TOTAL QUALITY MANAGEMENT

Benchmarking

Business Process Reengineering

Asst. Prof. Fulya YÜKSEL
Benchmarking has become a popular tool among companies trying to become more competitive and striving for world-class performance. The majority of them are actively engaged in benchmarking. Benchmarking is a part of the total quality process, and anyone involved in total quality should have a solid understanding of this subject. Benchmarking was brought to our awareness through Robert C. Camp’s 1989 landmark book. In the 20 odd years since then a number of variations have been developed on the benchmarking theme. We have benchmarking studies, in which there is no contact with an outside firm—information gained is strictly from the public domain. There is no question that this technique can be useful. It is something that the organization should be doing anyway. Sometimes third-party firms specializing in benchmarking studies are contracted for that work. There is considerable doubt that this is really benchmarking, however. We also have competitive benchmarking, in which a competitor’s operation is studied from a distance without the cooperation of the target firm. The aim is to learn something that can help improve process or product quality. Competitive benchmarking uses publicly available data, and once again, it is possible to contract this work to specialist third-party firms. This approach, however, doesn’t fit our definition of benchmarking. Also in use are the unstructured plant visits, during which the visitor firm intends to learn something that will help with its processes or products. This is often called benchmarking but has more aptly been named industrial tourism. Such visits have some value, but they do not comprise benchmarking. Many other variations exist, but the form of benchmarking addressed here is what has been called cooperative benchmarking, best practices benchmarking, or process benchmarking, in which the focus is radical improvement of key processes. This involves a cooperative effort by two firms, the benchmarking firm wanting to bring a substandard process up to the world-class level of the partner firm’s process.
The misconceptions about benchmarking assume that one party somehow takes advantage of an unsuspecting competitor by surreptitiously copying the competitor’s product or processes. Nothing could be further from the truth. Benchmarking involves two organizations that have agreed to share information about processes or operations. The two organizations both anticipate some gain from the exchange of information. Either organization is free to withhold information that is considered proprietary. In addition, the two companies need not be competitors.
Key points about benchmarking:

- Benchmarking is an increasingly popular improvement tool.
- Benchmarking concerns *processes and practices*.
- Benchmarking is a respected means of identifying processes that require *major change*.
- Benchmarking is done between consenting companies that may or may not be competitors.
- Benchmarking compares your process or practice with the target company’s *best-in-class* process or practice.
- The goal of benchmarking is to find *“secrets of success”* and then adapt and improve them for your own application.
- Benchmarking is equally beneficial for both large and small businesses.
Benchmarking Process

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Steps 2 thru 14 form the benchmarking cycle, repeating as long as benchmarking is employed.
Benchmarking Process

1. Obtain management commitment

- Benchmarking requires a great deal of time from key people and money for travelling to benchmarking partner’s facilities.
- Also, in order to receive information from the benchmarking partner, you should share your own information.
- The result of benchmarking may include changing current processes.

ALL OF THE ABOVE NEED MANAGEMENT’S APPROVAL AND COMMITMENT!

Benchmarking is not something one approaches casually. It requires a great deal of time from key people, and money must be available for travel to the benchmarking partners’ facilities. Both of those require management’s approval. You expect to gain information from your benchmarking partner for which it will expect payment in kind: namely, information from you about your processes. This can be authorized only by management. Finally, the object of benchmarking is to discover processes to replace yours or at least to make major changes to them. Such changes cannot be made without management’s approval. Without a mandate from top management, there is no point in attempting to benchmark. That is why the requirement for management commitment is at the top of the list. If you cannot secure that commitment, proceed no further.
If your company is involved in total quality, chances are good that you have already done some baselining of processes because before continual improvement can be used effectively, and certainly before statistical process control can be applied, the processes in question must be understood. That is, the processes must be characterized in terms of process capability, their flowcharts, and other aspects. If this has not been done before, it must be done now. It is critical that you understand your own processes thoroughly before attempting to compare them with someone else’s processes. Most organizations think they know their processes well, but that is rarely the case unless a deliberate process characterization has recently been done. It is also important that an organization’s processes be completely and accurately documented, not just for its own use but also for the benefit of everyone associated with the process in any way.
The processes that are the weakest are the ones that are most detrimental to competitiveness. They offer the most room for dramatic improvement, perhaps many times over. This is where the benchmarking effort should be focused because incremental improvement would not be sufficient to bring them up to the necessary level in the time frame required. It can be difficult to categorize an organization’s processes as weak or strong. A process that creates 50% scrap is an obvious choice for the benchmarking list. On the other hand, a process may be doing what is expected of it and, as a result, be classified as strong. However, it could be that expectations for that process are not high enough. It is possible that someone else has a process that is much more efficient, but you just don’t know about it. Never consider a process to be above benchmarking, no matter how highly it is rated. Concentrate on the weak ones, but keep an open mind about the rest. If research identifies a better process, add it to the list. Above all, document all processes fully—even the strong ones. Keep in mind that as you are looking at one of your benchmarking partner’s processes because it is superior to yours, your partner may look at your strong processes for the same reason. If the processes are not well-documented, it will be very difficult to help your partner. It is impossible to compare two processes for benchmarking if both are not fully documented.
Benchmarking Process

