

eCommerce Cost & Best Practice Insights

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June 2017

Tompkins Supply Chain Consortium



Report Structure

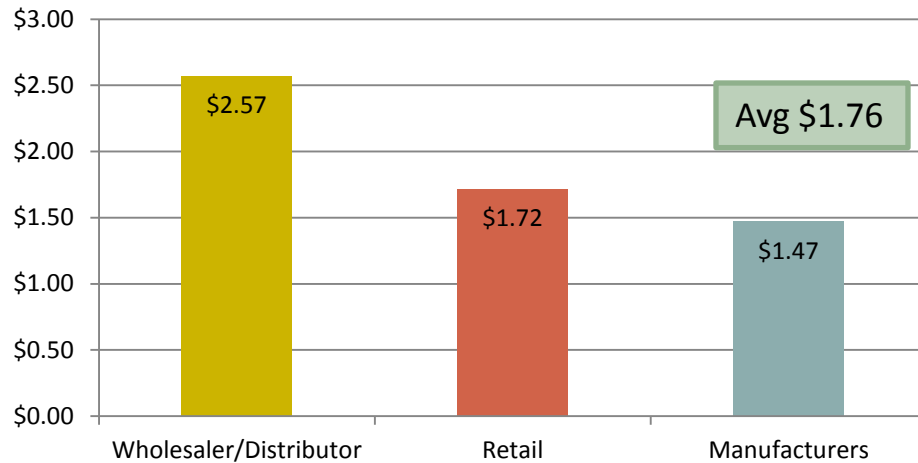
- **Summary Stats**
- **Location of eCommerce Facilities**
- **How is eCommerce Fulfilled?**
- **Primary Order Picking Method**
- **Forward Area vs Reserve Location**
- **Packing and Sortation Methods**

Executive Summary

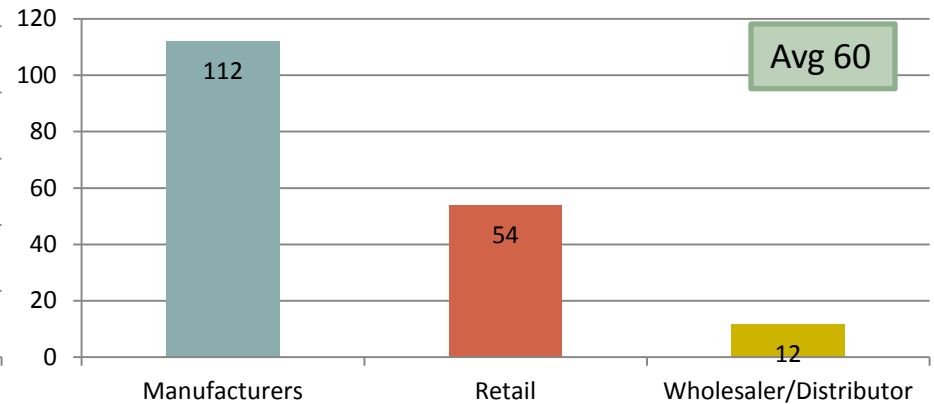
- **Of the companies surveyed manufacturing companies have the most efficient operations with lower costs and higher units processed than the retailers and wholesale/distributors.**
- **In general a lot of companies are doing eComm fulfillment themselves as opposed to using 3PLs. When a company combines in-house operations with use of 3PLs the speed to market is faster.**
- **91% of companies use both a forward area and reserve locations to pick units.**
- **78% of companies reported they use manual packing, one order at a time which processes fewer units per hour than the automated packing option.**
- **65% of companies sort their packages according to carrier ex: UPS or FedEx.**

