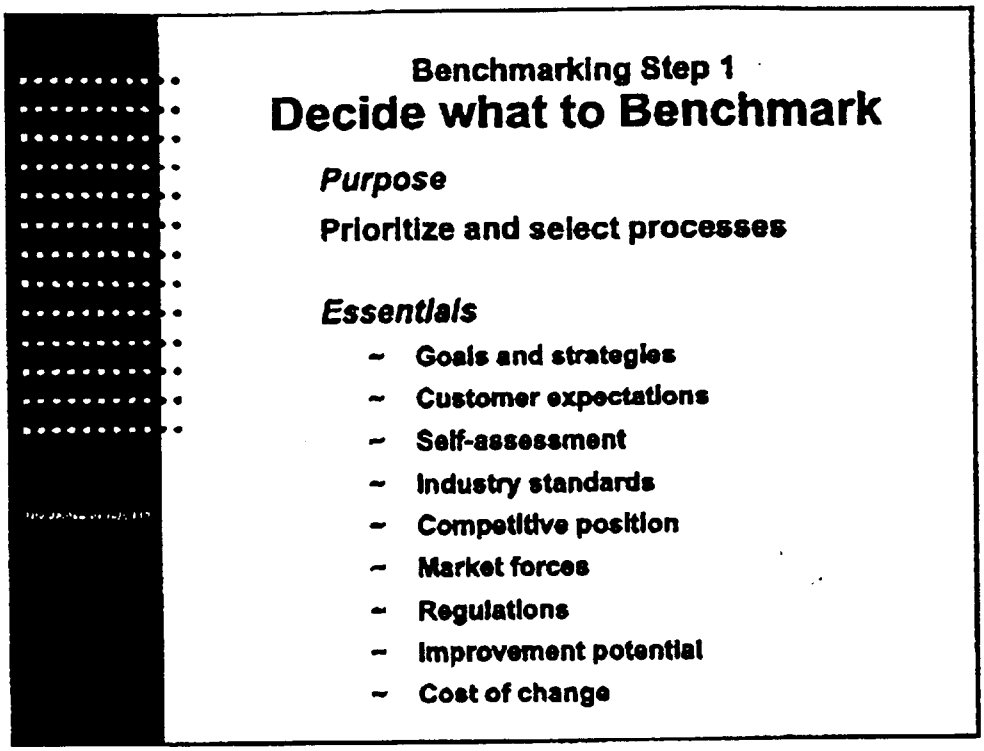
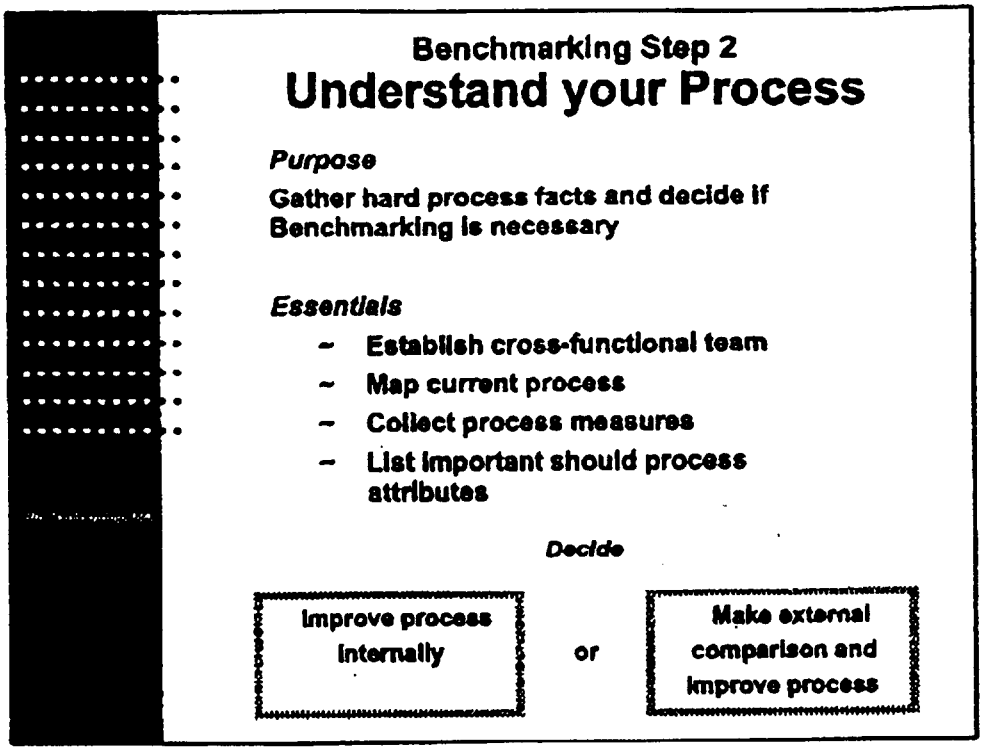


Involve employees in selecting Benchmarking projects. Tie the selection process to the organization's goals and strategies, self-assessment results, and the external customer's perspective!

Notes:

Ideas:

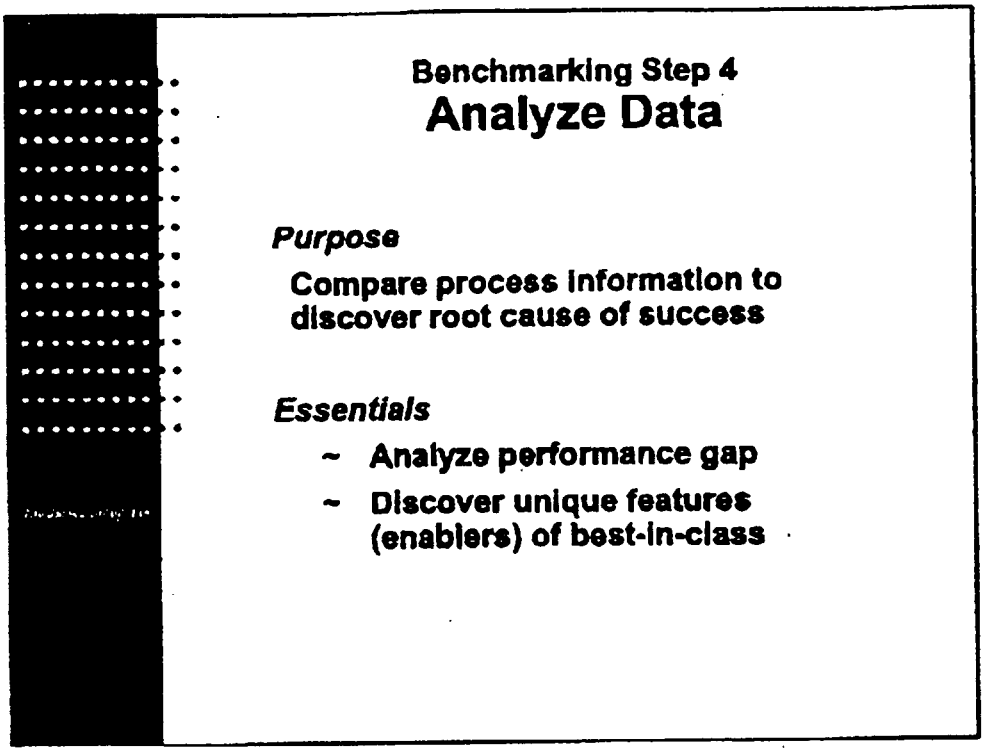


Insist on *facts* -- not opinions!

Create a picture of what the new, improved process should look like.

Notes:

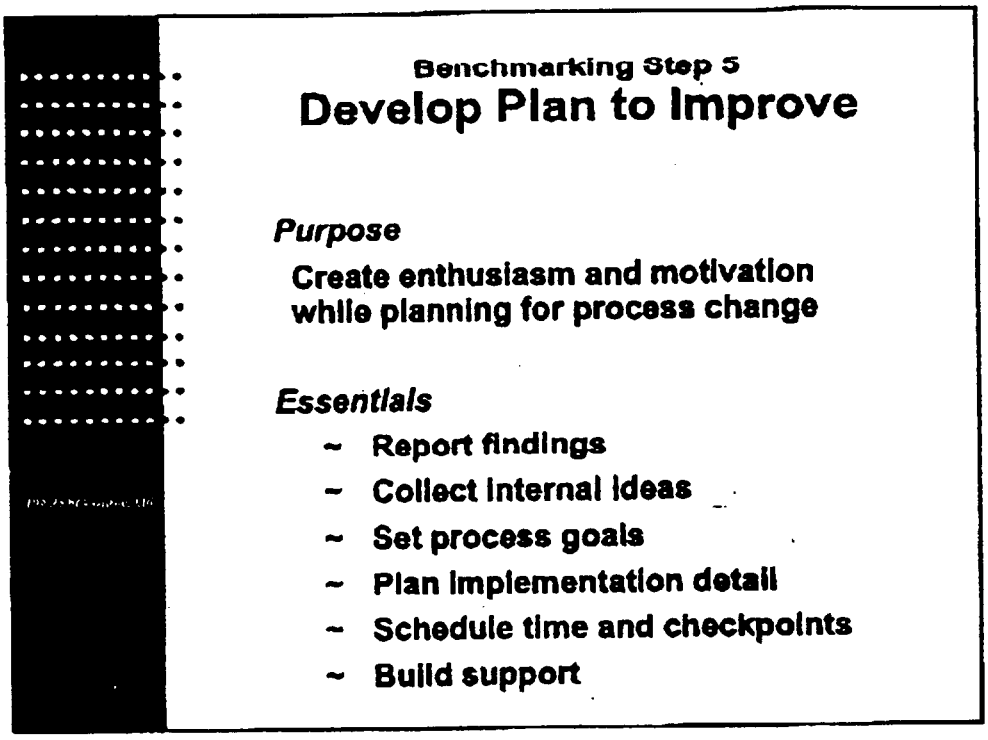
Ideas:



Do not sacrifice quality for quantity. Look for the critical few enablers of success. Careful analysis will reveal the enabling root cause of the superior performance. Sometimes an enabler overcomes a long-standing barrier to better process performance.

