DATA ANALYTICS WITH SQL

New Wheels Project Report

Business Overview

74.5 M Total Revenue

1000 Total Orders

994 Customers

3.1 Avg Rating

13.7 M Last Qtr Revenue

199 Last Qtr Orders

98 Days Avg Ship time

21.5% Good Feedback

# Customer Metrics

Customer Distribution

Customer Distribution across States

- California and Texas share the highest number of customers per state

- Total customers from both California and Texas is roughly equal to total customers from Florida, New York and District of Columbia

- As expected, States with higher populations have higher count of customers

Customer Ratings Avg by Quarter

- Quarter 1 has the highest average customer rating

- Average customer ratings have decreased over quarters

- The amount of decline in Average customer rating becomes greater in each quarter


Feedback Average
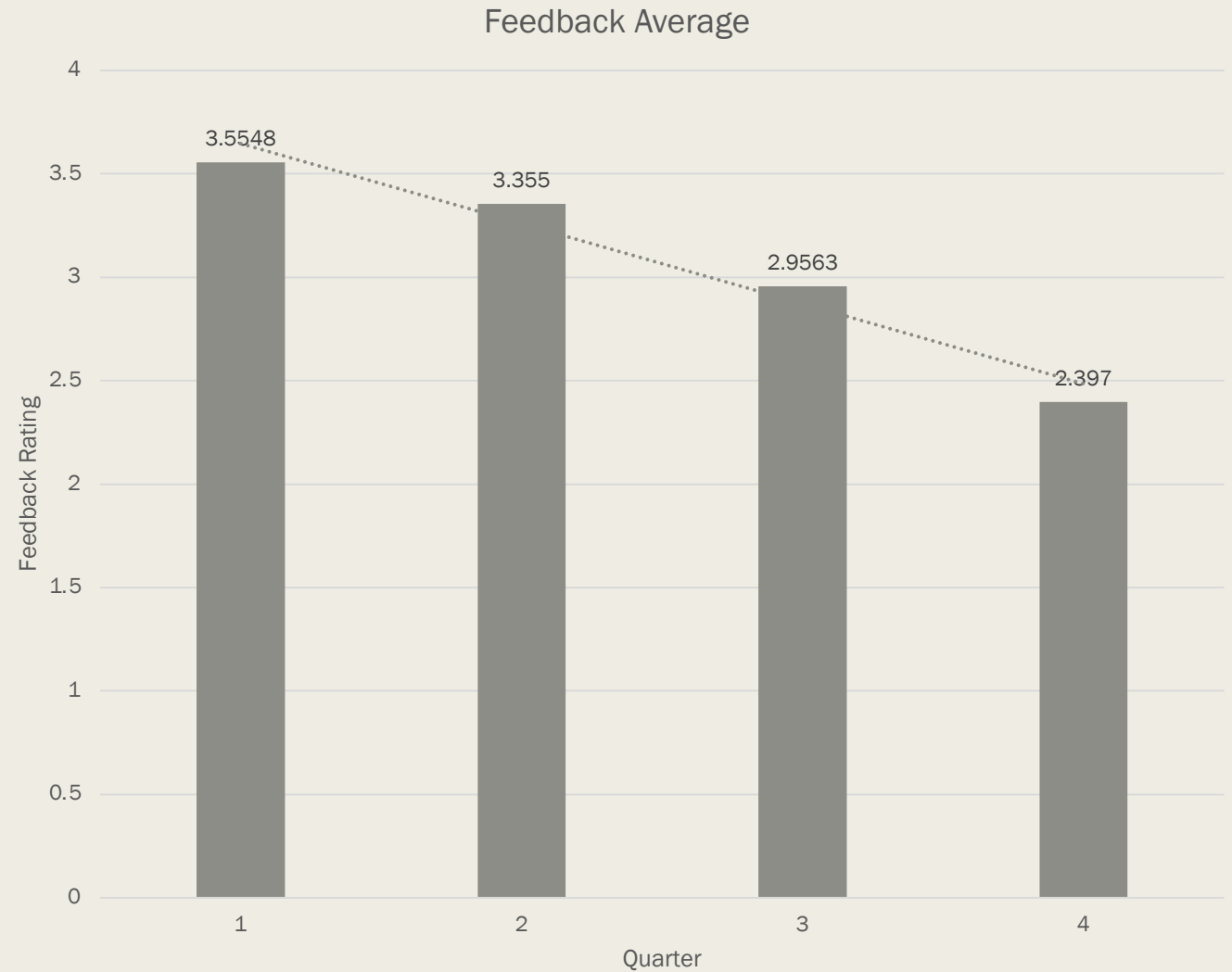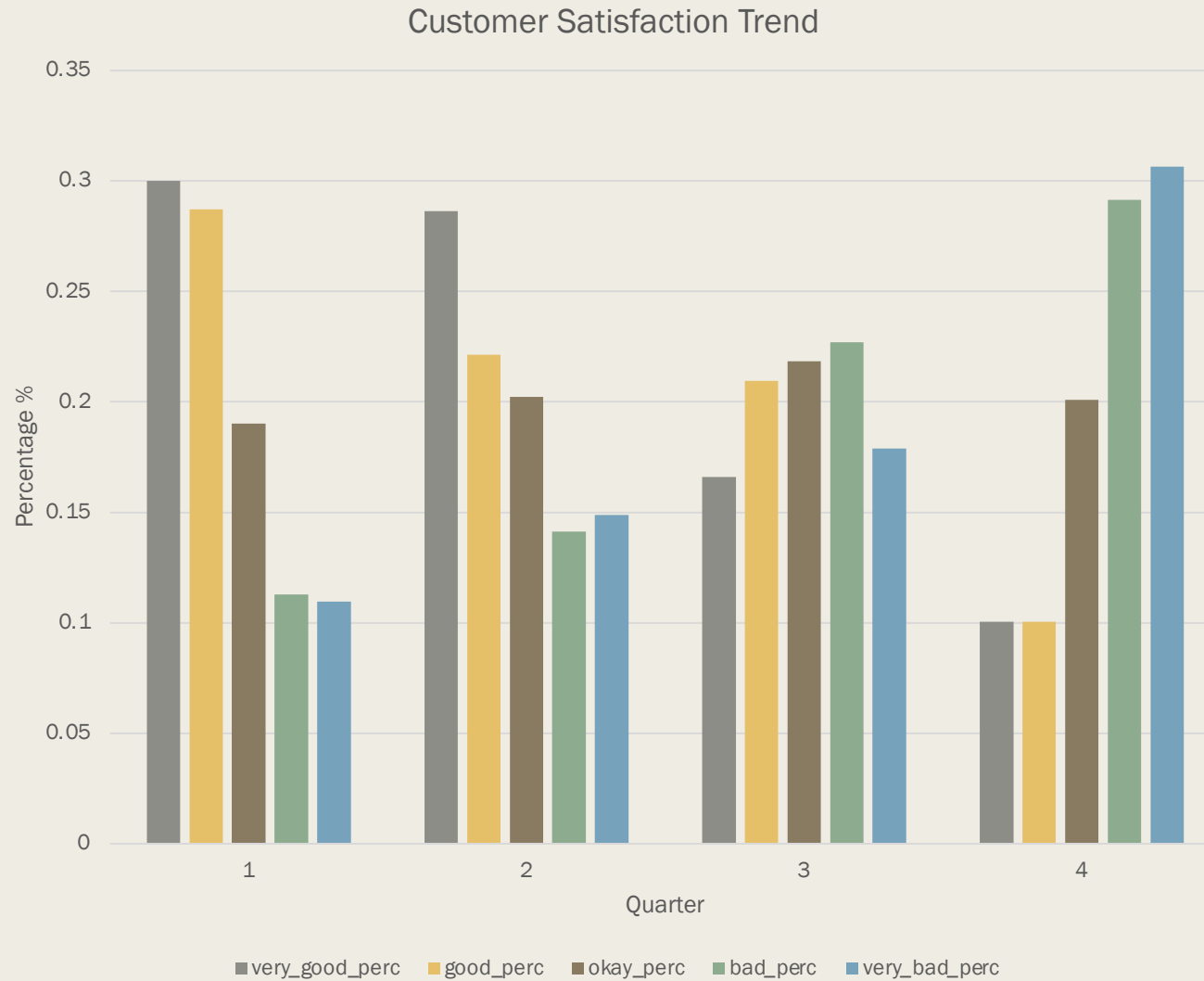
Customer Satisfaction Trend

