Supply Chain Brief: Packaging Fit for Use in E-Commerce Is Hindering Final-Mile Success

Published 18 November 2020 - ID G00723335 - 7 min read
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Initiatives: Supply Chain Customer Fulfillment and Collaboration

E-commerce packaging is a key element in final-mile success, but packaging is often overlooked in the fulfillment process. Supply chain leaders responsible for customer fulfillment can use this research to drive improvements in packaging and customer experience.

What You Need to Know

Digital commerce has grown dramatically during the pandemic and has impacted B2B and B2C e-commerce sales. Direct to consumer (D2C) shipments are a key aspect in the continuing shift in buying behaviors and require channel-appropriate packaging. This research illustrates the importance of packaging in the key areas of damage prevention, sustainability and the unboxing experience.

Analysis

Figure 1. Packaging Fit for Use in E-Commerce Is Hindering Final-Mile Success

Packaging Fit for Use in E-Commerce Is Hindering Final-Mile Success

- Direct to consumer (D2C) strategies have grown with the surge in digital commerce.
- Organizations struggle with meeting consumer expectations with D2C fulfillment. A leading factor is the disconnect between D2C requirements and the suitability of products and packaging to enable success in the final mile.

Recommendations

- Determine the level of protection needed for your product in a D2C environment then assess current packaging against these requirements and modify as needed.
- Utilize packaging that meets your customer’s desire for and perception of sustainable packaging practices.
- Provide a positive unboxing experience for your customer through easy to open, customized and sensible packaging.
- Build a cohesive D2C e-commerce packaging strategy by focusing on product and level of protection needed while meeting standards for sustainability and customer experience.
While most traditional retail has suffered during the pandemic, global e-commerce and D2C sales have surged. Organizations are adapting their fulfillment practices and changing their sales strategies to get a share of the growth in D2C retail. In May 2020, The Home Depot converted one of its warehouses in the midwest to a D2C fulfillment center to fulfill orders to consumers’ homes. Nestlé's 30 July 2020 earnings report showed its e-commerce sales on D2C websites growing by almost 50%, contributing to e-commerce sales representing 12.4% of total sales.  

While the growth in e-commerce provides great opportunity, it also poses challenges in the final mile, which can lead to poor customer experiences. In Gartner’s Executing the Customer Experience: From Order to Final Mile Survey, 407 supply chain professionals were asked, "What are the top three constraints hindering final-mile success?" (see Figure 2). Packaging and product suitability for last-mile delivery were lead constraints, with 44% of respondents listing them in their top three.  

**Figure 2. Top Three Constraints Hindering Organizations’ Final-Mile Success**

<table>
<thead>
<tr>
<th>Final-Mile Constraints</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product and Packaging Suitability for Last-Mile Delivery</td>
<td>44%</td>
</tr>
<tr>
<td>Access to Infrastructure in Urban Markets</td>
<td>43%</td>
</tr>
<tr>
<td>Changing Customer/Consumer Demands or Requirements</td>
<td>40%</td>
</tr>
<tr>
<td>Cost of Available Services</td>
<td>37%</td>
</tr>
<tr>
<td>Meeting Local Sustainability Requirements in Urban/Highly Populated Areas</td>
<td>36%</td>
</tr>
<tr>
<td>Availability of Services and Last-Mile Carriers or Providers</td>
<td>34%</td>
</tr>
<tr>
<td>Meeting Demand in Remote or Rural Regions</td>
<td>33%</td>
</tr>
<tr>
<td>Tracking and Visibility of Shipments</td>
<td>26%</td>
</tr>
</tbody>
</table>

n = 407 supply chain professionals, excluding “Don’t know”

Q. What are the top three constraints hindering your organization’s final-mile success?

Source: 2020 Gartner Executing the Customer Experience: From Order to Final Mile

Not All Packaging and Products Are Suited for E-Commerce D2C Fulfillment
Many organizations are extending their e-commerce presence by introducing new SKUs to the channel or increasing their sales of existing e-commerce offerings. Expansion from retail brick-and-mortar sales to D2C poses the challenge of product and packaging fit for use. Amcor, a packaging supplier, has developed a model comparing the amount of packaging changes required by category and relative fit for e-commerce fulfillment (see Figure 3). This model evaluates 24 growth categories and identifies categories that:

- Require packaging improvements to enable growth. These product categories are poised for growth in e-commerce but are hindered by the existing packaging's fit for e-commerce. These categories (including detergents and dry foods) will need packaging and product innovation to reach full sales potential.

- Are currently well-suited for e-commerce D2C fulfillment. Products such as baby diapers and pet treats perform well and do not need significant changes (if any at all) to their current packaging. These categories are poised for growth, and attention should be placed on optimizing the distribution packaging for e-commerce.

- Face challenges in standard D2C fulfillment due to product protection and shelf-life needs. E-commerce packaging for these items can be costly and inconvenient to the customer. These categories should be approached carefully and considered for alternate e-commerce fulfillment such as click and collect or fresh delivery.

Products and packaging in additional categories such as apparel, jewelry, cosmetics and electronics can be mapped similarly in order to identify opportunities and risks.
In some cases, high packaging costs, excessive packaging failures or brand erosion due to poor customer experiences will warrant an e-commerce SKU rationalization discussion. Some products will be naturally well-suited for the channel and should be leveraged for the market, and others will require minor changes to optimize performance and the customer experience.