Notes:

Ideas:



Identify short, medium, and long-term deliverables and plan accordingly. Some action plans resulting from Benchmarking studies may require a year or more to fully implement.

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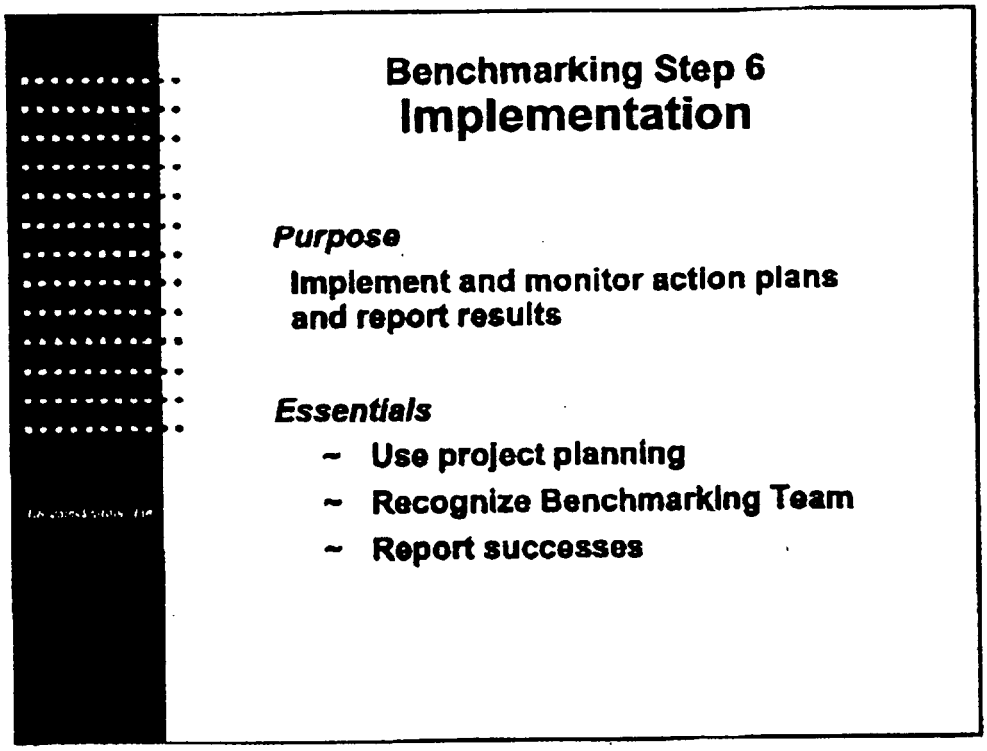

Inform the organization of your planned changes. This up front communication will ease the "discomfort" associated with organizational change. Remember, culture change is always more difficult than technical change.

> "It must be remembered that there is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new system. For the initiator has the enmity of all who would profit by the preservation of the old institution and merely lukewarm defenders in those who would gain by the new one."
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> Machiavelli, *The Prince* (1513)

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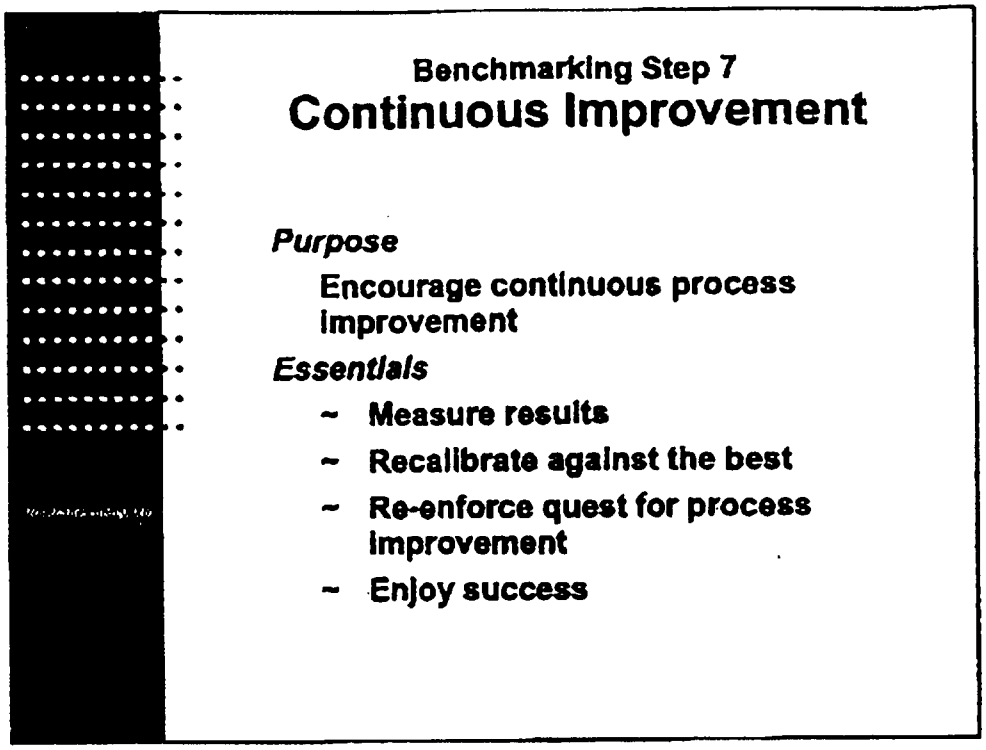

Benchmarking updates usually take only 10 to 30 percent as much time as the original project yet may yield as many benefits as the earlier study.

Notes:

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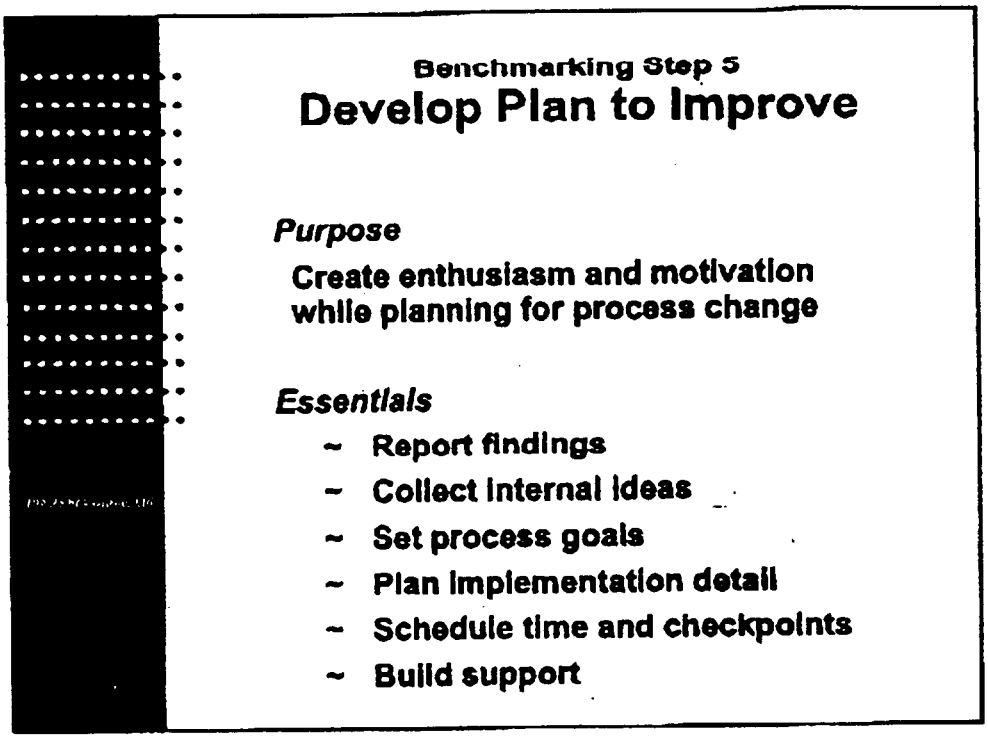

