A recent ARC research study found that benchmarking and performance metrics are today the number one priority topic for logistics executives.

- Many companies today are striving to create best-in-class supply chains, with their promises of substantial improvement to their bottom lines and a competitive edge over their rivals. Meanwhile, supply chains are becoming global and much more complex.

- Benchmarking is the process of improving performance by identifying, understanding, and adapting the best practices and processes found inside and outside the organization.

- In launching a benchmarking project, the first step is to decide what standard of comparison to use — pools or surveys of competitors, companies in other industries, customers, or other divisions or facilities within one’s own company.

- A recent APQC study found that companies embarking on a formal benchmarking project typically saw an average payback of nearly $80 million within the first year.

- To become best in class, companies must look beyond quantitative benchmarking targets and identify the unique processes, practices, or corporate cultures that drive success among the industry leaders.

- Once companies have identified best practices and assessed how their own practices compare to these gold standards, they must next plan how to bridge the gap and then execute the planned actions.

- The hallmark of best practice companies is a conscientious and disciplined approach to learning and continuous improvement.

- Companies that eschew rigorous benchmarking exercises are destined to lose their way in the competitive fray — and become second-rate performers.

- Companies must be prepared to change their organizations in light of the findings of their benchmarking studies. If the results of these studies are tucked away into vinyl binders without any follow-up actions, their paybacks will be zero.
Benchmarking — Scorecard for Success

Supply chain professionals are always looking for ways to improve their performance and provide their companies with a competitive edge. However, if they do implement changes, big or small, to their existing operations, how will they know whether those changes have improved their supply chain operations or hampered them?

The only way to know is by benchmarking, so it’s no wonder that supply chain professionals today are devoting time and budget — two very scarce resources — to the task. Just to make sure that we’re all on the same page, here is the APQC’s definition:

**Benchmarking** is the process of improving performance by continuously identifying, understanding, and adapting outstanding practices and processes found inside and outside the organization.

Benchmarking [seeks] to improve any given business process by exploiting “best practices” rather than merely measuring best performance... Studying best practices provides the greatest opportunity for gaining a strategic, operational, and financial advantage.

In fact, a recent ARC research study found that benchmarking and performance metrics are today the number one priority for logistics executives.¹

They realize that benchmarking, when used properly, can make a huge difference to their companies’ bottom lines and to their competitive positions. A recent APQC study found that companies embarking on a formal benchmarking project typically saw an average payback of nearly $80 million within the first year.² Research from private benchmarking consultancies such as The Performance Benchmarking Group support the cost savings, estimating that best practice companies spend 35-to-50% less on supply chain management than median performers.³

The aim of this report is to explore how benchmarking can be used by companies to gain insight into how the best-in-class performers have achieved their status. The differences between best and poor practices are as extreme as night and day. *(See Exhibit 1.)*

**Benchmarking 101**

There are two types of benchmarking — **Performance/Quantitative** and **Process/Qualitative**. Each serves a different purpose.

**Performance or quantitative benchmarks** are used to compare the results or competitiveness of a given *product* or *service* against those offered by other companies. The outcome generally provides a comparative ranking and often is used to highlight those areas of performance that need improvement and further study.

Participants in a quantitative benchmarking study are usually drawn from the same sector (industry or functional group). Hence, trade associations or consulting companies are often the sponsors of this type of benchmarking studies and promise to protect the information obtained from individual companies. For example, the Warehouse Education Research Council (WERC) hosts an annual warehouse benchmarking study where they examine 55 key warehousing metrics such as fill rate and order cycle time. Participants agree to provide the results for their operations under a promise of confidentiality, and they in turn receive summarized reports that share overall distribution center benchmarks.

**Process or qualitative benchmarks** are used to improve specific processes and operations within the business. Well managed companies do not simply use benchmarks to set targets. Instead, they look behind the quantitative data to understand how the best-in-class companies have achieved their enviable results. They try to identify the unique processes, tools, and methods used to achieve a high level of performance.

For best results, both kinds of benchmarking should be used together. They are
complements, not alternatives. Sometimes a company cannot get meaningful results without seeing the bigger picture. For example, a Fortune 500 distributor was achieving on-time shipments in the best-in-class range of at least 99%. However, its quantitative benchmarking results also revealed that the company was experiencing high overtime rates and operating costs at nearly double the industry norms.

