

The Road to Better Deliveries: Pruning Lead Time

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DATASET: LOGISTICS

Research Problem

Can we predict lead time of deliveries in order to minimize it ?



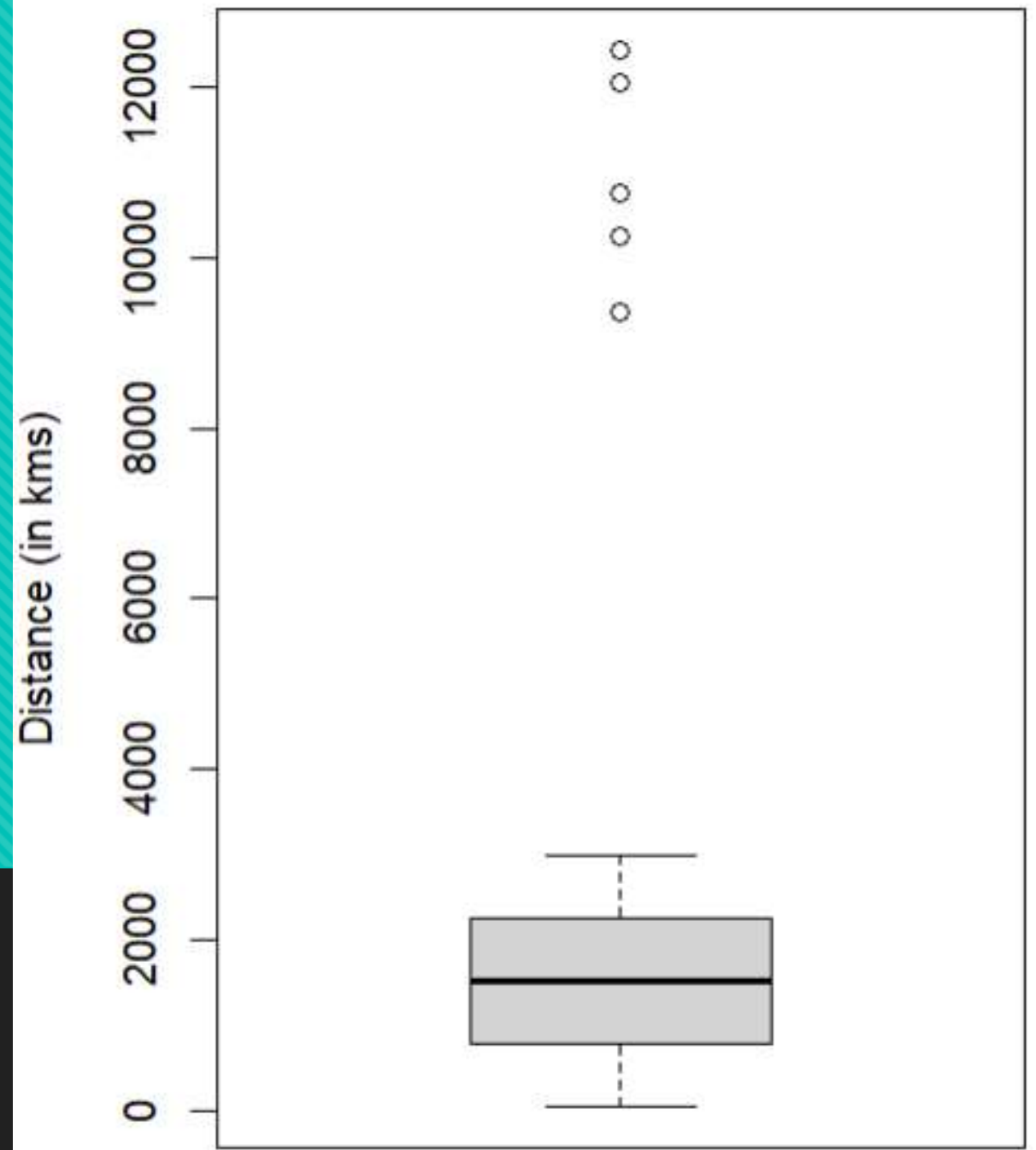
Why delivery lead time is important ?

