SQL and Databases:

Project Report

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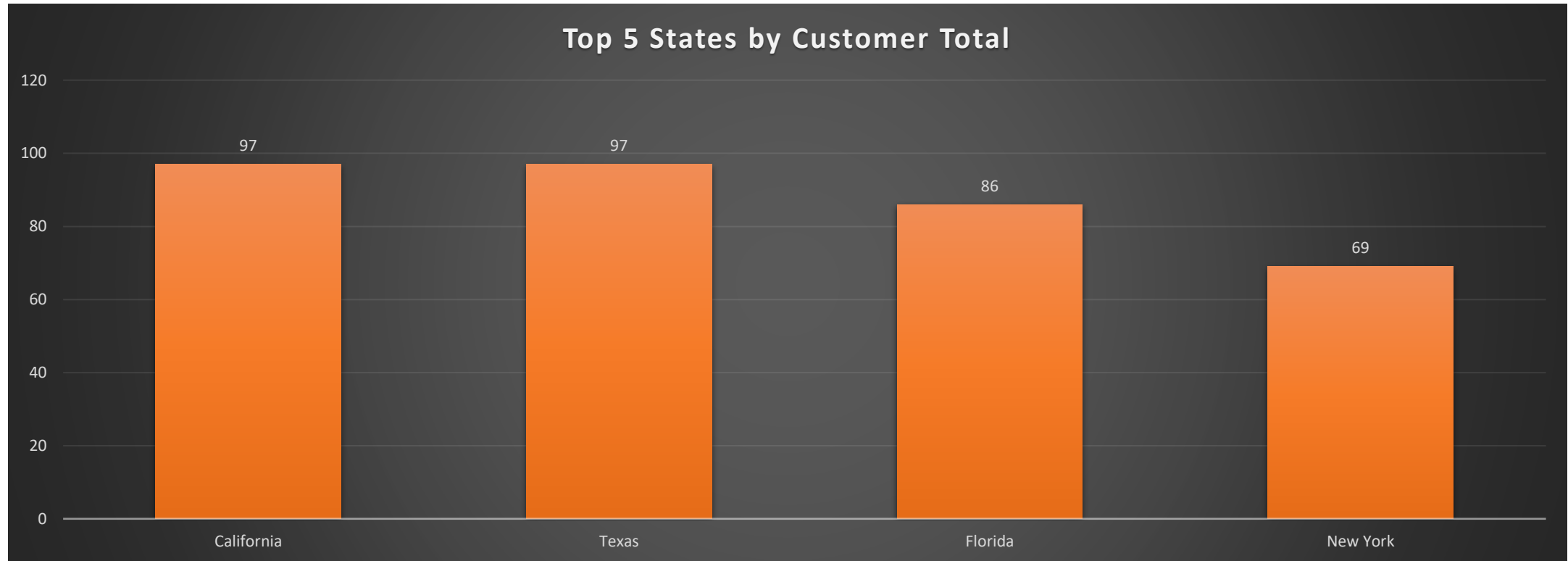
Business Overview

Total Revenue	Total Orders	Total Customers	AVG Rating
$125,482,804.36	1000	1000	3.07

| Last Qtr Revenue	Last Qtr Orders	AVG Days to Ship	% Good Feedback
23,496,008.10	199	105.04	42%