- Quarter 1 has the highest very good feedback

- Decrease in good feed and increase in bad feedback over quarters

- Quarter 1 and quarter 4 are the exact opposite of each other in ratings

Top Vehicle Makers Preferred by Customers

- Chevrolet is the most preferred vehicle make by a large margin

- The top 2 vehicle makers are American

- Toyota, Pontiac and Dodge have roughly the same number of customers
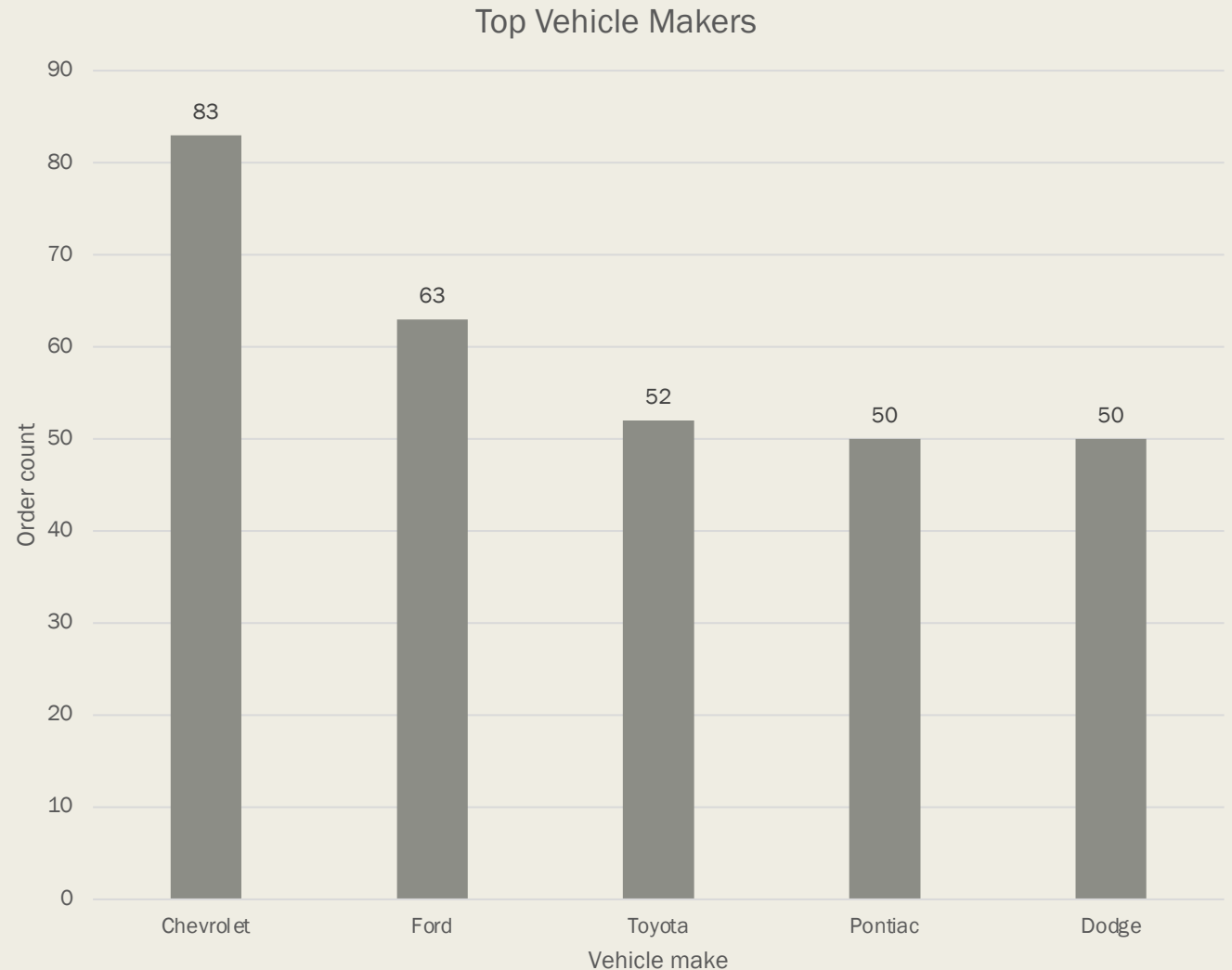
Top Vehicle Makers

