PROJECT REPORT
ON
SQL AND DATABASES

By

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BUSINESS OVERVIEW

TOTAL REVENUE	TOTAL ORDERS	TOTAL CUSTOMERS	AVERAGE RATING
125 M	1000	994	3.14

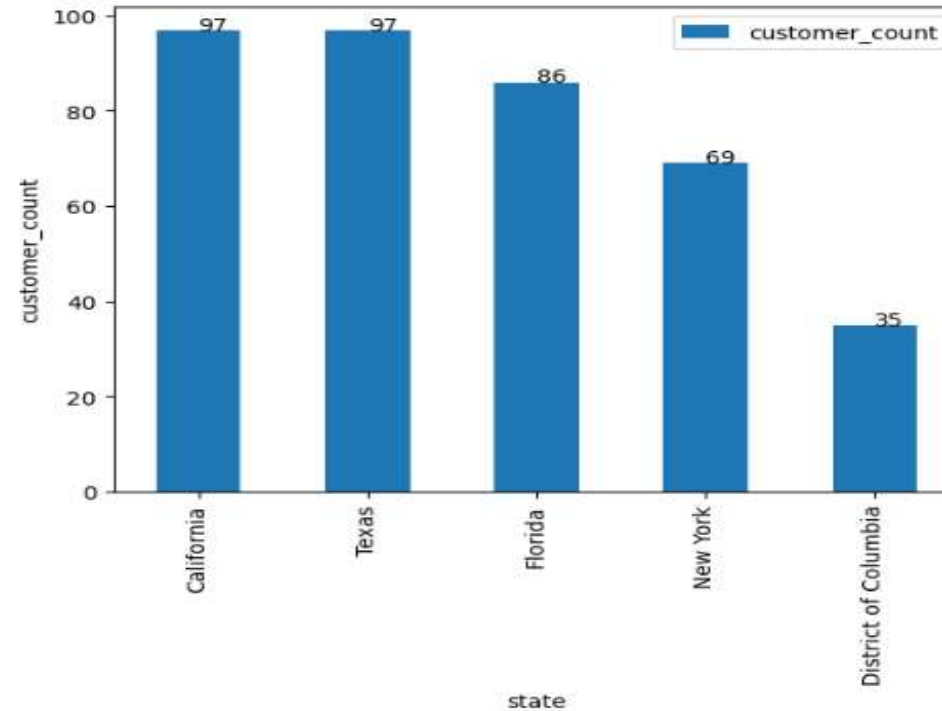| LAST QUARTER REVENUE	LAST QUARTER ORDERS	AVERAGE DAYS TO SHIP	% GOOD FEEDBACK
23 M	199	98 days	21.5%

CUSTOMER METRICS

1) Distribution of customers across states

<u>Observations / findings:</u>

- California and Texas are having the highest customer counts over other states.

- Florida has about 86 customers, followed by New York with 69 and District of Columbia with 35 customers.

2) Average rating in each quarter
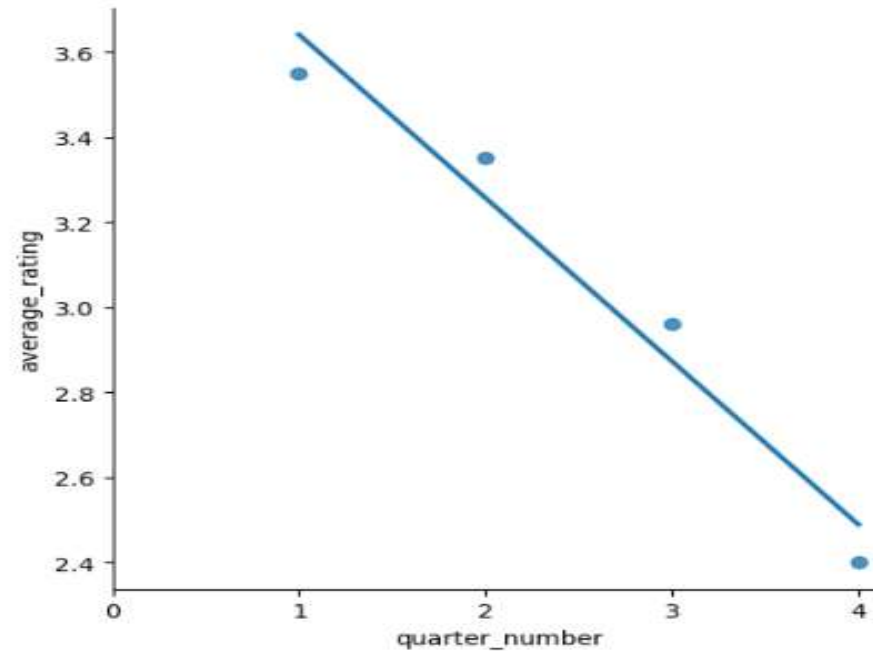
Observations / findings:

- The average rating given by the customers in Q1 was 3.55 which reduced to 3.35 in Q2 and further reduced to 2.96 and 2.40 in Q3 and Q4.

