



Nine steps to greater profitability, sustainability

In preparing their products to align with Wal-Mart's new sustainability scorecard, consumer packaged goods companies should evaluate nine areas of the supply chain.

The announcement by Wal-Mart of its new sustainability scorecard has established sustainability as a source of differentiation and competitive advantage for consumer packaged goods (CPG) companies. It turns out that what's good for the environment can also be good for business. As companies strive to meet their sustainability goals, they can also improve their efficiency, their cost savings and their profitability.

CPG companies can uncover sustainability and profitability benefits throughout the packaging supply chain by focusing on nine key areas: package design; material optimization; shelf impact; stockkeeping-unit consolidation; productivity improvements; alternative packaging; material handling;

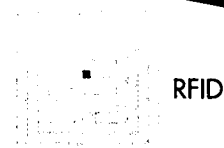
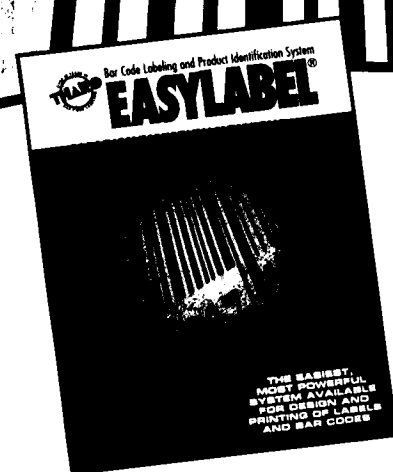
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warehousing; and transportation. This article provides information on how to optimize these nine areas and illustrates the clear sustainability and profitability benefits that can result from making these changes.

1. Package design

Package design plays a critical role in helping CPG companies achieve their sustainability and profitability goals. More efficient packaging can reduce warehouse, distribution and transportation costs and consequently can decrease energy usage and greenhouse gas emissions (GHG). The amount of GHG and carbon-dioxide (CO₂) emissions per ton of production accounts for 15 percent of Wal-Mart's packaging scorecard. Efforts to reduce these emissions can also improve a CPG company's competitive position relative to other suppliers.

So while CPG companies need to



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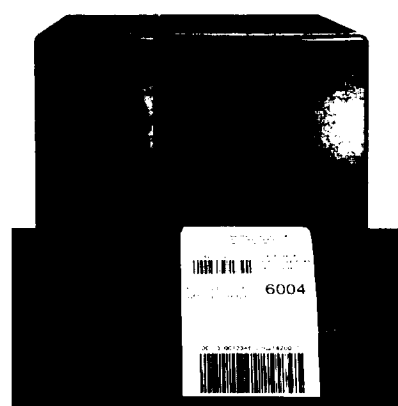
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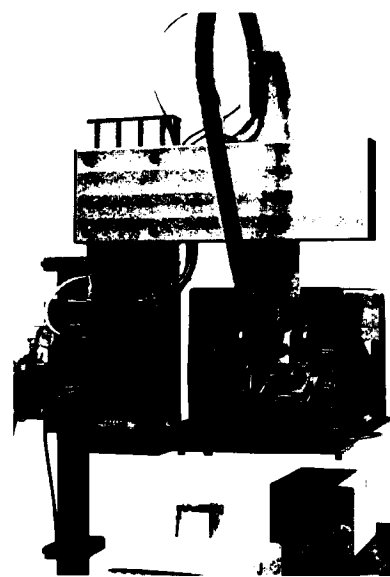
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look at the big picture—the entire packaging supply chain—to uncover new sources of efficiency, waste reduction and cost savings, they also need to think “inside the box” when it comes to package design.

2. Material optimization

Material value represents 15 percent of the total sustainability metrics that will be measured by Wal-Mart's packaging scorecard. One way CPG companies can improve sustainability is by reducing the total fiber content of their corrugated cases.

Fiber reduction can be achieved in three ways. These include using an innovative package design that utilizes less corrugated board, using less fiber within the corrugated board and using a lower basis-weight material. Quite often, the best fiber-reduction solution is a combination of all three.