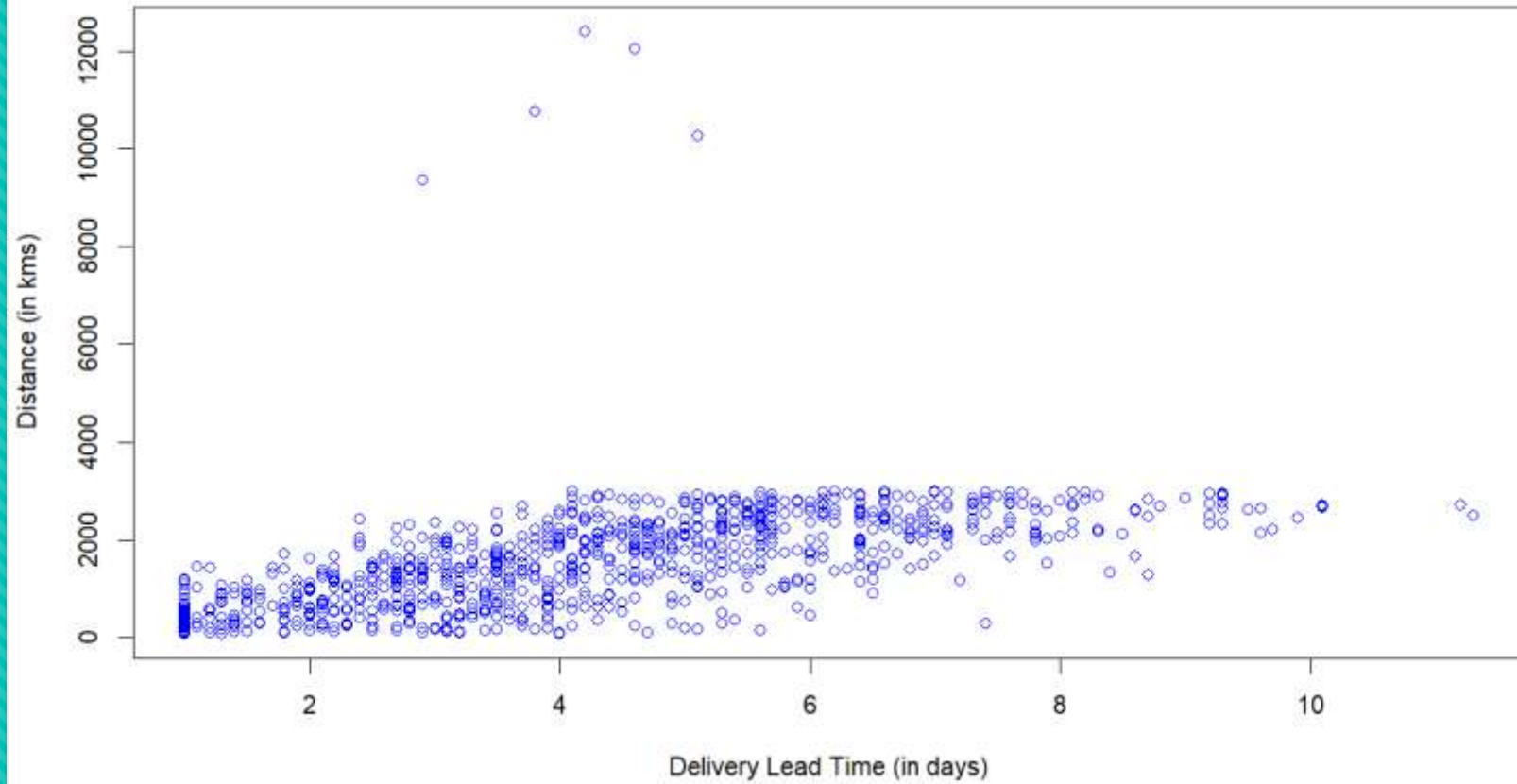
- Customer satisfaction
- Gaining a competitive edge
- Cost Control
- Optimize inventory
- Gain operational excellence
- Improve overall efficiency



Factors Influencing Delivery Lead Time:

1] Distance: Distance to the customer in kilometers.

