

# TOP TEN TOPICS IMPACTING E-COMMERCE PACKAGING

**2019**  
EDITION

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*A collection of e-commerce coverage for the  
packaging and packaging machinery industry.*

**PACKAGING**  
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# **E-commerce requires different approach for CPGs, 3PLs and OEMs**

**In case you missed it: catch up on the first in a series of e-commerce coverage for the packaging industry.**

By Jim Chrzan, VP Content/Brand Strategy, PMMI Media Group

A new study by PMMI Business Intelligence, “2018 E-Commerce: Think Inside the Box”, encourages all stakeholders to think differently.

With a whopping 96% of all Americans with internet access doing at least some shopping online, and more than half of Americans preferring to shop online, CPGs are struggling to outline a strategy for securing a share of this fast-growing market.

“E-commerce is very new and we are taking baby steps,” said one Senior Packaging Specialist for an OTC pharma company. “There is a great deal of learning going on, and we’re all trying to make the right decisions,” said a VP Packaging for a food company.

**Major concerns are damage prevention and package reduction. The study outlines some key considerations:**

- Think of packages in units instead of cases.
- Design the primary package carton to function as the

shipping container for larger consumer goods. Beware of Ship In Own Container (SIOC) packages that promote theft on the doorstep.

- Contribute to the efforts of sustainability: e-commerce has shifted the responsibility of waste disposal to the consumer and is generating a significant increase in curbside waste, which consumers do not like.
- Imagine a returnable consumer tote system, similar to milk delivery 50 years ago, delivering a tote of new products and retrieving the empty tote.
- CPGs are evaluating solutions to increase efficiency; for example, digital print-on-demand, single product wrapping, bundling, kitting, flexible packaging, and minimizing product leaking.
- Look for options in ceiling mounted conveying equipment to alleviate floor space constraints.
- OEMs are being encouraged to offer machinery that is integration-ready able to collect data and share it.

# **E-commerce is disrupting processes, packages and machinery needs**

**In case you missed it: catch up on the second in a series of e-commerce coverage for the packaging industry.**

By Jim Chrzan, VP Content/Brand Strategy, PMMI Media Group

A new study from PMMI Business Intelligence, “2018 E-Commerce: Think Inside the Box”, encourages all stakeholders to think differently. Primary package designs are key considerations for CPGs.

Almost 40% of CPGs are considering making a change to their primary packages. Most changes reflect a need to survive the more robust supply chain where package touches can range in the dozens. “Both the shape and the size of the package are changing: it’s still being developed and in the works now,” said one OTC Sr. Specialist in Packaging.”

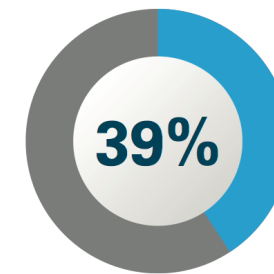
#### Issues range from:

- Leak Prevention (particularly closures)
- Size and shape changes
- Single serve / individual packaging
- Moving from glass to plastic
- Personalization and seasonal messaging

“Additional protection is needed for shipping more individual units with e-commerce.” said one Sr. Packaging Engineer for a consumer goods company. “We just went through packaging redesign for consideration of e-commerce; we need to protect the fitment, but it’s still showing signs of fragility issues, reported one Sr. Packaging Engineer for an industrial products company.”

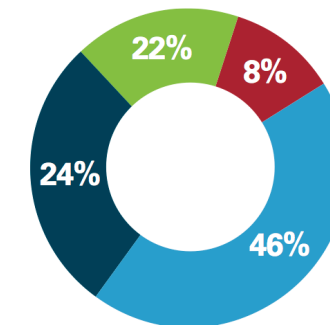
Damage inside the shipper due to failure of primary

Approximately 2 of 5 Brand Manufacturers **Are Making Changes** to Their Primary Packaging



Brand manufacturers are considering a change to their primary packaging.

Companies creating a specific position or department to manage e-commerce:



■ 46% Yes  
■ 24% Talking About it Now  
■ 22% No Plans  
■ 8% Not Sure

Source: PMMI-2018

#### 2018 E-Commerce: Think Inside the Box

packaging is not to be taken lightly. The study reports that 58% of consumers would consider purchasing from a competitor or simply refuse to purchase again if they received a damaged or broken product from an e-retailer.