Summary Stats

Avg Cost per Unit Processed



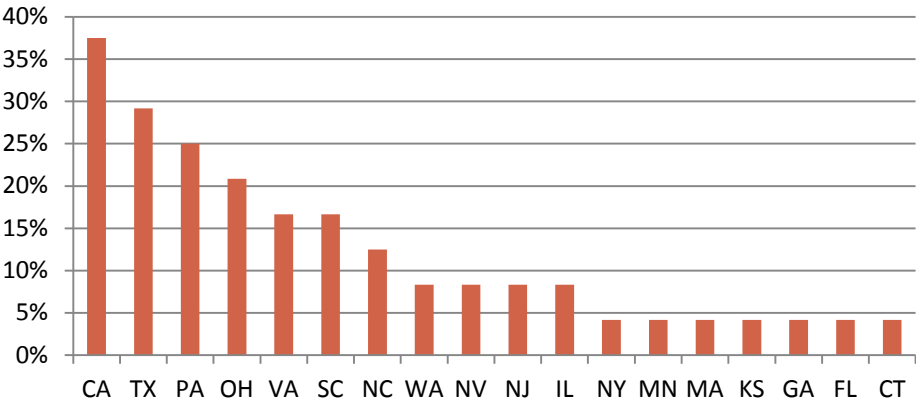
Avg Units Processed per Direct Labor Hr



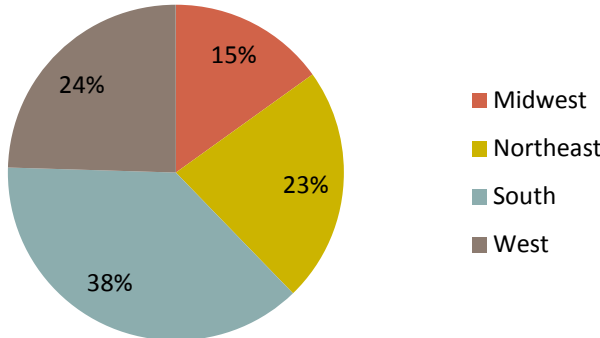
- **Manufacturers are becoming active in eComm and appear to be effective at processing eComm orders, possibly due to their ability to go directly from the manufacturing site to the final customers. Also the manufacturing companies surveyed were large organizations so economies of scale could be a factor in their efficiency.**
- **Wholesalers of the other hand had higher costs and lower units processed. This could be due to the fact that these were mostly smaller companies that did not have the volume to efficiently process orders.**

Location of eCommerce Facilities

Top states in the US with ecommerce operations?

