Final Delivery: The Last Mile

ULI Fall Meeting: E-Commerce Session

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U.S. E-Commerce Retail Sales Forecast 2014-2018

- Total US E-commerce Sales $B
- 2014: $304.1
- 2015: $341.8
- 2016: $372.5
- 2017: $409.8
- 2018: $448.5

Annual Growth Rates:
- 2014: 6.40%
- 2015: 7.26%
- 2016: 7.52%
- 2017: 7.99%
- 2018: 8.46%
Ecommerce is Growing

Target fulfilled 30 percent of its online orders from stores in Q4 as well as netting a record number of online customers who picked up their orders in person over the holiday season. Online sales for Target in Q4 jumped 34 percent.

Amazon had its biggest holiday shopping season ever in 2015, and grew 26 percent in net sales.
Amazon Growth

• Predicted Amazon sales: 7.2 billion items in 2016, 12.6 billion items in 2020.

• Opened 28 sorting centers, 59 delivery stations, and 65 Prime Now hubs.

• Expected to build a logistics supply chain that others can use over next 10-15 years.
Infill Requirements and Geography Considerations
InFill Requirements and Considerations

• InFill facilities are small(er) fulfillment centers built in dense urban areas that are filled only with the best selling items

• InFill facilities support delivery of goods to customers who want one and two hour delivery timeframes

• Infill land is located in a city and has usually already been developed, but is now vacant and can be re-purposed for new users
Cornerstone, “Anchor” Cities

1. New York City
2. Los Angeles
3. Chicago
4. Washington, DC/Baltimore
5. San Francisco
6. Dallas
7. Atlanta
8. Seattle
Inside the “BIG BOX” Fulfillment Center
Complimentary “Second Ring” Cities

1. Charlotte
2. Boston
3. Philadelphia
4. Miami
5. Houston
6. Detroit
7. Phoenix
8. Minneapolis
9. San Diego
10. Orlando
11. St. Louis
12. Columbus
Last Mile Logistics
What is the Last Mile?

From the last point of distribution or sortation to the final destination at a home or business.

Amazon, last mile means within 2—4 hours. Next Day = order by midnight, get it by noon-5 next day.

WalMart, order today, receive shipment tomorrow, second day or three-to-five day delivery depending on final delivery zip code

Most others say it means: order by noon, delivery today before 8PM; inventory and logistics have to be compressed to accomplish this!
“It’s not that we are trying to take over (delivery). We will take all the capacity that the US Postal Service and that UPS can give us, and we still need to supplement it.”
– Jeff Bezos
Last Mile Robotics

www.imsw.com
Foreign Trade Zone, Logistics and Supply Chain Consulting
Amazon Prime Now

Over the last three years, Amazon has opened 60 Prime Now Hubs and fresh delivery stations. Prime Now Hubs are fulfillment centers built in dense urban areas filled with that metro area’s specific bestselling items.
ULI Fall Meeting
E-Commerce

CHRIS CATON  Senior Vice President, Research
# Five Observations on E-Commerce & Logistics Real Estate

<table>
<thead>
<tr>
<th>Global Phenomenon</th>
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<tbody>
<tr>
<td>Great diversity of customers</td>
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<tr>
<td>Yet, relatively few specific use-cases</td>
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<tr>
<td>High intensity of use</td>
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<tr>
<td>Consistent evolution of user requirements</td>
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A Global Phenomenon

E-Commerce Sales, Global
($, trillions)

E-Commerce Share of Retail Sales (%)

Source: e-Marketer, Prologis Research

Source: Goldman Sachs, Prologis Research
Diversity Among the Industry’s Customers

Distribution of E-Commerce Retailers by Online Revenues, U.S. (%)

- Major Online Retailers (> $5B): 40%
- Midsized Retailers ($250M-5B): 47%
- Smaller Retailers (< $250M): 13%

Source: Internet Retailer, Prologis Research
Yet, Five Basic Customer Profiles

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mega Brands</td>
<td>Amazon, Walmart</td>
</tr>
<tr>
<td>Large Brands</td>
<td>Samsung, The Home Depot</td>
</tr>
<tr>
<td>Emergent Brands</td>
<td>HelloFresh, Wayfair</td>
</tr>
<tr>
<td>Transportation / Parcel Post</td>
<td>FedEx, UPS</td>
</tr>
<tr>
<td>Third Party Logistics Providers</td>
<td>Kuehne + Nagel, Geodis</td>
</tr>
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## High Intensity of Use

### Real Estate Footprint by Retailer Type

<table>
<thead>
<tr>
<th>Brick and Mortar Real Estate Footprint: 2.8 MSF</th>
<th>E-Commerce Real Estate Footprint: 1.0 MSF</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="Image" alt="Retail: 2,500,000 SF" /> <img src="Image" alt="Logistics: 325,000 SF" /></td>
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- **Retail**: 2,500,000 SF
- **Logistics**: 325,000 SF
- **Retail**: 0 SF
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Well Worn Path of Customer Requirement Evolution

Real Estate Requirements as Customers Scale their Operations

<table>
<thead>
<tr>
<th>INCUBATION PHASE</th>
<th>SCALING PLATFORM</th>
<th>TAKE-OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$250M USD SALES</td>
<td>$250-$500M USD SALES</td>
<td>&gt;$500M USD SALES</td>
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Operations either occur in the existing supply chain (for brick-and-mortar retailers) or leverage 3PLs and/or exist within a handful of small locations.

Retailers tend to consolidate their fulfilment operations into a single 500K SF to 1M SF facility.

E-fulfilment operations require multiple major distribution centers, requiring multiple millions of square feet across several (or many) distribution centers.
Greater Capacity to be Local

Major Online Retailers by Revenue
($, billions, all online retailers with >$5B annual online sales)

Source: Internet Retailer
Note: Forward estimates growth individual company revenues at the expected national average pace. Actual results will be different.
Implications

- Considerable growth continues
- High diversity of requirements
- Shifting geographic needs
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