Most Preferred Vehicle Make in each State

- States with higher GDP prefer pricey vehicles

- States with lower GDP prefer affordable vehicle

- Most state either prefer American or Toyota made vehicle

State	Vehicle Maker	State 2	Vehicle Maker2
Alabama	Dodge	Missouri	Chevrolet
Alaska	Chevrolet	Montana	Dodge
Arizona	Pontiac	Nebraska	Toyota
Arkansas	Chevrolet	Nevada	Pontiac
California	Nissan	New Hampshire	Lincoln
Colorado	Chevrolet	New Jersey	Mercedes-Benz
Connecticut	Maserati	New Mexico	Dodge
Delaware	Mitsubishi	New York	Toyota
District of Columbia	Chevrolet	North Carolina	Volvo
Florida	Toyota	North Dakota	Ford
Georgia	Toyota	Ohio	Chevrolet
Hawaii	Ford	Oklahoma	Toyota
Idaho	Dodge	Oregon	Toyota
Illinois	GMC	Pennsylvania	Toyota
Indiana	Mazda	South Carolina	Jaguar
Iowa	Isuzu	Tennessee	Mazda
Kansas	Mercedes-Benz	Texas	Chevrolet
Kentucky	Acura	Utah	Chevrolet
Louisiana	BMW	Vermont	Mazda
Maine	Mercedes-Benz	Virginia	Ford
Maryland	Ford	Washington	Chevrolet
Massachusetts	Chevrolet	West Virginia	Mercedes-Benz
Michigan	Ford	Wisconsin	Mazda
Minnesota	GMC	Wyoming	Buick
Mississippi	Toyota		