Finally, almost half of CPG respondents reported creating a new title or department specially to handle e-commerce in their organization. A sure sign that e-commerce, and all its challenges, is being addressed.

# **Secondary packaging revamp biggest CPG focus for e-commerce**

**In case you missed it: catch up on the third in a series of e-commerce coverage for the packaging industry.**

By Jim Chrzan, VP Content/Brand Strategy, PMMI Media Group

More than 70% of CPGs are planning changes to their secondary package to prevent damage and avoid excessive use of materials, according to a new study from PMMI Business Intelligence.

The report, “E-Commerce 2018: Think Inside The Box,” reveals that while only 39 percent of CPGs are considering changing primary package, the vast majority of respondents are looking at changing their secondary package.

This includes a whopping 72% searching for more durable materials to prevent damage. This opens the door to materials like molded pulp fiber that may have appeared more costly at first because of die costs, but compared to 30% of e-commerce packages getting returned, look more attractive.

“We are looking at molded pulp products for added protection, compostable bags, and recycled corrugated,” said one Sr. Packaging Engineer for a Consumer Goods Company.

In fact, fifty-six percent of respondents reported looking for recyclable or compostable shipping materials, while 21% are looking for smart temperature sensing. “Film materials in the future will utilize nanotechnology to embed temperature indicators to verify if the product remains viable when it reaches the consumer,” said one manager of a contract packaging operation.

Primary packaging is changing too, as well as machinery considerations.

# **E-Commerce and beyond- packaging's role in the omnichannel supply chain**

**In case you missed it: catch up on the fourth in a series of e-commerce coverage for the packaging industry.**

By Jim Chrzan, VP Content/Brand Strategy, PMMI Media Group



The spotlight is on packaging professionals to succeed in protecting products delivered to your door, while using less materials.

In a new report from PMMI Business intelligence, “E-Commerce 2018: Think Inside The Box,” CPGs weigh in on e-commerce challenges.

“E-commerce is changing product handling and the supply chain needs to change; it’s archaic but more robotics will help,” says one Packaging Manager, consumer goods.

The majority of CPGs polled report changing secondary packaging, but close to 40% are looking at changing primary packaging as well. “There is no magic wand for e-commerce, no standardized solutions,” says one CEO of a package de-

sign firm. “Every company that works with e-commerce has had to rethink their strategy.”

Breakage and leaks remain a problem, with CPGs paying up to fifty cents per package to Amazon for prep work. Thirty to forty percent returns for damaged goods is not a sustainable model. In some cases, brand owners of extremely delicate or large and heavy items may have to reach the conclusion that their products do not fit the e-commerce model.

To meet the challenge, many companies (46% of those polled) are creating special positions or departments. Others are turning to contract packagers for help. According to the new report, contract packagers are predicting double digit growth (11.9%) to meet e-commerce demand.

# **CPGs call on machinery builders to help meet e-commerce demands with more flexible packaging equipment**

**A new report from PMMI Business Intelligence, “E-Commerce: Think Inside The Box,” says some CPGs will build separate lines for e-commerce, and all agree a lot of capital is going to e-commerce machinery purchases.**