Packaging Optimized for Sourcing Can Lead to Poor Sustainability Perception

For many organizations in the early stages of developing e-commerce fulfillment solutions, packaging is an “additional service” that gets added to the selling unit during the final stages of the order fulfillment process. It is viewed as a service cost impacting materials, labor, operations and delivery. In many instances, this outer packaging is not optimized. This approach often leads to consumer perceptions of overpackaging and poor brand equity due to wasteful practices. We have all received the small item in the big box. Even worse are damaged products that require return or replacement. Standardized box sizes can require significant amounts of protective packaging that can take the form of air bags, the dreaded bubble wrap and excessive paper dunnage.

Consumer attention to climate concerns has centered on individual actions, like recycling shipping boxes and replacing single-use plastics with reusable containers. But consumers are now turning that attention toward corporations, whose actions have a significantly larger impact and influence over climate concerns (see Too Late to Shop Green). With the increased packaging and transportation required for D2C transactions, it is imperative for organizations to optimize packaging design to protect the product
during transit and prevent unnecessary waste (see Supply Chain Leaders’ Guide to Reducing Packaging Waste).

Utilize Packaging That Prevents a Negative Unboxing Experience

Final-mile success is often viewed through the eyes of the consumer. Several factors need to be considered in the packaging to avoid poor customer experiences. Unboxing is often glamorized through customized or personalized packaging. The first step is always understanding the consumer’s wants and needs. In some cases, this glamorized unboxing experience is warranted. But more often than not, consumers just want to receive their product on time and intact. Areas to consider for a positive customer experience include:

- Package to product size ratio
- Ease of opening — preventing “wrap rage”
- Use of curbside-recyclable materials
- Damage prevention

D2C shipments do not require much of the shelf-impact packaging used in traditional retail. Large packaging designed to drive shelf impact is viewed as wasteful. Hard-to-open packaging, intended to prevent theft, is often viewed as frustrating and unnecessary. Damage issues can be more complex. When a package arrives and it's visibly damaged, the quality of the product is questioned. But damaged products are also a source of frustration to consumers and lead to lost sales or switching of brands. In a recent study, 39% of respondents indicated that packaging damage would discourage them from buying the product from the seller, while 58% of respondents would be discouraged by damage to the product. 4 (See Figure 4.)
Figure 4. Packaging and Product Damages in E-Commerce Have a Negative Impact on Brand Reputation

Packaging and Product Damages in E-Commerce Have a Negative Impact on Brand Reputation
Percentage of Respondents

Recommendations

As e-commerce and D2C fulfillment grow, so too do the expectations of consumers. Success in the final mile goes beyond costs to customer experience driven by product and package integrity, sustainability and transportation efficiency. Supply chain leaders responsible for customer fulfillment must do the following to address final-mile constraints:

- Determine the level of protection needed for their product in a D2C environment, then assess current packaging against these requirements and modify as needed.
- Utilize packaging that meets their customers’ desire for and perception of sustainable packaging practices.
- Provide a positive unboxing experience for their customers through easy-to-open, customized and sensible packaging.
Build a cohesive D2C e-commerce packaging strategy by focusing on customer feedback, product fragility and level of protection needed, while meeting standards for sustainability and customer experience.

### Acronym Key and Glossary Terms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>B2B</td>
<td>Business to Business</td>
</tr>
<tr>
<td>B2C</td>
<td>Business to Consumer</td>
</tr>
<tr>
<td>D2C</td>
<td>Direct to Consumer</td>
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</table>

### Evidence


2. **Gartner's Executing the Customer Experience: From Order to Final Mile Survey, 2020**: This survey was conducted online between 30 May and 2 July, to determine the current state, emerging business models, and evolving capabilities of customer fulfillment and logistics in the supply chain and the impact on experience. In total, 408 respondents were interviewed in their native language across North America (n = 168; the U.S. and Canada), Western Europe (n = 145; the U.K., Germany and Sweden) and Asia/Pacific (n = 95; China).

   Qualifying organizations operate in the manufacturing and retail industries and report enterprise wide annual revenue for fiscal year 2019 of at least $250 million (at least $50 million in the U.S.) or equivalent. Qualified participants have a role tied to a supply chain function and are in manager or above roles. All respondents are involved in their company’s decisions regarding supply chain management processes, operations and strategies related to customer fulfillment, warehousing and transportation.

   The survey was developed collaboratively by Gartner analysts and the Primary Research Team.

   Disclaimer: Results of this survey do not represent global findings or the market as a whole but reflect the sentiment of the respondents and companies surveyed.

3. **eBook: Stand Out and Deliver (North America E-Commerce)**, Amcor.


### Recommended by the Author

**Strategies to Tackle U.S. Final-Mile Parcel Delivery Challenges Amid the E-Commerce Surge**

**Dead Ends, Diversions and New Directions: How Retail’s Last Mile Needs to Adapt to a Post-COVID World**
Three Essential Supply Chain Capabilities Consumer Products Supply Chains Need to Succeed With E-Commerce Retail

Supply Chain Brief: COVID-19 Impact on E-Commerce and Sustainable Packaging

How Supply Chains Can Manage Packaging Megatrends by Employing a Packaging Engineering Role

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