# About Tableau Project

## Business Task:

The objective of this data analysis is to delve into the intricacies of our supply chain processes, leveraging data-driven insights to identify potential areas for improvement.

## Business Questions:

1. Which product types have the highest revenue generation?

2. What are the lead times for different suppliers?

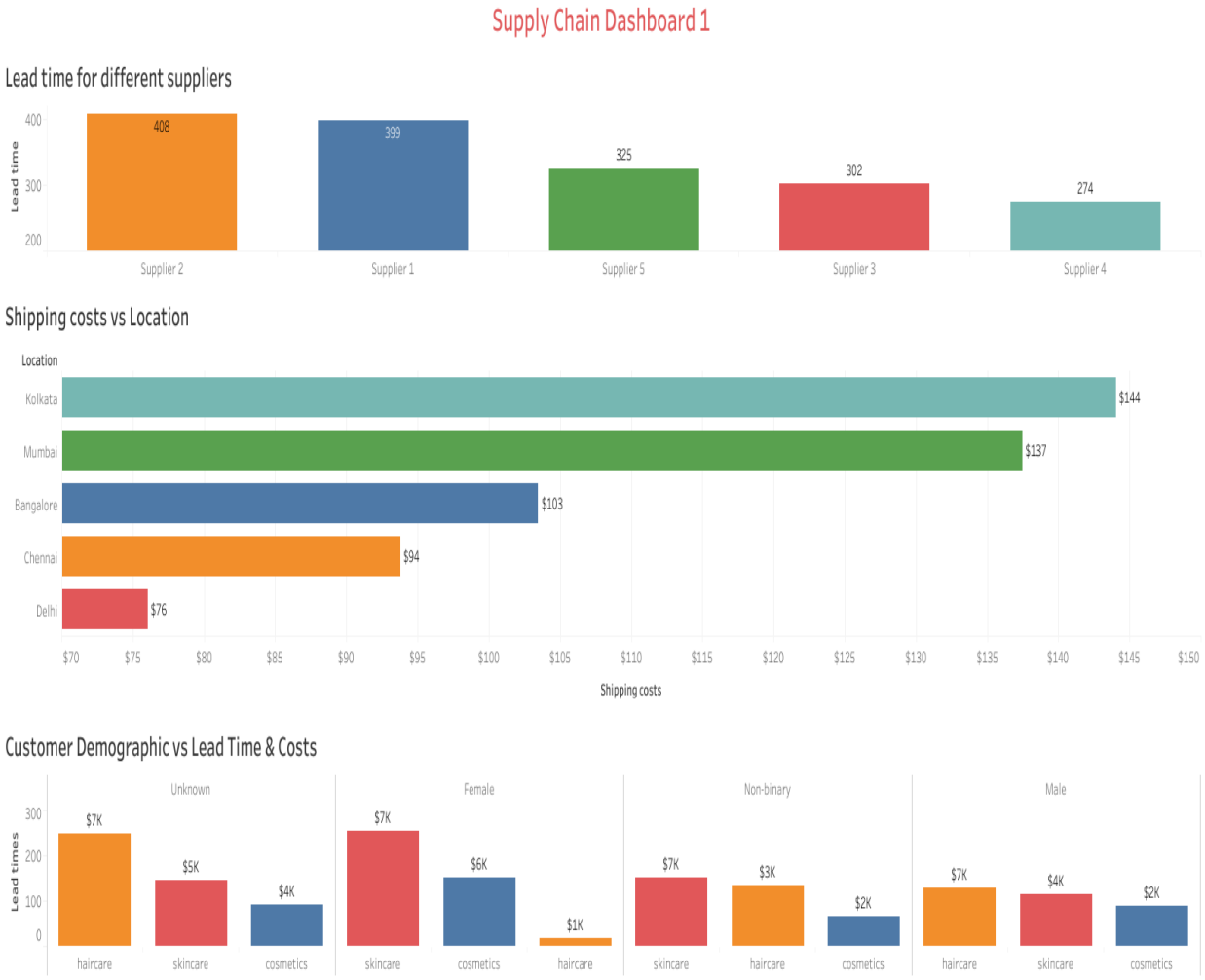
3. How do shipping costs vary across different locations?