By Jim Chrzan, VP Content/Brand Strategy, PMMI Media Group

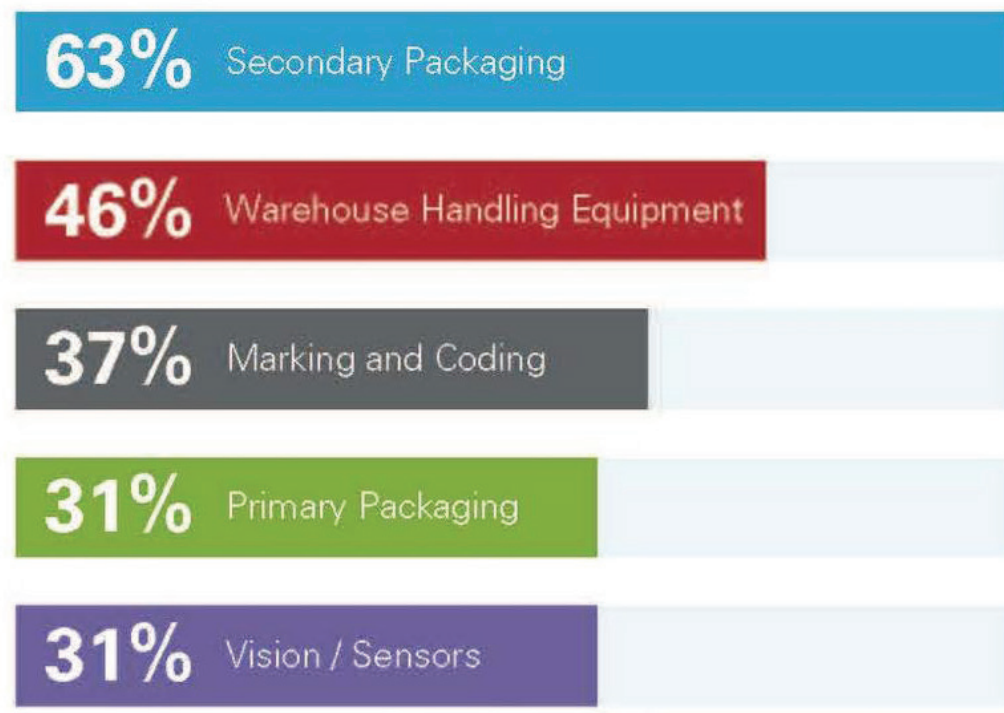
Sixty percent of those CPGs polled report increasing machinery purchases specifically for e-commerce.

“We are doing proof of principle (PoP) now on our line to determine potential machinery needs for an e-commerce line; waiting for ROI determinations,” said one CPG Packaging Manager.”

“We are investigating separating end of line for e-commerce to divert and pull products for customized orders,” says one Packaging Manager from a large consumer products company.”

Machinery needed includes (see chart for percentages): secondary packaging, warehouse handling equipment,

Machinery needed for e-commerce:



Source: PMMI-2018 Exceeds: 100%, multiple answers

marking and coding, primary packaging and vision/sensors.

### **CPGs are looking for improvements in machinery that focus on getting the product to market faster, including:**

- Faster machine start-ups to run multiple sizes due to SKU proliferation.
- Perform faster changeover in order to manufacture a wider variety of products sizes
- Intuitive maintenance indicators that deliver a computer prompt for easier, built in troubleshooting, self-diagnostics, and measuring of machine performance
- Accommodate shorter production runs to add more personalization.
- More automation is needed as there are fewer qualified people to hire.
- Simplicity in machine operations due to a limited labor force that is not highly skilled.

The study makes it clear that CPGs are not just looking buy a machine, they seek a deeper partnership with their OEMs to navigate the challenges of e-commerce.

“We look to the OEM to assist with the selection of the machines’ interface and controls,” said a Project Engineer with a nutritional company.

“We look for partners that are more innovative and provide a quality machine,” remarked a Sr. Packaging Engineer for a major CPG.

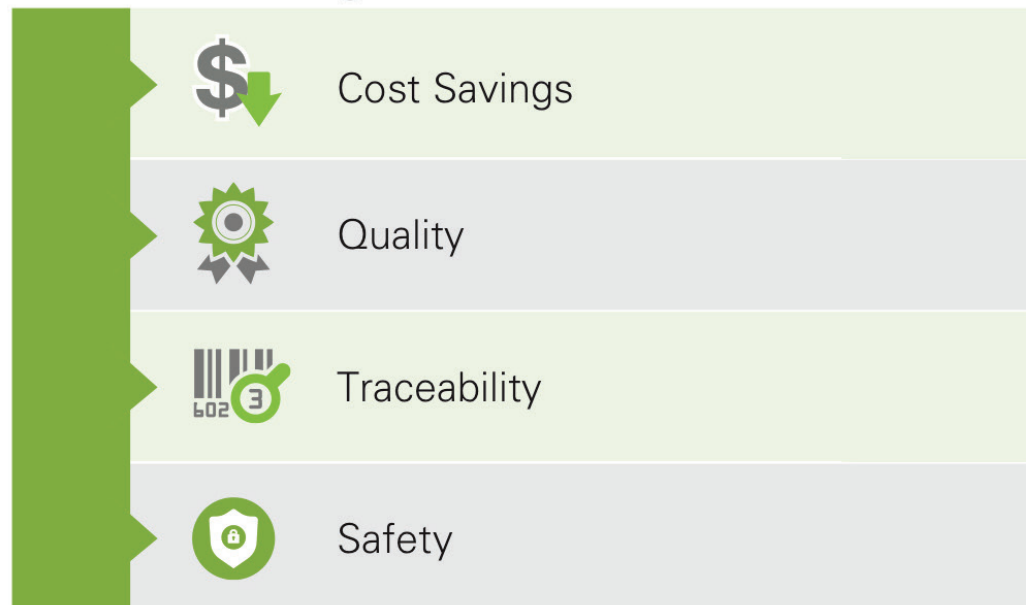
# **E-commerce is stressing the supply chain as retailers struggle to solve logistics problems**