Revenue Metrics

Trend of Purchases by Quarter

- Quarter 1 has the highest number of purchases

- Decrease in purchase numbers over quarters

- 35% decrease in purchases from the 1st quarter to the 4th

Trend of Order count

310

262

229

199
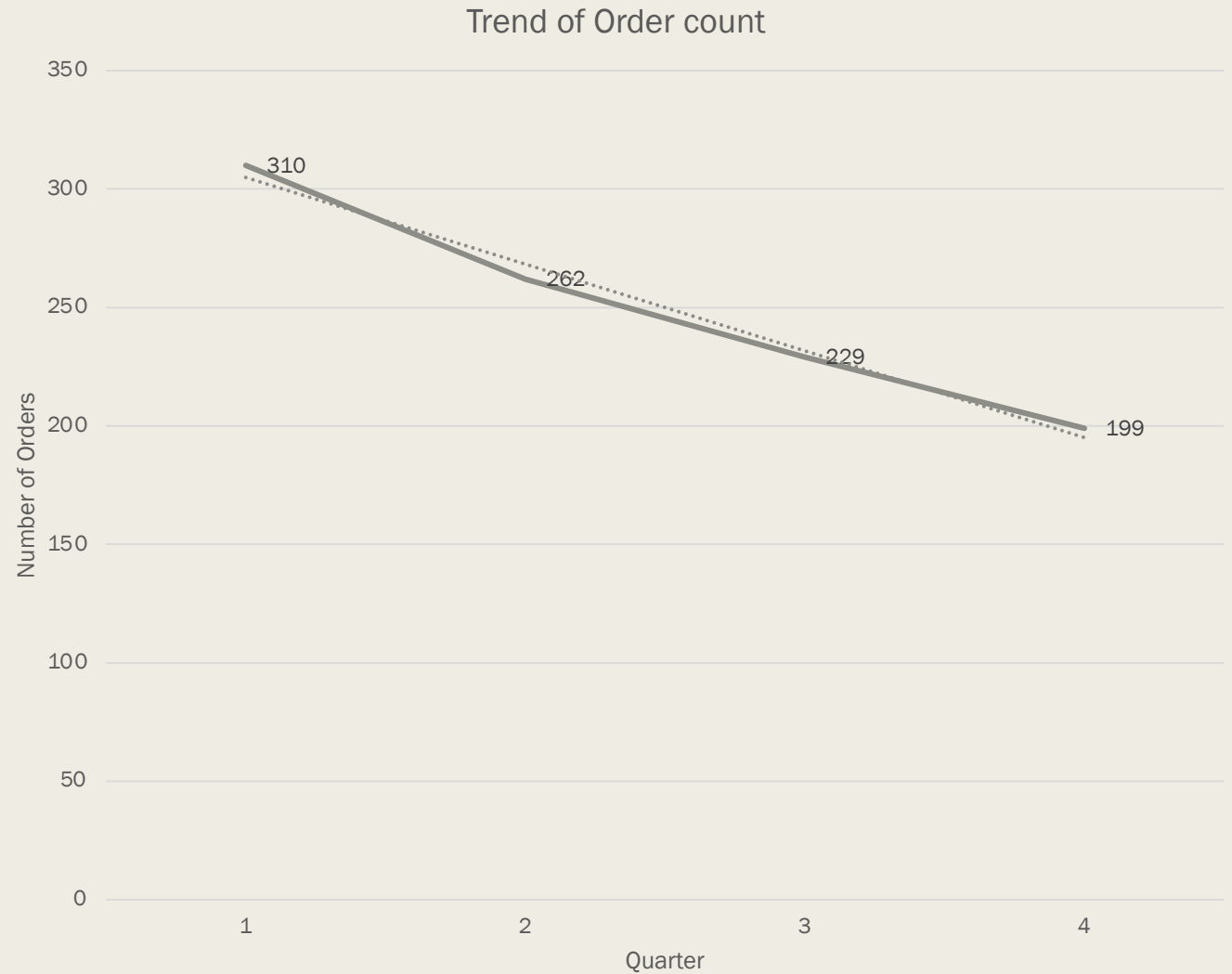
Quarter on Quarter % change in Revenue