The qualitative phase of the benchmarking exercise revealed that the company was achieving those high on-time results by “muscling” through the shipping and receiving functions with rudimentary processes. Additionally, the benchmark results helped the company to target four key initiatives designed to improve the efficiency of its operations while maintaining its high service levels. By focusing on the “quick wins,” the company put two interns to work for two months to implement these easy-to-fix ideas and realized more than $500,000 in paybacks.

**Best in Class = Crème de la Crème**

Typically, those companies designated as being “best in class” are those in the top 20% of their industry for performance results or process execution.

Companies that are the best in class share certain attributes. One of the common denominators is the effective use of learning and change as a route to improvement. This is true regardless of company-size or industry. In fact, the use of benchmarking with a conscientious effort at change is a major requirement for the Malcolm Baldrige award.

Before launching a benchmarking project, a company must carefully determine what its standard of comparison will be. It may be either internal or external.

**Alternative Standards of Comparison**

External benchmarking uses “outsiders” as the standard of comparison. Generally, other companies within the same industry are used in this capacity. But customers or companies in different industries are also excellent sources of comparative information.

Typically the selection of an external benchmarking partner depends on the type of benchmarking that one wishes to do. For the most part, companies that want to do comparative/quantitative analyses will participate in a benchmarking survey or pool (usually sponsored by an industry trade group or professional organization) while companies that want to do qualitative/process benchmarking will work with one (or a very
## Exhibit 1: How Does Your Benchmarking Effort Stack Up?
The following table lists process attributes related to the benchmarking process. Each key process step lists attributes for a range from “Poor Practice” to “Best Practice.”

<table>
<thead>
<tr>
<th>Benchmarking Process Attributes</th>
<th>Poor Practice</th>
<th>Inadequate Practice</th>
<th>Common Practice</th>
<th>Good Practice</th>
<th>Best Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Competitive Product Benchmarking</strong></td>
<td>Little knowledge of competitor products. Reactive to competitor threats.</td>
<td>Recognition of competitor strengths.</td>
<td>There is a defined process to identify competitors Competitor capabilities are well understood and considered during the new product introduction process</td>
<td>Measures are established to determine competitive position</td>
<td>Customers, suppliers and strategic alliance partners provide competitive intelligence</td>
</tr>
<tr>
<td></td>
<td>Do not utilize benchmarking data from industry groups May utilize benchmarking data from industry groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Current products are clearly positioned relative to the competition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Routinely utilize benchmarking data from industry groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Competitive Service Benchmarking</strong></td>
<td>Little knowledge of competitor products. Reactive to competitor threats.</td>
<td>Recognition of competitor strengths.</td>
<td>There is a defined process to identify competitors</td>
<td>Measures are established to determine competitive position</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Do not utilize benchmarking data from industry groups May utilize benchmarking data from industry groups</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Competitor’s distribution network and capacities are well understood and benchmarked</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Service improvement is driven in part by competitor’s position</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Competitor capabilities are well understood and considered during the new product/service introduction process</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Customers, suppliers and strategic alliance partners provide competitive intelligence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Current services are clearly positioned relative to the competition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Routinely utilize benchmarking data from industry groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Process Benchmarking</strong></td>
<td>Internal and external process benchmarking not used Internal Best practices may be recognized but not shared</td>
<td>Best practices may be shared on an informal basis across company Recognize internal process best practice, some sharing across company Rigorous internal benchmarking program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No external process benchmarking There is an informal process to gather external best practice data</td>
<td>There is a defined process to gather external process benchmark data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Best practices are shared across company using a formal methodology Seek best practice standard for each key process</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
small group) of other companies. Each of the three sources is explored below.

1. **Benchmarking against Pools or Surveys:** The easiest way for companies to conduct an external benchmarking study is to participate in a pool or survey. Participants usually enter their data into a survey or questionnaire. In return, they receive reports that show how their companies’ performances rank in relation to those of other companies, although participants may have to pay a fee to get access to the data.

In recent years, industry, trade, and professional associations such as the Council of Supply Chain Management Professionals, the APQC, and the Warehouse Education Resource Council have started to provide ongoing benchmarking services for their members at a nominal charge or even none at all. Today, many companies are able to access reliable industry-wide benchmark data without breaking the bank.