**In case you missed it: catch up on the sixth in a series of e-commerce coverage for the packaging industry.**

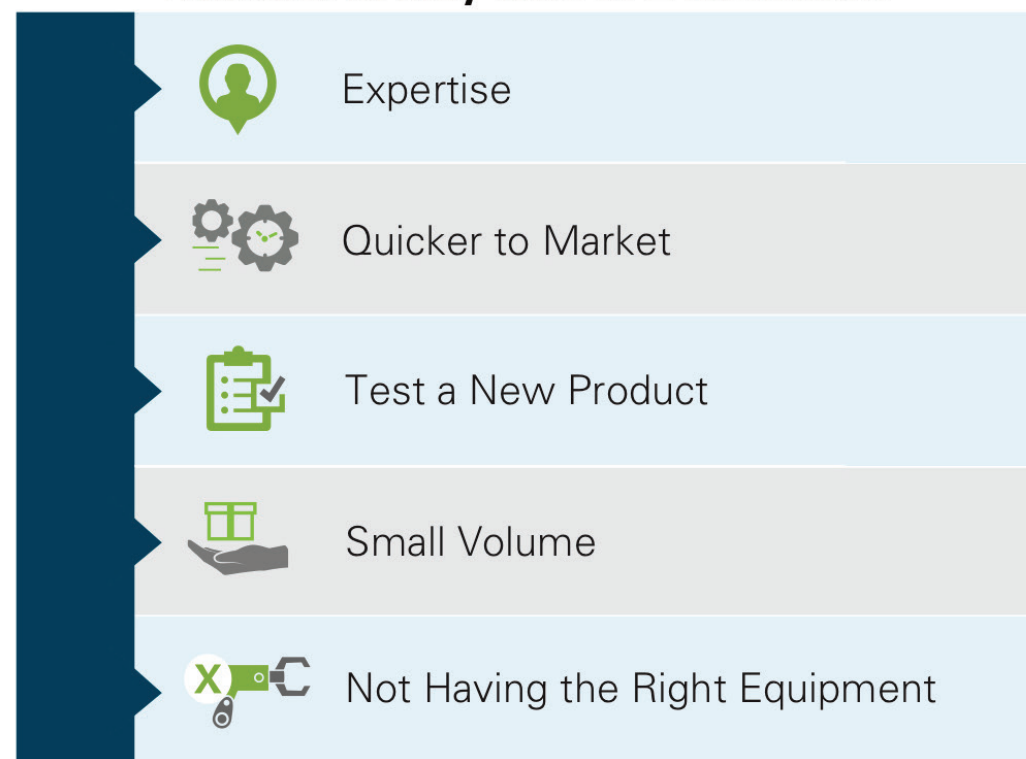
By Jim Chrzan, VP Content/Brand Strategy, PMMI Media Group



### Reasons to bring e-commerce fulfillment in-house



### Reasons to stay with 3PL fulfillment



Source: PMMI Business Intelligence “E-commerce: Think inside the Box”

Only one in four manufacturers are fulfilling e-commerce in-house, while another 40% are using 3PL warehouses, according to a new report from PMMI Business Intelligence.

The newly-released 56-page report, “E-Commerce: Think Inside The Box,” covers CPGs, 3PLs and OEMs and how each community is addressing the challenges posed by the rapidly growing and rapidly changing e-commerce environment.

Sixty-five percent of respondents are using retailers to market their products, with 54% reporting selling through Amazon. Thirty-three percent are selling direct to consumer.

