

# INTRODUCTION TO QVC

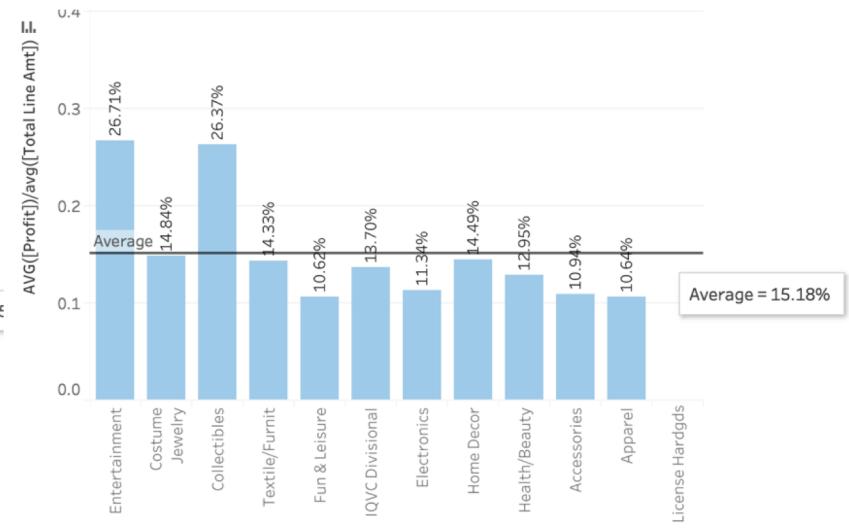
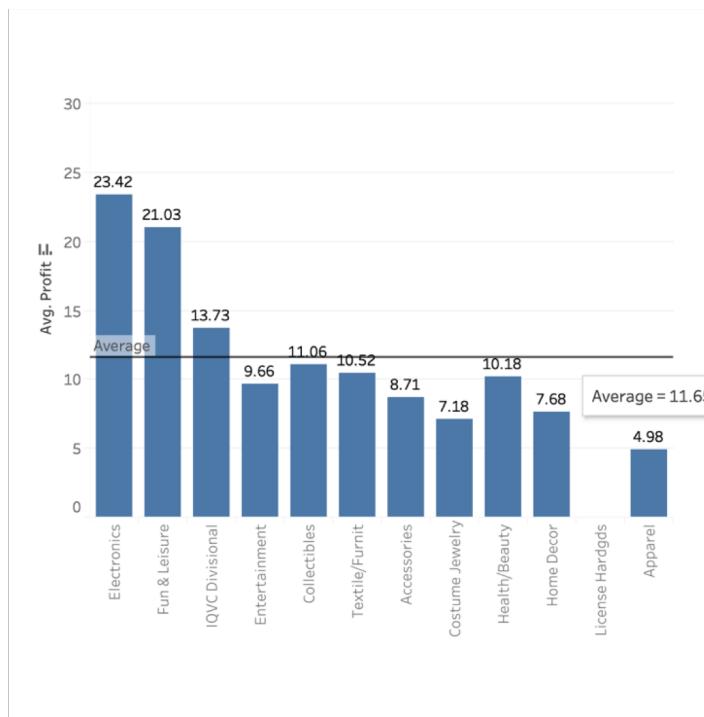


## WHAT IS QVC

A flagship shopping channel operating in over 5 countries including the US, Germany, China, France, and more. Founded in America, it is a satellite broadcast television network that specializes in home shopping.

## QVC'S OFFERINGS

- ✓ **Quality**
- ✓ **Value**
- ✓ **Convenience**



# THE BUSINESS PROBLEM



## PROBLEM

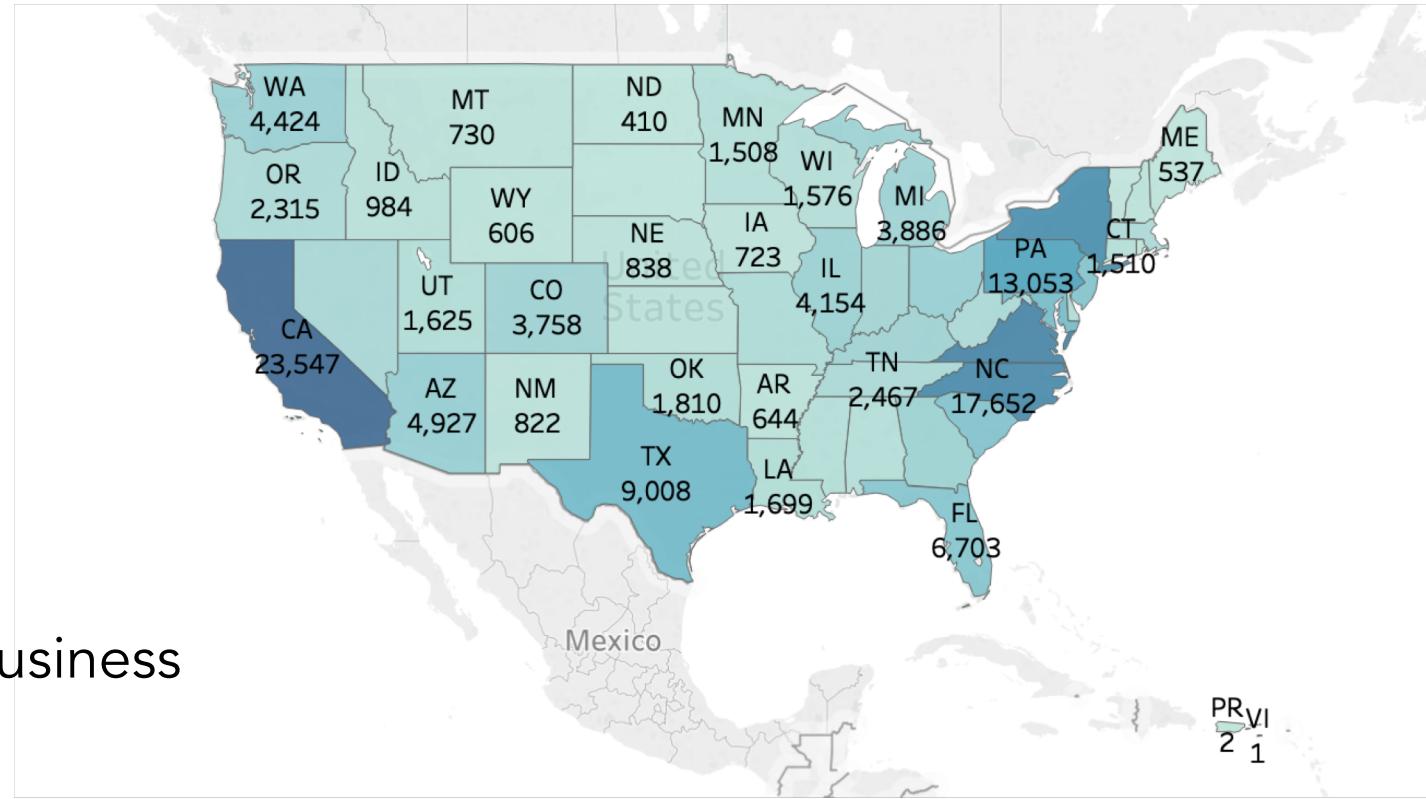
Where can QVC improve their current business model to increase profit?

## SCOPE

USA Delivery Network

## APPROACH

What factors can QVC improve their business model on to increase profit?



# OUR DATA SET



## DATA SET INFO

Dataset used is the one provided in QVC's Analytics Challenge  
Two Datasets – distribution center data and order data

## Key Variables Identified Through Regression

- Duration
- Warehouse Location
- Product Offering

## Analytical Methods Used

- Regression (done in R)
- Classification trees (done in R)
- Data Visualization (done in Tableau)

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )	
(Intercept)	10.7507344	0.5595370	19.214	< 2e-16	***
Duration	0.0737964	0.0234867	3.142	0.001678	**
Source_Ship_Warehouse_Nbr_factor	0.0364490	0.0014632	24.911	< 2e-16	***
Color_Desc_factor	0.0028135	0.0002989	9.413	< 2e-16	***
Line_Status_Cd_factor	-0.4350390	0.1202664	-3.617	0.000298	***
Merchandise_Dept_Desc_factor	-0.2839781	0.0195988	-14.490	< 2e-16	***

# IDENTIFYING KEY INSIGHTS



- A** The importance of customer loyalty in driving revenue growth.
- B** Customers expect their deliveries to arrive within a reasonable amount of time.
- C** The need for deliveries time estimates to be highly accurate.
- D** The significant impact of seasonality on QVC's revenue streams.



