

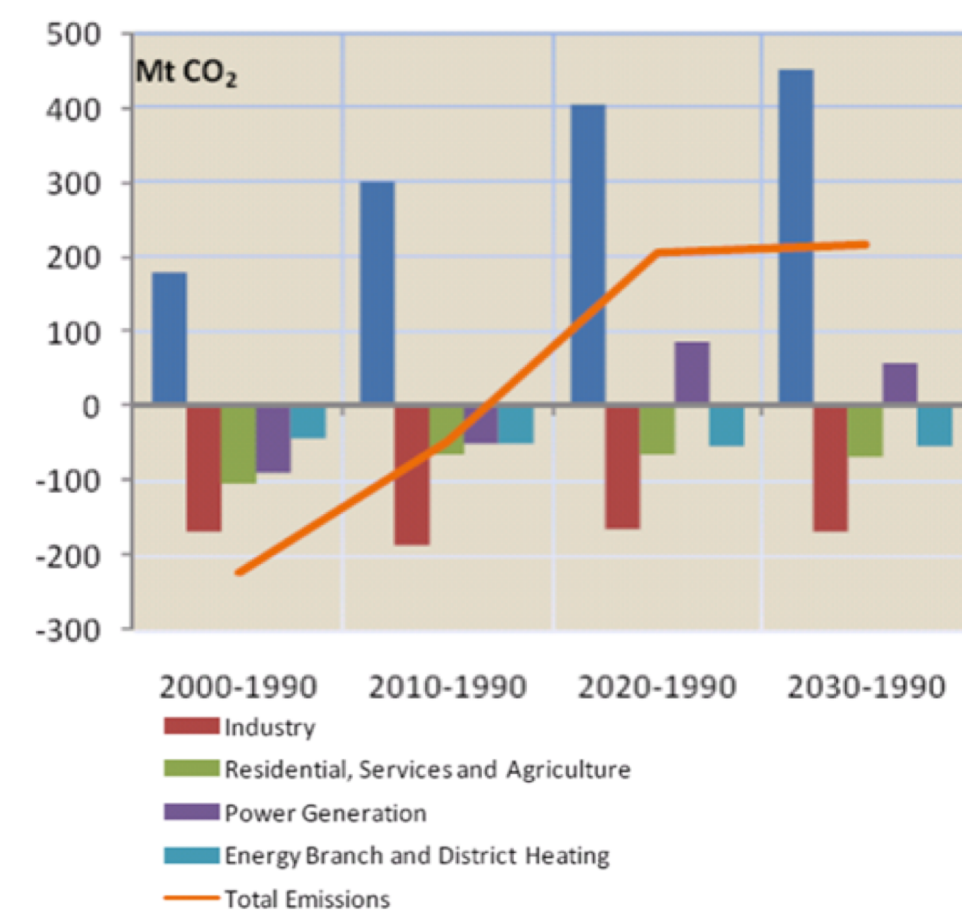
# Green Logistics

## Freight Consolidation for Omnichannel Home Delivery

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 Sponsor: Coppel

### Motivation / Background

CO<sub>2</sub> emissions are heavily driven by transportation and continue to rise