“We would need to develop new ways of distribution for e-commerce products,” said one Packaging Engineer from a nutraceuticals company.

“Our supply chain is for high speed mass production and e-commerce requires customization to meet delivery demands,” said one Packaging Manager, for an industry-leading CPG.

3PL companies interviewed predict their businesses to grow, on average, by 31% in the next two years. Growth fueled by the rise of e-commerce.

Every logistics supplier is looking for technology advancements to meet the challenges of e-commerce. Forty-four percent of logistics suppliers reported using wearable technology to improve pick and ship accuracy and authenticate the product.

Bringing fulfillment in-house would require more automation. “Bringing e-commerce fulfillment and shipping in-house would require sufficient quantities, enough for high speed automation,” said a Sr. Specialist, Engineering, for an over-the-counter drug manufacturer.

“Bringing e-commerce fulfillment in house would be done to achieve greater cost effectiveness,” said a Sr. Packaging Engineer for a consumer goods operation.

Another option is having Amazon right in your own plant handling fulfillment. “Amazon is inside our operations now and have a spot they use for collating products and shipping. They are a critical partner and know e-commerce will spike within the next 10 years,” offered one CPG product manager.

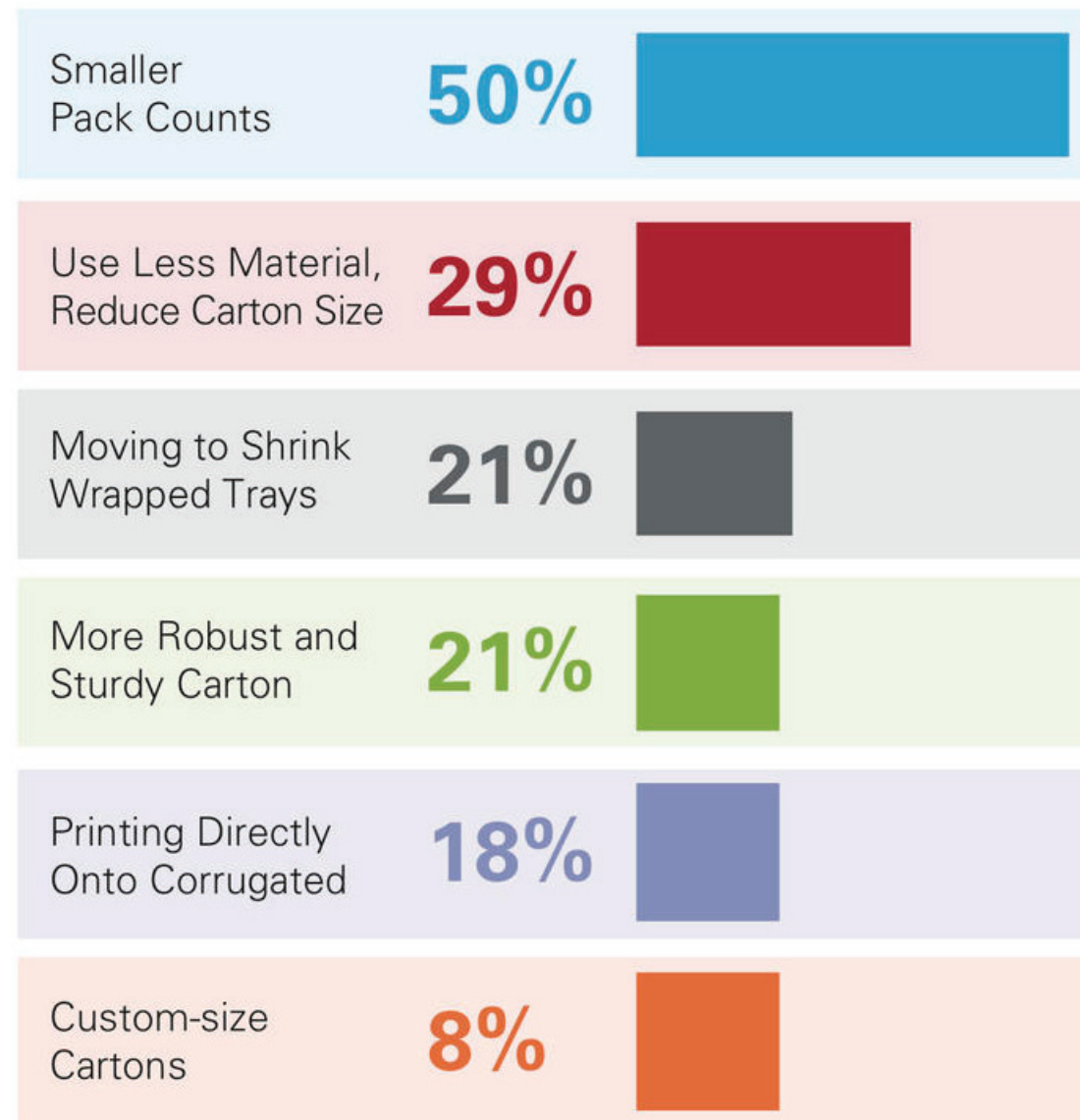
There are pros and cons to handling fulfillment in-house or outsourcing to a 3PL.

