Packaging and the Streamlined Supply Chain

Four Trends that Will Shape How Future Packaging is Done, and Who Will Do It

Automation

Sustainability

Integration

Single Source

A KANE Viewpoint

Product packaging has always been the realm of marketing departments. But marketers rarely understand the impact their packaging decisions make on the entire supply chain. A package might look great, but what will it cost to produce? Will it require a lot of labor? Drive up transportation costs? Increase order cycle times? Expand the company's carbon footprint?

Packaging a product and distributing a product are really two aspects of a single process. When that process flows smoothly from end to end, companies save money and operate more efficiently.

Four important trends have prompted CPG manufacturers to rethink how they manage their packaging, and what partners are best suited to handle this important function. Logistics professionals who seek broader supply chain leadership roles must understand these trends and their implications.

Trend 1: Fewer bodies, more machines

Smart manufacturers today are nearly unanimous in their desire to cut costs by taking as much labor as they can off the packaging line.

The largest CPG firms, in particular, are eager to substitute technology for labor. "They want to get the product on the line and crank out millions of cases," says Jack Ampuja, president of the consultancy Supply Chain Optimizers in Amherst, N.Y.

Some third party logistics providers (3PLs) with packaging capabilities are responding to that call, investing millions of dollars in automated systems that assemble products in custom configurations to meet retailer demand, in a fraction of the time and at a fraction of the cost required to do that work by hand.

For example, 3PL Kane Is Able (KANE) employed 24 people to hand count different flavors of individually-wrapped chocolates and place them in pouches for a client. Employees had to insert exactly the right

This continuous motion cartoner automates the placement of items into unfinished cartons, then closes up the carton to complete the packaging process with no manual intervention.

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number of pieces of each flavor in each package. To streamline that laborious process, KANE developed an automated solution for that line to turn out filled packages in the same volumes, but with just four employees.

Another manufacturer used KANE to create customized retail packages. If a retailer wanted 21 units in a box, for example, a worker would rip open the manufacturer's standard 36-count carton, discard that box, count 18 units into a bucket and repackage that product in a new box. It took 16 employees per shift, over two and a quarter shifts, to turn out boxes at the rate the customer required.

KANE designed a $1.8 million solution to meet the same need with just three employees. Instead of bringing in 36-count cartons, the solution called for product to be delivered in bulk and loaded into a hopper. The machine would then count the units into buckets and then place them in 18-count cartons, vastly reducing labor costs and eliminating the use – and later disposal – of the 36-count cartons.

"Automation is a huge growth area in contract packaging," says Ampuja.

But not every 3PL – and certainly not every copacker – is willing or able to invest in new equipment. A manufacturer that wants to move packaging out of its own plant, while retaining the cost advantages that automation provides, must find the right partner for this crucial relationship.

Trend 2: Promoting sustainability through "least possible packaging."

Environmental sustainability is a big concern in retail. According to the 2013 Retail Sustainability Report, published by the Retail Industry Leaders Association (RILA), the number of retail companies that maintain sustainability teams is growing, and those teams are working on a broadening range of projects. Walmart, Target, Kroger,

Standup plastic pouches use less material than standard packaging and are more efficient to ship.

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Lowe's and many other big players devote significant space on their web sites to their sustainability initiatives.

CPG companies are implementing green initiatives as well, and for many of the same reasons as their retail customers, to meet their obligations as good citizens of the earth and to save money. They're also going green for another reason: as suppliers, they face pressure to conform to retailers' sustainability standards.

One strategy that helps CPG companies soften their environmental impact is "least possible packaging" – using the smallest amount of material needed to effectively store, transport, display and sell a product. One popular example of least possible packaging is the standup plastic pouch, employed these days to sell everything from soup to nuts to laundry detergent.

Standup pouches use less material than conventional packages. They may also reduce the number of trucks – and therefore, the volume of fuel – a company uses to transport its products. A single trailer packed with flattened plastic pouches bound for a beverage bottling plant, for example, might replace a dozen trailers filled with plastic or glass bottles. Those flattened pouches also take up far less room than bottles in a warehouse, reducing storage costs.

A 3PL with a strong contract packaging program can help a manufacturer design greener packaging while also reducing logistics costs. That goes for retail displays as well. A packaging expert who analyzes a floor display might suggest ways to remove dozens of components while still building a unit that travels well and grabs shoppers' attention.

Trend 3: Supply chain integration

When a supplier ships a product, retailers expect it to arrive on time, in good condition and packaged according to their specifications. Miss just one of those requirements and a manufacture could face a chargeback, lose the order or even lose the customer.