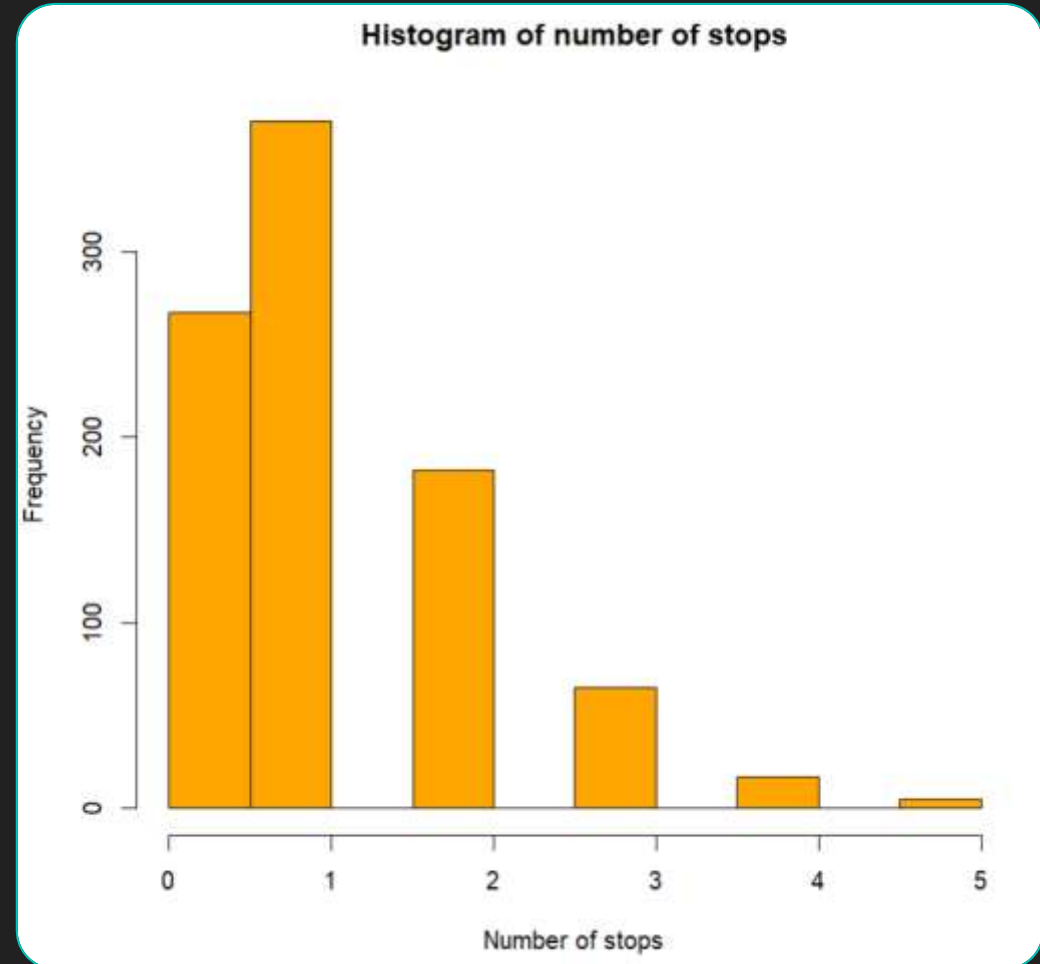




Delivery lead time VS Distance

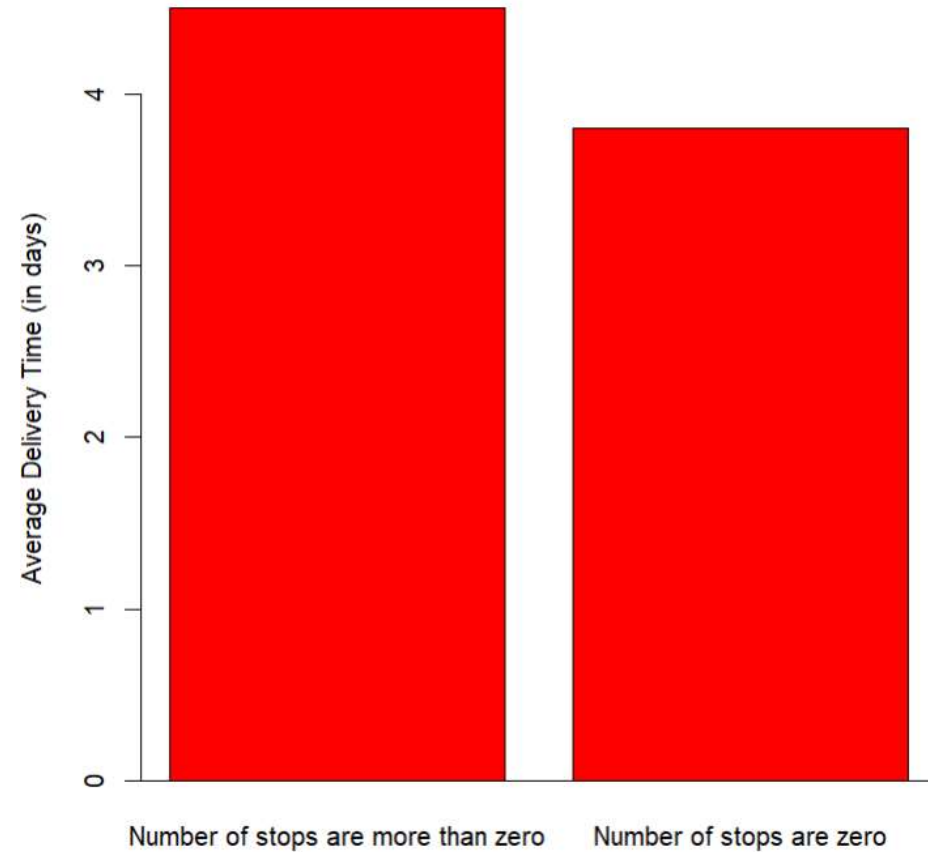
Factors Influencing Delivery Lead Time:

2] Number of stops:
Number of stops/hubs
shipment passes through.