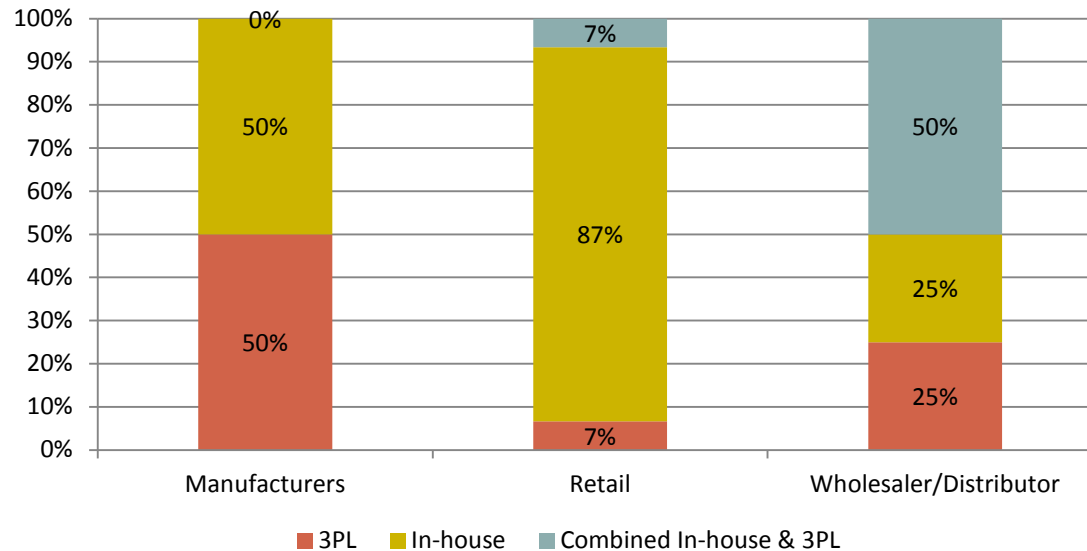


eCommerce Operations by Region



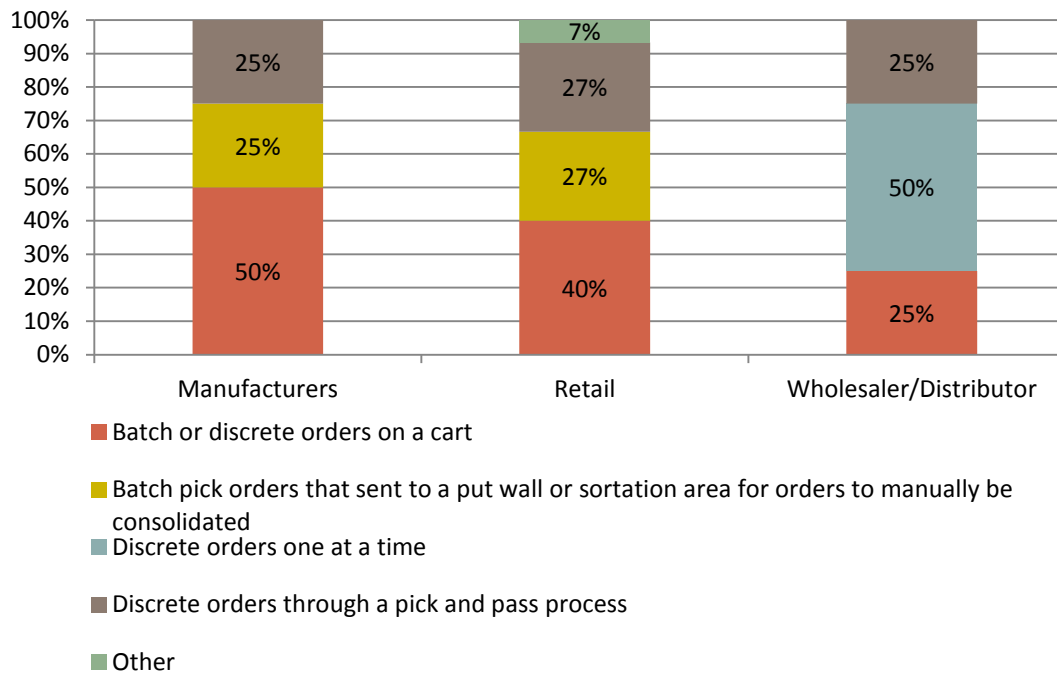
- 38% of companies have eCommerce operations in CA and 29% of companies have eCommerce operations in TX.
- 38% of companies have eCommerce operations in the South region across 6 states (TX, VA, SC, NC, GA, & FL)

How is eCommerce Fulfilled?