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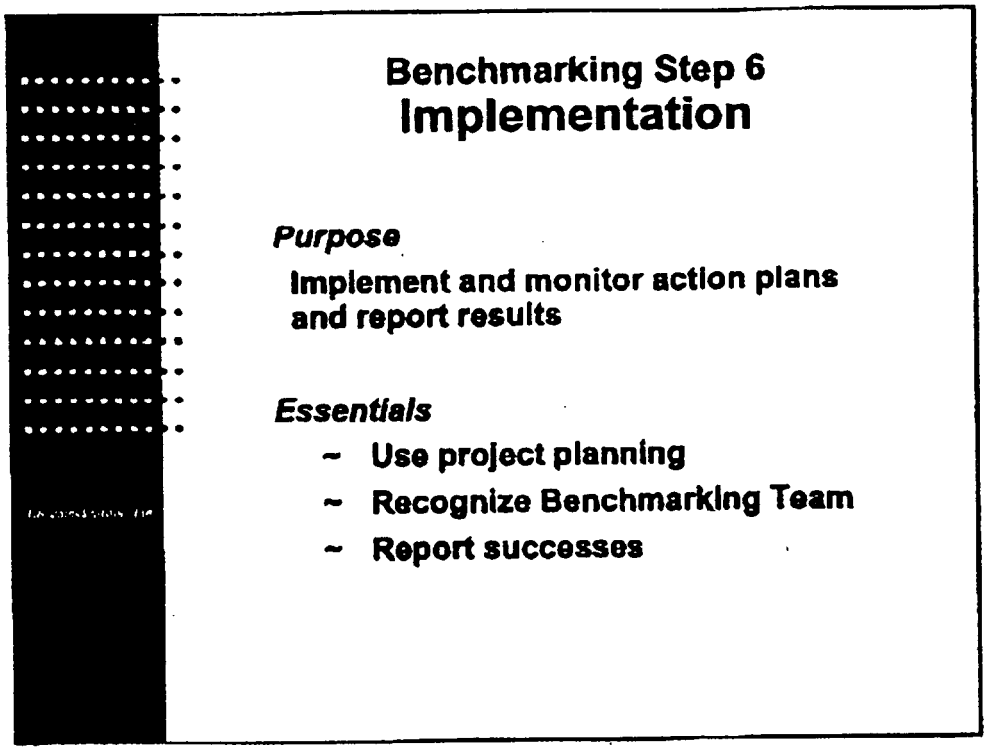

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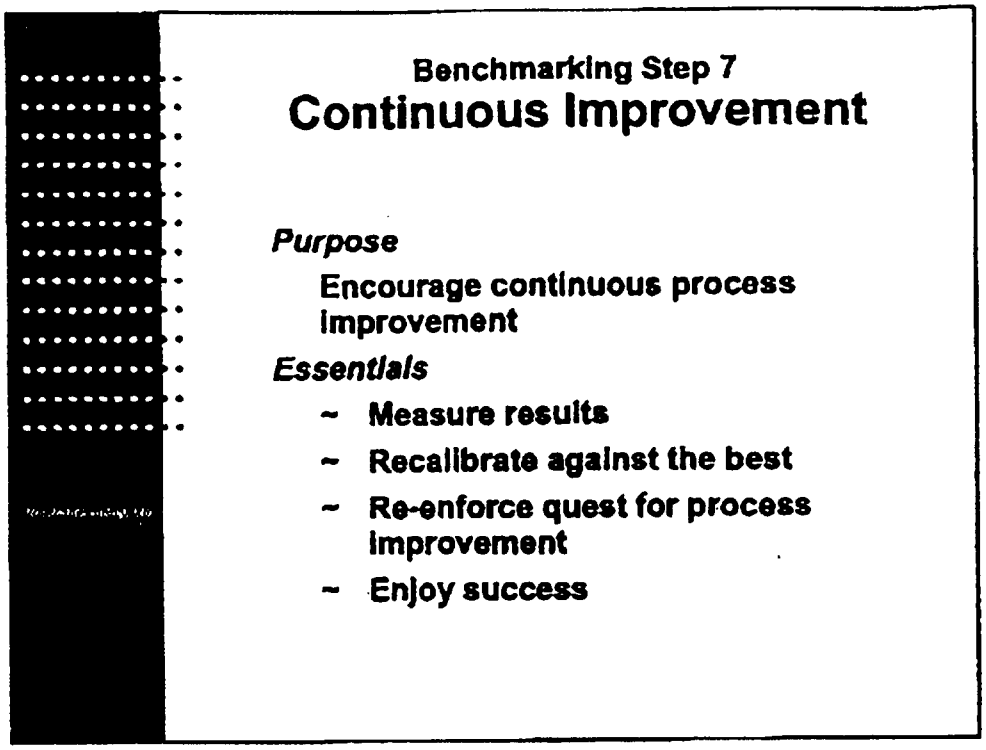

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Quality Benchmark Deployment

A technique for selecting benchmarking projects and performance measures

by
Roger Swanson

With benchmarking, organizations need not reinvent the wheel. Instead, they can creatively adapt innovative practices found outside their organizations. For most organizations, the decision to benchmark is not hard to make, but the decisions on which practices to benchmark and which performance measures to use are difficult.

There is sufficient literature suggesting that benchmarking should focus on critical areas first, but the literature doesn't provide practical tools to help the practitioner select appropriate benchmark subjects and measures. There is one tool, however, that can help: quality benchmark deployment (QBD).

Understanding the terminology

QBD is a variation of quality function deployment (QFD). While QFD identifies the functional characteristics of products and services that satisfy customers' expectations, QBD identifies the organizational processes, practices, and structural factors that satisfy customers' expectations. QBD also identifies appropriate performance measures, including key process variables, that indicate the satisfaction of customers' expectations.

Meeting external customers' expectations is measured in terms of customer satisfaction, while meeting internal customers' expectations is measured in terms of business effectiveness. These quantifiable measures of performance are driven by the processes, practices, and structural factors of the business—the performance drivers. In other words, performance is determined by those performance drivers, and all quality improvement activities, including benchmarking, should be directed at improving or changing them.

Performance drivers are often interrelated; they create value (real or perceived) and consume resources (including time). Structural factors often must be changed before an organization's processes and practices can be improved. These structural factors include the organizational structure and culture, technology, environment (both political and geographical), and certain costs (for example, contractual labor agreements and geographic utility rates).

Applying the technique

An example best explains how QBD works. Suppose you have just purchased an independent service station on Jericho Turnpike in Commack, NY, in bankruptcy court. Before the sale, you interviewed the owners, Cal and Dick Smith, and analyzed other independent competitors in Commack.[1] Table 1 shows a portion of the data collected. After reviewing the competitive data, you assign the code name of "Gasoline Hell" to the new acquisition, which is in contrast to the name of one of the competitors, "Gasoline Heaven."

To use the QBD technique, here are the steps you must take:

Step zero: Prepare a competitive or strategic assessment of the business using the information from Table 1. This step—often referred to as step zero in benchmarking studies—is critical to understanding the gas station's competitive weaknesses and identifying areas needing quality improvement. In addition to obtaining competitive information, step zero can also include preparing flowcharts of key processes and addressing more strategic issues, such as critical success factors for the industry.

Step 1: Survey customers to determine their expectations, their ratings of the importance of each expectation, and their levels of satisfaction with your station and with competitors' stations. Appropriate sources for these data include focus groups, customer surveys, customer complaints or suggestions, and trade publications. Identify not only current customer expectations that are critical to success, but also potential expectations that would excite customers. Focus groups using affinity diagrams can be used to group customer expectations into key, higher-level expectations.

