

Project 2 Question and Answer

Lead Time to Tender

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<https://github.com/nesting/DSC-680-Lead-Time-to-Tender>

1. Why were shipments that were less than 200 miles removed?
 - a. Shipments that are less than 20 miles away from the origin are assumed to be shuttle loads. Shuttle loads are under contract so the date the truck is requested is irrelevant. Regardless of the lead time to tender, the price of the truck is the same.
2. Do Incoterms play any role in the analysis?
 - a. Yes, especially for the loads that are shipped between the plants and end customers. Incoterms state whether the shipper or receiver pays for the freight. If the end customer pays for the freight, we would still want to reduce shipping costs for our customers but it will not directly affect our bottom line.
3. Why not just apply the filters to the data set in the load script instead of in the app?
 - a. I wanted to keep the app flexible so others can perform their own analysis. It would be easy to filter the data in the load script so there are less filters to apply in the app but as your analysis changes, your filters can change too.
4. Could the same analysis be done for Intermodal shipments?
 - a. Yes, you could look at the intermodal shipments in a separate analysis. You would want to make sure the truck to rail transfer occurs at the same location for a lane being evaluated.
5. Why is there a higher short lead time to tender percentage for shipments going to warehouses?
 - a. This is counter-intuitive to me. If the truck needs to be expedited, I would assume it is going directly to the plant and not to a warehouse first. I think these scenarios need to be fully evaluated and explained.
6. Are shipping costs expected to continue to rise?
 - a. This depends on the supply and demand of the market. I think we will see shipping cost stay high or raise even further because of the pandemic. This will continue to put pressure to lower shipping cost in other ways.
7. Is there any other potential hidden cost to a short lead time to tender?
 - a. I looked into other hidden costs of a short lead time to tender. One concern is that the customer service would be worse for a short lead time to tender. This is not true. The customer service does not vary much.
8. What needs to be done to implement the app into the company?
 - a. To implement the app, I would meet with the logistics teams at the plants and mills to show them the functionality. Since the app predicts the cost of expedited shipments and models potential savings for the year, it could be really useful.
9. What can be done to increase the lead time to tender for shipments?

- a. There are a number of tasks that can be done to reduce the short lead time shipments. One would be better planning. Understanding the demand throughout the supply chain can help with planning shipments. Another way is to make it easier to request a truck. If the process is streamlined, trucks can be ordered faster.
10. What other analysis's can this dataset be used for?
- a. This app includes customer service for each shipment. I think a whole other analysis can be done to slice that data and find underperforming lanes or carriers. A development plan can be put in place to increase customer service.