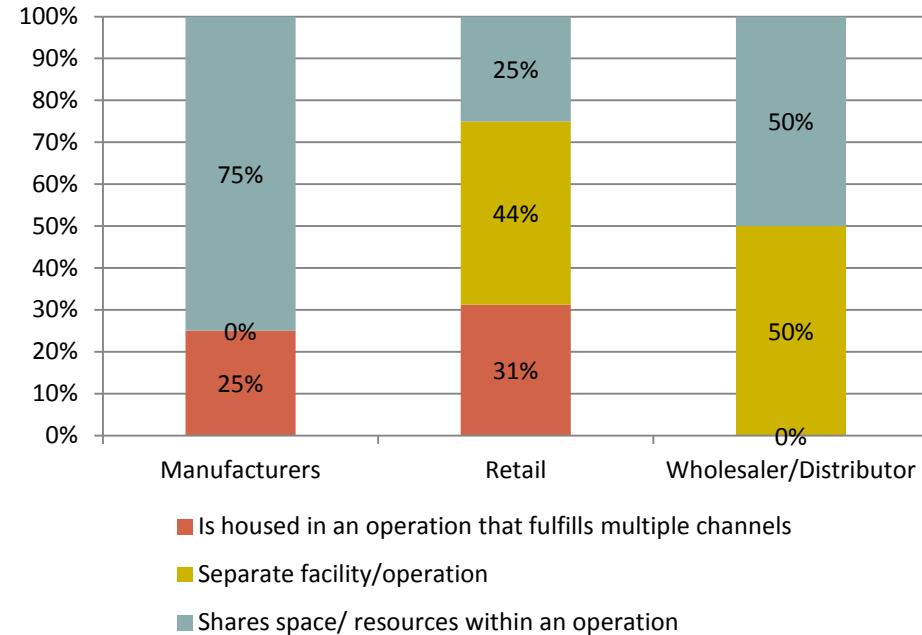
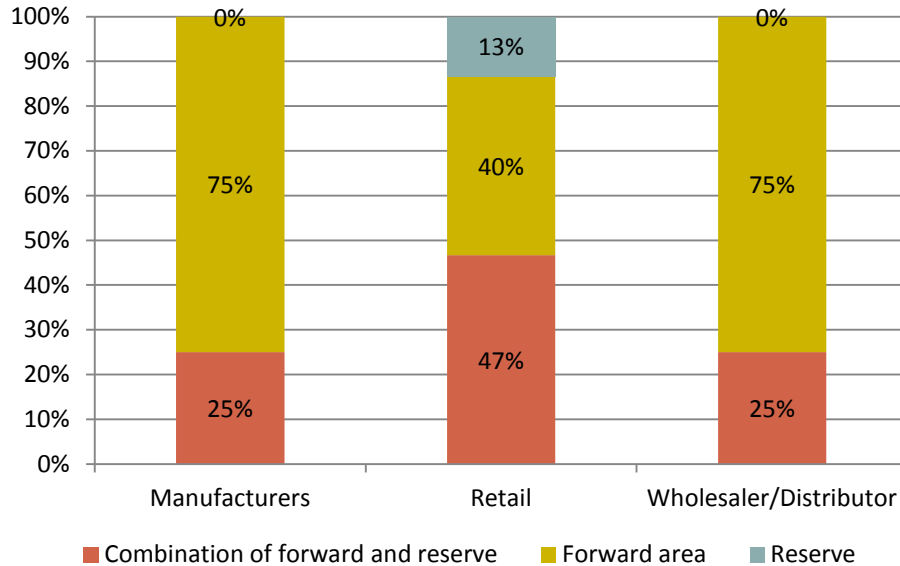
- **70% of companies (87% of retailers) reported that they use in-house operations vs. a 3PL.**
- **Companies that use a 3PL for fulfillment had a 27% higher cost per unit processed than those that were just in-house (\$1.78 v \$1.30) and half the units processed per direct labor hr (29 v 61). The reason for this is that 3PLs tend not to invest capital in MHE and use a more manual process.**
- **Companies that used a combination of in-house and 3PL have higher costs, but also higher units processed. One possible conclusion is that companies use in-house operations to keep costs down and use strategically located 3PLs to drive speed to market.**