Customer Metrics

Distribution of Customers Across States

Top 5 States by Customer Total

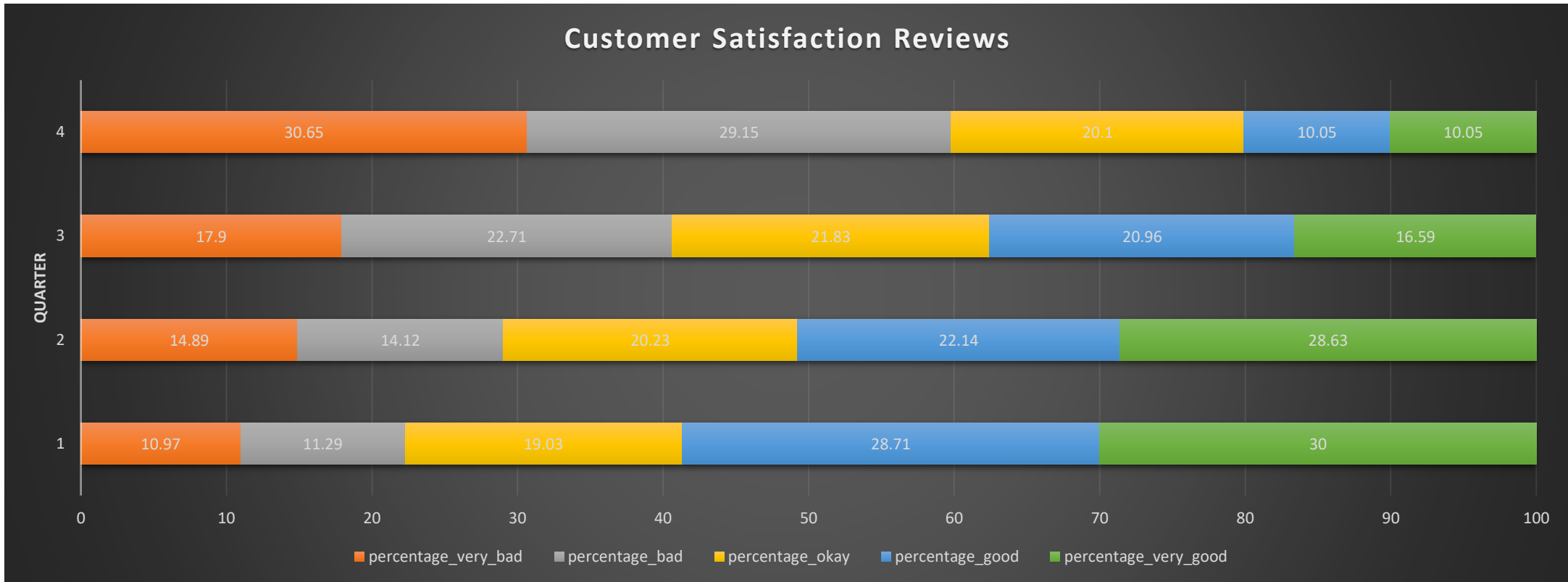|	California	Texas	Florida	New York
Value	97	97	86	69

- Our top 5 states by customer totals are California, Texas, Florida, and New York.
- These are our largest markets and should be targeted for continual sales.