Once this information is collected, plug it into the QBD chart shown in Figure 1. Specifically, it would be plugged into the "Customer Satisfaction Rating" section and the "Customer Expectations" section shown in Figure 2. As Figure 2 shows,

Table 1. Competitive Analysis Data Table

General Information	Gasoline Heaven	Gasoline Hell *	Atlantis Oil
Supplier	Gulf Oil	Royal Oil	Atlantis Oil
Credit cards accepted	All	Royal, MasterCard, VISA	Atlantis
Hours of operation	20 hours per day 7 days per week	24 hours	7 a.m.-9 p.m. Closed Sunday
Employees attendants mechanics	24 6 (4 day shift, 2 evening shift)	8 –	6 1 (day shift)
Service bays	3	2	3
Number of islands/ pumps	3/34	2/18	3/18
Attendants (at peak hours)	11	1	1
Station remodeled last	1988	C: "1972" D: "Or was it 1975?"	1980
Rest rooms	Open; cleaned every shift	D: "Need key to use; cleaned last week"	Open; cleaned every shift
Employee training	100%	C: "They can read and add, what else do they need?"	100%
Employee turnover	50% with at least 3 years service	C: "All hired within the last year"	Not available
Dress code	Yes	C: "No" D: "No dresses"	No
Key Performance Measures			
Volume (gallons/ year)	7-8 million	0.6 million	1.3 million
Price: Self-service ($/gallon)			
Regular	No self-service	$1.17	No self-service
Premium	No self-service	$1.30	No self-service
Super premium	No self-service	$1.40	No self-service
Price: Full service ($/gallon)			
Regular	$1.13	$1.48	$1.18 (cash)
Premium	$1.28	$1.58	$1.32 (cash)
Super premium	$1.37	$1.68	$1.50 (cash) (credit+$0.10/ gallon)
Service cycle (12 gallon fill up)			
Full service	2.6 minutes	C: "About 5 minutes" D: "About the same as full service"	4.2 minutes
Self-service	Not available		Not available
Market share	30%	3%	5%
Percent premium gasoline	65%	25%	40%
Profits	Reportedly high	C: "We were forced out of business!"	Not available

* Responses of Cal and Dick Smith denoted by "C" and "D," respectively.

Gasoline Hell is not satisfying two important customer expecta-

Figure 1. QBD Chart

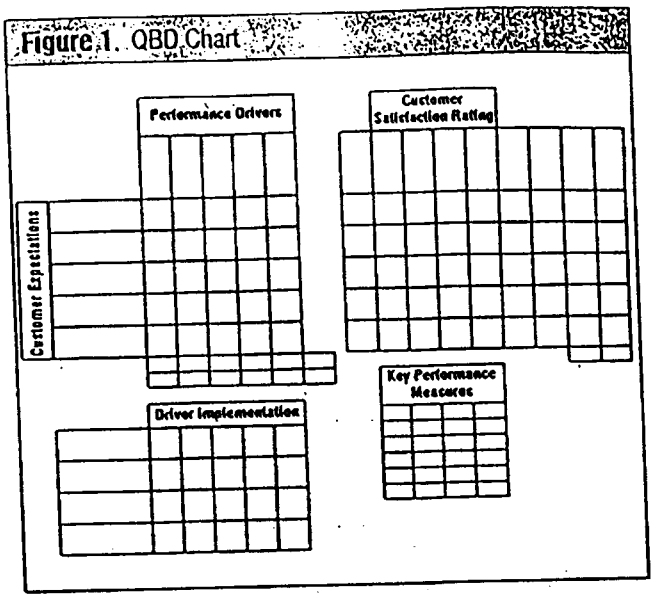


Figure 2. QBD Chart—Customer Satisfaction Rating, Customer Expectations and Performance Drivers Sections

		Importance rating	Customer Satisfaction Rating * Gasoline Hell actual	Gasoline Heaven actual	Atlantis Oil actual	Gasoline Hell target	Rate of improvement	Sales point	Absolute weight	Demand weight
Customer Expectations	Low price	5	2	5	3	4	2.0	1.5	15.0	18.5
	Prompt service	5	1	5	3	4	4.0	1.5	30.0	37.0
	Clean stations	4	1	5	5	5	5.0	1.2	24.0	29.7
	Overall convenience	3	3	5	3	4	1.3	1.0	4.0	4.9
	Friendly staff	4	2	5	3	4	2.0	1.0	8.0	9.9
								Total	81.0	100.0

* Ratings are reported on a scale of 1 to 5, with 5 being the best.

Correlations
- ◉ Strong = 9
- ○ Some = 3
- △ Possible = 1

	Performance Drivers: Attendant training	Credit cards accepted	Facility redesign	Percent self-service	Rest-room inspection and cleaning
Low price	○ 56	○ 56	○ 56	○ 56	0

is calculated using the formula:

Gasoline Hell target/Gasoline Hell actual

The strategic plan could address the low-price expectation by lowering prices and profit margins in the short term while addressing the prompt service and station cleanliness problems. All three expectations might be critical to higher volumes and long-term success.

If satisfying specific customer expectations can be an effective selling point, a sales-points weighting factor can be calculated using market research or estimated as was done in Figure 2 ("Customer Satisfaction Rating" section, "Sales point" column). Sales points generally follow the customer-defined importance ratings; however, they are often omitted unless market research supports their inclusion.

Step 3: Calculate the absolute weight of customers' expectations using the formula:

Importance rating x Rate of improvement x Sales point (if applicable)

Next, determine demand weight, which is the absolute weight on a percentage basis. To calculate the demand weights, add the values in the absolute weight column and divide each value by the total.

Step 4: Identify the performance drivers. This is the most important step in the QBD process. The objective is to define the processes, practices, and structural factors that are critical to satisfying customers' expectations. Several tools are useful in the search for causes (i.e., drivers) yielding the desired effect (i.e., satisfied customer expectations):

- Affinity diagrams to identify and group common factors
- Interrelationship or Ishikawa diagrams to relate causes with effects
- Tree diagrams constructed using the five-why method of searching for root causes

Once identified, add the performance drivers to the QBD chart in the "Performance Drivers" section.

Step 5: Ascertain the strength of the causal relationships between performance drivers and customer expectations. The strength of the relationship can be categorized as "strong" (raw value of 9), "some" (raw value of 3), and "possible" (raw value of 1). This step often requires the use of data or expert consensus using these tools:

- Pareto analysis to identify the vital sources of variation in processes that affect customers' expectations
- Combination tree and matrix diagrams to show the relationships between expectations and drivers and the strength of the relationships

Once the relationships are categorized as "strong," "some," or "possible," put the corresponding symbols in the upper-left corner of the appropriate boxes. For example, the correlation between the performance driver of attendant training and the customer expectation of low price was determined to be "some." Thus, a circle was put in the upper-left corner of the intersecting box.

As Figure 2 shows, attendant training is strongly related to prompt service, clean stations, and friendly staff. Overall convenience is strongly correlated with the number of credit cards accepted and the facility design. Clean stations correlate strongly with the rest-room cleaning and inspection process.

Step 6: Calculate the corresponding demand-weighted correlations using the formula:

Raw correlation value x Demand weight

Put these demand-weighted correlations in the lower-right corner of the appropriate boxes. In Figure 2, for example, the strength of the causal relationship between attendant training and low price was determined to be "some," which has a raw value of 3; the demand weight for the customer expectation of low price was calculated as 18.5 (see step 3). Therefore, the corresponding demand-weighted correlation is rounded to 56 (3 x 18.5 = 55.5).

For Gasoline Hell, the strongest correlation is between training and prompt service, with a demand-weighted correlation of 333 (9 x 37).

Step 7: Identify the first candidate for benchmarking. This is determined by first totaling the demand-weighted correlations in each performance-driver column. Once these numbers are noted in their respective columns, calculate the percentage for each performance driver.

In Figure 2, for example, the demand-weighted correlations for the performance driver of attendant training are added for a total of 745 (56 + 333 + 267 + 0 + 89). Then, the performance-driver totals are added for a grand total of 1,607 (745 + 147 + 241 + 192 + 282). This reveals that attendant training received 46% of the total points (745/1,607) and is the process to improve first—hence, the first candidate for benchmarking.

In organizations needing or currently undergoing major change, certain key structural factors, such as the organizational culture, might not be rated highly because of organization bias. In many cases, these structural drivers will be the showstoppers that must be addressed first. These must be identified and addressed in the organizations' strategic plans.

Step 8: Determine key performance measures. These measures relate directly to customer expectations (e.g., low prices), process variables (e.g., service cycle time), or higher-order business effectiveness measures (e.g., volume and market share). Add the performance measures to the QBD chart shown in Figure 3.

New measures for tracking performance are often added as the benchmarking study progresses in the analysis of performance drivers. During the analysis step of benchmarking, the gaps between the organization's performance measures and those of the best competitor are plotted and projected into the future. The change in results can be measured and tracked as the performance drivers are changed, which brings us to the last section of the QBD chart, the Driver Implementation matrix.

Figure 3: QBD Chart—Key Performance Measures Section

Key Performance Measures				
Gasoline Hell actual	Gasoline Heaven actual	Atlantis Oil actual	Gasoline Hell target	
$1.48	$1.13	$1.28	$1.20	Full-service regular price ($/gallon)
$1.68	$1.37	$1.60	$1.45	Full-service super premium price ($/gallon)
5.0	2.6	4.2	3.2	Service cycle time (minutes)
0.8	8	1.3	2.7	Volume (million gallons/year)
3%	30%	5%	10%	Market share (percent total)
25%	65%	40%	50%	Premium gasoline (percent total)

Figure 4. QBD Chart—Driver Implementation Section

	Driver Implementation				
	Percent of employees trained	No. of credit cards accepted	Industry standard efficiency rating	Percent self-service	Frequency of cleaning rest rooms
Gasoline Hell actual	0%	3	10%	75%	Once a week
Gasoline Heaven actual	100%	All	85%	0%	Twice daily
Atlantis Oil actual	100%	1	60%	0%	Twice daily
Gasoline Hell target	90%	All	70%	40%	Daily

Step 9: Determine driver implementation measures. These measures indicate progress in changing performance drivers. They are the key variables in the processes, practices, and structural factors that indicate change is being deployed. Add the driver implementation measures to the QBD chart shown in Figure 4.