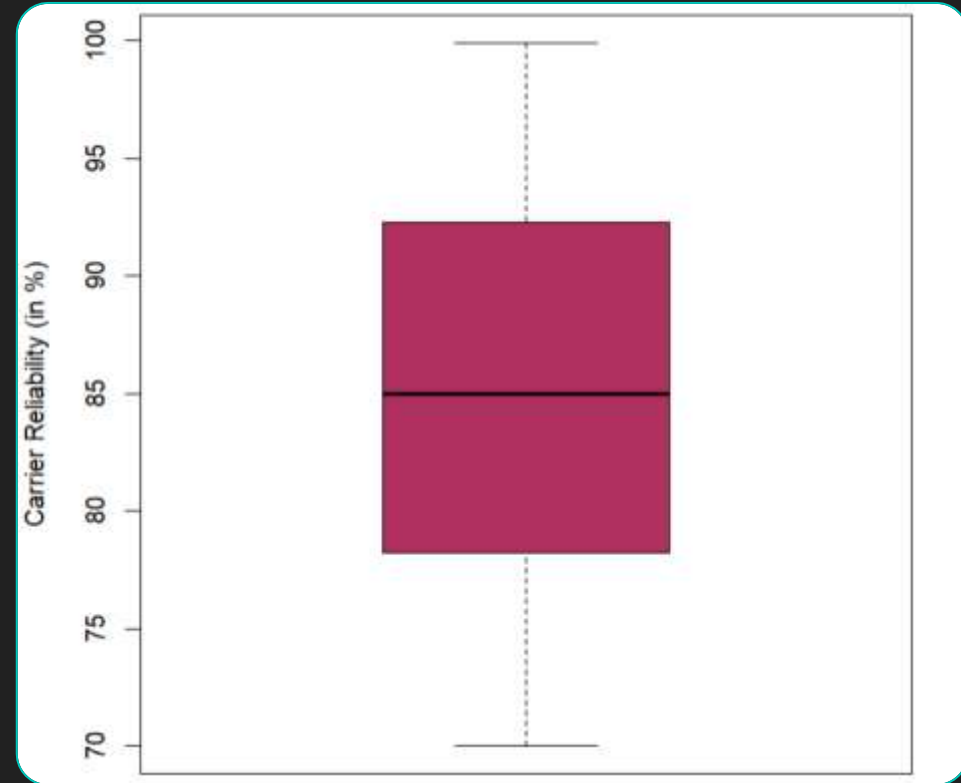
Number Of Stops

Delivery lead time increases as number of stops increase.



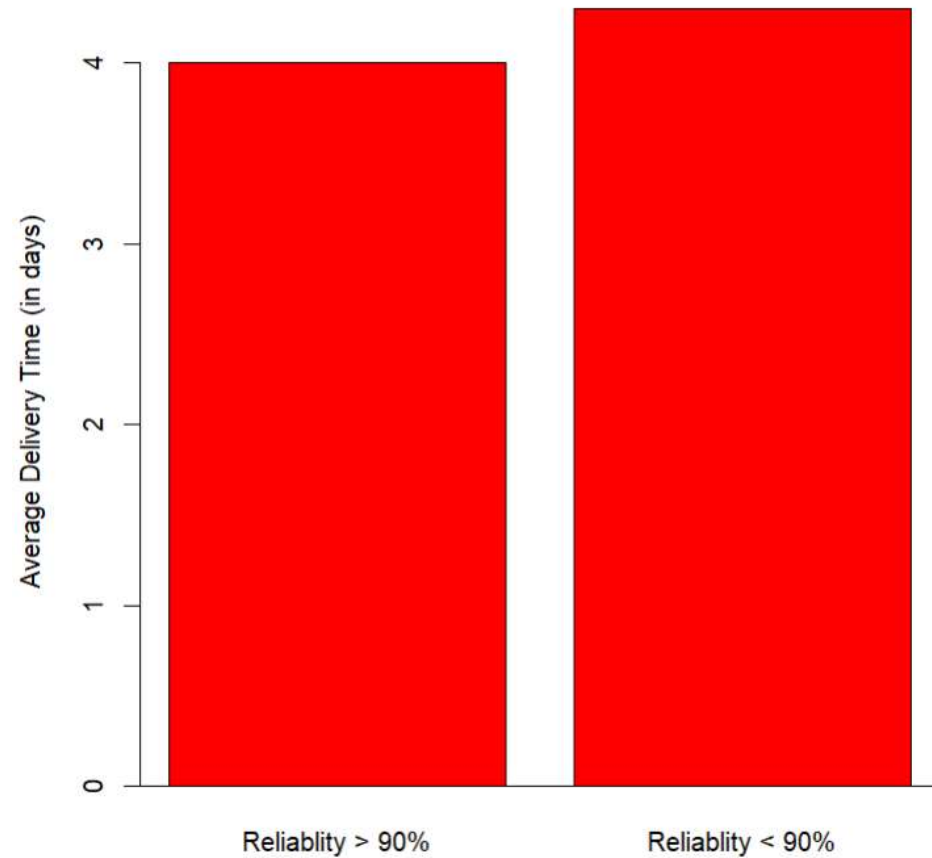
Factors Influencing Delivery Lead Time

3] Carrier Reliability:
The reliability of the carrier
expressed as a percentage.



