SPECIAL REPORT:
OPERATIONS & FULFILLMENT

We hope you get the very most out of this special report on operations and fulfillment. We chose a balanced array of topics that should give you plenty of money-making and cost-saving ideas. Specifically, the articles focus on the top operations benchmarking strategies, the most useful and usable warehouse metrics, and an assortment of ways to keep your call-center reps happy and interested in their jobs.

— Paul Miller, editor-in-chief

7 STEPS TO SELF ASSESSMENT

How better benchmarking can maximize performance in your fulfillment center

BY KATE VITASEK

Do you wonder how your fulfillment operation performs against others in your industry? Do you know which processes you're handling well and those that need improvement? Or even which processes have the most impact on customer service levels? Or which of them lower warehousing and fulfillment costs while improving performance?

Benchmarking, the process fulfillment managers use to draw meaningful comparisons between their companies' performances and industry standards, can provide answers to all these questions. First, consider the two types of benchmarking.

✔ **Performance Benchmarking** compares quantitative performance results, or metrics, to those of several different companies or to industry standards. Its objective is to identify areas for improvement.

✔ **Process Benchmarking** compares specific processes to best-in-class process attributes in a qualitative manner. Its objective is to improve specific processes and operations within the business.

Many companies rely solely on quantitative performance benchmarking or comparing metrics. But they never turn over the rock to learn what companies are doing to actually drive their results. Processes drive results, however, and performance benchmarking only identifies gaps in the desired result. In other words, process benchmarking diagnoses the root cause of the gaps so they can be treated.

Effective and Practical

Though outside consultants can help with benchmarking, many companies can self-assess their ware-

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ply chain and of overall market competitiveness. It's calculated from this equation:

inventory days of supply
plus
days of sales outstanding
minus
days payable.

Cash-to-cash cycle time indicates how your supply chain processes impact your company. Inventory days of supply are impacted by your ability to manage inventory, how well you forecast and plan, how reliable your suppliers are at making on-time deliveries, and how effective your transportation management and warehousing processes are.

While internal operational and financial measures can affect value, the most obvious to the customer are those associated with the perfect order. The perfect order index is a widely recognized and recommended measure that combines a number of key metrics.

3. Perfect Order Index

The individual metrics of a perfect order (shipped complete, delivered on time, damage-free with the correct documentation, pricing and invoicing) are multiplied together to calculate the perfect order index. For instance, if you were performing at a 95 percent level in each of the four individual measures, your perfect order index would be 81.5 percent (95 percent x 95 percent x 95 percent x 95 percent).

This index measures your performance and value from your customer's view. Unfortunately, many companies have problems measuring what happens outside their distribution centers and find this metric difficult to track. But information flow on shipments from carriers and the ability of companies to process this information are getting better.

4. Back Order Fulfillment

It may not do those orders any good, but you find out how well your back orders are cleared. Track this, and review and address the root causes of back orders, because they have a huge impact on customer satisfaction. Resolving them is nonvalue-added work, but it's a cost that shouldn't be incurred.

5. Fill Rates

Measure both order fill-rate and line fill-rate to get a clearer picture of your ability to meet customers' order requests. Calculate fill rates based on how well you fill initial orders rather than modified orders. Base them on the customer-requested shipment dates. Those orders

5 MOST USEFUL FULFILLMENT METRICS

Ponder your goals, gauge your progress and line up areas for improvement

BY KATE VITASEK

When establishing fulfillment center metrics, catalogers should use performance measures to drive a change in behavior. These help you track progress and meet goals. Turn that valuable data into meaningful and actionable information, otherwise it's analogous to having a data dump.

Which metrics should you track? Consider your company's goals and objectives, improvement opportunities, strategic projects and what's most important to your customers. You may find that the most popular metrics often aren't the most useful. For example, the top metric, on-time shipments, shows how effectively your warehouse ships orders. But not if customers received their orders when they wanted or if orders were complete. However, there are five very informative metrics every cataloger should track.

The Most Popular Metrics

Don't measure just for measurement's sake; focus on collecting metrics in areas where you'd like to drive positive changes to further your company's objectives. Only a few statistics can become process measures. And just a few among them are key performance indicators that'll track progress toward strategic goals.

Catalog companies have two primary goals:

✔ meet the customer service level commitment; and

✔ improve operational efficiency — to reduce or at least maintain operational costs.

However, many companies track metrics that only reveal small bits of information that factor into these goals, and not holistic measurements that may reveal how to close those gaps.

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KEEP 'EM ON THEIR TOES

10 ways to keep call-center reps interested in their jobs

BY LIZ KISLIK

Some call-center employees stay with their companies for many years because their employers are generally fair, locations are convenient for them, the pay is good, the work isn't too hard, and their coworkers are likable and supportive.

