My manufacturing plant is better than yours—or is it?

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Through benchmarking, consumer-goods companies can optimize their production facilities and processes—but only if they use the right data at the right level of detail. A new McKinsey database and methodology can help.

In their perpetual quest for competitive advantage, many consumer-packaged-goods (CPG) manufacturers are looking to fine-tune their production processes. It's a sensible move—production, after all, on average accounts for 15 to 20 percent of cost of goods sold. P&G, for one, aims to save up to $10 billion by 2016, in part by optimizing production.

But as companies seek to boost production performance, how should they determine what actions to take and which changes will make the most difference? In theory, a benchmarking exercise could surface the strengths and weaknesses, cost drivers, and areas of opportunity in a production facility or process. The problem is, there's no well-known source for operations-related benchmarks in the CPG industry. Furthermore, CPG companies' global production networks, as well as the broad range of CPG products, make meaningful comparisons difficult to come by. Of course, companies can (and some regularly do) conduct internal benchmarking, but even then they must take into account each plant's unique attributes and be careful not to make flawed assumptions.

To help CPG companies find relevant benchmarks and catalyze major improvements in production performance, McKinsey has developed the Consumer Operations Benchmarking Initiative (COBI). The COBI database contains detailed information on more than 120 CPG plants worldwide (see sidebar, "What is COBI?"). And by strictly adhering to a set of guiding principles, the COBI approach has yielded outsize rewards for CPG companies across the globe.

Success factors in benchmarking

Benchmarking doesn't just mean gathering reams of data. A rigorous benchmarking initiative involves collecting and analyzing the right data at the right level of detail. To ensure success in benchmarking, companies should bear in mind the following principles, all of which have been carefully integrated into the COBI approach.

Look at costs as only one part of the big picture. Companies should resist the temptation to focus their benchmarking efforts exclusively on costs. Productivity, quality, and flexibility are also critical metrics. Could a plant's low costs in quality assurance, for example, have something to do with its low first-time-right rate? Does more flexibility justify higher costs? Answering these types of questions requires multidimensional analyses.

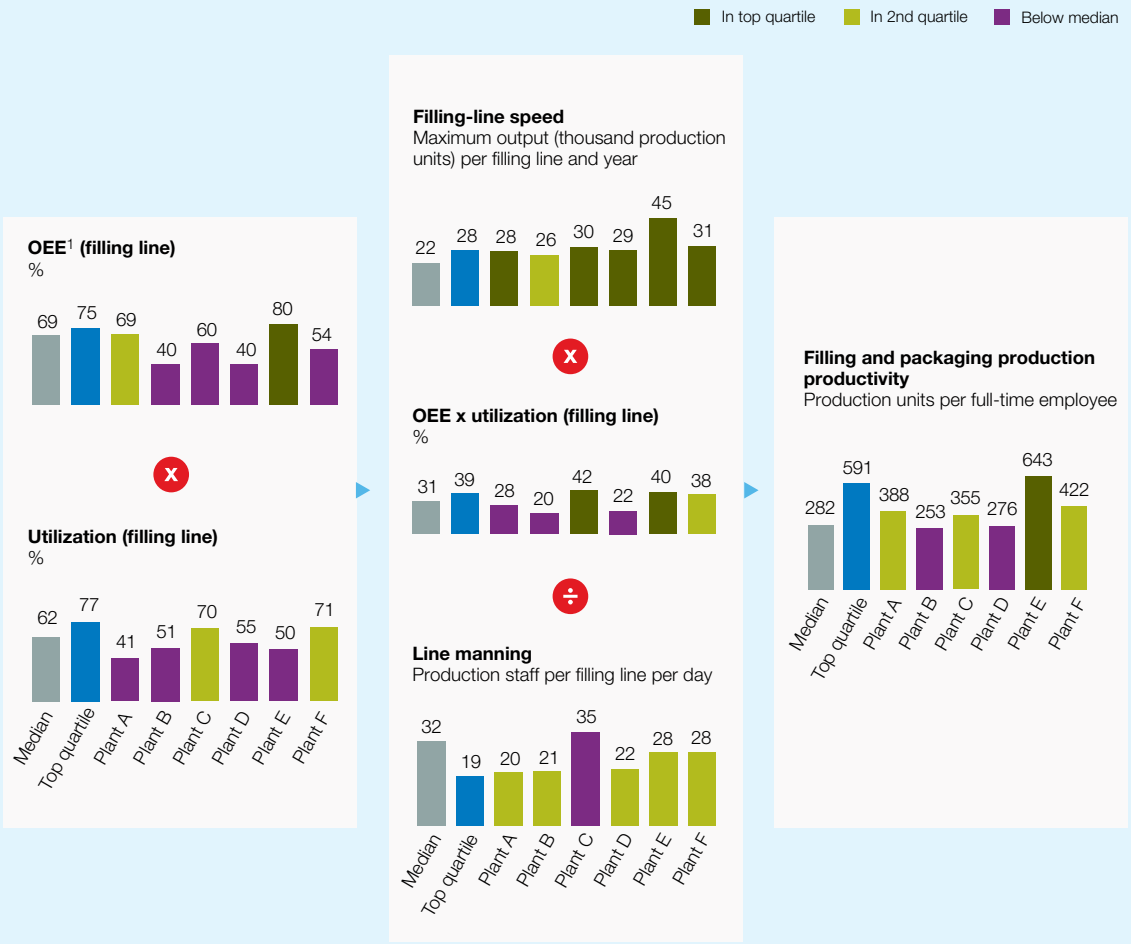
Make apples-to-apples comparisons. Benchmarking a rice-noodle factory in Southeast Asia against a pasta factory in Europe isn't a useful exercise; although the plants make similar products, there are important differences in ingredients and production steps. Likewise, two plants may both produce body lotion but with different viscosities or in different container sizes. Comparisons of production facilities will be meaningless if the specific attributes of the products, processes, or packaging aren't taken into consideration. In some cases, it's possible to normalize for the differences by generating a quantitative baseline. For instance, when comparing a ketchup plant that fills small bottles with one that fills large bottles, a company should scale to a common unit and calculate the additional cost per liter of filling smaller bottles. One CPG company found that its process for filling small package sizes cost 20 percent more than its process for filling large ones.