- Quarter 1 has the highest amount of revenue by 5 million

- Decrease in revenue over quarters

- The revenue has decreased 47% from 1st quarter to 4th quarter

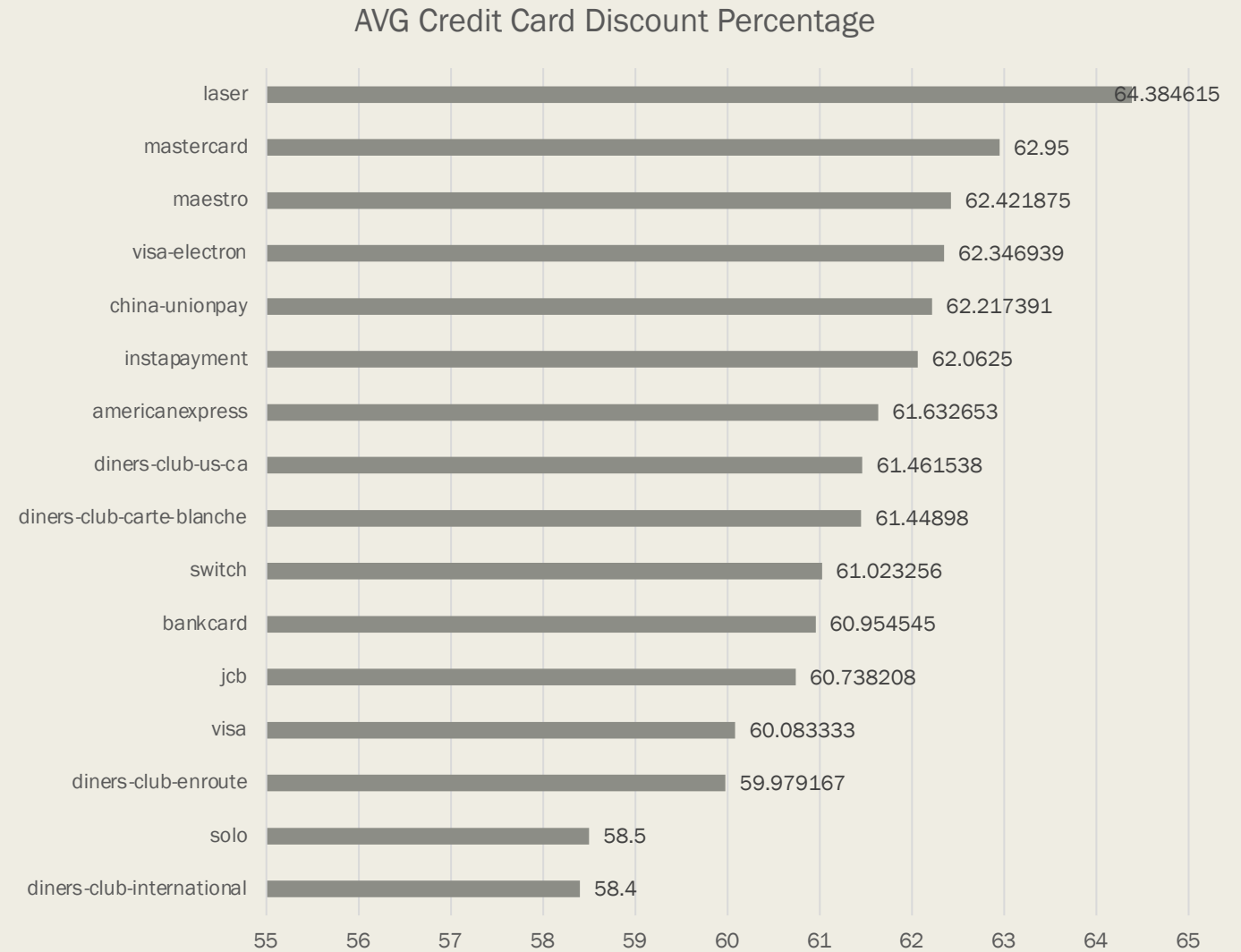| quarter	Total Revenue	Previous Revenue	Qtr Percent Change
1	25219278.16	NULL	NULL
2	19902030.18	25219278.16	-21.08406097
3	15671980.29	19902030.18	-21.25436376
4	13732514.38	15671980.29	-12.37537228

Trend of Revenue and Orders by Quarter

■ Decrease in revenue over quarters

■ Decrease in orders over quarters

■ Quarter 1 was the best quarter in revenue and orders and quarter 4 was the worst