Despite a good work environment, doing the same job day in, day out can get a little, well, boring. This not only results in a feeling of staleness, but it can also manifest in that rote, pro-forma voice that undercuts interactions with customers. So how can managers enrich or enliven the work environment to keep reps feeling and giving their best?

Here are 10 ways to foster personal development in the call center:

1. Pay attention to performance. In the spirit of the adage "what gets measured gets done," what you don't notice fades away. This is true for people, and it's true for the behaviors you want them to use. If you're spending all your management time putting out fires, working with new people or riding hard on your "problem children" — as so many supervisors do — you're probably neglecting the good people you count on to be reliable and consistent.

So check frequently to be sure their numbers are in the appropriate range. Periodically monitor their calls to make sure they're not in a quality slump. Don't assume good performance lasts if no one's watching. Watch for small changes so you can address them before anything goes too far awry.

2. Involve your more tenured reps in the choices and decisions that affect their work directly.

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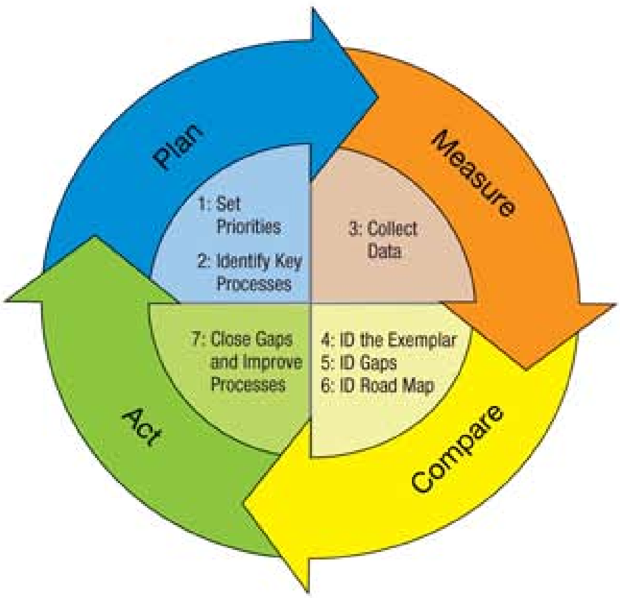
housing and fulfillment operations. Benchmarking your organization takes work, but it needn't be overwhelming. Try these seven steps.

STEP 1: Set benchmarking priorities. The benchmarking process begins with the company's strategic planning process. Aligning the fulfillment team's objectives to company goals will likely make benchmarking successful and add value by focusing on issues that have the greatest impact on that strategy. Benchmarking projects won't get the support needed from C-level executives if they don't have a positive impact on the company's goals.



STEP 2: Identify key processes. Focus on the processes that have the greatest impact on the company's customers and the company itself. A simple four-quadrant matrix can help you identify benchmarking priorities. Benchmark those processes that have high costs or strategic impact on your company, and/or high impact on your customers so you're focused on high-value activities.

You can focus on processes that have lower impact, but their results won't create optimal value from the investment driving those improvements.

STEP 3: Collect data. Comparing your company metrics to available best-in-class benchmarking data (quantitative benchmarking) will expose underperforming areas. Research of best-in-class performance may be interindustry or intraindustry, so your time required can vary widely.

Look to trade groups, such as the Warehousing Research and Education Council (WERC) and the American Productivity & Quality Center, both of which offer industry metrics to their members.

STEP 4: Identify the best-in-class. With good benchmarking, you translate the circumstances underlying successful performance measures into your own environment. Now you benchmark *qualitatively* at the processes, subprocesses and process attributes to understand the successful environment.

Qualitative benchmarking data can be obtained from some industry trade groups. The Council of Supply Chain Management Professionals and WERC have guides that list processes and process attributes.

STEP 5: Identify gaps. Understand your performance gaps and the process gaps that have the greatest bottom-line impact.

Just as the warehouse prioritized processes to benchmark, it must also prioritize the process groups that should be improved. As tempting as it might be to improve all areas, focusing on too many things at once will end up prolonging the improvement initiatives to an unacceptable length, jeopardizing any productive returns.

Evaluate improvement priorities with a bubble chart. Compare the strategic importance (irrelevant, important, vital) to the cost/performance impact (low, moderate, high). Plot each process on a bubble graph (see below), where the size of the bubble designates the gap size.

Maintain processes with no competitive advantage to gain. Re-evaluate processes that don't support your goals but could help you gain an advantage.