Carrier Reliability

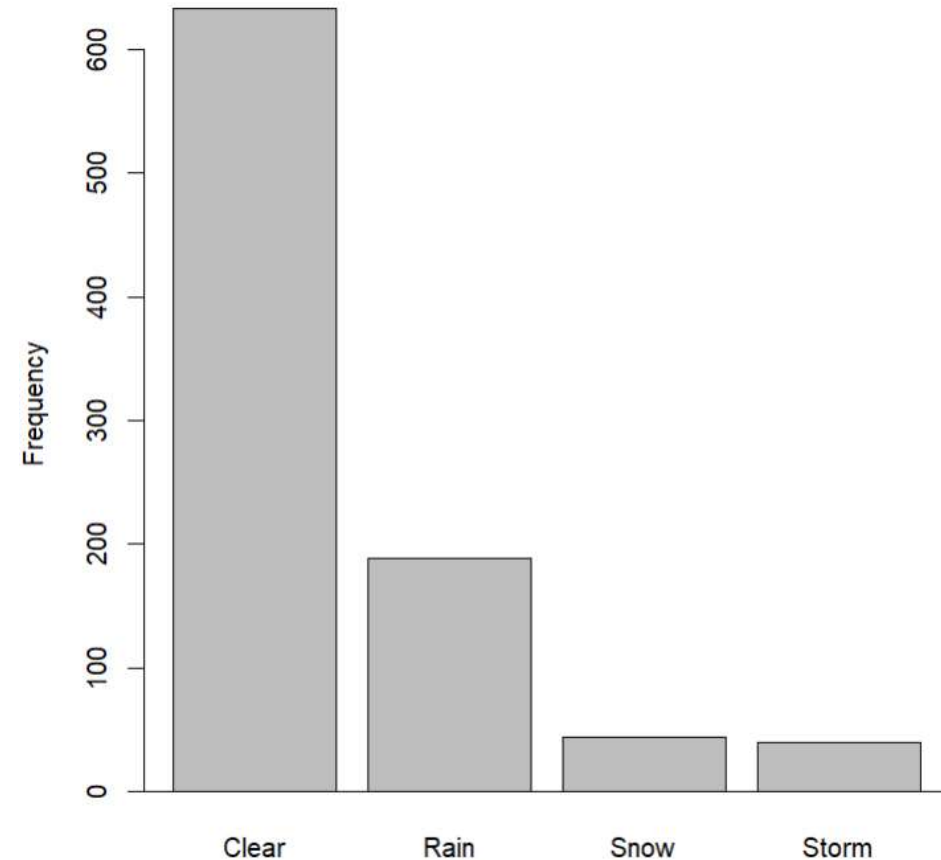
Average delivery lead time increases when carrier reliability is less than 90%.



Factors Influencing Delivery Lead Time

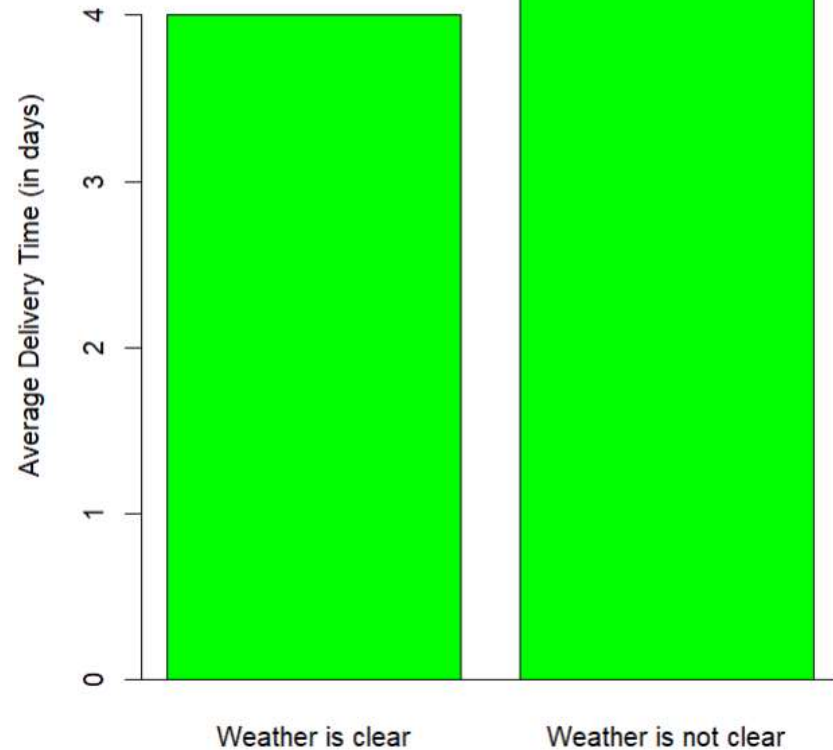
4] Weather conditions:

Weather conditions during the transportation.