2. **Benchmarking against Individual Companies:** Companies may also compare themselves against an individual company or a handful of select companies — “taking a peek under the sheets,” so to speak, to see how they perform certain processes. Usually, the
other companies that are selected are from different, non-competitive industries.

Every company has its own unique competitive processes, but there are also a few core processes or operations that are common across many or even all industries. A company in one industry may well find that the best practice for one of these core processes resides in another company in a totally different industry.

For example, almost all companies have an accounts payable process and a process to buy goods or services from external suppliers. A more efficient accounts payable system could significantly increase cash flow, in turn improving competitive capabilities. Benchmarking pioneer Xerox is a great example of how one company looked beyond its own industry to discover best practices. In 1979, Xerox turned to LL Bean — then renowned for its market-leading performance in customer service in the catalog industry — to learn how it could improve its own fulfillment processes.4

### 3. Benchmarking against Customers:

Companies also can benchmark themselves against their customers’ expectations. After all, a company’s success depends critically on how well it measures up to its customers’ expectations. Moreover, many companies report “disconnects” in customer satisfaction — i.e., the companies perceive that they are doing a good job, yet they are still hearing frequent customer complaints.

For example, suppose that one customer requires 98% on time and complete orders whereas another requires 95%. Customer benchmarking would look at performance for each customer separately — and not as aggregate performance. The goal is to ensure that the company is performing to the level of its customer’s expectations regardless of what its competitors or other “best practice” companies are doing.

Customer benchmarking is especially important for companies that provide services to other businesses and in industries where the cost of losing a customer is substantial. Companies such as third party logistics providers, contract manufacturers, and shippers supplying product to retail stores or distributors should all consider doing customer benchmarking.

Customer benchmarking is also a key source of competitive intelligence. A $1 billion software company learned that performance, like beauty, lies in the eyes of the beholder. This company sells more than half of its product through the retail channel, including such stores as Best Buy, Comp USA, and Costco. When the company benchmarked its shipping performance against the entire retail sector, it performed well — with on-time service levels in the mid 90th percentile. But the company found that many of its big-box
retail customers insisted on much stricter shipping standards than the overall industry average.

Bottom line: It’s not enough for companies to outperform the industry average. Rather, they have to meet or exceed their customers’ expectations — and customer benchmarking enables companies to assess how well their performances measure up to this standard. A good way to institutionalize customer benchmarking is to adopt monthly or quarterly customer scorecards or dashboards that gauge performance against customers’ required service levels and then review these results with your customers.

Internal Benchmarking — Looking in the Mirror

The beauty of internal benchmarking is that it is easier to implement, and much less expensive, than conventional best-practice discovery. As the name suggests, internal benchmarking simply involves looking inside one’s own company for best practices that can be leveraged across the organization rather than looking to other companies or other industries.

Any company with multiple business units, divisions, warehouses or locations can use internal benchmarking. It’s not just for big companies with multiple locations. Even small companies with a single location can internally benchmark by comparing how individual employees approach similar tasks.

One of the best rationales for internal benchmarking is that it creates a culture of continuous improvement — i.e., a culture of learning and innovation spurred by internal competition. In our experience, a company that can foster healthy rivalry between divisions will experience innovation at all levels. Internal benchmarking is also a powerful mechanism for focusing that competitive spirit on strategic objectives.

One high-tech manufacturer, for example, discovered that internal benchmarking was a launch pad for helping it to standardize its processes globally. By identifying internal best practices and setting performance targets, the company could more easily identify areas of improvement that created positive benefits, including a 35% reduction in inventory costs and 60%-plus declines in its order turnaround time and its working capital.

One potential drawback of internal benchmarking is that internal sources may not offer the absolute best practice standard. While a company might learn of significant improvement opportunities by comparing internal groups, internal benchmarking may not be the best route to optimum performance.

Barriers and Pitfalls

Researchers at Penn State recently found that the biggest stumbling block that companies face in preparing a benchmarking analysis is in getting reliable statistics covering their own operations. Often, the information must be assembled from disparate systems. Even when companies do get the statistics that are needed, they must struggle to get them to align with industry-wide measures so that they can perform apples-to-apples comparisons.

Once these data problems have been resolved, companies can then complete the benchmarking exercise. What to do with the results is the next big challenge. Indeed, the art of benchmarking lies in the successful interpretation of the results. It is about identifying which shortcomings represent the biggest opportunities. And then the real work begins. Companies must develop (a) a strategy for implementing these best practices and (b) a game plan for executing the process changes needed to drive improved performance.