For some organizations, this portion of the QBD chart might be optional since these measures might be included in their implementation plans; they might not even need to continue using the QBD chart since its primary purpose is to identify projects, measures, and drivers—not track implementation.

A logical tool

The QBD technique helps organizations logically select critical areas to benchmark. It also helps identify the next most important areas to address. The technique helps organizations understand the relationship between customers' expectations and performance drivers. It also highlights the fact that performance measures can be benchmarked, but these results will remain unchanged unless the underlying performance drivers are changed.

Reference

1. Gasoline Heaven, which is operated by Rudy and Tim Massa, was the subject of a *Wall Street Journal* article published May 24, 1991. The majority of the Gasoline Heaven data is based on the article and the author's interviews and field observations. All other information in the data table is the product of the author's imagination. Any resemblance to actual persons, living or dead, or any business or organization is coincidental.

Roger C. Swanson is the president of Competitive Dynamics, Inc. in Culver City, CA. He received a master's degree in business administration from the University of California, Los Angeles. Swanson is a member of ASQC.

The 10 Pitfalls of Benchmarking

Avoid mistakes by understanding these miscues.

by
Irving DeToro

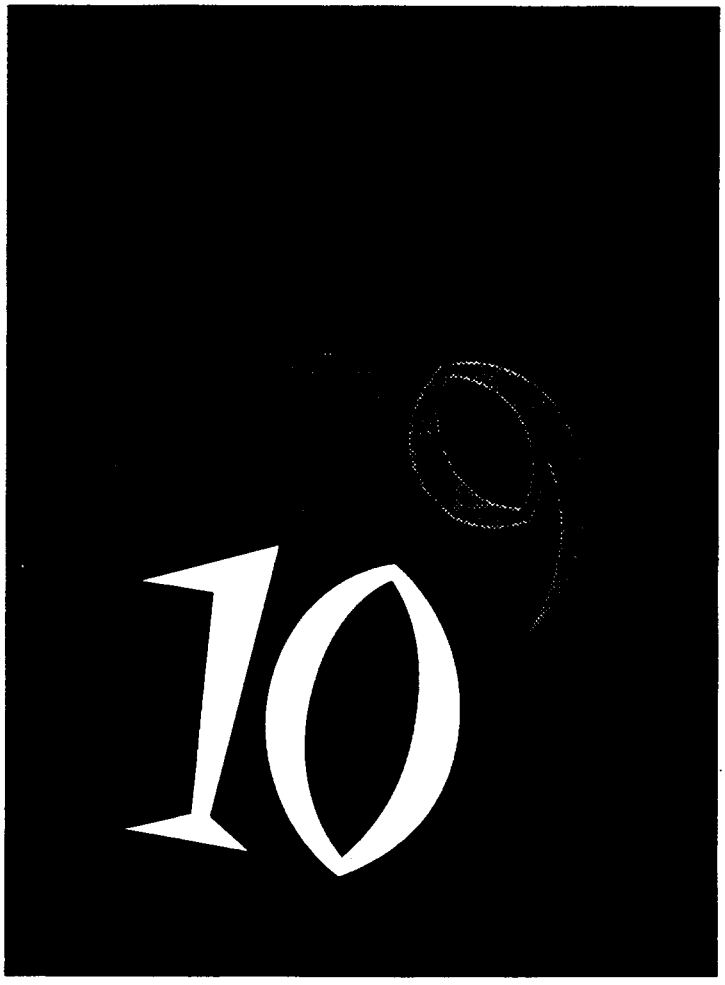
BENCHMARKING IS ACCEPTED WORLDwide as a management technique to improve business performance. The concept is easy to understand, and many firms have proven that benchmarking provides added value. Yet, some organizations have failed in their attempts to implement this simple concept. To avoid mistakes in benchmarking, one must understand the types of common benchmarking miscues. What follows are 10 pitfalls that, if avoided, can help ensure benchmarking success:

Pitfall 1: Lack of sponsorship

Like a successful sports team, a successful benchmarking team needs a leader. Unless a senior manager is aware of the project and has agreed to serve as the team's mentor, the project could fail. Often, the amount of time, effort, and resources needed to undertake a benchmarking project isn't understood. If a project is launched without sponsorship, team members might later be criticized for spending too much time away from their primary work.

A team that benchmarks without a manager might resemble an empowered team until it's time to present recommendations. The manager who must approve the recommendations might have no knowledge or appreciation of the project. Lacking a sponsor, a team's project could be unknowingly killed by an uninformed manager reallocating resources or changing priorities.

To avoid these problems, a team should submit to management a one- to four-page benchmarking project proposal that describes the project, its objectives, and potential costs. If the team can't gain approval for the project or get a sponsor, it makes little sense to proceed with a project that's not understood or appreciated or that is unlikely to lead to corrective action when completed.



Pitfall 2:
Selecting the wrong people for the team

Who are the right people for a benchmarking team? Individuals involved in benchmarking should be the same ones who own or work in the process. It's useless for a team to address problems in business areas that are unfamiliar or where the team has no control or influence. While it might seem trite, an often-overlooked point is that those working in the process know the most about it and are the most capable of identifying and correcting problems.

Pitfall 3:
Teams not fully understanding their own work

A benchmarking team often visits world-class organizations in the hope of learning how they achieved superior performance. After a friendly and insightful meeting, team members return to the office, but nothing happens as a result of the meeting. What went wrong?

It's likely that the team attempting to understand world-class performance could not relate another company's performance to its own. If the benchmarking team didn't map, flowchart, or document its work process, and if it didn't benchmark with organizations that documented their processes, there can't be an effective transfer of techniques. The intent in every benchmarking project is for a team to understand how its process works and compare it to another company's process. The exchange of process steps is essential for improved performance.

Pitfall 4:
Teams taking on too much

The task a team undertakes is often so broad that it becomes unmanageable. This broad area must be broken into smaller, more manageable projects that can be approached logically. A suggested approach is to create a functional flowchart of an entire area, such as production or marketing, and identify its processes. Criteria can then be used to select a process to be benchmarked that would best contribute to the organization's objectives. Thus, projects can be approached in order of importance and can be implemented and completed without large time lapses.

Pitfall 5:
Managers failing to understand the necessary commitment

Teams will often begin a project knowing that the problems have long persisted and that some degree of time and effort will be required to correct them. Managers, however, under the pressures of competition, improved performance, or demanding deadlines, need a faster solution. Since managers aren't as familiar with specific work issues as their employees, they tend to underestimate the time, cost, and effort required to successfully complete a benchmarking project. Managers should be informed that while it's impossible to know the exact time it will take for a typical benchmarking project, a rule of thumb is that a team of four or five individuals requires a third of their time for five months to complete a project.

Pitfall 6:
Focusing on metrics rather than processes

There still are firms that focus their benchmarking efforts on performance targets (metrics) rather than processes. Even if a firm like this hits its performance target, it will have little idea how it can again achieve the same level of performance. Knowing that a competitor has a higher return on assets doesn't mean that its performance alone should become the new target (unless an understanding exists about how the competitor differs in the use of its assets and an evaluation of its process reveals that it can be emulated or surpassed).

Focusing on performance gaps is useful in identifying improvement opportunities. Seeing gaps might motivate a team to accelerate performance improvement in its area by mapping its process so it can effectively complete a benchmarking project.

Pitfall 7:
Not positioning benchmarking within a larger strategy

Benchmarking is one of many total quality management tools—such as problem solving, process improvement, and process reengineering—used to shorten cycle time, reduce costs, and minimize variation. Benchmarking is compatible with and complementary to these tools, and they should be used together for maximum value.

For example, it's possible to aid problem solving by benchmarking potential solutions, aid process improvement by benchmarking proposed new processes, or aid reengineering by benchmarking completely redesigned processes. Benchmarking can also revitalize other quality tools. Process improvement, for example, is sometimes perceived as dry, hard work, while benchmarking is in vogue and more exciting.

Pitfall 8:
Misunderstanding the organization's mission, goals, and objectives

To inform employees about company objectives and goals, most organizations hold meetings or distribute literature. More often than not, a couple of weeks later, everyone, including the managers, can't explain the objectives or goals. If this information is necessary to prioritize areas and processes that should be benchmarked, teams that can't explain the objectives and goals will be unable to select the organization's most critical processes.