## CUSTOMER LOYALTY

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# CUSTOMER SEGMENTATION



Repeat customers were segmented based on their number of orders.

**Low**

**Middle**

**High**



**$\geq 2$  Repeat  
Order**

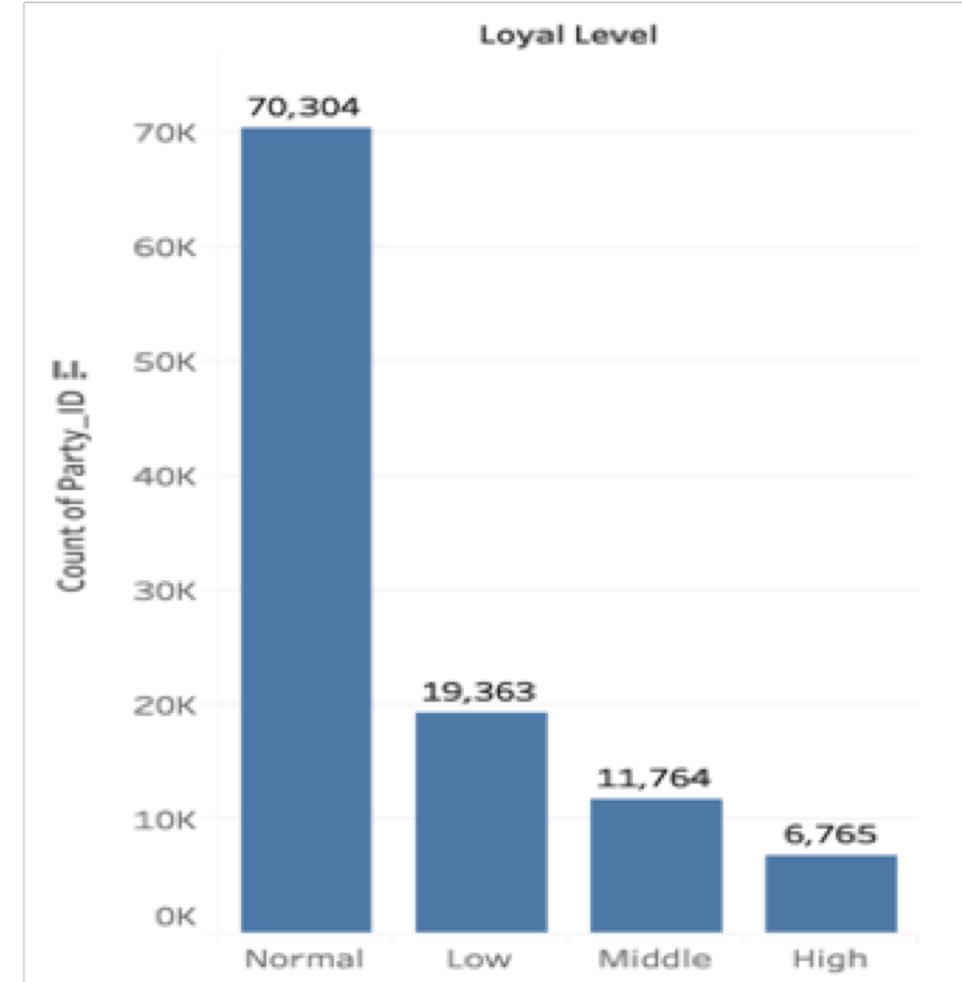
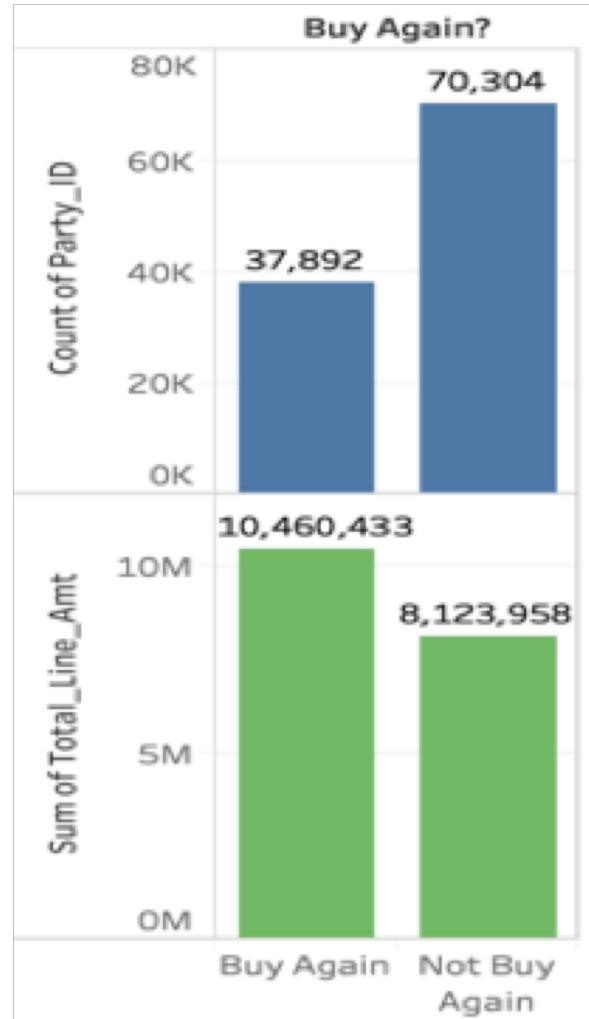
**$\geq 3$  Repeat  
Order**

**$\geq 5$  Repeat  
Order**

# CUSTOMER DISTRIBUTION



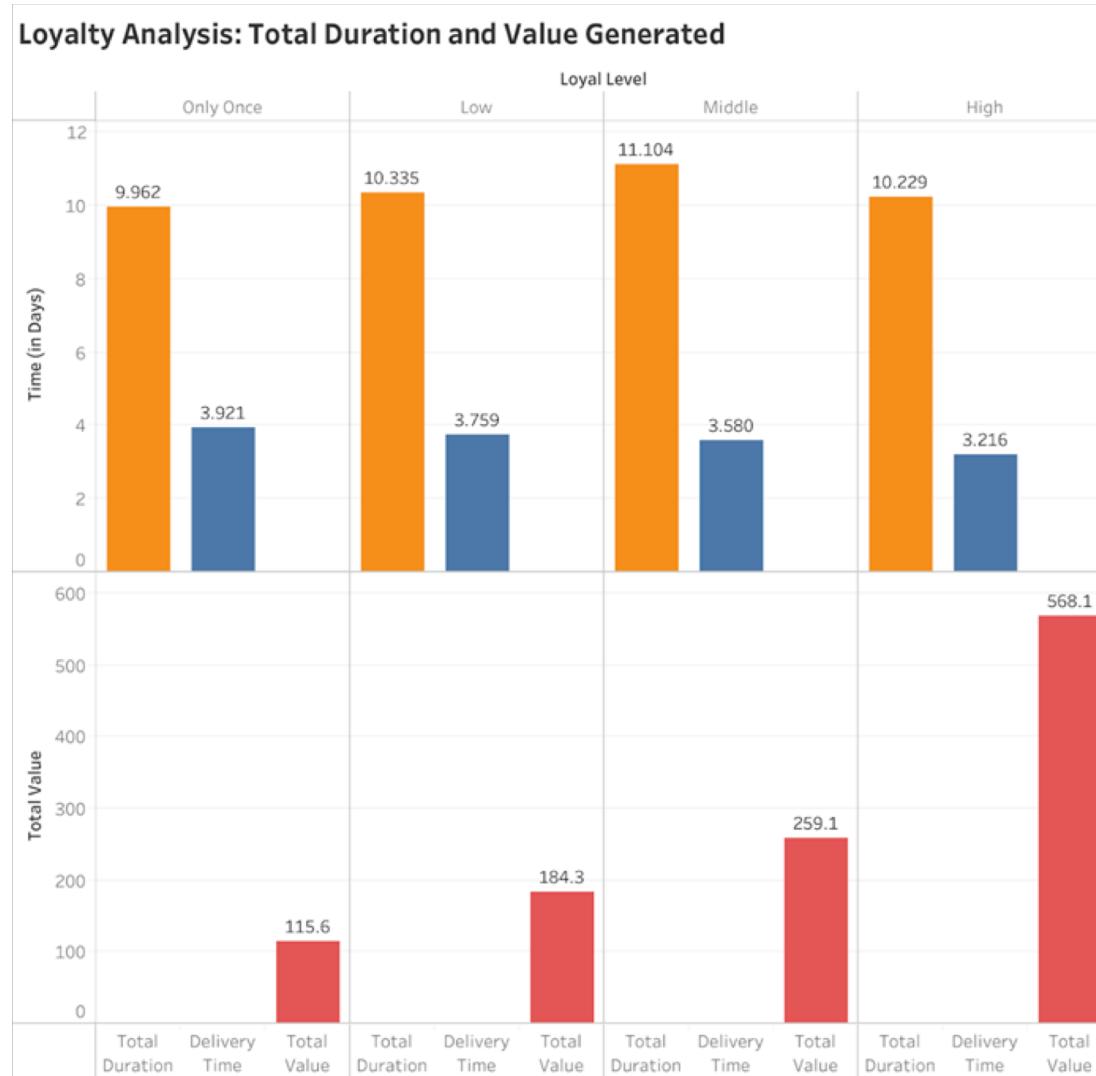
**Repeat customers provide the majority of revenue, despite being fewer in number than one-off customers.**