6 Million annual home deliveries

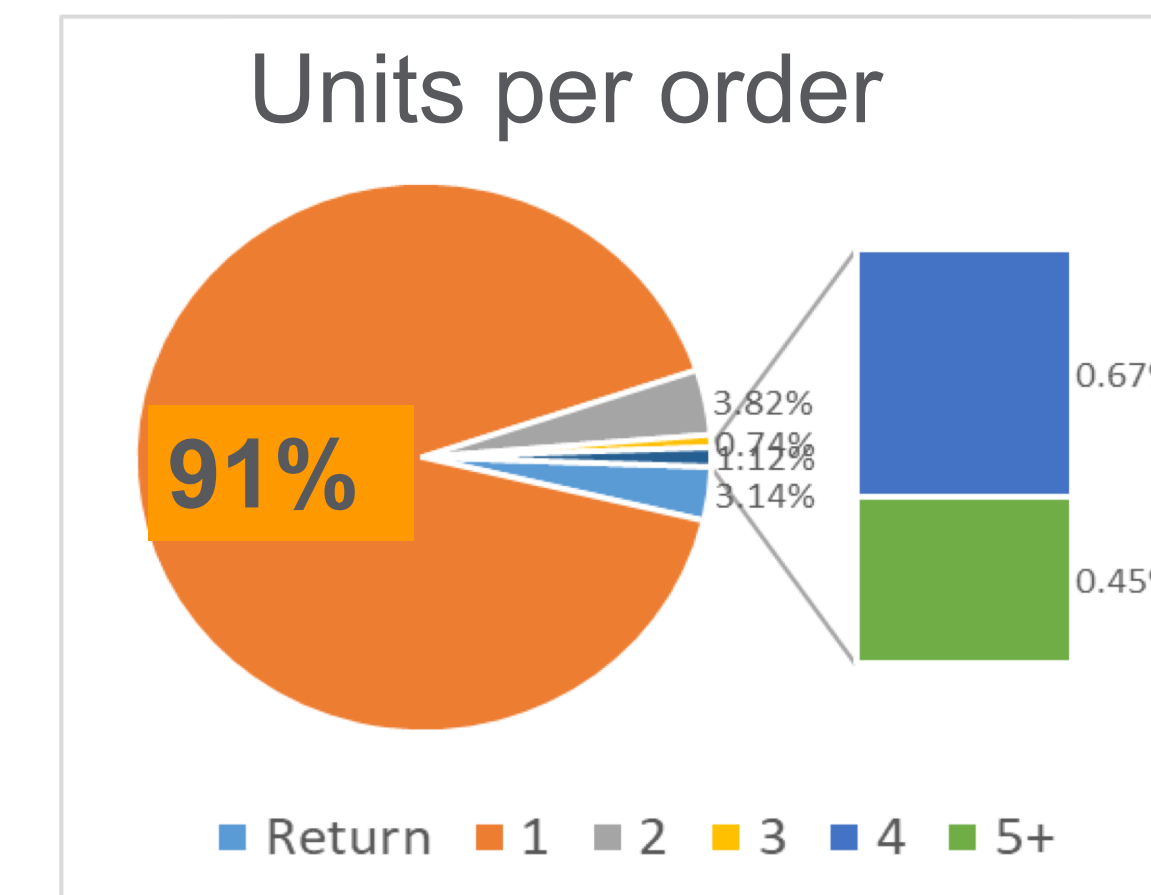


1300 Retail Stores in Mexico  
 1200 last mile delivery vehicles

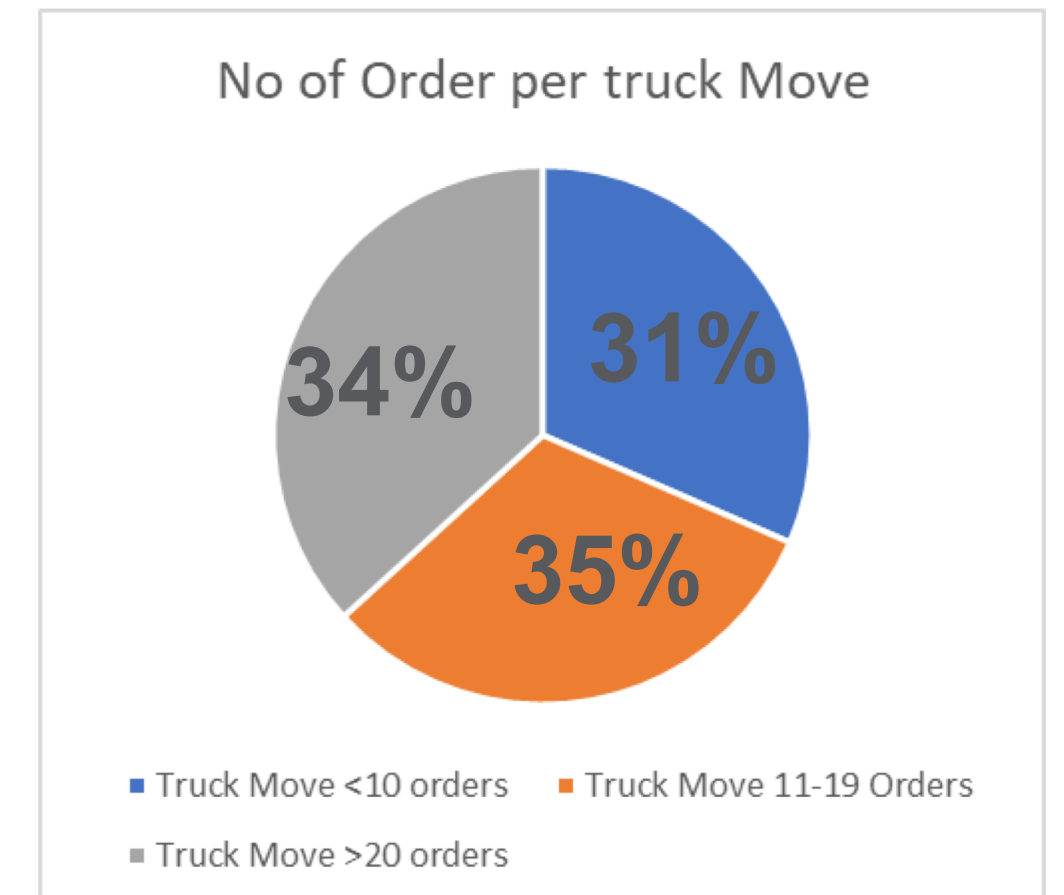


### Initial Results

“Huge opportunity for consolidation”