To solve this problem, all benchmarking activity should be launched by management as part of an overall strategy to fulfill the organization's mission and vision by first attaining the short-term objectives and then the long-term goals.

Pitfall 9:
Assuming every project requires a site visit

When a benchmarking project is commissioned, the first reaction is to call a travel agent and arrange a trip. Meeting with well-managed organizations is always positive but not necessarily productive for either party. By this point, the notion that a team must be well prepared to discuss its specific work process should be appreciated. But experience has revealed that sufficient information might be available from the public domain, making a site visit unnecessary.

For example, a defense contractor, benchmarking a world-class maintenance project, identified Disney as a potential benchmarking partner. The team realized, however, that its client (the U.S. military) would not look favorably on the team traveling to Orlando, FL, in January. After completing its literature search on Disney, the team found sufficient information to improve its process, and it never had to leave town.

Pitfall 10:
Failure to inspect benchmarking

Once benchmarking has been completed for a specific area or process benchmarks have been established and process changes implemented, managers should review progress in implementation and results. Failure to inspect, ask questions, or check for progress in implementing change and securing results will signal to everyone that benchmarking is not valued.

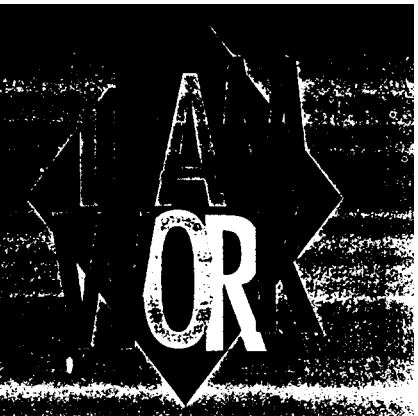
Conversely, a manager who involves his or her employees in benchmarking is giving the employees a chance to be empowered. To gain this empowerment, employees must know who their benchmarking partners are, the benchmark for the targeted process, the progress made in closing the gap, and how they can help this effort.

Avoiding the pitfalls

Benchmarking is not rocket science. Much of it is common sense. By remembering and avoiding these 10 pitfalls, teams can benchmark more effectively and efficiently.

Irving DeToro, a benchmarking consultant and trainer, is the chief executive officer of The Quality Network Inc. in Rochester, NY. He received a master's degree in business administration from the University of Rochester in New York. DeToro is a member of ASQC.

What Benchmarking Books Don't Tell You



Five tips that can help make benchmarking teams more successful

by Sarah Lincoln and Art Price

WHEN BENCHMARKING IS DONE well, it is a powerful competitive tool. When it is done poorly, it can be an incredible waste of money. A lot of good advice on how to effectively conduct benchmarking can be found in current literature. In fact, the number of books on benchmarking has increased dramatically over the past few years. These books can provide you with a wealth of information, but they don't tell you everything.

We have learned a number of interesting lessons while working with benchmarking teams at AT&T Global Business Communications Systems that we did not learn from the books. We would like to share some of them with you.

Tip 1: Do it quickly or don't do it

Most benchmarking books do not discuss how long benchmarking studies can take. They warn you that teams can easily get bogged down in the technicalities of benchmarking, but they don't explain clearly that, more common than not, studies last from nine to 12 months. Why so long? Because benchmarking is still relatively new to most companies, which means that new teams are conducting the studies—and new teams don't usually know how to be expeditious.

While nine to 12 months is common, it's too long. Many circumstances can change in a company in that time. Team members might move to other job assignments, compromising the study's continuity. Or worse, the team's management could change and the study could be abandoned after months of hard work. So you need to get the benchmarking study done quickly—or you might not get it done at all.

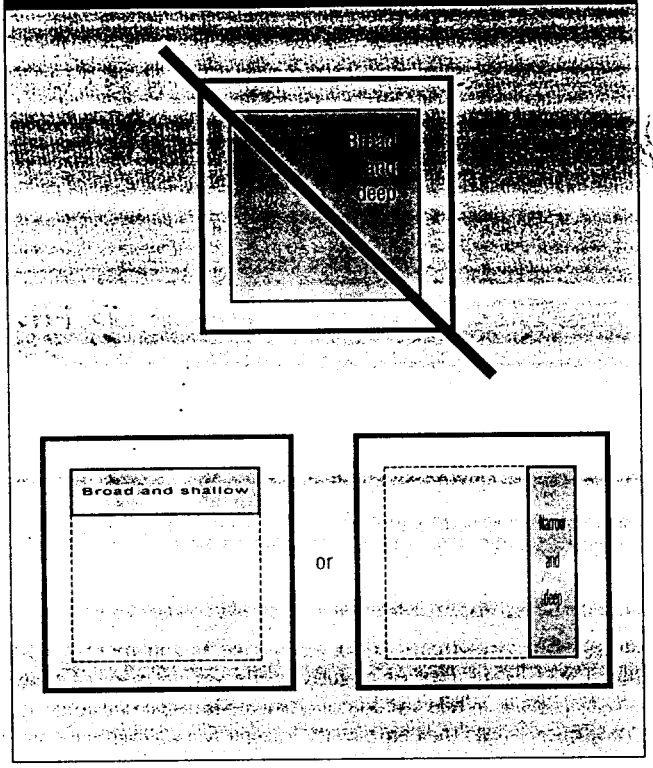
Studies can drag out for several reasons:

- *The proper amount of resources is not applied.* Generally, team members are asked to conduct a benchmarking study in addition to their normal work. As a result, they devote a few hours a week (about 10% of their time) to the study. This breaks up the benchmarking activities, spreading them over months. Thus, momentum is difficult to maintain. If team members devote at least 20% of their time (about a day per week), teams can cut months off their studies' completion time.
- *Experts are not used.* Since benchmarking is difficult to do well, experts can increase the quality of a study while saving a lot of time. While we do not advocate hiring a consultant to do the entire study for you, we do highly recommend engaging one for parts of it. At a minimum, pay for a literature search; experts can perform searches quicker and cheaper. You might consider hiring an experienced benchmarking facilitator to help the team become more efficient and avoid many common pitfalls. You might also consider paying to have the best-in-class companies identified and visits set up. You should make sure, however, that you get what you want by asking for proof that the companies are best in class and by screening the companies before visiting them. Using experts in these ways can save weeks, but be careful. Don't transfer the responsibility for the study's outcome to the consultant. Stay involved.
- *Groundwork has not been done.* Team members need to do groundwork—that is, collect customer, process, and performance information that will enable them to compare their company with others—before they can start benchmarking. Unless an organization is mature in its qual-

Five Tips for a Successful Benchmarking Study

1. Do the study quickly
2. Choose a broad-and-shallow or narrow-and-deep scope
3. Integrate critical success factors
4. Don't fall for the best-in-class fallacy
5. Manage the change from the start

Figure 1. Choosing the Scope of a Benchmarking Study



ity techniques, the benchmarking team will be doing this groundwork for the first time, which can take months. World-class companies continuously document their processes, analyze their customer needs, and compare their performance against those needs. If you adopt this as an essential part of your business activities, your benchmarking studies will get done faster.

- *Too large a scope is chosen.* Teams can easily bite off too much if they have not benchmarked before. Since they don't know what they are getting into, they don't realize the effect of their scope decision on the study's length. The next section gives some guidance on how to choose the proper scope.

Tip 2: Choose a broad-and-shallow or narrow-and-deep scope

Choosing the scope of a benchmarking study is an art. Benchmarking books do a good job of helping teams choose relevant topics to benchmark.[1] They do not, however, give much advice on how to narrow the scope so that the study is achievable. They tend to just advise teams to avoid taking on too much. But what is "too much"?

If unguided, teams often choose to do a study that is broad and deep—that is, one that broadly covers a large process from beginning to end and goes into great depth in every aspect of that process. This is "too much." Instead, teams need to choose a scope that is either broad and shallow or narrow and deep (see Figure 1).

Broad-and-shallow studies look across a process or function. They ask high-level, strategic questions, such as:

- What are the comparative costs of executing a similar process?
- What is a company's business strategy?
- What is the most effective organizational structure for a given function?

This type of study spans many functions and people and doesn't go into detail in any one area. It answers "What is done?" rather than "How is it done?" Broad-and-shallow studies are useful in developing strategies, setting goals, and reorganizing functions to be more effective.

Narrow-and-deep studies delve into one or two aspects of a process or function and look at how work is done. Operational-level questions are asked, such as:

- How are data automatically collected for the software development process?
- How does an organization exceed customer expectations in providing on-time delivery?
- How does a company decide what products to bring to market?

The kind of data collected in narrow-and-deep studies is very detailed. These studies dig deep to uncover the treasures within a process or organization. They are useful in changing how people do their work—namely, the processes they use to perform their jobs.