4. Select processes to be benchmarked

- When you have a good understanding of your own processes and your expectations of them, decide which ones to benchmark.
- An important point to remember is this: never benchmark a process that you do not wish to change. There is no point in it. Benchmarking is not something you engage in simply to satisfy curiosity.
- The processes that are put on a benchmark list should be those that you know to be inferior and that you intend to change. Leave the others for incremental change through continual improvement—at least for the time being.
Every team should have management representation, not only to keep management informed but also to build the support from management that is necessary for radical change.

Benchmarks Process

5. Form benchmarking teams

- The teams that will do the actual benchmarking should include people who operate the process, those who have input to the process, and those who take output from it. These people are in the best position to recognize the differences between your process and that of your benchmarking partner.

- The team must include someone with research capability because it will have to identify a benchmarking partner, and that will require research.
It is important that a benchmarking partner be selected on the basis of being best-in-class for the process being benchmarked. In practical terms, it comes down to finding the best-in-class-you-can-find-who-is-willing. Because benchmarking is accomplished by process, best-in-class may be in a completely different industry. For example, say that an organization manufactures copy machines. It might consider potential benchmarking partners who are leaders in the copying industry. But if it is a warehousing process that is to be benchmarked, the company might get better results by looking at catalog companies that have world-class warehousing operations. If the process to be benchmarked is accounts receivable, then perhaps a credit card company would be a good partner.

If team members stay up-to-date with trade journals, they should be able to compile a good list of potential benchmarking partners. Research should cover trade literature, suppliers and customers, Baldrige Award winners, and professional associations. The Internet offers a seemingly endless stream of benchmarking information. Team members will find that the best-in-class processes become well-known very fast.
If the team can find a way to benefit its potential partner, the linkage between the two companies will be easier to achieve. Even without that, most companies with best-in-class processes are willing, often eager, to share their insights and experience with others, even if they gain nothing in return. Indeed, Baldrige Award winners are expected to share information with other U.S. organizations.

**Benchmarking Process**

7. Select benchmarking partner candidates

- When the best-in-class have been identified, the team must decide with which among them it would prefer to work.
- Consideration must be given to location and to whether the best-in-class is a competitor (remember, the team will have to share information with its partner).
- The best benchmarking partnerships provide some benefit for both parties.
After the team has selected the candidate, it contacts the potential partner to form an agreement covering benchmarking activities.

If the selected partner is not willing to participate, the team must find another candidate. If the company is willing to participate, an agreement can usually be forged without difficulty. The terms will include visit arrangements to both companies, limits of disclosure, and points of contact.

