# Transportation Opportunities and Challenges Related to Serving Online Retailers

Dr. Robert C. Lieb
Professor of Supply Chain Management
D'Amore-McKim School of Business
Northeastern University
Boston, MA

## Online Retail Marketplace Dynamics

- Rapid growth—grew 16% last year (Amazon 70% of that); now 8% U.S. retail
- Major restructuring of U.S. retailing
- Intense price/service level competition among online retailers
- Heavy tech/facility investments to support faster processing/fulfillment
- Free shipping and free returns; returns averaging 30%
- Profits elusive—continued scale versus profitability emphasis
- Amazon continues to be the major disruptor—new industry of the day!
- Amazon's retail operations are unprofitable; internal cross subsidies from profitable business units
- Tremendous increase in the number of companies/individuals providing last-mile services
- Increasing emphasis on global growth among largest competitors
- Growing concerns about market power of Amazon and environmental issues—packaging and congestion

### Demand for Carrier and 3PL services

#### Online retailing continues to create heavy demand for transportation and logistics services including:

- Inbound shipments of merchandise from suppliers to online retailers
- Freight movements between online retailer facilities
- Drop shipments vendors to customers
- Last mile deliveries from retailers' fulfillment centers to customers
- Postal injection moves
- Management of returns
- Multiple logistics services, including local storage
- International transportation/ 3PL services

#### Online retailers continue to raise customer service level expectations

Online retailing have heavy peak seasons demand that impacts availability of service for other customers of carriers and 3PLs

Online commerce now accounts for steadily increase share of parcel delivery carriers revenue and approximately 9-12% of large 3PL revenues

Amazon spent \$21.7 for transportation services in 2017—"undercharged" by \$7 billion

## The Players and the Challenges

#### **The Players**

• USPS, UPS, Fedex, 3PLs, micro fulfillment companies, trucking and rail intermodal, domestic and international airlines, ocean carriers, freight forwarders, customs brokers, anyone with a car!

#### **Their Challenges**

- Deal with increasingly intensive price and service competition
- Differentiate themselves from their competitors
- Meet increasingly short delivery windows
- Invest heavily in urban space, automation and IT to get/keep this business
- Be able to adjust scale to meet rapid changes in demand and peak requirements
- Rapidly adjust to poor online retail forecasts—staffing and equipment implications
- Be sensitive to the needs of their other customers.
- Offer additional logistics services to support online retailers
- Cope with new competitors including Amazon and thousands of micro fulfillment companies/individuals

## **Unanswered Questions**

- Is growth rate of online retail sustainable?
- What if Amazon's profitable subsidiaries are subjected to more competition in their markets and their profits decline?
- What happens to online retail demand if/when participants charge more compensatory prices?
- Carrier strategies—are these accounts profitable/unprofitable and in what time frame?
- Are technology and other investments to support online retail customers worth it to carriers?
- Is online-retailing recession proof?
- Can Amazon compete effectively with carriers and 3PLs on a large-scale?
- Are antitrust and environmental challenges ahead for online retailing?