# **The e-commerce dilemma: How to protect the product using less packaging**

**A new study from PMMI Business Intelligence examines the impact the omnichannel is having on packaging materials.**

Jim Chrzan, VP Content/Brand Strategy, PMMI Media Group

### Reasons driving secondary package changes:



Source: PMMI Business Intelligence, E-commerce: Think inside the Box

While some CPGs have to deal with altering their primary package, especially in the case of leakers, most efforts are focused around improving the secondary package to survive a supply chain with multiple touches and up to 30% returns for damaged goods.

There are a variety of reasons for the need to change secondary packaging (see chart) with half of the respondents citing smaller pack counts and almost 30% looking at reducing carton size and unnecessary filler. Box on demand gets a lot of attention, but the process is slower than traditional cartoning line operations.

Fifty-six percent of the 3PLs and logistics suppliers polled predict using more corrugated in the future. Forty-one percent for brand manufacturers predict increased corrugated use.

And while corrugated and molded pulp are expected to grow, according to “E-Commerce 2018: Think Inside the Box,” a whopping 72% of those polled “are looking for materials with greater durability to prevent product damage.”

All involved in the study know things need to change. And that e-commerce has totally disrupted traditional production and packaging operations.

“Our entire distribution center is not working for us any longer for direct orders and e-commerce sales” said a Project Manager for a fragrance firm.



“E-commerce products need to be more durable and stronger to survive the distribution channel” remarked a Packaging Engineer of nutritional supplements.

Some of those in the study are already taking steps to achieve a more efficient supply chain. “We did some special packaging for international shipping; added protection on the shipper and more appealing visuals on the primary

package,” offered a Project Engineer for a nutrition company.

But many are still trying to figure it out. “We just went through packaging redesign for consideration of e-commerce; we need to protect the fitment, but it’s still showing signs of fragility issues,” said one Sr. Packaging Engineer for an industrial products company.

# Is it possible to have sustainable e-commerce packaging?

**In case you missed it: catch up on the seventh in a series of e-commerce coverage for the packaging industry.**

By Jim Chrzan, VP Content/Brand Strategy, PMMI Media Group

While consumers complain about too much packaging in their e-commerce shipments, they also complain about damage, breakage and spills.

“E-commerce 2018: Think Inside the Box,” a new study from PMMI Business Intelligence, addresses the problems with overpacking.

“We are getting pushback from consumers that there is too much packaging with e-commerce shipments,” said a VP of E-Commerce for a leading food company.

With 95% of consumers believing packaging significantly influences their online purchase experience, and 49% sharing their online experiences on social media, brands have to be aware of their supply chain’s effect on the environment.

The report reveals that while 23% of CPGs polled reported designing packaging to be reused, repurposed or retuned by the consumer, the majority are not.

“We are in the early stages of looking at a rigid package or lighter package that can be returned, but there are safety concerns and sanitary standards that need to be addressed,” said one Plant Manager for a dairy.

“Boutique companies with glass products are testing a return bottle process now, added a VP E-Commerce for a packaging supplier.

“We are working with a number of brands and looking at

packaging strategies for the long term, like returnable systems and certainly more recyclability,” said the owner of a package design firm.

“We are looking at refills of jars and lipsticks, like snap-in refills to be placed in the original cylinders”, a Project Manager with a personal care company shared.