Alternatively, when a company measures just for the sake of measurement, it often ends up calibrating everything that moves. And it then becomes difficult, if not impossible, to discern meaningful conclusions from the mountain of data that has been collected. Granted, a company must measure a great many variables, but meaningful decisions and conclusions will be drawn only after the company has determined which strategic
measures matter most to facilitating successful change.

Perhaps one of the most common pitfalls of benchmarking is to believe that the performance indicator itself is the goal. If the benchmark company achieves a 99% fill rate, then this becomes the goal regardless of however many dysfunctional, inefficient processes may underpin this “fool’s gold” standard. Instead, successful benchmarking will seek to understand the circumstances of successful processes — and not the end results of successful process. The qualitative context, not the quantitative results, will lead to a successful benchmarking effort.

**Keys to Benchmarking Success**

Following is a list of key factors that, in our experience, have helped insure bottom-line success in benchmarking projects:

- Senior management unqualifiedly supports the project.
- Scope of the benchmarking effort is clearly defined.
- Objectives are well defined.
- Company has developed a solid foundation of data in the areas to be benchmarked, and the evaluation team understands the company’s historic performance in these areas.
- Communication is broad, regular and frequent, and also targeted to many levels within the organization.
- The benchmarking team has adequate resources and training
- Recommendations are consensual, with participation by all affected operating processes and with agreement of as many stakeholders as possible.

We cannot overstate the importance of senior management’s support and participation to the success of a benchmarking effort. The results of a recent APQC study, for example, identified a very strong correlation between the success of benchmarking efforts and the degree of management and financial support behind the effort. *(See Exhibit 2.)* It was found that the payback from benchmarking was far greater at companies that provided adequate management and financial support than it was at those companies that didn’t support the effort with both executive sponsorship and funding.

Benchmarking projects cannot be successful, however, unless companies take the next step and apply the lessons learned from the exercise. Those that do apply the lessons learned were rewarded with an average first year payback of $189 million. However, companies that were less successful at benchmarking realized only a $1.5 million first year payback. Indeed, companies that do not participate in rigorous benchmarking exercises are destined to become second-rate performers — and lose their way in the competitive fray.

<table>
<thead>
<tr>
<th>Exhibit 2: Senior-level Support &amp; Financial Focus Correlate With Higher Payback</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor</strong></td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>Senior-Level Support*</td>
</tr>
<tr>
<td>Financial Focus**</td>
</tr>
<tr>
<td>First-Year Payback†</td>
</tr>
</tbody>
</table>

* Average degree of senior management support, self-rated by companies in each group. (Max. = 5).
** Percent of each group that performs a cost/benefit analysis before implementing a change based on a best-practice study.
† Payback form the single most successful benchmarking project reported by each company (group mean average). Reported amounts validated by follow-up phone interviews.
Companies in each group are of roughly equal size.
Source: APQC.
Appendix: Affordable Benchmarking Resources

Readers may be wondering where to find inexpensive but reliable benchmarking resources. We know of three separate sources can use to assist that practitioners in either their quantitative or qualitative benchmarking initiatives.

Warehouse Education Resource Council (WERC): For the past three years, WERC has teamed up with DC Velocity magazine to provide distribution professionals with tactical warehouse benchmark statistics. The latest study was released in the May 2006 issue and is based on 2005 performance data from over 900 companies. The study provides an in depth look at performance across 55 different metrics. The results are shared with the participants of the study as well as with all WERC members as a member benefit.

“One of the highlights of the annual WERC benchmarking study is that performance is broken down into a quintile rating scale,” explains Bob Shaunnessey, Executive Director for WERC. “Providing a quintile scale for each metric allows companies to go behind the ‘average’ or ‘best practice’ numbers.” Companies can see just how much they have to improve or how much of an advantage they possess.

For example, knowing that the best practice for line fill rate is 99.5% is good information. But learning that your reading of 95% is only in the second or third quintile and that your company is therefore at a decided disadvantage — is much better information. The whole purpose of benchmarking is to help companies understand where they need to take action. And if you operate a distribution center, the WERC metrics will help you do just that.

Council of Supply Chain Management Professionals: For companies that want to dig behind the numbers, the best resource is the Council of Supply Chain Management’s series of reports entitled, “Logistics and Supply Chain Process Performance Standards” (the Standards).