Small order size – only 1.04 units per order



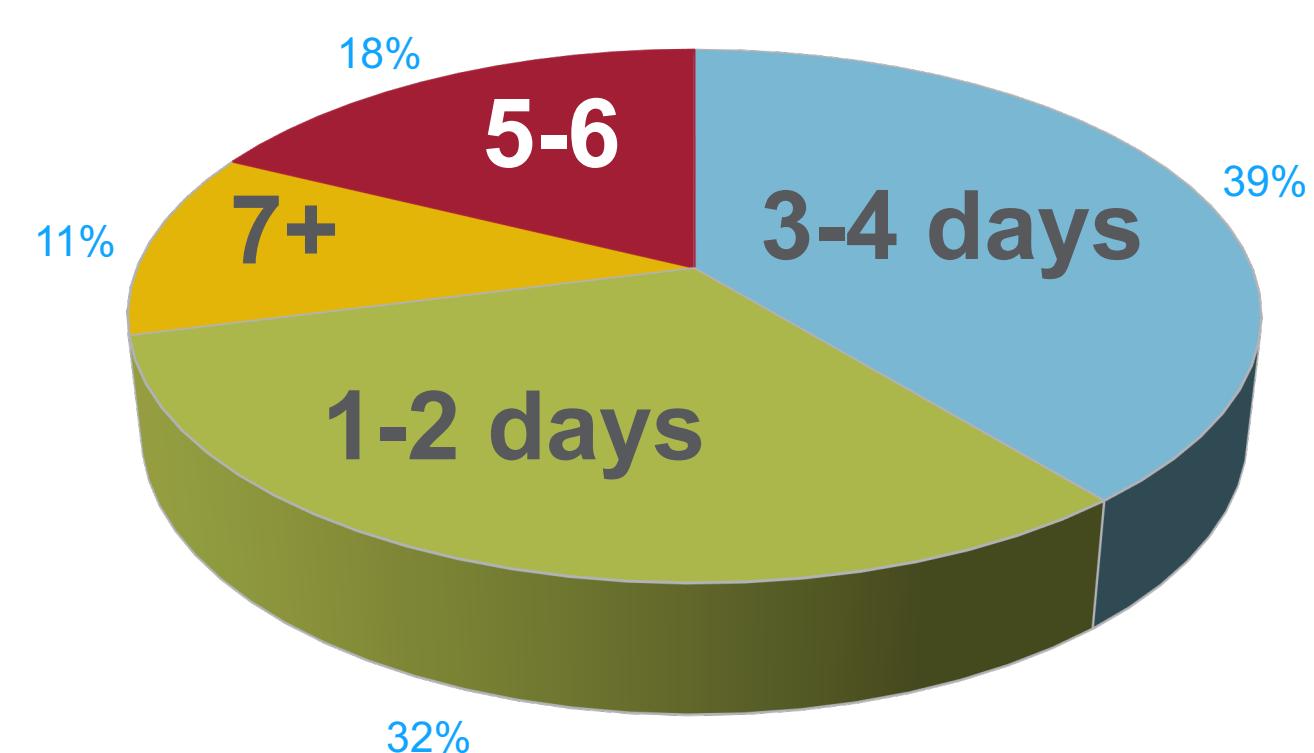
~70% of truck moves are under utilized

### Key Question / Hypothesis

How does freight consolidation impact CO<sub>2</sub> emissions and transportation cost?