# CUSTOMER SEGMENTATION - VALUE



**Higher loyalty customers are the most valuable customer segment for QVC.**





## DELIVERY TIME

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# PRODUCT DELIVERY CYCLE



## Product Delivery Lifecycle

(Standard Shipping)



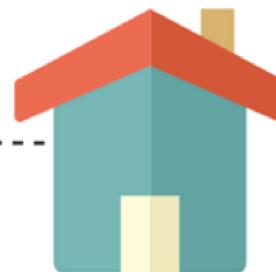
Order is Placed

**3.5**  
Days



Order is  
Shipped

**6.5**  
Days



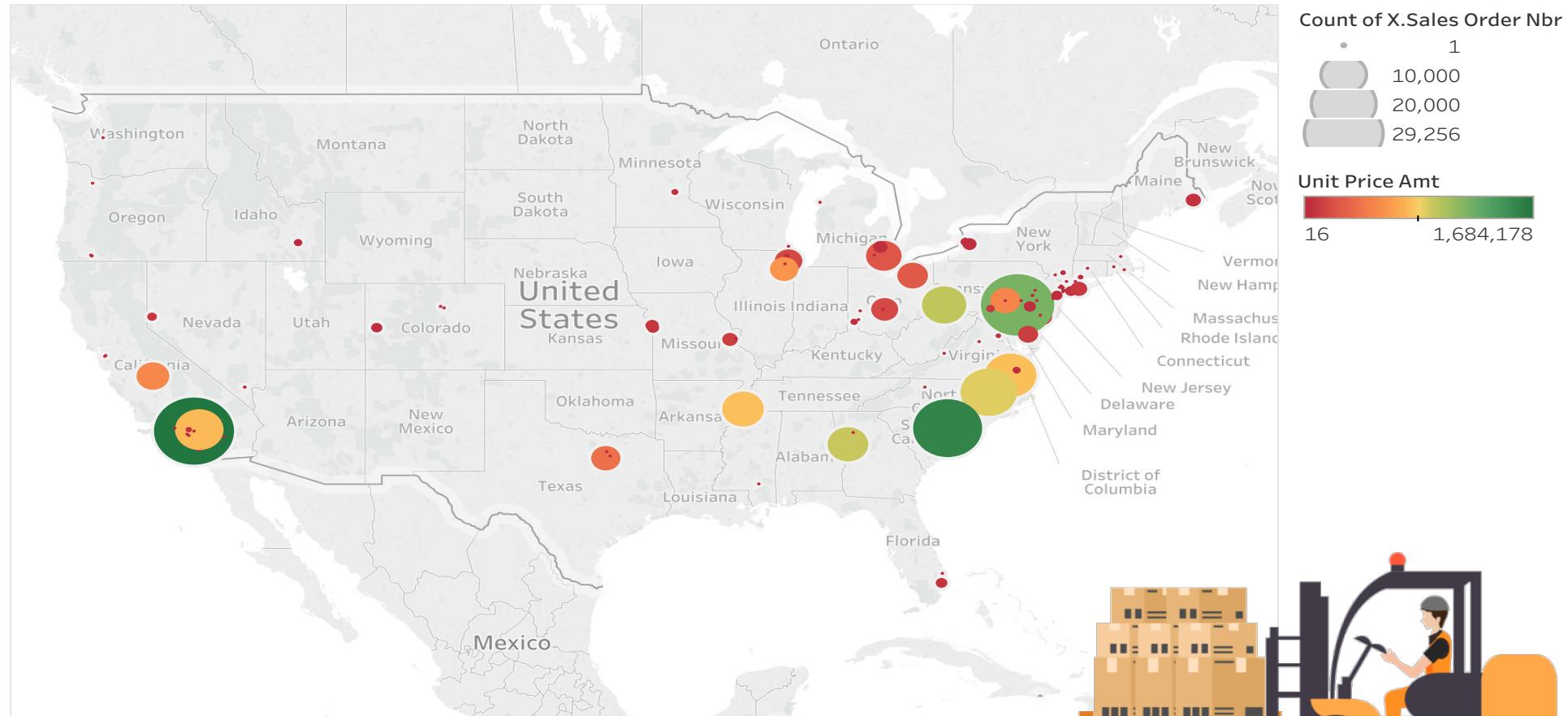
Order is  
Delivered



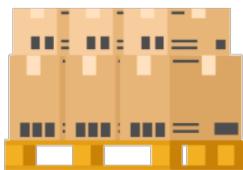
# WAREHOUSE LOCATIONS



**Specialized warehousing: No warehouses stock the full range of offered products**



Map based on Longitude (generated) and Latitude (generated). Color shows sum of Unit Price Amt. Size shows count of X.Sales Order Nbr. Details are shown for City Nm and Regn Cd.