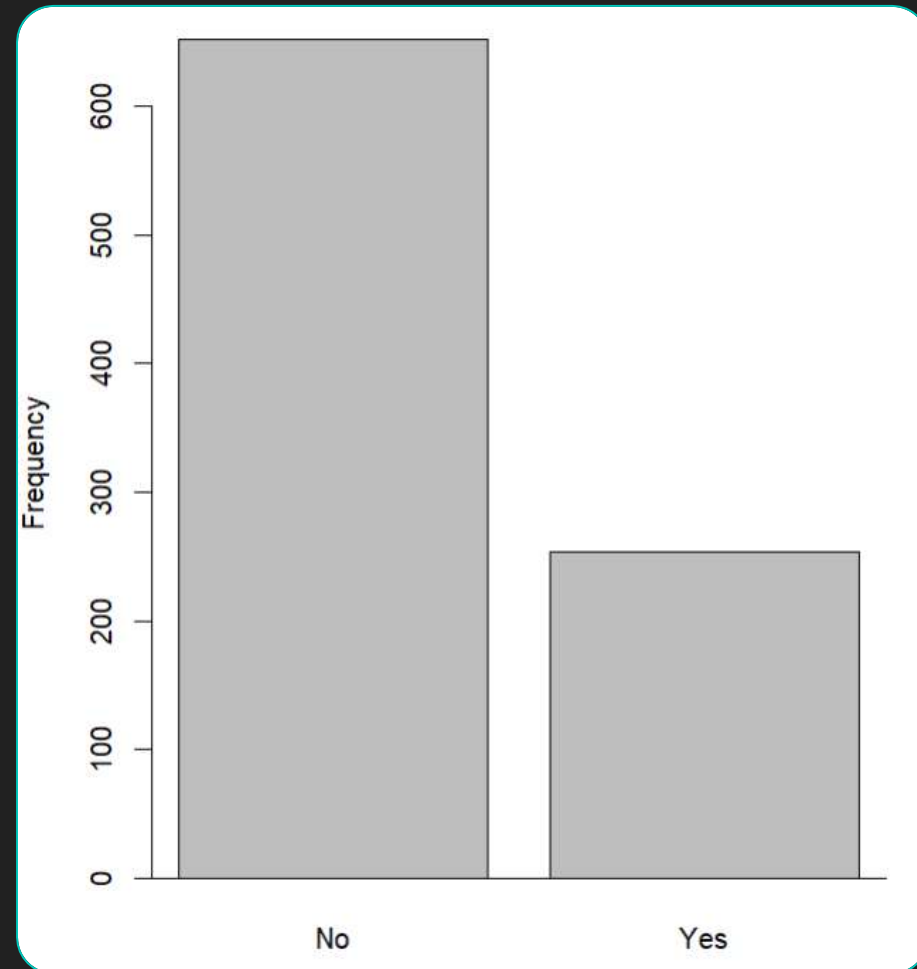
Weather Conditions

Delivery lead time increases when weather is not clear.