Each time someone hands off a product – from a production plant to a copacker, for example, or from a copacker to a distribution center – that adds costs and creates opportunities for error and delay. One way to ensure that products flow correctly and efficiently from factory to store is to enlist one expert partner to manage both packaging and logistics.

One major CPG company has worked with its third-party logistics providers (3PLs) to consolidate its secondary packaging operations into ten distribution centers in the U.S. and Canada. Instead of shipping

When a supplier ships a product, retailers expect it to arrive on time, in good condition and packaged according to their specifications.

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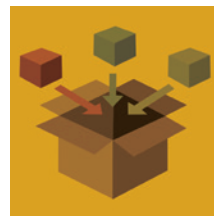
product and packaging materials to a contract packager, and then shipping the filled packages to its DCs for shipment to stores, the company now uses one contractor to perform packaging, warehousing and distribution all under one roof. Thanks to this strategy, the company expects to ship as much as 25 percent more volume from its DCs. The new arrangement also helps get product to retail customers faster. While in the past, customers got 60 percent of their orders in one day or less, that number has risen to 85 percent.

By using the same provider to handle packaging and distribution, a company can cut the distribution cycle by as many as seven days. This strategy also ensures that the CPG firm never loses sight of its product. Once a manufacturer hands product to an outside copacker, its warehouse management system (WMS) can no longer see the progress of those goods. But when the same partner handles both logistics and packaging, the product never leaves that 3PL's WMS. If the copacker is assembling 10,000 cartons, for example, the CPG company can go on line at any time to track the status of that project.

When they design their packaging, manufacturers need to consider logistics along with other factors, says Ampuja. "How do the units fit together, and how do they fit on the pallet? Is there overhang, or underhang? Do they provide good stacking strength and protection?"

If the company is using less-than-truckload carriers, it's also important to consider how packaging affects freight classification, which depends on product density. "We find companies that have air galore in their boxes, and don't even think about it," Ampuja says. Extra air can boost the per-unit rate of transportation.

Few standalone contract packagers understand the downstream impacts of the products and services they provide. They execute against orders from the client's marketing department, never considering issues such as volume and velocity or how a set of boxes will fill a trailer. At a 3PL, on the other hand, cross-disciplinary experts start by thinking about transportation and then working backwards toward a packaging solution that satisfies marketing while minimizing costs incurred during the distribution cycle.



Trend 4: Single-source packaging operations

If the integration of packaging and logistics produces savings, so can the integration of all aspects of primary and secondary packaging. Using one partner to do both, and also to procure and manage packaging materials, can yield significant benefits, not the least of which is focus. More and more "product manufacturers" are choosing to be virtual marketing

The "embedded 3PL" concept is really the relationship management component of a larger outsourcing concept called "vested outsourcing."

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companies, leaving manufacturing and packaging to a limited number of partners to simplify their supply chains.

Primary packaging means handling the actual product – putting cereal in a box, picture hooks in a blister pack or kitchen sponges in a plastic wrapper. Secondary packaging means grouping primary packages for retail sale or distribution – binding two cereal boxes in clear plastic to create an economy pack, placing packages of picture hooks and other decorating products into a freestanding display or loading wrapped sponges into a carton.

When a single contractor performs both functions, it can ensure that the two levels of packaging perform well together as a single system. Since there's no need to move product to a separate location for secondary packaging, the manufacturer saves on transportation. Fewer transfers also mean less chance of spoilage, damage or shrinkage. And when a company doesn't have to move product to another facility to repackage it to meet a customer's unique needs, lead times can shrink by as much as two-and-a-half weeks.

The process becomes even more efficient when the contract packager takes charge of procuring and managing materials. As the single responsible party, that contractor will make sure that all materials arrive when they're needed, eliminating delays that sometimes occur when several companies have to coordinate efforts. Also, a packager that works closely with materials suppliers can consult with them on package design, choosing the corrugates, films, plastics and other materials that best suit a specific application.

Packaging: Exploring New Options

Packaging today involves far more than bags and boxes. Given the current movement toward automation, sustainability, supply chain integration and single-sourcing, CPG companies now have a chance to use packaging strategy to drive incremental profits. They key is to better integrate packaging with upstream and downstream functions, a perspective that comes naturally to logistics services providers. As these 3PLs continue to expand their packaging operations, it may be wise to see what new options this growing capability creates for your supply chain.

About KANE

KANE helps consumer product companies get retail goods to market efficiently and effectively. We operate in every region of the U.S. and our logistics services include transportation, distribution, packaging, cross-docking, retail consolidation, and people logistics.

Looking for ideas to make your retail supply chain work better?

LET'S TALK

Contact KANE
p: 888.356.KANE (5263)
e: info@kaneisable.com
w: www.kaneisable.com

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