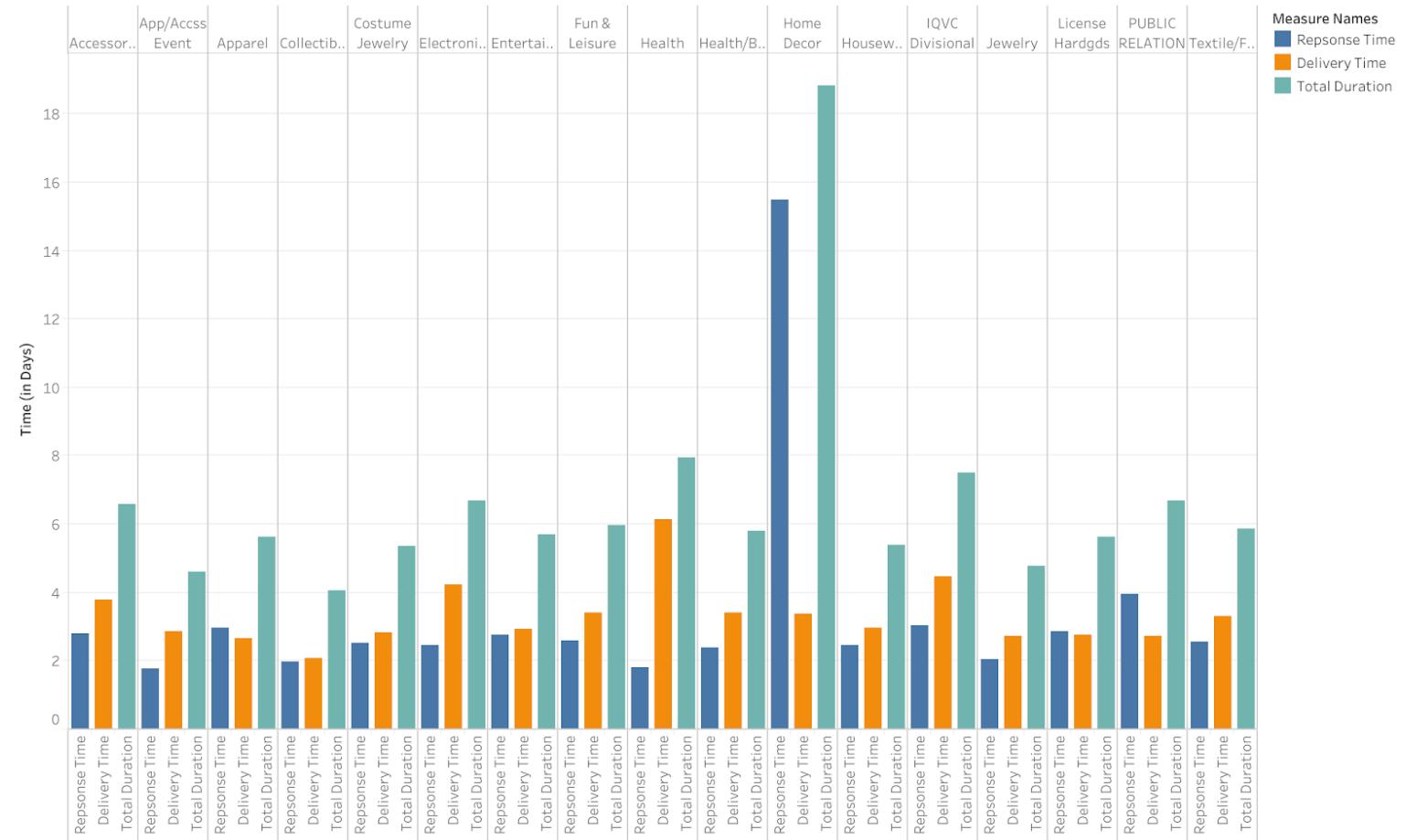


# PRODUCT CATEGORIES



**Different categories have different handling times, with home décor products requiring the most.**

Categorical Analysis: Handling Time for each

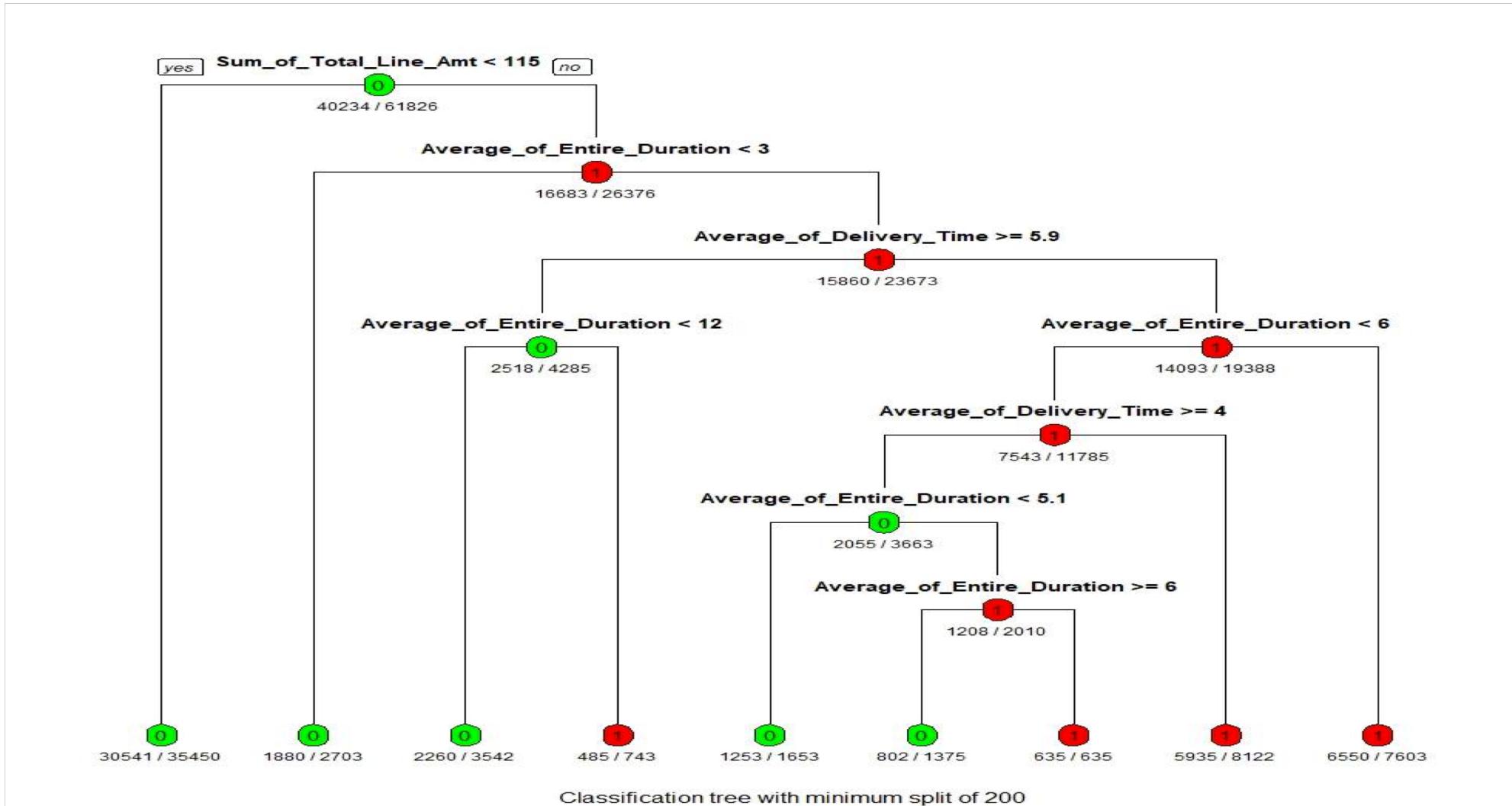


Response Time, Delivery Time and Total Duration for each Merchandise Dept Desc. Color shows details about Response Time, Delivery Time and Total Duration. The view is filtered on Merchandise Dept Desc, which has multiple members selected.

# DELIVERY TIMES



Logistics have a significant impact on whether a customer is a repeat customer or not.





**DELIVERY ERROR**

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# DELIVERY DATE ACCURACY



## Delivery Date Accuracy

(On Average)