4. What are the manufacturing lead times and defect rates for various production volumes?

5. Can we identify any patterns in customer demographics that influence their buying behavior?

6. Are there any transportation modes or routes that consistently incur higher costs?

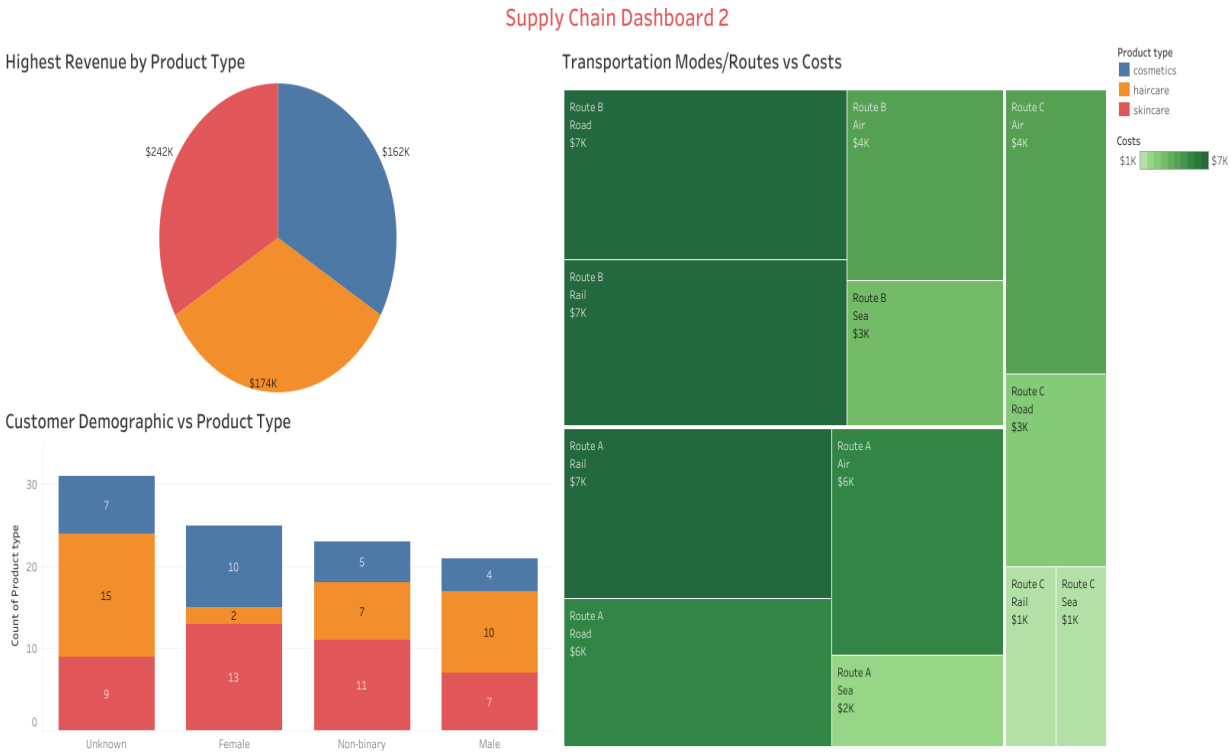
## Visual Analysis




## Dashboard 1 Insights

- From the above dashboard, Supplier 2 has the longest lead time of 408 followed by Suppliers 1, 5 & 3 which all have a lead time above 300 but less than 400. Supplier 4 has the least lead time of 274 which implies that it takes Supplier 4 a shorter time to deliver goods faster than other suppliers.
- Kolkata, Mumbai and Bangalore each have the highest total shipping cost above $100 but below $150 which may be due to shipping routes or logistics challenges among other factors. Meanwhile, Chennai and Delhi each incurred a total shipping costs of $94 and $7 respectively.
- All gender appear to spend on and purchase more of hair care and skincare products while spending less on cosmetics regardless of how long it takes to have the products delivered to them, except the female gender who spent more on skincare and cosmetic products.

## Dashboard 2 Insights




- The unknown gender spent a bit over $15k purchasing products followed by female and male, while those classified under non-binary spent less ($12k) on products.
- Skincare products generated the highest revenue $242k followed by hair care products $174 with cosmetics generating the least revenue with a total of $162k.
- Route B via road/rail as well as route A via rail incur the highest transportation costs of approximately $7k, while route C via rail and sea incur one of the lowest transportation cost of $1k each.

## Conclusion

In conclusion, there should be an assessment of cost analysis in order to ascertain implications of longer lead times on inventory carrying costs, storage expenses, and potential impacts on profitability. As well as how longer lead times might affect customer satisfaction, fulfillment timelines, and the ability to meet customer demand.

## Recommendations

- Analyzing factors contributing to higher shipping costs to Kolkata and other locations that incur higher shipping costs and then, explore opportunities to optimize logistics, streamline shipping routes, or negotiate better terms with carriers to reduce expenses.
- Consider market demand and price sensitivity in each region and adjust product pricing strategies to accommodate higher shipping costs in certain regions while remaining competitive.
- Clear communication should be carried out with suppliers about expectations regarding lead times. Establish realistic deadlines and collaborate with suppliers to improve lead time estimates.

**Link to Supply Chain Dashboard 1:**
https://public.tableau.com/views/SupplyChainDashboardmain/Dashboard1?:language=en-US&:display_count=n&:origin=viz_share_link

**Link to Supply Chain Dashboard 2:**

https://public.tableau.com/views/SupplyChainDashboard2_17021685946850/Dashboard2?:language=en-US&:display_count=n&:origin=viz_share_link