Average Customer Ratings by Quarter

Average rating

| Rating	Q1	Q2	Q3	Q4
Value	3.55	3.36	2.96	2.40
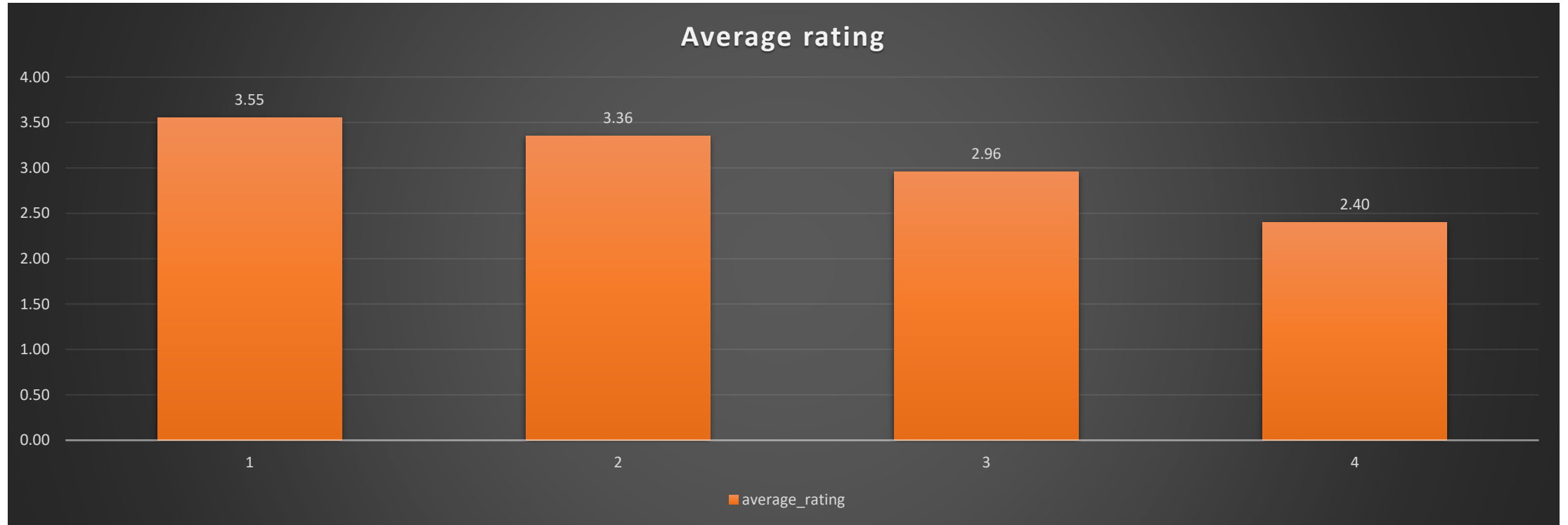
■ average_rating

- Our average customer ratings have declined steadily QoQ.
- Need to investigate the reasons this is happening as it could be affecting our revenue.

Trend of Customer Satisfaction

Customer Satisfaction Reviews

QUARTER	percentage_very_bad	percentage_bad	percentage_okay	percentage_good	percentage_very_good
4	30.65	29.15	20.1	10.05	10.05
3	17.9	22.71	21.83	20.96	16.59
2	14.89	14.12	20.23	22.14	28.63
1	10.97	11.29	19.03	28.71	30

- Customer satisfaction is declining QoQ with the percentage of "very bad" reviews increasing at an alarming rate.
- We need to understand what we did well in Q1 and how that fell off throughout the year.

Top Vehicle Makers Preferred by Customers
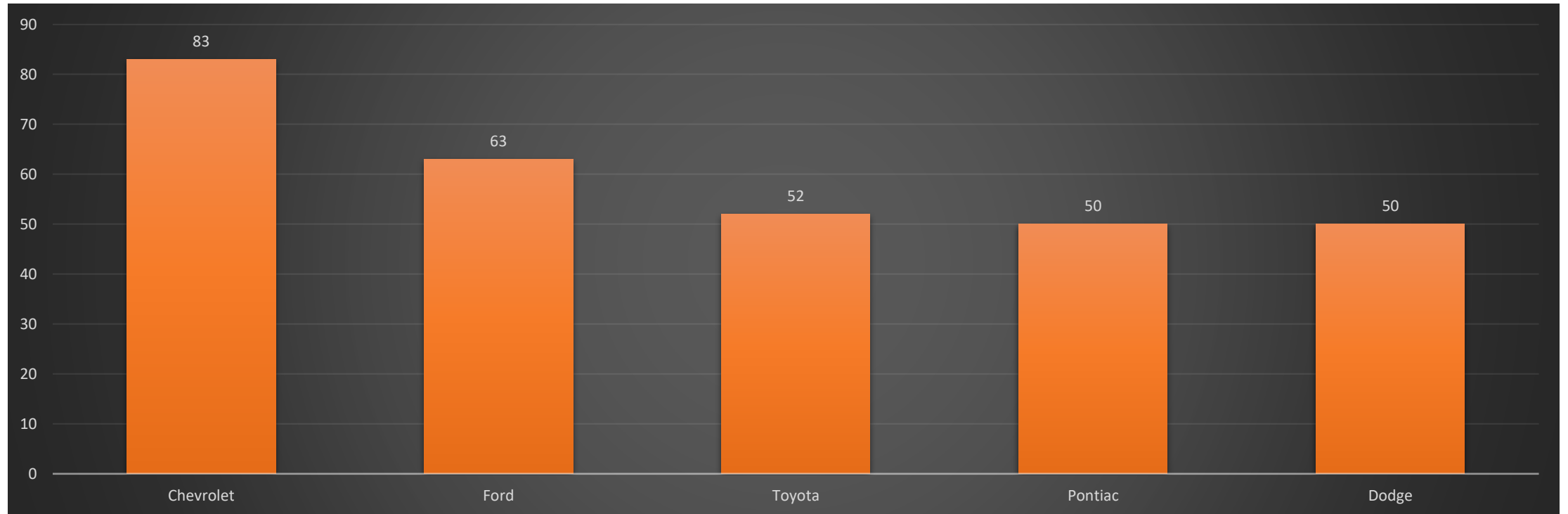
- Chevrolet has a commanding lead in preferred vehicle maker we need to target sales rich environments for Chevrolet to maximize revenue.