Actual Delivery  
Date

<  
**0.018**  
Days



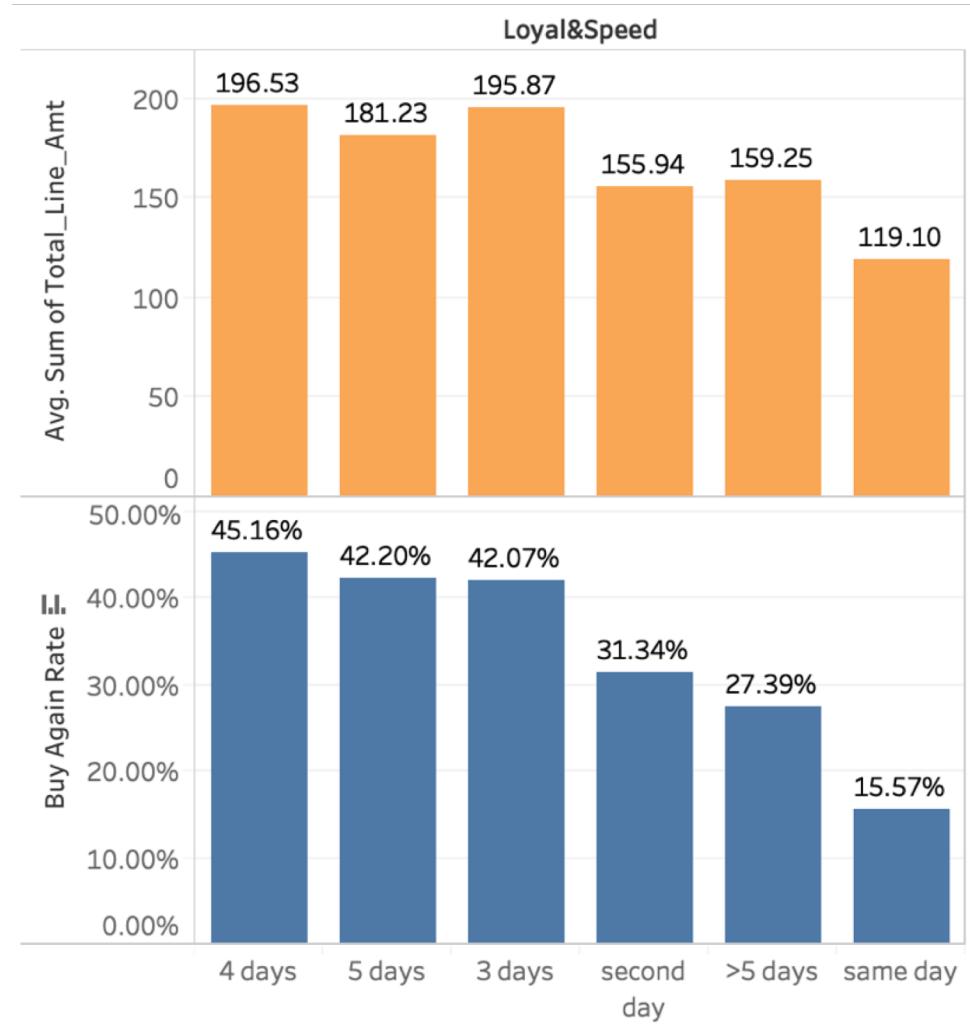
Expected Delivery  
Date



# DELIVERY TIME SIGNIFICANCE



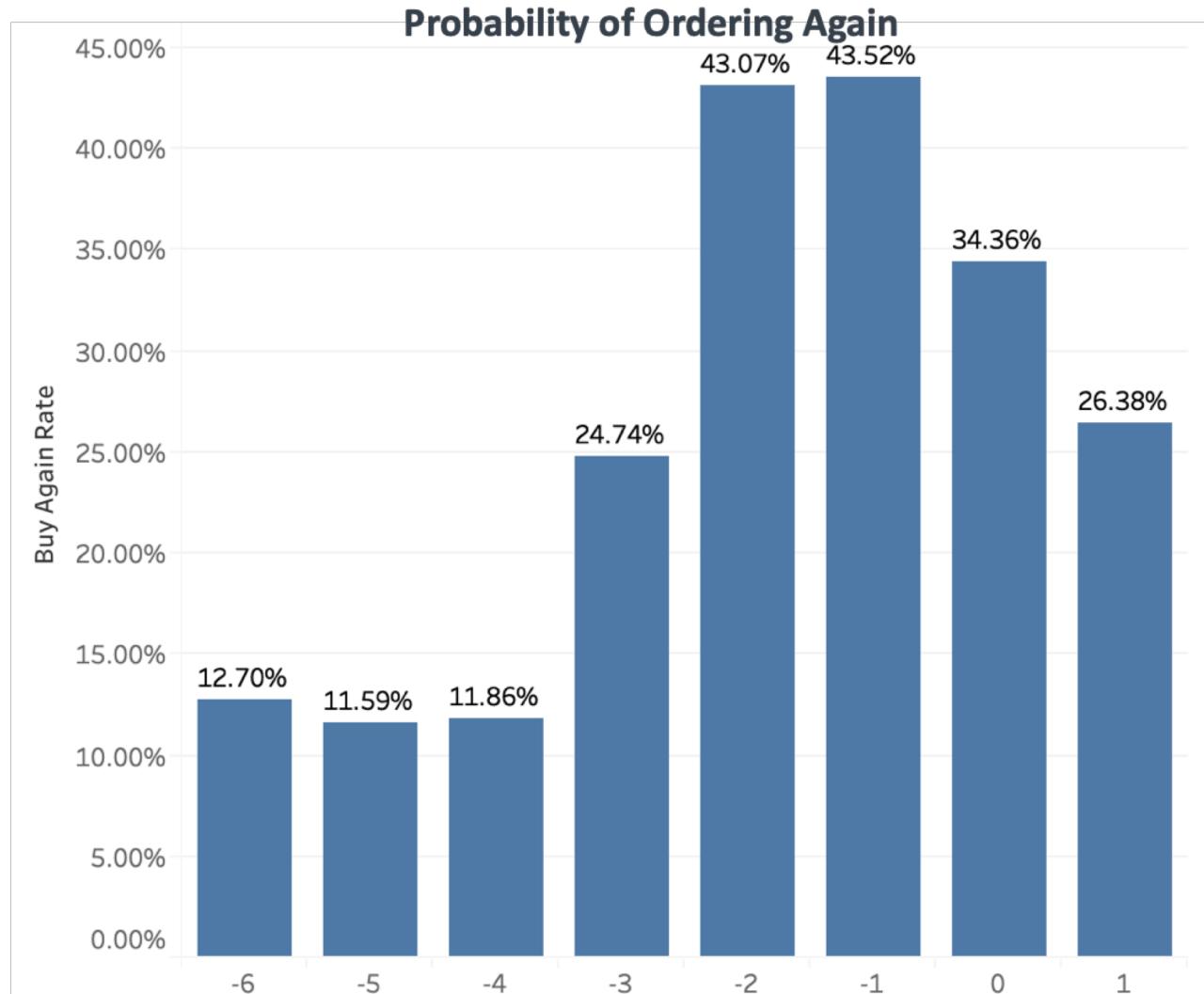
**Customers are more likely to be loyal to QVC if they receive their purchase within 5 days.**



# DELIVERY ERROR SIGNIFICANCE



**Customers who receive packages within two days of the time estimate are likely to order again.**





## SEASONALITY

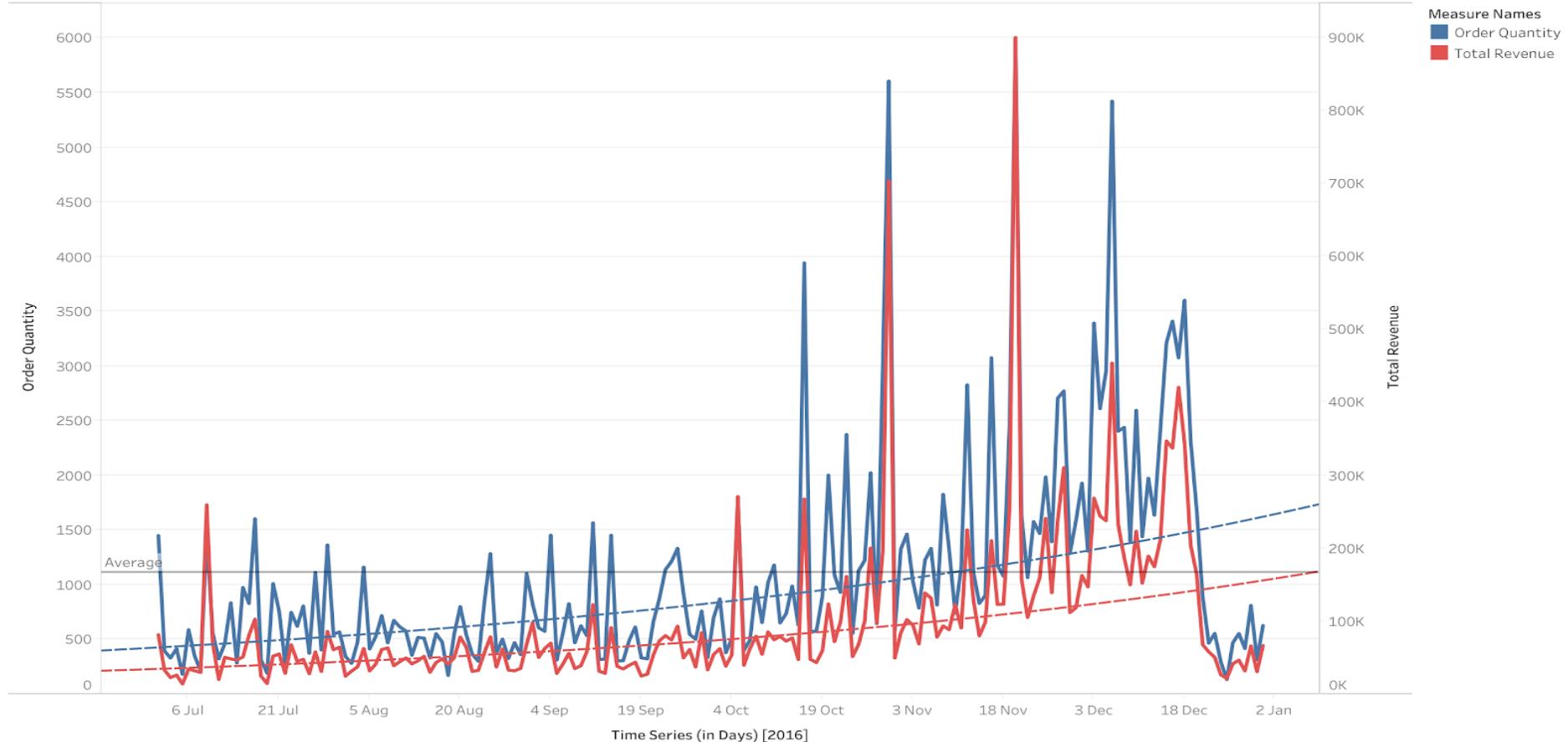
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# SEASONALITY