Chart Title
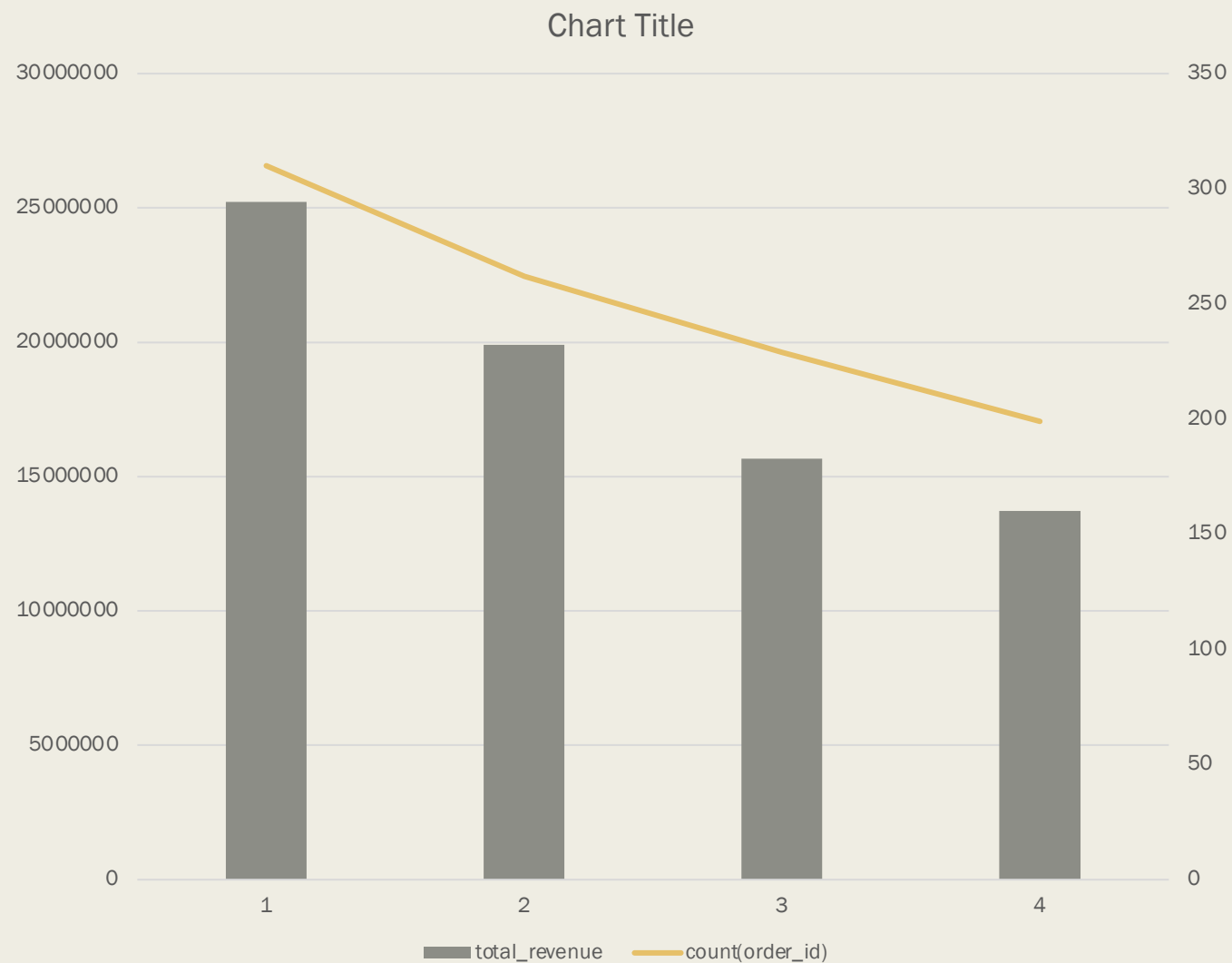
Shipping Metrics

Average Discount Offered by Credit Card Type

■ Laser credit Card has the highest average discount

■ Diners club international has the lowest average discount

■ High amounts of discount across all types of credit cards

AVG Credit Card Discount Percentage

Credit Card Type	AVG Discount Percentage
laser	64.384615
mastercard	62.95
maestro	62.421875
visa-electron	62.346939
china-unionpay	62.217391
instapayment	62.0625
americanexpress	61.632653
diners-club-us-ca	61.461538
diners-club-carte-blanche	61.44898
switch	61.023256
bankcard	60.954545
jcb	60.738208
visa	60.083333
diners-club-enroute	59.979167
solo	58.5
diners-club-international	58.4

Time Taken to Ship Orders by Quarter

- Quarter 1 has the lowest time to ship

- Quarter 4 has the highest time to ship

- Increase in average shipping time over quarters

- Shipping time has tripled from 1st quarter to 4th quarter

Average Shipping time

Insights and Recommendations

- Focus on moving cars which have a higher customer count and are more preferred
- Focus on states with greater amounts of customers as they contribute more to the business
- Decrease the amount of discounts across all credit cards
- Decrease the average time to ship as
- Increase time and effort to make sure each customer is happy
- Increase ratings by ensuring the new customers are satisfied with their service
- Drive customers to the app by advertisement
- Follow up with older customers to see whether they would like to more business after ensuring them of the new and improved policies