Most Preferred Vehicle Make in Each State

State	Vehicle Maker
Alabama	Dodge
Alaska	Chevrolet
Arizona	Pontiac
Arizona	Cadillac
Arkansas	Suzuki
Arkansas	Chevrolet
Arkansas	Pontiac
Arkansas	Volkswagen
Arkansas	Mitsubishi
Arkansas	GMC
California	Ford
California	Dodge
California	Audi
California	Nissan
California	Chevrolet

Colorado	Chevrolet
Connecticut	Chevrolet
Connecticut	Mercury
Connecticut	Maserati
Connecticut	Volvo
Delaware	Mitsubishi
District of Columbia	Chevrolet
Florida	Toyota
Georgia	Toyota
Hawaii	Ford
Hawaii	Toyota
Hawaii	Pontiac
Hawaii	Nissan
Hawaii	Cadillac
Hawaii	GMC
Idaho	Dodge

Illinois	Ford
Illinois	GMC
Illinois	Chevrolet
Indiana	Mazda
Iowa	Chrysler
Iowa	Chevrolet
Iowa	Hyundai
Iowa	Isuzu
Iowa	Dodge
Iowa	Mazda
Iowa	Porsche
Iowa	Jeep
Iowa	Ford
Iowa	Pontiac
Iowa	Subaru
Kansas	GMC

- This is a subset of the full dataset condensed to show the overall trend that most states have multiple preferred vehicle makers. Most states have multiple top vehicle makes.
- This means we do not have enough order data collected yet to determine clear winners or multiple makers are preferred throughout various states and or regions. More analysis needed.