Examine each step in the production process. Some companies gather data on only high-level indicators such as the number of personnel in each plant, the total cost per product, or the amount of waste per batch. These metrics can be helpful, but they might also obscure deeper insights that would emerge if a company instead compared individual steps in the production process. For example, a milk-powder manufacturer might have a highly efficient packaging process, but it might also have an outdated, energy-guzzling drying machine. These two factors can offset each other, resulting in reasonable production costs. Only with a detailed examination of every step in the production process will the company realize that it ought to replace its milk-drying machine.

Get all the relevant parties involved. Benchmarking typically creates additional work for many employees, particularly those in the controlling and accounting functions. A benchmarking initiative should have the buy-in and involvement of the relevant people in the company—not just controllers and their staff, but also top management

Exhibit

A detailed productivity analysis reveals opportunities for improvement.



[1]Overall equipment efficiency.

and plant managers. The project sponsor, ideally a senior executive, must clearly communicate the goals of the project.

One company's experience

A European CPG manufacturer embarked on a three-month benchmarking effort involving six of its production plants in Europe, Southeast Asia, and Africa. Senior leaders pledged to take decisive action to address any performance gaps revealed by the benchmarking results.

The benchmarking team gathered data on each plant's costs and capital investment, as well as on more than 100 operations-related key performance indicators (KPIs). Then, using the COBI methodology and database, the team compared their data with those of other relevant CPG plants.

The analysis showed that, with respect to costs, two of the company's plants were among the best performers in the industry, and two were among the worst. A breakdown of costs revealed the specific areas in which its plants were overspending. In one case, a plant's material costs were too high; in another, a plant had a disproportionately large staff. An analysis of productivity in individual production lines—taking into account personnel deployment, speed, utilization, and intensity of use—revealed significant downtime in several plants (exhibit). Furthermore, an analysis of energy consumption revealed two inefficient plants. And since both were located in regions with low energy costs, this savings potential would not have come to light through a simple comparison of energy costs.

The team calculated that if all six plants could improve performance to the level of the top-performing quartile in the COBI database, the resulting savings would amount to tens of millions of euros per year—as much as one-fourth of the company's total conversion costs. Thanks to the detailed breakdown of cost levers, what initially sounded like an ambitious savings target was actually within reach, even without any changes to the production network.

Working with plant and production managers, project leaders defined targets for each plant and agreed on improvement actions (such as rotating the workforce across production lines to reduce equipment downtime). The company also created a cross-plant team to identify internal best

What is COBI?

The Consumer Operations Benchmarking Initiative (COBI) is a proprietary database and methodology that consumer-packaged-goods companies can use to benchmark their production processes and facilities against those of direct and indirect competitors. The COBI database contains data on more than 120 plants worldwide, operated by both brand-name manufacturers and private-label producers. Data on each plant include metrics on cost, capital, productivity, quality, and flexibility—in total, more than 100 key performance indicators. Currently, COBI covers five product categories: home and personal-care liquids, laundry detergent, skin-care products, milk powder, and milk (including condensed milk). By 2014, COBI categories will include pasta, sauces, drinks, rice, and confectionery.

practices and transfer know-how to the lower-performing locations. This team tackled the questions that arose from the benchmarking results. For example, why does Plant A use 10 percent less energy per unit produced than Plant B? Why are the material costs for quality assurance in Plant C up to 20 percent higher than in Plant D, even though the two plants produce equal volumes?

Even after the benchmarking project ended, the company's internal-controls function continued to track performance against the KPIs. The plants have been hitting or exceeding their targets, and the company now regularly uses COBI to benchmark its own improvements against changes at competitors. Its success is evidence that through smart benchmarking, CPG companies can achieve far-reaching cost and quality improvements. ■

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