Both the number of orders and total revenue peak from October to December.

Time Series Analysis: Order Quantity vs. Revenue

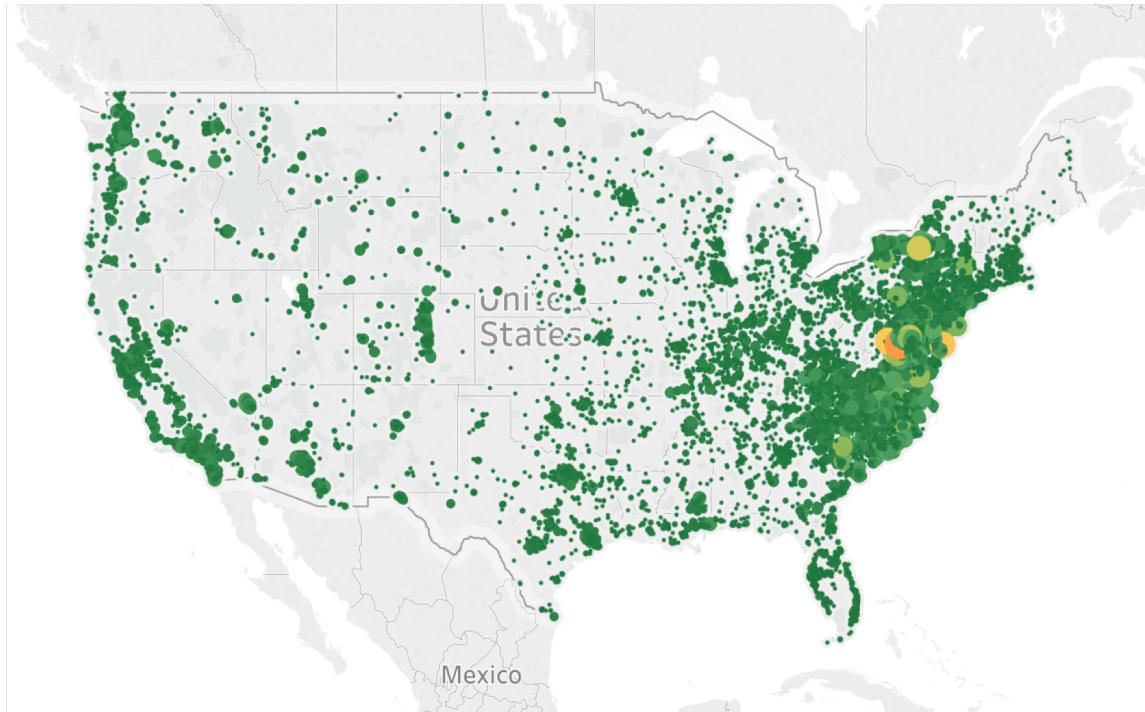


The trends of Order Quantity and Total Revenue for Order Dt Day. Color shows details about Order Quantity and Total Revenue.