Using a low-fiber package is a great way to improve packaging sustainability. However, removing fiber from corrugated board without compromising the integrity of the package can be challenging. Microflute delivers the strength of corrugated board with the high-graphics impact of a conventional folding carton. The result is a low-fiber package with point-of-purchase (POP) appeal.

3. Shelf impact

In clubstores, secondary packaging often plays a primary role. In this dual role, secondary packaging functions both as a shipping container and a display package. Therefore, an optimized package can enhance function, increase shelf appeal and velocity, and in some cases, even reduce store waste.

One example would be the redesigned packaging for Dixie's® PerfectTouch Grab 'N Go™ 12-oz insulated paper cups. Paper cups are often packaged in large quantities in polyurethane bags. The new package design allows for better placement of the cups on store shelves. The carton itself acts as an excellent canvas for a variety of designs and communicates the product's benefits to the consumer. The package also fits neatly in kitchen cabinets or on pantry shelves, further enticing the consumer to buy.

4. SKU consolidation

CPG companies with 50 or 100 different SKUs pay more for packaging because suppliers are forced to perform shorter production runs of myriad package types. The number of SKUs can be dramatically reduced by developing package designs that meet universal needs.

5. Alternative packaging

Alternative packaging can provide significant sustainability benefits. For example, in the produce market, reusable plastic containers (RPCs) may be used as a more sustainable alternative to wax-coated boxes.

6. Productivity improvements

There are many opportunities in the packaging supply chain to improve productivity by focusing on

automating manual processes. For example, significant efficiency gains have been made by automating the case-forming and stretch-wrapping processes. This not only enables more effective use of labor, but it can also reduce material costs.

7. Material handling

Safe, effective material handling is central to streamlined packaging

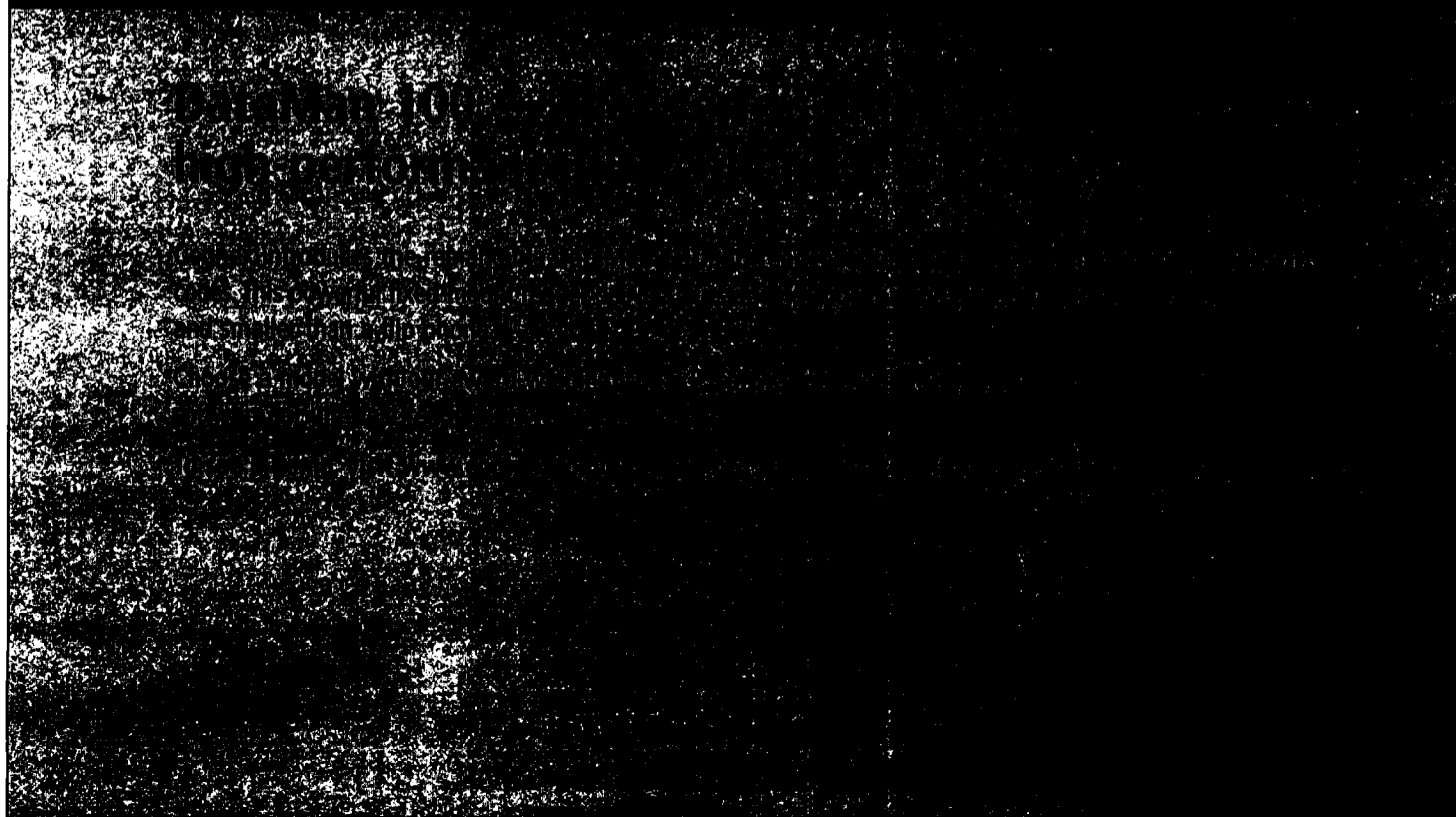
supply-chain operations. Like each of the nine key areas of the packaging supply chain, material-handling optimization depends on countless variables that are unique to each company and facility. For example, an innovative corrugated box design may give new strength to a package that was previously susceptible to damage by a clamp truck.