What is the impact to working capital with consolidation?

### Relevant Literature



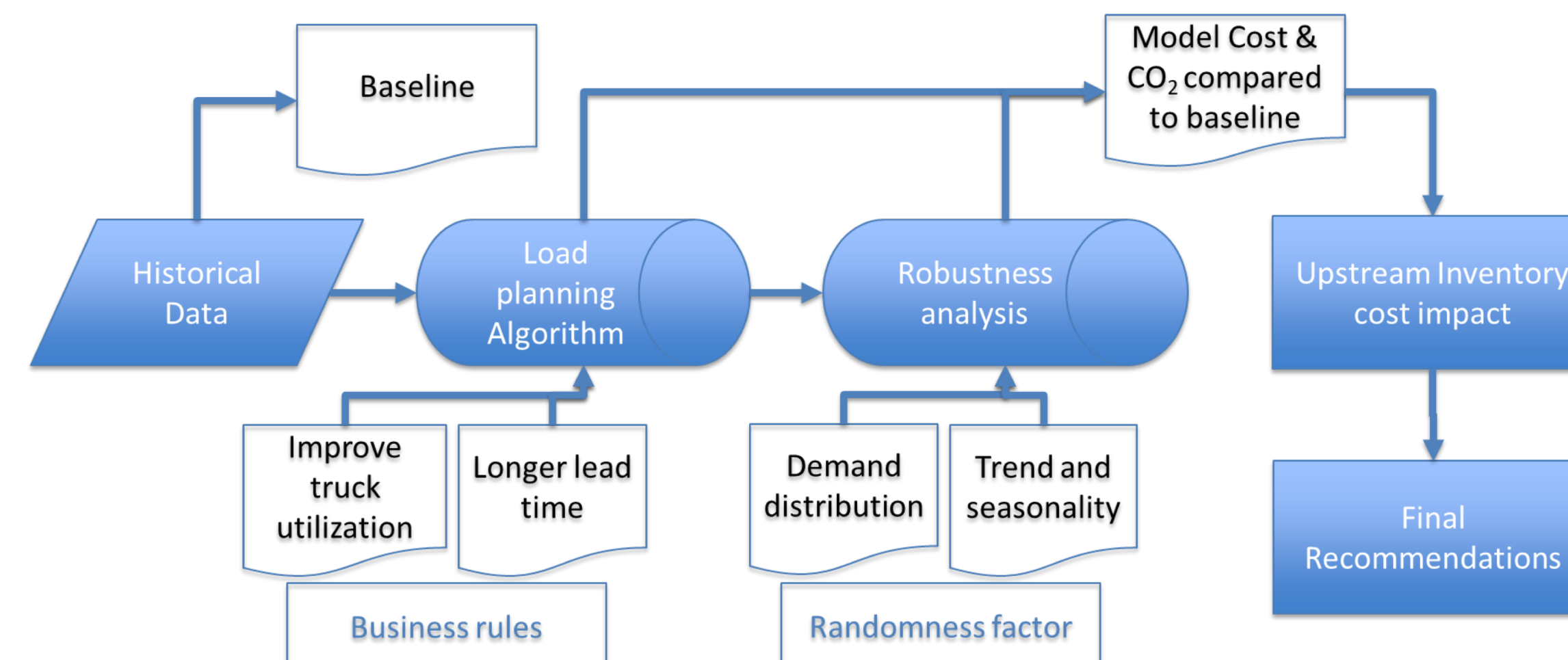
When do customer want to receive their products after providing Environmental Statement at store?

### The Problem

Effect of freight consolidation on CO<sub>2</sub> emissions and costs for omnichannel home delivery services?

What are the options and therefore recommended strategies for Coppel’s home delivery network design?

### Methodology



### Expected Contribution

Identify the impact on cost and CO<sub>2</sub> emission

Recommend a strategy for Coppel

Deliver an analytical framework



AJAY MOHAN



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