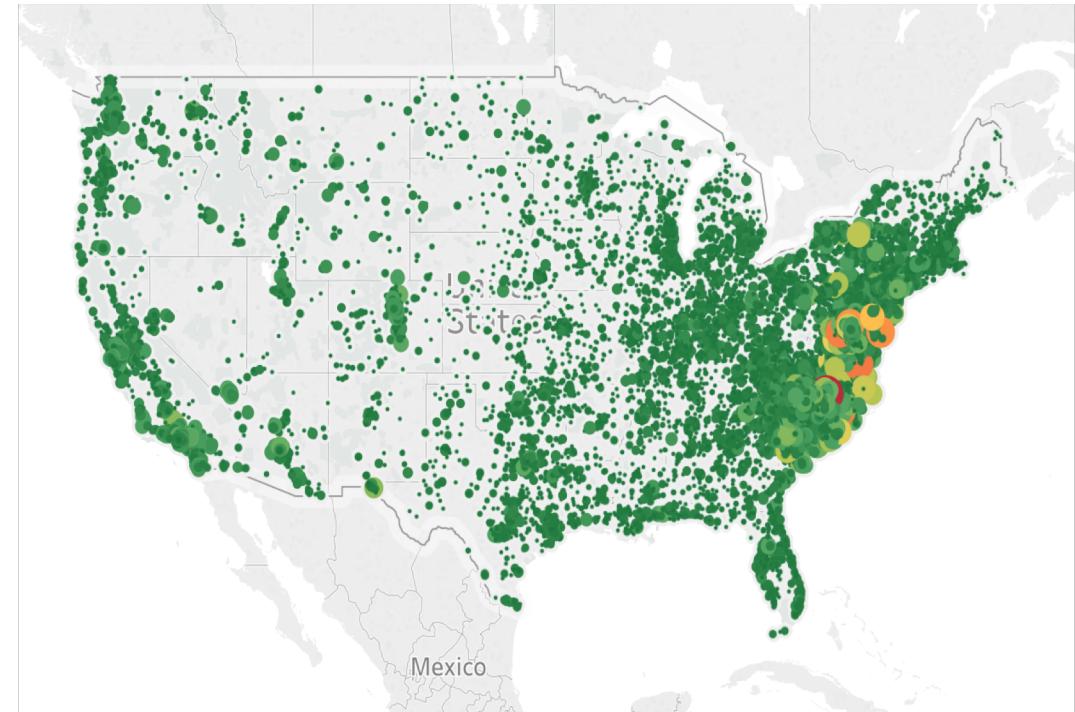
# SEASONALITY



Seasonal increases occur uniformly nationwide



September



October



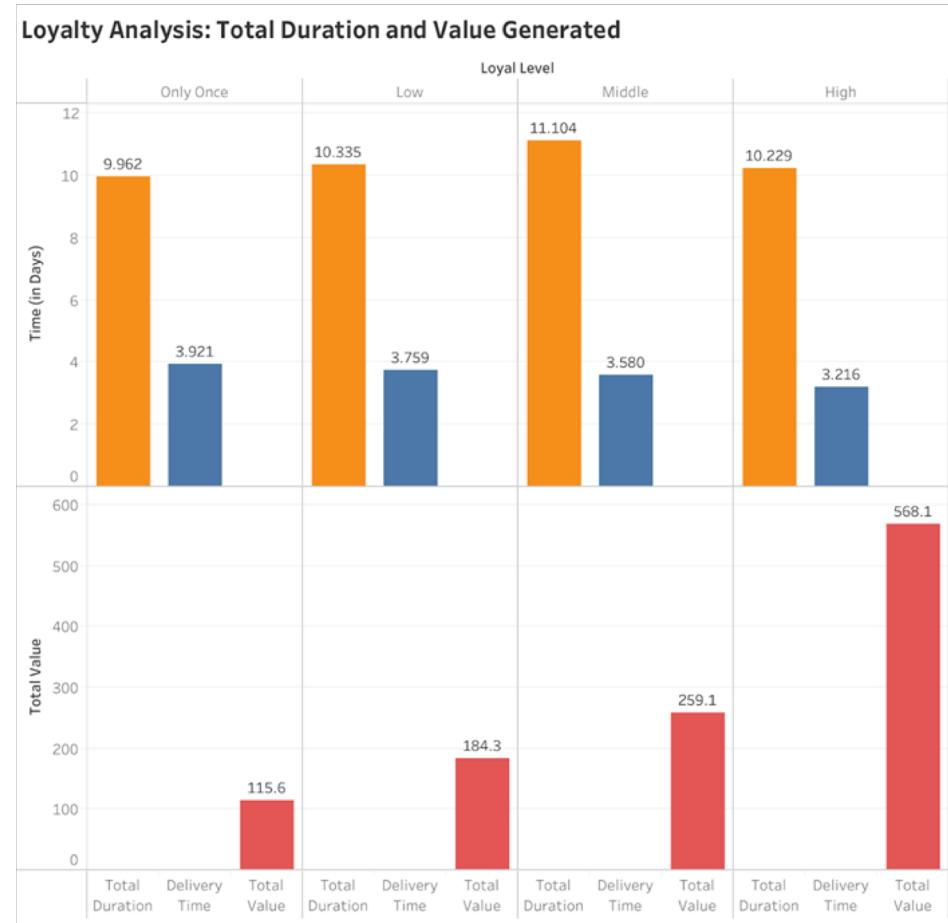
## RECOMMENDATIONS

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# INCREASE CUSTOMER LOYALTY



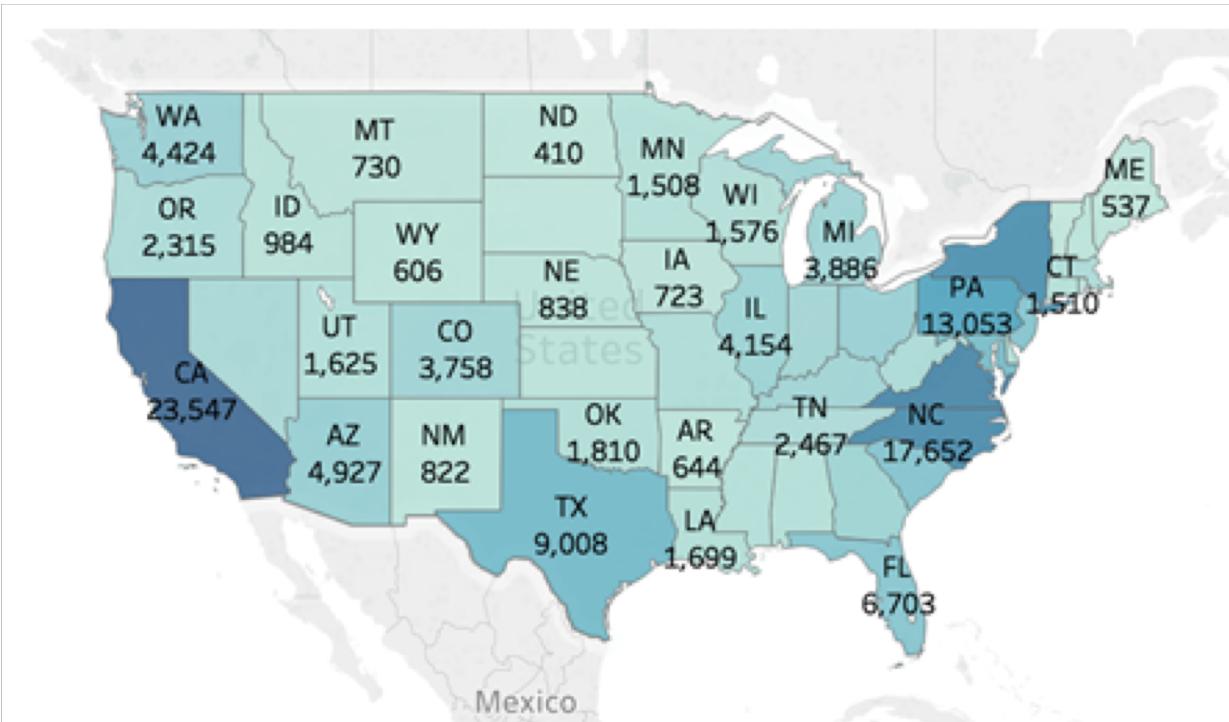
**Customer loyalty can be driven through a focus on quality over quantity, with referral and rewards programs being a key driver of loyalty.**



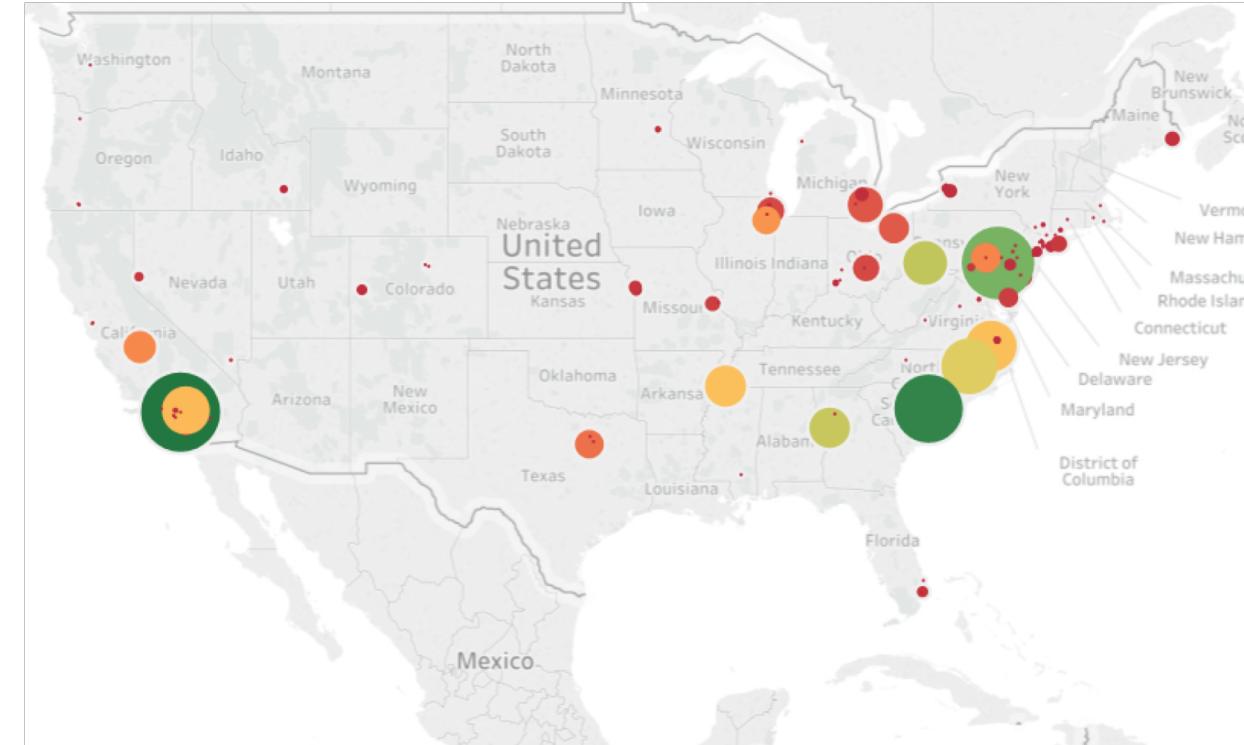
# DECREASE SHIPPING TIME



Shipping time can be decreased by adding more warehouses, especially on the West Coast.