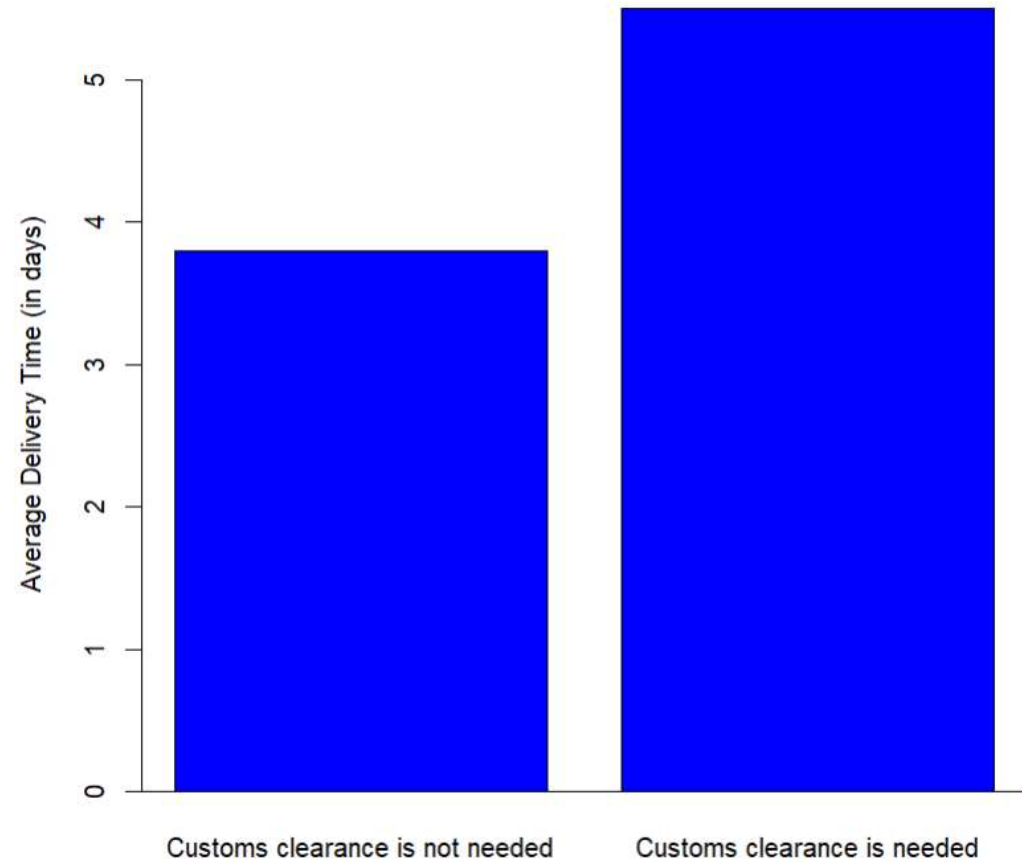
Factors Influencing Delivery Lead Time

5] Customs clearance:
Indicates if customs clearance is
needed.



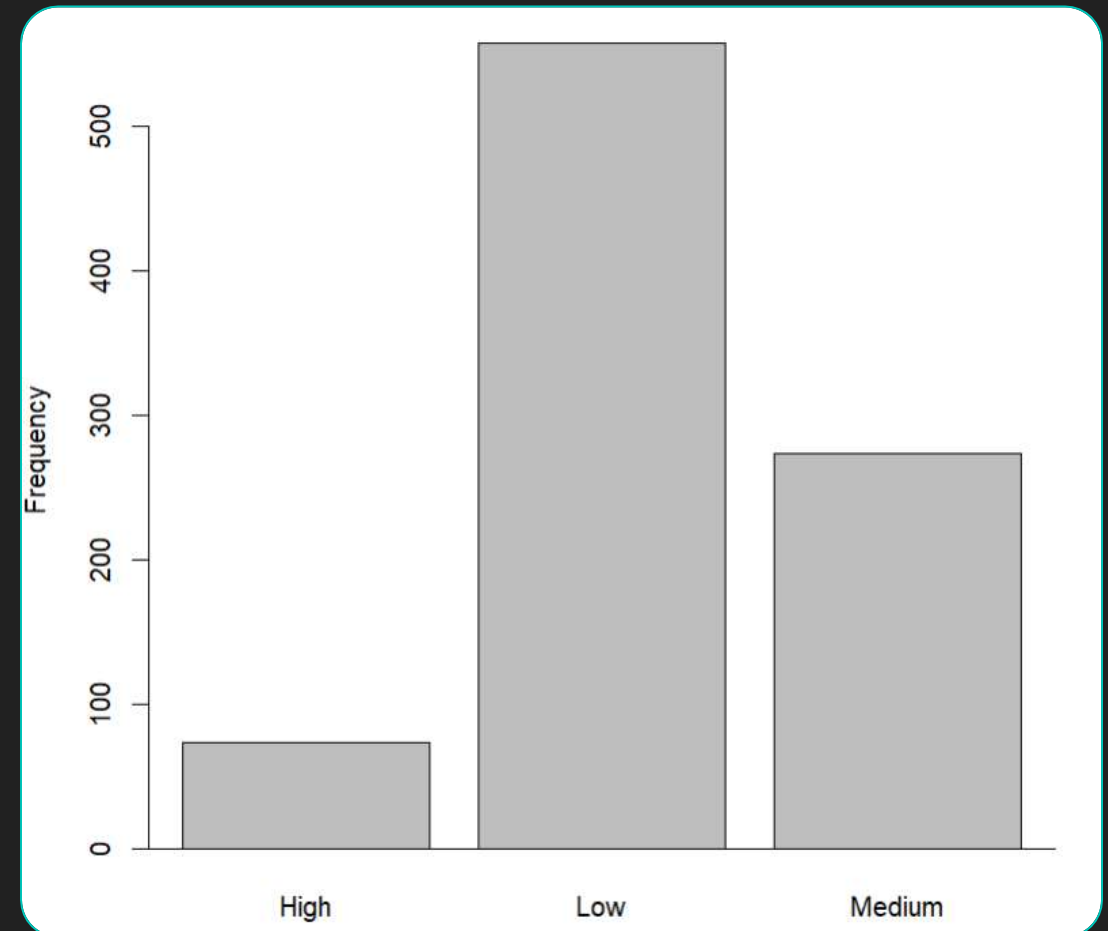
Customs Clearance

If customs clearance is needed, delivery lead time goes up.