Included in the series are six publications, all published in 2004 and all detailing supply chain performance standards. Rick Blasgen, the CEO for CSCMP, maintains that these reports fill a void: “Popular trade magazines, consulting companies, and industry associations have traditionally shared best practices and case studies. But there was no comprehensive reference guide recommending a suggested ‘minimum’ standard for supply chain practices. The CSCMP’s Standards address this need.”

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Three Benchmarking Treasure Troves

The WERC Watch benchmarking summary report and quintile ratings report are available free to WERC members. 

*If you are not a member, you can join at [www.werc.org](http://www.werc.org) for $265.*

The CSCMP Standards are available for sale at [www.cscmp.org](http://www.cscmp.org).

The set of all six processes (Plan, Source, Make, Deliver, Returns, and Enable) cost $99 for members and $159 for non members.  

*Click on the store link from the home page.*

Participation in the OSBC Supply Chain Benchmarking survey is free of charge. Companies must enter their data in order to get benchmarking reports. [Visit www.apqc.org for more detail.](http://www.apqc.org)
The CSCMP’s Standards are intended to be used as a tool to help companies identify potential gaps in their processes. Using the process standards, a company can compare their current processes with suggested minimum and best practice standards. The following chart illustrates standards for the “Order Receipt and Entry” process.

APQC *(formerly the American Productivity and Quality Center)*: Spearheaded by the nonprofit APQC, the Open Standards Benchmarking CollaborativeSM (OSBC) project provides research and related databases designed to help companies benchmark all aspects of their organization, including:

- supply chain
- finance and accounting
- human resources
- customer service
- information technology

For supply chain operations, APQC joined forces with CSCMP to create a benchmarking survey and a collection of performance measures.

APQC launched its supply chain benchmarking survey in February 2005, and many organizations such as Raytheon Co. have used OSBC’s standardized metrics as benchmarks for evaluating their operations and processes. Don Ronchi, Raytheon’s supply chain and chief learning officer, recently sang their praises: “Raytheon appreciates the essential role that external benchmarking and knowledge sharing play in creating and maintaining competitive advantage,” Ronchi said. “The work of the Open Standards Benchmarking Collaborative research will make it much easier for companies like ours to draw meaningful comparisons with other world-class companies.”

Endnotes

1 “Top 10 Research Interests and Priorities of Logistics Executives” ARC Insights, January 6, 2005,

2 Benchmarking: Leveraging Best-Practice Strategies, an APQC White Paper for Senior Management based on the internationally acclaimed study Organizing and Managing Benchmarking, 1999


4 Francis Gaither Tucker, Seymour M. Zivan; Robert C. Camp; “How to Measure Yourself Against the Best” Harvard Business Review, January 1987


Biographies

Kate Vitasek is Managing Partner of Supply Chain Visions, a consulting firm specializing in supply chain strategy and education. Kate was recognized by the Journal of Commerce as a “Woman on the Move in Trade and Transportation.” She is widely published in logistics academic and practitioner journals and is a popular speaker at industry events.

Karl Manrodt, PhD, is an Associate Professor at Georgia Southern University (Ph.D., University of Tennessee). An active member of CSCMP, he has published in a number of leading logistics journals. His research interests include performance measurement and the role of technology in supply chain management.

From the Editor…

Any company that is seriously striving to create a best-in-class supply chain had better become knowledgeable and experienced in the art of benchmarking. As the authors explain, companies that do not know how to benchmark and see no reason to learn how are destined to become also-rans. It’s that simple. The only thing that I would like to add is that ProLogis is fortunate to have lined up two experts, Kate Vitasek and Karl Manrodt, in the field of benchmarking to address this vitally important topic.

About ProLogis

ProLogis is a leading provider of distribution facilities and services with 407 million square feet (35 million square meters) in 2,406 distribution facilities owned, managed and under development in 77 markets in North America, Europe and Asia. ProLogis continues to expand the industry’s first and largest global network of distribution facilities with the objective of building shareholder value. The company expects to achieve this through the ProLogis Operating System® and its commitment to be ‘The Global Distribution Solution’ for its customers, providing exceptional facilities and services to meet their expansion and reconfiguration needs.

From the Editor…

Leonard Sahling
First Vice President
ProLogis Global Research
303-567-5766
lsahling@prologis.com

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