Primary Order Picking Method



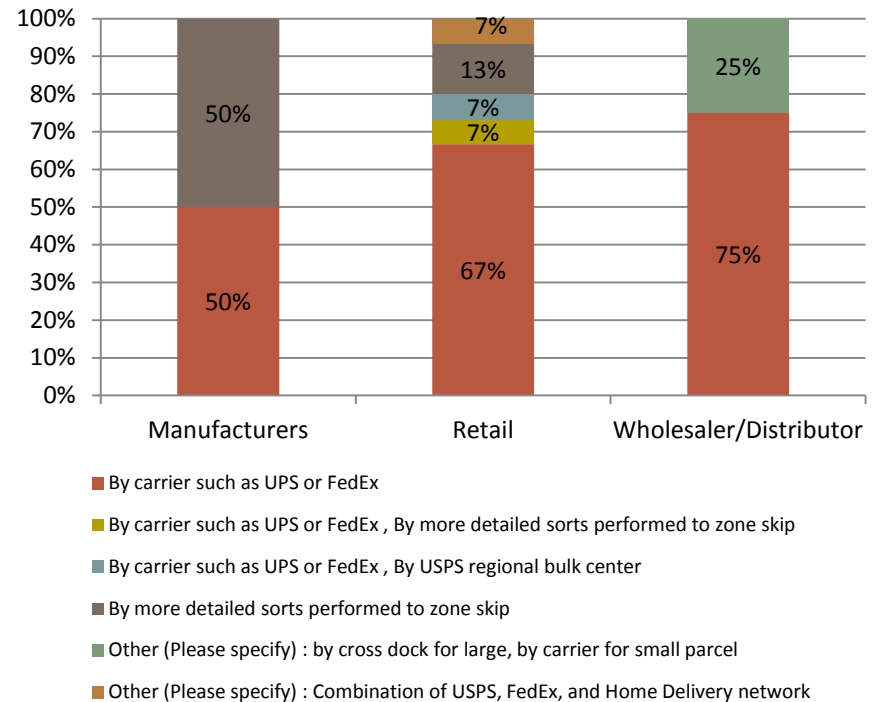
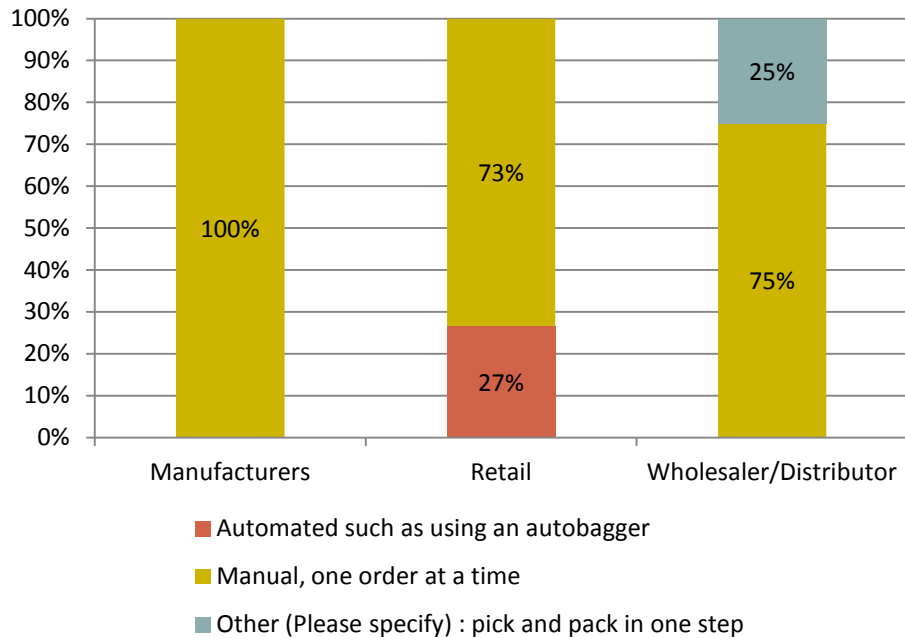
- **39% of companies reported that they used batch or discrete orders on a cart which had the highest cost at \$2.22 and below avg units processed per hr of 49 (avg 59).**
- **26% of companies use discrete orders through a pick and pass process (aka zone picking) which had the highest avg units processed per direct labor hour of 107 units/hr and had a cost of \$1.52. Looking just at in-house operations that used zone picking the cost was \$0.64, well below the avg of \$1.76 and the units processed was 138 units/hr.**
- **Batch and zone skipping methods require more sophisticated warehouse management systems which some smaller companies are not able to invest in.**

Forward Area vs Reserve Storage



- **52% of companies reported that they use just a forward pick area and no reserve. 91% use both a forward and reserve areas.**
- **Operations that share space/ resources within an organization use a forward area 78% of the time.**
- **Operations with a separate facility or those that fulfill multiple channels tend to use a combination of forward and reserve.**

Primary Packing and Sortation Methods



- **78% of companies reported they use manual packing with one order at a time which causes fewer units to be packed per hour than the automated packing option (57 vs 66)**
- **65% of companies sort their packages according to carrier UPS or FedEx, 17% does zone skip, 13% do a combination of these methods and the remaining 4% sort by cross dock for large items and by carrier for small parcel.**
- **Half of manufacturers perform more detailed sorts according to zone skip.**



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