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The redesigned packaging for Dixie's PerfectTouch Grab 'N Go insulated paper cups allows for better placement of the cups on store shelves. The carton itself acts as an excellent canvas for a variety of designs and communicates the product's benefits to the consumer.

Other techniques to consider include the use of slipsheets in lieu of pallets or stretch-wrapping pallet loads. Pallets can be costly to manage and store, while stretch-wrapping pallet loads may avoid damage. Conversely, some companies may find stretch wrapping and slipsheets inappropriate and expensive, and instead may look for new ways to optimize existing strapping and palletizing processes. Only by closely examining the dozens of variables that affect material handling can the best solution be found.

8. Warehousing

Efforts to optimize the warehouse can include creating packages that can stand up to the demands of the warehouse environment and making efficient use of warehouse space.

High humidity, storage time and stacking height can all erode the integrity of a stored package over time. The degree to which these factors affect box performance depends on individual package characteristics. Whereas the solution to compression failure for one company may be to reduce stacking height, the answer for another may lie in the use of a Bliss box over a traditional RSC to provide the added strength that allows packages to be stacked even higher.

9. Transportation

The road to improved sustainability, rather appropriately, is often connected to transportation itself. This is because many of the sustainability improvements made further back in the supply chain are realized during transportation. More efficient, lighter-weight packages help reduce the number of truckloads, which results in reduced fuel usage and GHGs.

Equally critical to reducing shipments is cube utilization. In some cases, mixed products on pallets can contribute to poor use of space, while in others, unit-load height is not as high as it could be. Placing pallets in a "pinwheel" position can maximize cube utilization and prevent excessive load movement in the truck.

CPG companies can gain a significant sustainability advantage by optimizing their distribution operations. This is reinforced by the fact that cube utilization and general transportation factors together will account for 25 percent of a CPG company's total score using Wal-Mart's packaging scorecard.

Top of the scorecard

If CPG companies are to stay competitive in a world of shrinking margins, rising costs and pressure to outscore other suppliers on Wal-Mart's packaging scorecard, they will have to leverage sustainability efforts into a profitable advantage. Opportunities to improve efficiency exist across the packaging supply chain; CPG companies need only find them.

The author, Patrick Smorch, is manager of packaging technology at Georgia-Pacific's Innovation Institute.

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