Professional associations can sometimes provide leads to help the team contact someone in the right position with the necessary authority. After such a contact has been made, the first order of business is to determine the company’s willingness to participate. If it is not willing, the team must find another candidate. When a company is willing to participate, an agreement can usually be forged without difficulty. The terms will include visit arrangements to both companies, limits of disclosure, and points of contact. In most cases, these are informal. Even so, care must be exercised not to burden the benchmarking partner with excessive obligations. Make the partnership as unobtrusive as possible.
The team has already agreed to discuss a specific process (or processes). Observe, collect, and document everything about the partner’s process. In addition, try to determine the underlying factors, practices, and processes: what is it that makes the company successful in this area? For example, does it employ total productive maintenance, continual improvement, employee involvement, statistics, or various other approaches? Optimally, your process operators should talk directly with your partner’s operators. It is important to come away with a good understanding of what its process is (flowchart) and its support requirements, timing, and control. The team should also try to gain some understanding of the preceding and succeeding processes because if you change one, the others may require change as well. If the team knows enough when it leaves the partner’s plant to implement its process back home, then it has learned most of what is needed. Anything less than this, and the team has more work to do.

While you are in a partner’s plant, try to get a feel for its culture and how it operates. Be open-minded and receptive to new ideas that are not directly associated with the process in question. Observing a different plant culture can offer a wealth of ideas worth pursuing.
With the data in hand, the team must analyze them thoroughly in comparison with the data taken from its own process. In most cases, the team will be able to establish the performance gap (the performance difference between the two processes) numerically—for example, 200 pieces per hour versus 110 pieces, 2% scrap versus 20%, or errors in parts per million rather than parts per thousand. After the team concludes that there is no doubt that the partner’s process is superior, other questions arise: Can its process replace ours? What will it cost, and can we afford it? What impact will it have on adjacent processes? Can we support it? Only by answering these questions can the team conclude that implementation is possible.
Assume the team concluded that the change to the new process is desirable, affordable, and supportable and that the team wants to adopt the process. In most cases, implementation will require some planning to minimize disruption while the change is being made and while the operators are getting used to the new process. It is very important to approach implementation deliberately and with great care. In some cases, it may be wise to try the new process in a pilot model. This is not the time for haste. Consider all conceivable contingencies and plan to avoid them, or at least be prepared for them.

Physical implementation may be accompanied by training for the process operators, suppliers, or customers. Only after thorough preparation and training should an organization implement the change to the new process.

A second aspect of benchmarking should be kept in mind. The objective is to put in place a process that is best-in-class. If the team merely transplants the partner company’s process, it will not achieve the objective, although improvements may occur. To achieve best-in-class, an organization must surpass the performance of the benchmark process. It may not be possible to do this at the outset, but the team’s initial planning should provide for the development work necessary to achieve it in a specified period of time (see the Figure).
Benchmarking Process

12. Implement change to the process

- The easiest step of all may be the actual implementation, assuming that the team’s planning has been thorough and that execution adheres to the plan. New equipment may or may not be involved, there may be new people, or there may be more or fewer people—but there will certainly be new procedures that will take time to become routine.

- Therefore, it should not be a surprise if initial performance falls below the benchmark. After people get used to the changes and initial problems get worked out, performance should be close to the benchmark. If it is not, an important factor was overlooked, and another visit to the benchmarking partner may be necessary to determine what it is.
Benchmarking Process

13. Monitor performance

- After the process is installed and running, performance should come up to the benchmark quickly. Before long, continual improvement should enable the organization to surpass the benchmark. None of this is likely to happen without constant attention and monitoring.

- Never install a new process, get it on line and performing to expectations, and then forget about it.

- All processes need constant attention in the form of monitoring. Statistical process control can be a valuable tool for this purpose, as can other types of charting.
The intent of benchmarking is not only to catch up with the best-in-class but also to surpass, thereby becoming best-in-class. This is a formidable undertaking because those with best-in-class processes are probably not resting on their laurels. They too will constantly strive for continually better performance. However, you are now applying new eyes and brains to their processes, and fresh ideas may well yield a unique improvement, vaulting your organization ahead of the benchmarking partner. Should that happen, your organization will be sought out as a best-in-class benchmarking partner by others who are trying to bootstrap their performance. Whether that happens or whether the benchmark is actually surpassed, the important thing is to maintain the goal of achieving best-in-class. Benchmarks must be updated periodically. Stay in touch with the best-in-class. Continue the process. Never be content with a given level of performance.
Benchmarking vs. Business Process Reengineering

- Benchmarking involves partnering with the owner of a best-in-class process so that you might adopt or adapt that process in your operation without having to spend the time and energy to try to design a duplicate of the superior process.