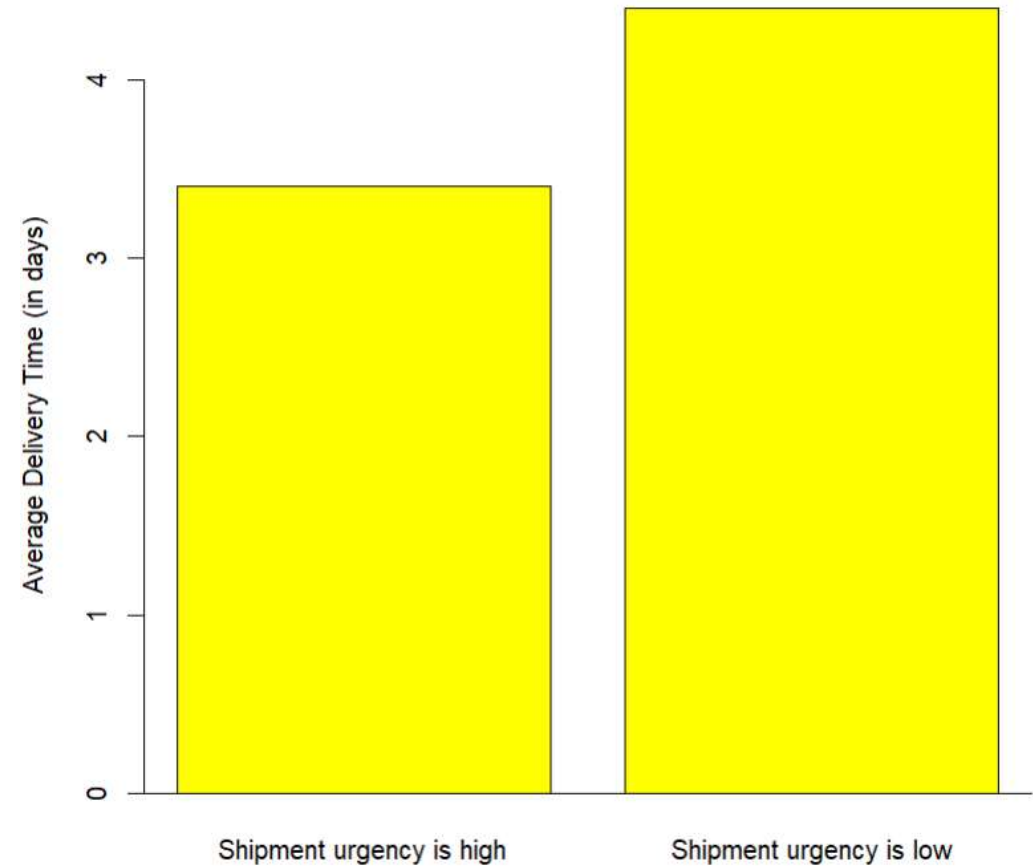
Factors Influencing Delivery Lead Time

6] Shipment Urgency:
The urgency level of the shipment



Shipment Urgency

Delivery time is less if shipment urgency is high and more if shipment urgency is low



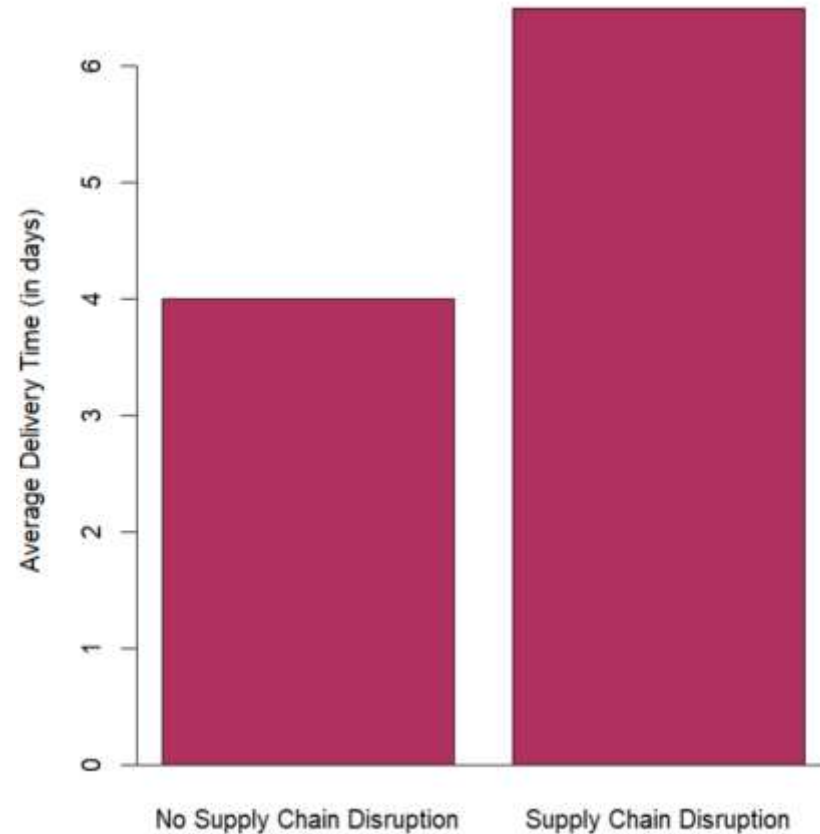
Factors Influencing Delivery Lead Time

7] Supply Chain Disruption:
Indicates if there is supply chain disruption.



Supply Chain Disruption

Delivery lead time increases if there is a supply chain disruption.



Questions ?