When teams try to answer "What is done?" and "How is it done?" simultaneously, they end up with hopelessly large, broad-and-deep studies. Thus, carefully choosing the scope of a benchmarking study is vital to success. There are many ways to control the scope. Some teams start with a broad-and-shallow scope and, after identifying a few areas of particular interest, go narrow and deep. Others are able to identify the narrow-and-deep target immediately, based on existing data or experience. It just depends on what a team is trying to accomplish and how much time it has. Just remember, if a team wants how-to information, it will eventually have to dig deep.

Tip 3: Integrate CSFs—they are critical

Critical success factors (CSFs) are "the few key areas where 'things must go right' for the business to flourish."[2] CSFs are derived from what is critical to a company's survival, whether that be its customers, competitive standing, financial stability, or business strategy. CSFs can differ between different businesses, organizations, and benchmarking teams.

Almost anything goes with CSFs. For example, a CSF for a package delivery service might be on-time delivery. A long-distance telephone service provider's CSFs are likely to be reliability and low cost. An internal mailroom's CSFs might be reliability, low cost, and accuracy. Keep in mind, however, that CSFs define the few *most critical* things, not just *important* things.

Some books discuss the importance of CSFs in relation to choosing what to benchmark, but teams need to go a step further.[3] CSFs need to influence not only the scope of the benchmarking process, but also its key measures, company selection criteria, questions, final analysis, and recommendations. This is important because no matter what you benchmark, you want to study, measure, and collect information in the areas that are critical to your organization's success.

To ensure that CSFs influence the entire benchmarking process, use them when:

- *Choosing the benchmarking scope.* A benchmarking team can choose to benchmark a CSF. For example, if on-time delivery is a key to success, an effective use of benchmarking is to discover how other organizations do this well. If a team is interested in benchmarking a process or business strategy,

it can include the top CSFs within the scope. By doing so, the team will collect information on how the process or strategy interplays with the CSFs and its recommendations will improve or maintain the company's performance in these critical areas.

- *Selecting key measures.* A benchmarking team should use CSFs as a means to select measures that will be used to indicate how the company performs in its critical areas. For example, with on-time delivery as a CSF, the team could track actual delivery times against promised delivery times or the customers' perception of the company's delivery reliability. If CSFs are used to guide the selection of key measures, the team is likely to discover that it is already collecting the internal data needed for the benchmarking study.
- *Identifying benchmarking partners.* CSFs and key measures form the basis for the criteria used to identify benchmarking partners. Good criteria can steer a team to the right partners. The right partners will share, at least partially, the team's view of what is critical to success. If the team and the benchmarking partners don't share common ground in critical areas, it's highly unlikely that the practices found will be relevant.
- *Developing benchmarking questions.* CSFs should influence the team's questions for the benchmarking partners. The team should include questions about the partners' ability to maintain or improve performance in CSFs. The level of detail depends on how near the CSFs are to the central focus of the study.
- *Preparing the final analysis and recommendations.* During final analysis, the benchmarking team should look for trends relating to how others achieve superior performance relative to key measures and, therefore, the CSFs. The team's recommendations will then, therefore, take CSFs into account and enhance the company's performance in its critical areas.

Keeping teams focused on CSFs throughout a benchmarking study increases the likelihood of a good return on investment because it guarantees that information is collected in the areas most critical to success.

Tip 4: Don't fall for the best-in-class fallacy

CSFs help benchmarking teams collect the right information, but from whom should they collect it? Teams should collect data from best-in-class companies, of course. While this practice is so clear-cut and simple in principle, its implementation is not.

Benchmarking books warn that finding best-in-class companies is one of the hardest steps in the benchmarking process. Despite these warnings, many benchmarking teams still believe the fallacy that, somewhere, there are best-in-class companies in the precise areas they are studying. This fallacy needs to be dispelled once and for all.

Finding a best-in-class company to benchmark is not an absolute. In other words, there is no preexisting magic list of best-in-class companies. Teams can't even count on the Malcolm Baldrige National Quality Award winners because they might not be best in the particular processes being studied.

In fact, a company that one team determines to be best in class can differ from another team's selection, even if both teams are conducting similar benchmarking studies. Best in class depends on a team's needs. Here is how a team can select the best-in-class companies that meet its needs:

1. Formulate criteria that define a "class" of companies of interest. Base these criteria on fundamental attributes, such as the companies' customer base, global presence, technical focus, or quality maturity. In other words, ask: "What critical attributes must a company have to be a credible benchmarking partner?"

2. Define measures that can be used to compare companies to determine the "best" in class. These measures should be based on the team's CSFs. For example, "best" might be defined as the quickest response time, the most reliable products, the most maintainable products, or the highest productivity. Again, these depend on the team's CSFs and are specific to its situation.

3. Find companies that meet the team's class criteria and that appear to be the best performers relative to the defined measures. These are the team's best-in-class companies.

How hard a team searches to find the best performers in its class depends on what the team is trying to accomplish with the study.[4] If the team is reengineering a critical process, it might want to do a thorough search across the globe. If its budget is small, it might want to settle for "best-in-county" or "best-in-city" companies; a lot can be learned close to home. Whatever the search pattern, using this three-step approach can help teams find benchmarking partners from which they can learn.

Tip 5: Manage the change from the start

The purpose of benchmarking is to *change* a process or practice for the better. Unfortunately, many benchmarking studies never get beyond producing recommendations; they get bogged down when it comes time for implementation. If an organization does not properly manage change from the onset of the benchmarking study, the recommendations will sit on a shelf.

Most benchmarking books give valuable information on communicating benchmarking results and getting acceptance for a team's recommendations.[5] They also mention the value of having a sponsor for a study to increase its credibility in the organization. But this is not enough. Communicating the results of a study after the recommendations have been developed does not start the change process soon enough. Simply engaging a sponsor to help sell the team's recommendations might not work well either.

Benchmarking causes a shift in the team members' mind-set; the experience helps them accept change. This same shift has to occur not only in team members, but also in the entire organization. All of those who have a stake in the study—the managers, funders, process users, and customers—have to be appropriately informed before, not after, the benchmarking study and, if possible, be involved in it. By doing so, the stakeholders will likely accept the recommendations and help implement the necessary changes.

Using benchmarking facilitators who are trained in organizational change management techniques can also improve the effectiveness of benchmarking studies.[6] Applying change management techniques can increase the likelihood that the results of the team's efforts will actually be embraced by the organization—and that's what benchmarking is all about.

Wisdom and more wisdom

The various benchmarking books currently available are a tremendous asset for benchmarking teams. From them, teams can learn much about the art of benchmarking. Based on our benchmarking experiences, we offer five more tips for success. We have found that getting studies done quickly, choosing a

realistic scope, integrating critical success factors, avoiding the best-in-class fallacy, and managing the change from the start can make benchmarking studies more pleasurable and profitable.

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Sarah Lincoln is the benchmarking manager at AT&T Global Business Communications Systems in Denver, CO. She received a master's degree in computer science from the University of Wisconsin in Madison.

Art Price is a DMTS (distinguished member of the technical staff) at AT&T Global Business Communications Systems in Denver, CO. He received a doctorate in mathematics from Rensselaer Polytechnic Institute in Troy, NY. Price is a member of ASQC.

Selecting a Benchmarking Partner: Five Tips for Success

by Vicki J. Powers

What could a university possibly learn from a hotel or a communications company? Although these organizations are quite diverse, the transfer of knowledge in a recent American Productivity & Quality Center benchmarking study crossed all industrial lines.

The Electronic Student and Customer Services study shows the importance of selecting solid benchmarking partners by developing specific criteria upfront and effectively using secondary research. Successful benchmarking goes beyond finding a partner that mirrors your own organization.

"The value and outcome from a benchmarking study are really derived from which organizations are selected as benchmarking partners," says David Yeh, associate vice president for student academic services at Cornell University. "I was clearly impressed with the corporate partners in our benchmarking study at APQC—Hilton Hotels and NBTel. They had implemented the vision that higher education only has been discussing. We saw a completed product of what we were studying."

This outside-industry example reinforces the value of looking for benchmarking partners unlike your own organization that meet your detailed criteria. The following five tips will help organizations follow a structured process for partner selection that returns remarkable results.

Successful benchmarking entails looking for partners that meet your criteria. Here are five steps that should help the process go smoothly.

1. Start the selection process with a clean slate.

Organizations should keep an open mind before they begin thinking about potential benchmarking partners. Preconceived ideas about which companies

Benchmarking Resources

Electronic Information Sources

- Knight-Ridder Information Inc. (DIALOG SERVICE)—a vast online database utility that provides access to hundreds of separate databases.
- LEXIS-NEXIS—provides full-text access to hundreds of newspapers, newsletters and specialty publications.
- Dow Jones—databases that contain financial news and information on developments in business and industry, both domestic and international.