- Process reengineering requires you to do the latter, on your own.
If your subject process is unsatisfactory and you cannot benchmark for any of these reasons, you may have to resort to reengineering. You should be careful to consider the reasons the process is unsatisfactory. It may simply be the wrong process for the job, or it may be out of statistical control. Reengineering will not solve either of those problems. Be sure that the process is appropriate and that it is in control first. If it is still not producing the desired results, suggesting that it is simply not capable, then redesigning it through reengineering is a good approach. One disadvantage with process reengineering is that there is no guarantee that after spending the time and resources, you will have a competitive process. That issue does not exist with benchmarking. With benchmarking, you will have observed a competitive process in action.
1. **Discover and define:** This involves first identifying a problem or unacceptable outcome, followed by determining the desired outcome. This usually requires an assessment of the business need and will certainly include determining the processes involved, including the scope, identifying process customers and their requirements, and establishing effectiveness measurements.

2. **Establish redesign team:** The team should comprise as a minimum the following:
   - senior manager as sponsor
   - steering committee of senior managers to oversee overall re-engineering strategy
   - process owner
   - team leader
   - redesign team members.
   It is generally recommended that the redesign team have between five and ten people; represent the scope of the process (that is, if the process to be re-engineered is a cross-functional, so is the team); only work on one redesign at a time; and is made up of both insiders and outsiders. Insiders are people currently working within the process concerned who help gain credibility with co-workers. Outsiders are people from outside the organization who bring objectivity and can ask the searching questions necessary for the creative aspects of the redesign. Many companies use consultants for this purpose.

3. **Analyse and document process(es):** Making visible the invisible, documenting the process through mapping and flowcharting is the first crucial step that helps an organization see the way work really is done and not the way one thinks or believes it is done. Seeing the process as it is provides a baseline from which to measure, analyse, test and improve. Collecting supporting process data, including benchmarking information and IT possibilities, allows people to weigh the value each task adds to the total process, to rank and select areas for the greatest improvement, and to spot unnecessary work and points of unclear responsibility. Clarifying the root causes of problems, particularly those that
cross department lines, safeguards against quick-fix remedies and assures proper corrective action, including the establishment of the right control systems.

4. **Innovate and rebuild:** In this phase the team rethink and redesign the new process, using the same process-mapping techniques, in an iterative approach involving all the stakeholders, including senior management.

5. **Re-organize and re-train:** This phase includes piloting the changes and validating their effectiveness. The new process structure and operation/system will probably lead to some re-organization, which may be necessary for reinforcement of the process strategy and to achieve the new levels of performance. Training and/or re-training for the new technology and roles play a vital part in successful implementation. People need to be equipped to assess, re-engineer and support – with the appropriate technology – the key processes that contribute to customer satisfaction and corporate objectives. Therefore, BPR efforts can involve substantial investment in training but they also require considerable top management support and commitment.

6. **Measure performance:** It is necessary to develop appropriate metrics for measuring the performance of the new process, sub-processes, activities and tasks. These must be meaningful in terms of the inputs and outputs of the process, and in terms of the customers of and suppliers to the process.

7. **Continuous redesign and improvement:** The project approach to BPR suggests a one-off approach. When the project is over, the team is disbanded and business returns to normal, albeit a radically different normal. It is generally recommended that an organization does not attempt to reengineer more than one major process at a time, because of the disruption and stress caused. Therefore, in major re-engineering efforts of more than one process, as one team is disbanded, another is formed to redesign yet another process. Considering that Ford took five years to redesign its accounts payable process, BPR on a large scale is clearly a long-term commitment. In a rapidly changing, ever more competitive business environment, it is becoming more likely that companies will re-engineer one process after another. Once a process has been redesigned, continuous improvement of the new process by the team of people working in the process should become the norm.
In summary,

- If you have a very good process to begin with, use continual improvement techniques to make it better. On the other hand, if the process is clearly inferior to some used by other firms, try benchmarking. When you cannot achieve the kind of improvement you need from either of those methods, then process reengineering may be required.