QVC Orders

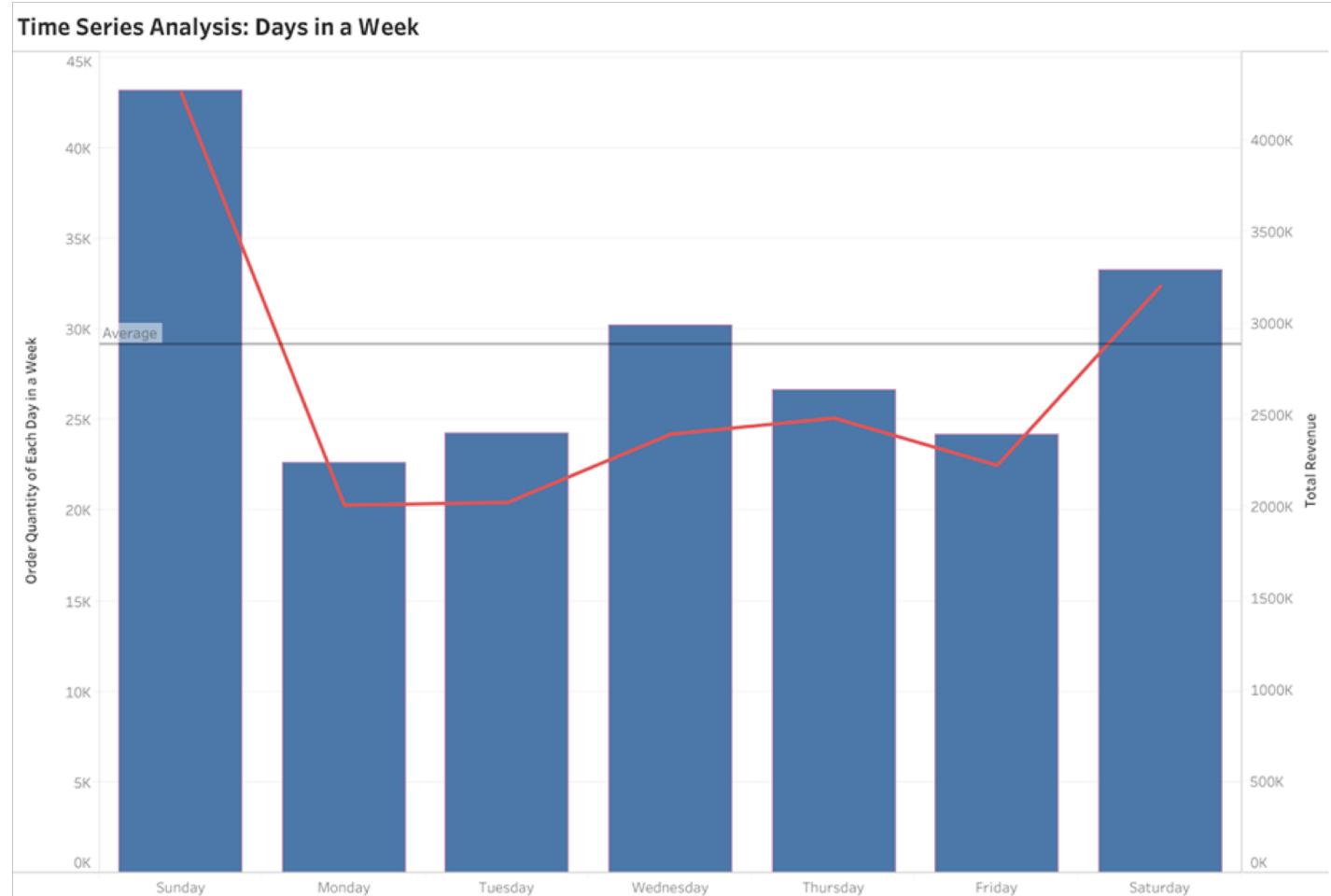


QVC Warehouse Locations

# DECREASE SHIPPING TIME



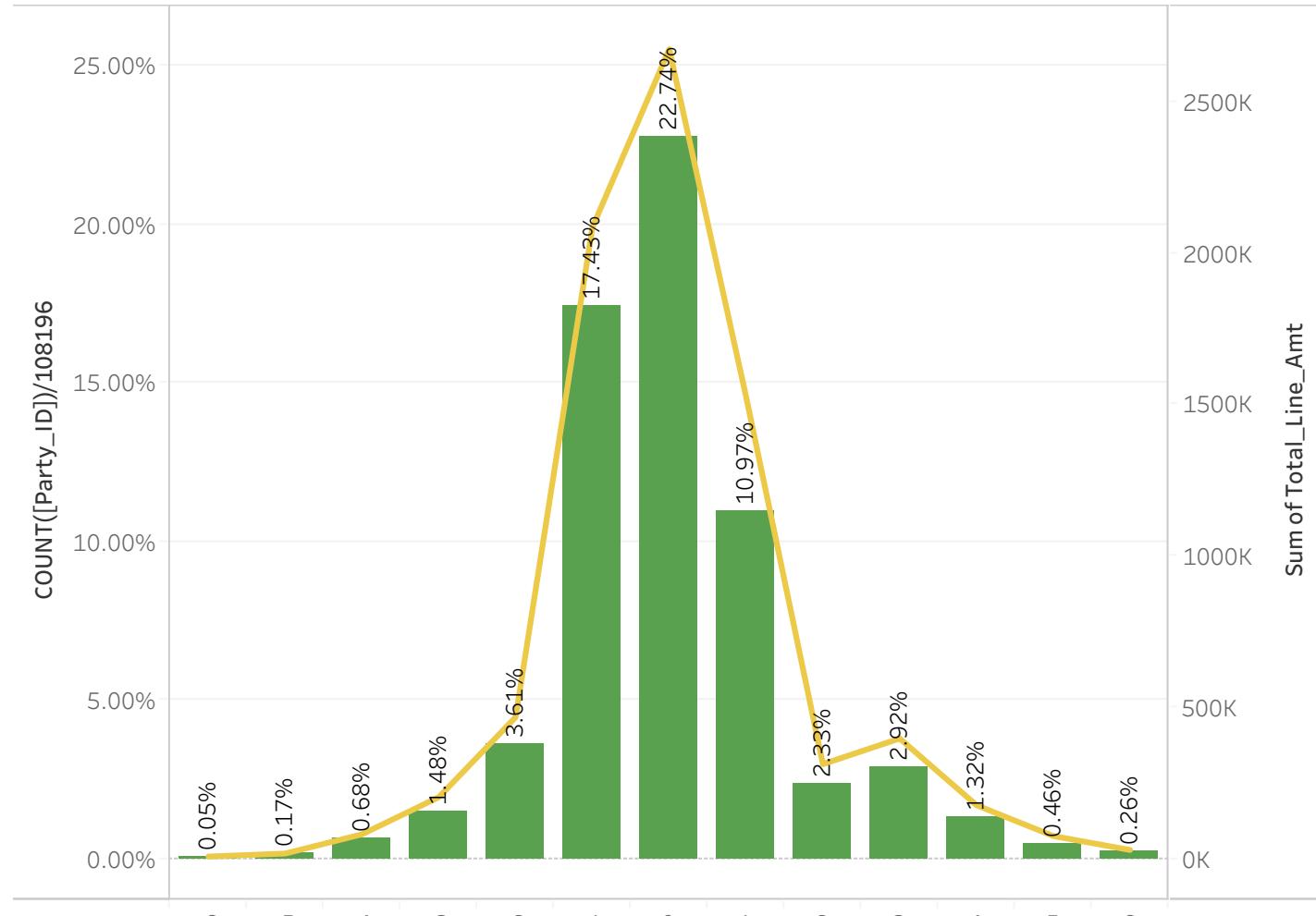
Shipping time can be decreased by adding more weekend and seasonal employees.



# CONTROL CUSTOMER EXPECTATIONS



**Strengthening our partnership with delivery providers and providing conservative estimates help control customer expectations.**



# KEY TAKEAWAYS



**1. Driving customer loyalty** through the implementation of both a referral and rewards program.



**2. Decreasing shipping time** by investing in additional warehouses and weekend employees.



**3. Controlling customer expectations** by strengthening our partnership with shipping companies.



# THANK YOU

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## Q&A