Revenue Metrics

Trend of Purchase by Quarter

**Total orders by quarter**
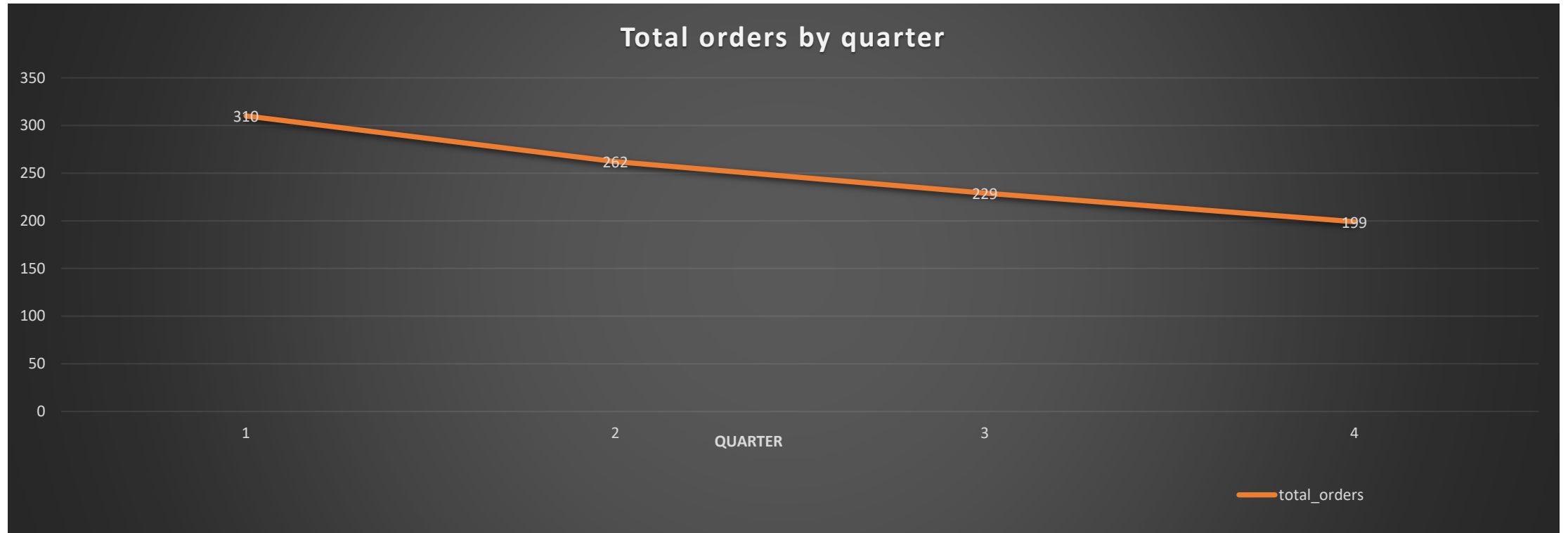
- The trend of orders is declining QoQ.
- There seems to be a link between customer satisfaction and orders.

Quarter on Quarter % Change in Revenue

quarter_number	current_quarter_revenue	last_quarter_revenue	qoq_percentage_change
1	39637630.97	NULL	NULL
2	32913737.81	39637630.97	-16.96
3	29435427.48	32913737.81	-10.57
4	23496008.1	29435427.48	-20.18