Internet/World Wide Web

- American Productivity & Quality Center
  International Benchmarking Clearinghouse
  www.apqc.org
- ASTD Benchmarking Forum
  www.astd.org
- Benchmarking Club de Paris
  www.bench-club-paris.asso.fr/
- Industrial Technology Institute—Performance Benchmarking Service
  www.iti.org:80/pbs/
- Information Center Benchmarking Germany
  www.izb.ipk.fhg.de/english.htm
- Management Roundtable (new product development)
  www.trainingforum.com/MRT
- SPI Council on Benchmarking
  www.spinet.org/
- The Benchmarking Exchange
  www.benchnet.com
- U.S. Inter-Agency Benchmarking & Best Practices Council
  www.va.gov/fedsbest/index.htm
- U.S. Navy Best Manufacturing Practices
  www.bmpcoe.org/

are good limit benchmarking effectiveness. Many times organizations will spout out company names they want to visit once they have defined the benchmarking process. For example, in the order fulfillment area, they might automatically think of L.L. Bean or Victoria's Secret as an outstanding partner. But what about the other organizations that aren't as well-known for their processes?

"One of the biggest mistakes organizations make is going after the same companies as partners over and over and over," says Lisa Higgins, director of benchmarking services at APQC's International Benchmarking Clearinghouse. "There's a whole group of less-than Fortune 500 companies out there that, because of the sheer nature of their budgets and who they are, have to be more efficient. For smaller companies, it's their livelihood."

A perfect example involves a consortium of hospitals that benchmarked their in-patient admitting processes against an airline, a hotel and a rental car agency. In true out-of-the-box benchmarking terms, the hospitals' admittance processes crossed many industries and terminologies (such as registration and check-in), but the principles could be transferred from one industry to another. Without staying open-minded, the consortium would not have had such a successful learning opportunity.

"In the education area, the tendency is much stronger to judge an organization by name," observes Karen Kaplan, director of APQC's Institute for Education Best Practices. "Blinding the data during the partner-selection process is critical to our benchmarking methodology. The participants are making decisions based on not knowing who the organizations are and looking at companies that anecdotally they haven't heard about."

2. Establish well-defined criteria upfront for benchmarking partners.

Before your organization begins a global search for a benchmarking partner, understand and define exactly what you are interested in learning. Without first establishing specific criteria, the search could become a mission impossible.

Higgins suggests creating two different tiers of criteria to help manage this enormous—and essential—task. The first tier defines specific company characteristics such as number of employees or sales revenue. The second tier includes more loosely defined characteristics such as, "I'd like to have ..." With this kind of structure, organizations that select three to four high-level criteria will find potential partners from a variety of sources.

But remember the open-minded rule. "For every characteristic you add to your list of criteria, you lessen your chances of ever finding the right match," notes Higgins. "The criteria shouldn't be so rigid that only five companies in the country will fit into them."

The criteria also shouldn't be so broad that they pull in organizations way out of your financial league. Take, for example, a company that is benchmarking a process related to marketing. One potential partner may be outstanding in its technological innovations but may not match up with specific criteria such as company size or total revenue.

If the average marketing expense falls between 11 percent and 16 percent of total revenue, and your budget is about 5 percent, then it wouldn't make sense to benchmark an organization that has a 20-percent marketing budget—except to examine its processes, not its technology. Because of its higher budget, that organization would be able to throw more money toward creative ideas.

"If you go see a company with unlimited access to technology, and that isn't part of your criteria, then the learning will be decreased substantially because you can't make the same kind of changes to achieve the improvements they have," explains Higgins.

3. Define what "best practice" means at your organization, then woo partners accordingly.

No standard definition exists for "best practice." "Best" at General Motors, for example, is defined as "information we can use." At Pennsylvania-based AMP, Benchmarking Manager John Davis says his company bases "best" on other companies that are objectively better than AMP at a given practice. If organizations look for "truly best practices," they will never find a match, he adds.

At APQC, 80 percent to 90 percent of its information services requests concern best processes or practices. APQC prefers to uncover companies that show "significant improvements" and tries to minimize the term "best."

"Many innovations and success stories out there offer valuable information but may not be 'best,' " says Anne Marsden, information specialist at APQC. "And not everything is tagged 'best in class' in the research we pull from."

Higgins agrees that this terminology has created unrealistic expectations in the benchmarking community. "There's a misnomer that a list of best-in-class companies exists," she reports. "What truly exists is a lot of companies that have really good processes. The criteria you determine for what is 'best' are the determining factors in your success. I would love to change the term 'best practices' to 'successfully demonstrated practices.' 'Best' connotes that there is one company or a set of five companies out there that are really good."

Davis discounts the thought that only large, global companies are best-practice organizations. This is not always the case, he notes.

"There can be a lot to learn from small, high-growth companies that are obviously doing something right," says Davis. "And they are much more willing to share. There seems to be some arrogance at some large companies that if you are not big, you can't be good."

Eastman Kodak employees, after much experience in benchmarking, know which companies are best and only engage those organizations. "If we determine that an organization is best, we must do everything we can to pursue that challenge," explains Turk Enustun, Eastman Kodak's director of corporate benchmarking. "We need to create a two-way stream of communication that allows both of us satisfaction in the relationship."

As a result, Enustun teaches Kodak employees a method to help win potential partners they've identified as best. In the letter or phone call to the potential partner, Enustun reveals two of Kodak's world-class processes if the potential partner would like to work with Kodak in the future.

"I turn the conversation around to address their needs and offer myself as a conduit to Kodak when they're ready to make improvements," says Enustun.

Raytheon TI Systems is just as aware of the necessity for creating a partnership with potential benchmarking partners. When RTIS pursues an organization as a benchmarking partner, it sends a completed screening survey with the request. In this way, the potential partner possesses RTIS' information even before saying yes or no.

4. Use secondary research to identify potential benchmarking partners.

Analyzing secondary research for potential partners is like trying to meet the man or woman of your dreams: You never know where that perfect match might be.

In this phase, which Enustun refers to as "shallow and broad," organizations target potential partners based on numerous databases and publications. The goal is to create a laundry list of organizations that show some evidence of best practice. This can be done in corporate or public libraries, or through services such as APQC's Information Services Department, which can access numerous business databases such as ABI/Inform and Dialog's 400-plus files. IBC members also can access its Best Practice Database.

"Although it's not a universal collection, it's an excellent source for process information," says Nancy Fleshman, APQC manager of information services.

The Internet has opened up a new research area for benchmarking. But the Internet must be used with caution because so much of the information has been written by the companies' own marketing departments. Research material such as white papers and study results often can be found on the Internet. Valuable databases include the Department of Naval Research's Best Manufacturing Practices and the National Performance Review's KnowledgeBase.

5. Weed out the best from the rest.

The next step in the selection process funnels this universe of potential partner companies down to a select few that meet the criteria—going narrow and deep. This involves information-gathering, both internal and external. Some companies use a data-collection tool in the screening survey—to solicit more information from potential partner companies. Sent to a broad list of companies, this survey identifies the best based on the detailed responses. The goal is that the right (and best) companies will respond.

Trade and professional organizations also can offer insight to supplement a search, and so can university professors who are well-versed in certain processes. Also, suppliers and employees may offer insight when asked a simple question: Are there certain organizations we should look at that excel in this process?

"We have found employees to be valuable sources of information to narrow our potential list," emphasizes Enustun. "In a very short time, four potential companies were reduced to two just from brief phone calls to 50 employees."

Davis says his organization wants to see some sort of proof that a potential partner is a better or best-in-class organization. "We want to make sure there is a truly recognized practice—not just from word of mouth," remarks Davis. "And that is the greatest challenge of partner selection: basing the selection decision on facts and data vs. someone's opinion or whim."

AMP looks for several distinctions to garner this credibility, such as receiving a world-renowned award from an objective organization. Other potential "bonus" points include recognition from an expert in the field through press or speeches, measurable improvements in place or company presentations at a well-known

event. AMP uses many forms of secondary research and best-practice databases as well as visits with experts for third-party opinions.

Davis sees the secondary research process moving in a different direction. Because we live in a world of information overload, organizations need to look for *useful* information by networking with other sources, he advises.

"Where I see benchmarking evolving is in matching our employees who are benchmarking with process owners," notes Davis. "It's all about getting to the right people, especially peers at other companies. They may not have the answer, but they can lead us to the answer. The bulk of our significant answers comes from leads like this.

"With the major emphasis on quicker benchmarking, it's so important to get quick information about a company. You must use resources in the most effective and smartest means possible. What would have taken three months to do five years ago, you can now do in three hours just by knowing someone at another organization."

About the author

Vicki J. Powers is a communications specialist at Houston-based American Productivity & Quality Center. During her five years at this nonprofit organization, she has written numerous best-practice case studies focusing on benchmarking and customer satisfaction.

For more information about the International Benchmarking Clearinghouse, contact the APQC at 123 N. Post Oak Lane, Third Floor, Houston, TX 77024-7797. Telephone (713) 681-4020 or fax (713) 681-8578. Visit the APQC's Web site at www.apqc.org.