“We want to provide a tangible product that could be reused, like for travel, to remind the consumer of the product brand,” said a Packaging Engineer for a supplements firm.

The dilemma for packaging professionals is while “overpacking” may draw criticism, product loss or damage that gets returned, or food spoilage that gets tossed out, is far less sustainable. In the case of groceries, tossing food out negates growing, harvesting, processing, shipping—everything is lost.

For damage, the return and refilling and reshipping of the order has more impact on the environment than the overpacking.

As one panelist said at an e-commerce conference this year, “As a consumer, if the environment is your greatest concern, you probably should not be shopping by e-commerce.”

Read more about sustainable packaging [here](#).

Or download this recent webinar on the Recycling Crisis In America.

# **E-commerce creates global opportunity for packaging machinery and materials**

**In case you missed it: catch up on the eighth in a series of e-commerce coverage for the packaging industry.**

By Jim Chrzan, VP Content/Brand Strategy, PMMI Media Group



Asia is leading the world with 47.4 percent of the e-commerce packaging market, compared to North America in the number-two spot with 25 percent.

In the U.S., clothing, accessories and footwear is the largest category in electronic shopping sales. Drugs, health aids and beauty products is the 5th largest category, with food, beer, wine coming in 12th.

All these facts are compiled and available in a new report from PMMI Business Intelligence, “E-Commerce 2018: Think Inside the Box.”

The study looks at the impact of e-commerce growth on CPGs, 3PLs and Packaging OEMs. While industries such as electronics and apparel are well established in the e-commerce market, there are several niche product categories that are predicted to experience a significant expansion in online business.

The grocery industry in particular is poised to see a burst

of growth in the next decade. Currently, online grocery orders are estimated to make up between 2% and 4% of the entire grocery industry, but that number is expected to swell to nearly 20% by 2025.

There is no doubt that e-commerce growth is driving packaging machinery and materials sales growth. The report found that 60% of respondents are increasing purchases of machinery specifically for e-commerce. Machinery purchases will include equipment for secondary packaging, warehouse handling, marking and coding, primary packaging, and vision/sensors.

Corrugated has the largest share of the e-commerce packaging materials market, with a commanding 80% of market share. Flexible films capture 15% of the materials market, followed by protective packaging components such as air pillows bubble wrap, paper fill and loose fill combined for 3.5%.

# **Personal shopper data, digital printing and corrugated packaging combine to offer “unboxing” experience to rival in-store shelf branding**

**In case you missed it: catch up on the ninth in a series of e-commerce coverage for the packaging industry.**

By Jim Chrzan, VP Content/Brand Strategy, PMMI Media Group

Ninety-five percent of consumers report packaging significantly affects their online purchase experience and almost half share their experience on social media.

Don't think consumers care about the packages dropped at their door? Go on your computer and do a Google search for “unboxing video” and you come up with more than 150,000,000 videos! A new study from PMMI Business Intelligence, “E-Commerce 2018: Think Inside the Box,” talks about the kinds of consumer engagement savvy brands are seeking with omnichannel distribution.

The trade-off for a brand selling online is the risk of losing that branding moment on the shelf in the grocery or retail store. Companies are looking for ways to retain shelf appeal (even at peak growth, e-commerce will only account for 20% of retail sales) as well as own the shopping site pages, as well as the package that arrives at your door.

“We are looking at more personalization and seasonal messages on the primary package,” said one Project Manager at a fragrance company.

“We are considering printing directly on the corrugated for cost savings, to eliminate preprinted cases,” offered one Manager of Engineering at a leading food company.

“We have only discussed direct printing onto corrugated but have not implemented it due to cost and the variability of the corrugated material,” said a project manager for a contract packager.

This combination of digital printing using more corrugated keeps coming up in e-commerce “consumer experience” conversations. While box-on-demand machines are one possibility, they typically don't really offer high-speed production. That might be alright, however, because right now the majority of e-commerce order fulfillment is done primarily by hand.

What kind of creativity is afforded by digital printing? Here is a collection of short videos featuring real-world examples of how brands upped the consumer experience.

The new PMMI report says 41% of brand manufacturers are predicting more corrugated use, compared with 56% of the logistics companies polled.