- Revenue has decreased every quarter this year.
- We had a small uptick in negative change in Q3 – analysis needed for why. Could be holiday season related.
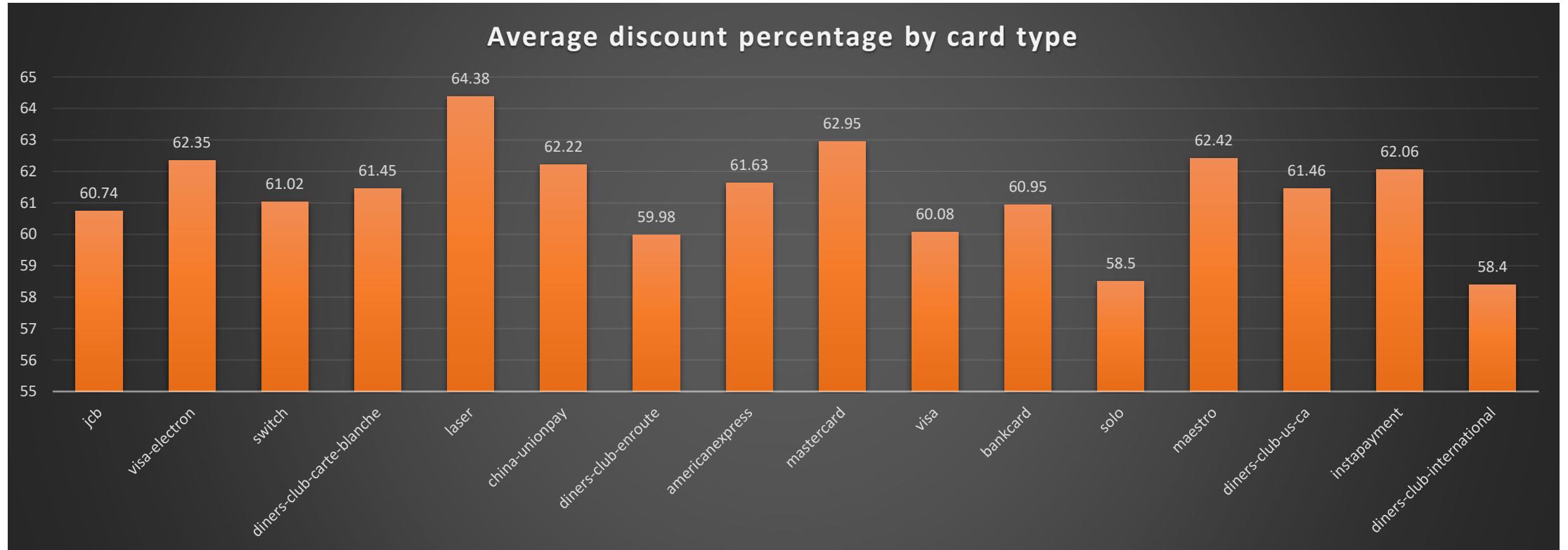
Trend of Revenue and Orders by Quarter
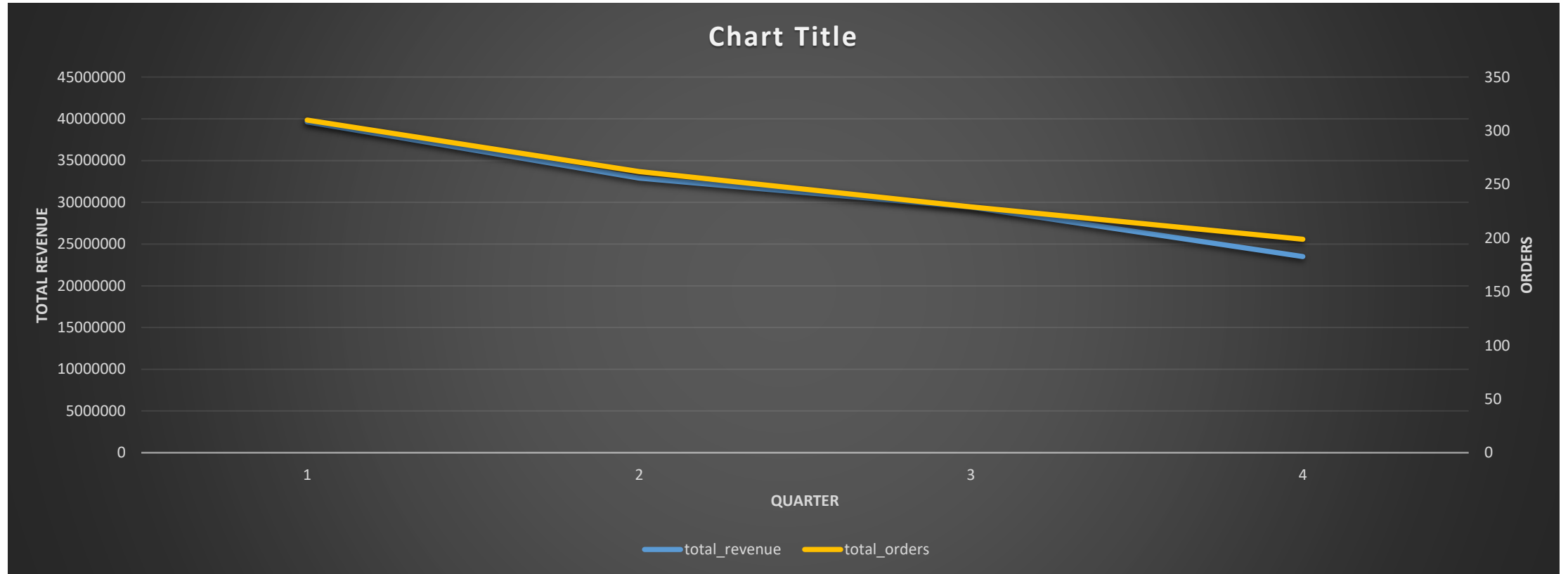
- Order number and revenue appear to be correlated, with steep decreases in both over the year.
- This means if we can increase orders then we can increase revenue. Need to set new quarterly targets for orders next year.
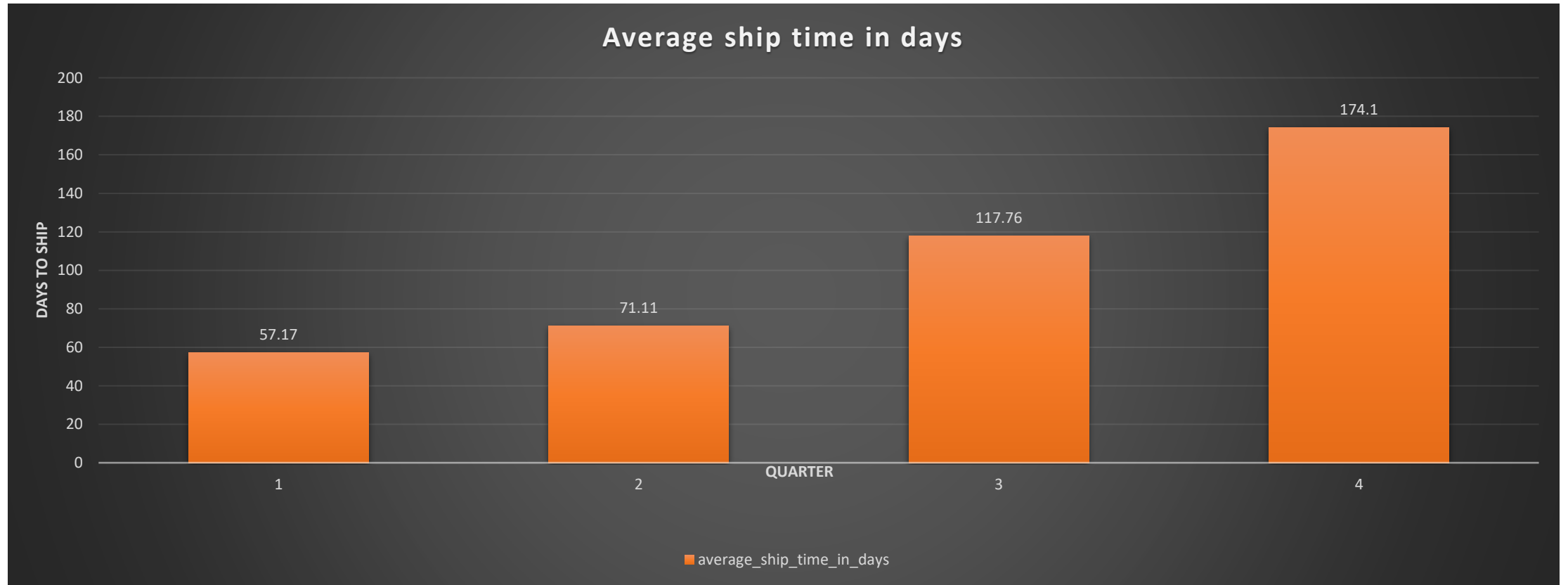
Shipping Metrics

Average Discount Offered by Credit Card Type

Average discount percentage by card type

- We need to make sure that our credit card discounts are being applied to the most used cards and that we are incentivizing any cards that benefit our business.

Time Taken to Ship Orders by Quarter

- Steep rise in shipping times QoQ.
- Top priority to understand how we can reduce shipping times as this seems to be driving revenue loss and customer dissatisfaction.

Insights and Recommendations

- Understand the shipping delays ASAP and fix them.

- Continue to monitor shipping times and customer satisfaction closely.

- Target Chevrolet sales in our biggest states possibly with new sales incentives.

- Make sure our credit card discounts are being applied appropriately and run a new analysis to see if they are having any impact on revenue.