STEP 6: Identify improvement targets. Now, with all the information you need to establish performance targets for those processes you'll invest in improving, identify each targeted improvement. Not all processes need to be best-in-class. This collection of targets in *all* identified process areas becomes your

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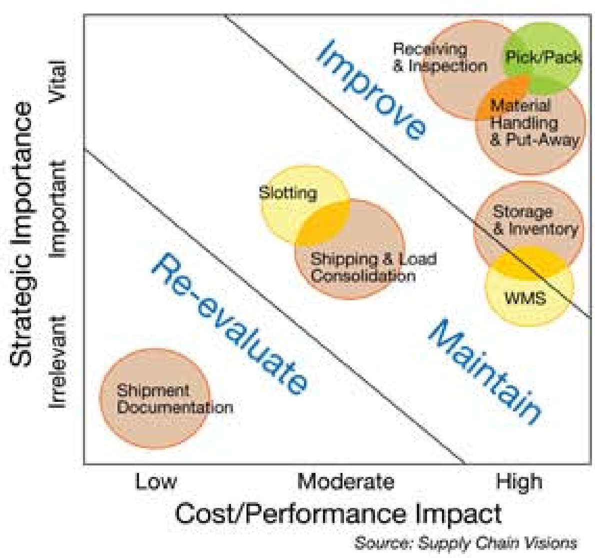

Source: Supply Chain Visions

Warehouse and Fulfillment Top 10 List

TYPE	METRIC
Financial	Distribution Costs as a percent of Sales
	Cash-to-Cash Cycle Time •Inventory Days of Supply •Days of Sales Outstanding •Days Payable
Customer	Perfect Order Index •Orders Shipped Complete •Orders Delivered On Time •Orders Delivered Damage Free •Orders with Correct Documentation
	Order Cycle Time
	Back Orders as a percent of Total Orders
Performance	Fill Rate - Order & Line
	Order Picking Accuracy
	Dock-to-Stock Cycle Time
	Inventory Count Accuracy
Employee	Annual Work Force Turnover

Source: Supply Chain Visions

not meeting the dates shouldn't be counted as complete. Measure strategic outcomes using metrics that are process-oriented rather than functionally oriented.

Balance is an essential element of successful metrics programs because it ensures there's a holistic view of the business. Identify and use a broad spectrum of metrics that together reflect the key contributors to the success of the business strategy.

Embed your measurement process within a culture of continuous improvement. In short, turn data into metrics and metrics into performance management programs that drive tangible and lasting improvements in your organization.

Recap: A Closer Look at Some Metrics

Inventory count accuracy is important to the company's ability to fill a customer order. Inventory accuracy errors cause unknown out-of-stocks that impact order fill rates. Pair measuring the accuracy with correcting the root cause of the errors.

Order picking accuracy ties to customer service — getting what was ordered — and to operational performance. This measures the accuracy of the orders picked based on errors caught prior to shipment.

Order cycle time is the time between customer order placement and order shipment. Customers' expectations vary depending upon your shipment policy, such as a same day vs. a 48-hour policy. «

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long-term improvement road map.

Just as the company must prioritize the processes in which it will invest in improvement, it must also take special care to focus the level of improvement targeted.

It must establish targets that are reasonable to achieve. Therefore, it may need to establish achievable, near-term targets for selected focus areas.

STEP 7: Close gaps. With your long-term road map in place, now close the gaps. Spend your resources (human and financial) on the areas that'll generate the greatest return.

These initiatives may represent a significant cross-functional, cross-regional effort. Any large project typically requires centralized project management and significant funding. But mind you, it's well worth the effort.

Summary

By following these benchmarking steps, you'll mark for improvement the processes that'll have the most impact on the company. Those improvement targets will be both reasonable and realistic. «

More Information

I recommend the following resources:

- *Warehouse Managers Guide for Benchmarking - Unleashing Best Practices in Your Warehouse,* WERC 2007
- *Warehousing & Fulfillment Process Benchmark & Best Practice Guide,* WERC 2007

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In a survey my firm performed last year for the Warehouse Education Research Council, we asked respondents what metrics they use. This list shows the top 10 metrics companies track. Then we'll introduce five more metrics that reveal the processes that actually cause shortfalls in these areas.

NUMBER	METRIC
1	on-time shipments
2	inventory count accuracy
3	order picking accuracy
4	average warehouse capacity used
5	order cycle time
6	fill rate — line
7	peak warehouse capacity used
8	annual workforce turnover
9	dock-to-stock cycle time (in hours)
10	fill rate — order

1. Costs/Sales Relationship

Distribution typically includes processes related to tracking inventory and product availability, receiving, incoming inspection, storage, pick/pack, product shipment, transportation management, and management of third-party logistics storage and shipping performance. Process improvements will lower costs, while process inefficacies will increase them. As such, this is an excellent high-level metric, especially if you're tracking ongoing improvement projects. Distribution costs can also be rolled up as a component of total supply-chain costs as a percent of sales.

2. Cash-to-Cash Cycle Time

Cash-to-cash cycle time is commonly regarded as a good indicator of the health of a company's sup- ▷