- We can say that, customers are not happy with the performance or after-sale services because of which the average ratings have dropped from 3.55 to 2.40.
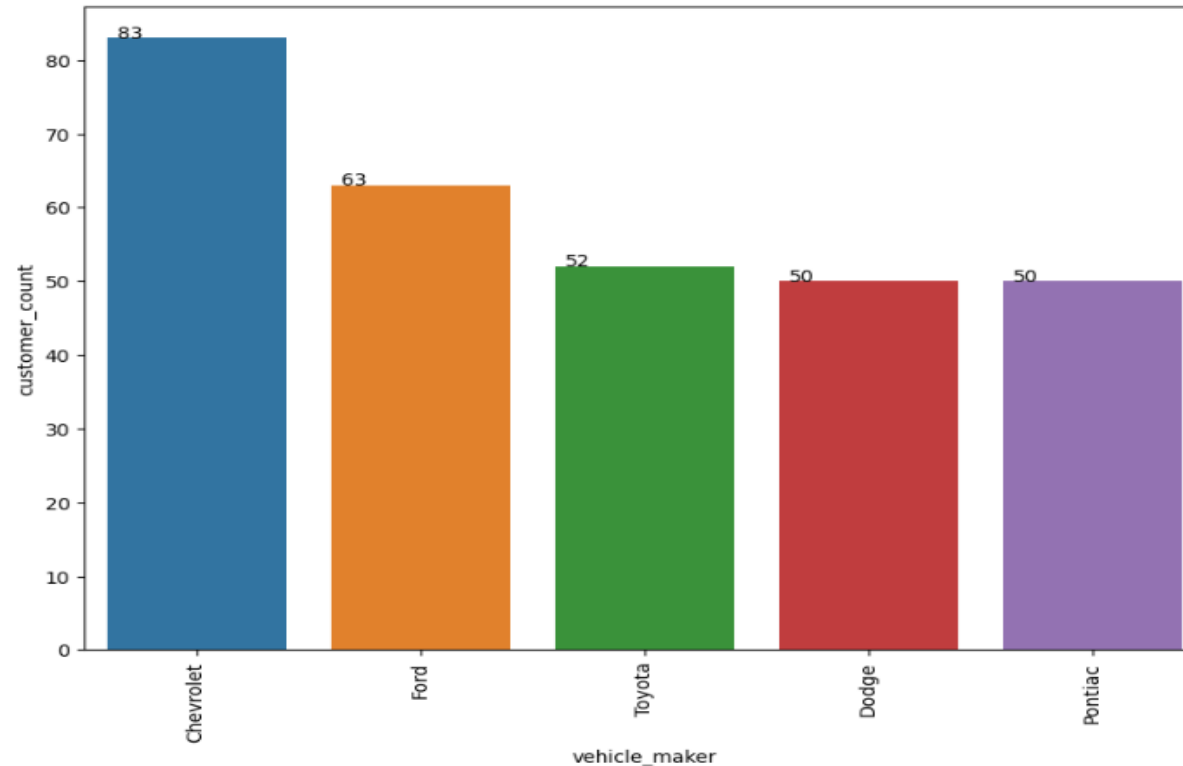
3) Trend of customer satisfaction
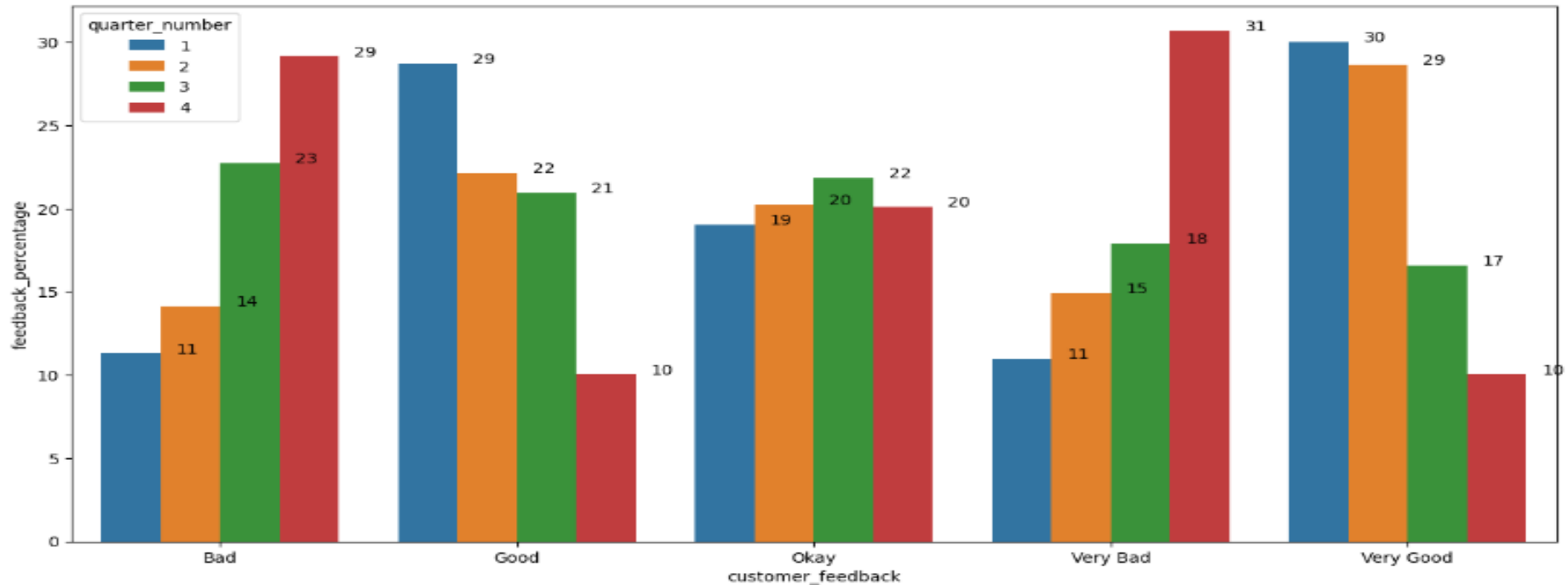
Observations / findings:

- 29 customers have rated 'Bad' and about 31 customers have given 'Very bad' rating.

- Only 20 customers in total have given 'Good' and 'Very Good' ratings.

- We can see a increasing trend for negative ratings and decreasing trend for positive ratings in each quarters.

4) Top 5 vehicle makers preferred by the customer

Observations / findings:

- Chevrolet is the most preferred vehicle by the customers,

- Ford is the second most preferred vehicle, followed by Toyota, Dodge and Pontiac.

- Chevrolet when compared with Ford, has about 32% more market share.

5) Most preferred vehicle make in each state

state	vehicle_maker	customer_count
Alabama	Dodge	5
Alaska	Chevrolet	2
Colorado	Chevrolet	5
Delaware	Mitsubishi	2
District of Columbia	Chevrolet	4
Florida	Toyota	7
Georgia	Toyota	3
Idaho	Dodge	2
Indiana	Mazda	4
Maine	Mercedes-Benz	1
Maryland	Ford	5
Michigan	Ford	3
Minnesota	GMC	3
Missouri	Chevrolet	4
Nevada	Pontiac	3
New Mexico	Dodge	2
North Carolina	Volvo	3
Ohio	Chevrolet	6
Oregon	Toyota	2
Pennsylvania	Toyota	3
Tennessee	Mazda	3
Texas	Chevrolet	9
Vermont	Mazda	1
Virginia	Ford	5
Washington	Chevrolet	5
West Virginia	Mercedes-Benz	2
Wyoming	Buick	1

state	vehicle_maker	customer_count
Arizona	Cadillac, Pontiac	3 each
Arkansas	Chevrolet, GMC, Mitsubishi, Pontiac, Suzuki, Volkswagen	1 each
California	Audi, Chevrolet, Dodge, Ford, Nissan	6 each
Connecticut	Chevrolet, Maserati, Mercury, Volvo	2 each
Hawaii	Cadillac, Ford, GMC, Nissan, Pontiac, Toyota	1 each
Illinois	Chevrolet, GMC, Ford	3 each
Iowa	Chevrolet, Chrysler, Dodge, Ford, Hyundai, Isuzu, Jeep, Mazda, Pontiac, Porsche,	1 each
Kansas	Buick, Dodge, Ford, GMC, Honda, Lexus, Maserati, Mazda, Mercedes-Benz, Nissan, Saab, Suzuki, Volkswagen	1 each
Kentucky	Acura, Audi, Mercedes-Benz, Mercury, Nissan, Pontiac, Ram, Volvo	1 each
Louisiana	Nissan, BMW, Ford, Pontiac, Kia	2 each
Massachusetts	Dodge, Chevrolet	2 each
Mississippi	Dodge, Toyota	1 each
Montana	Chevrolet, Dodge, Mitsubishi	1 each
Nebraska	Cadillac, Chevrolet, Mercedes-Benz, Nissan, Pontiac, Toyota, Volkswagen	1 each
New Hampshire	Chrysler, Lexus, Lincoln	1 each
New Jersey	Hyundai, Mercedes-Benz	2 each
New York	Toyota, Pontiac	5 each
North Dakota	Ford, Hyundai	1 each
Oklahoma	Ferrari, Mazda, Toyota	2 each
South Carolina	Acura, BMW, Buick, Dodge, Isuzu, Jaguar, Kia, Mazda, Mitsubishi	1 each
Utah	Buick, Chevrolet, Dodge, Isuzu, Lincoln, Maybach, Oldsmobile, Pontiac, Subaru, Volkswagen	1 each
Wisconsin	Acura, Cadillac, Chevrolet, Dodge, Honda, Mazda, Nissan, Pontiac	1 each

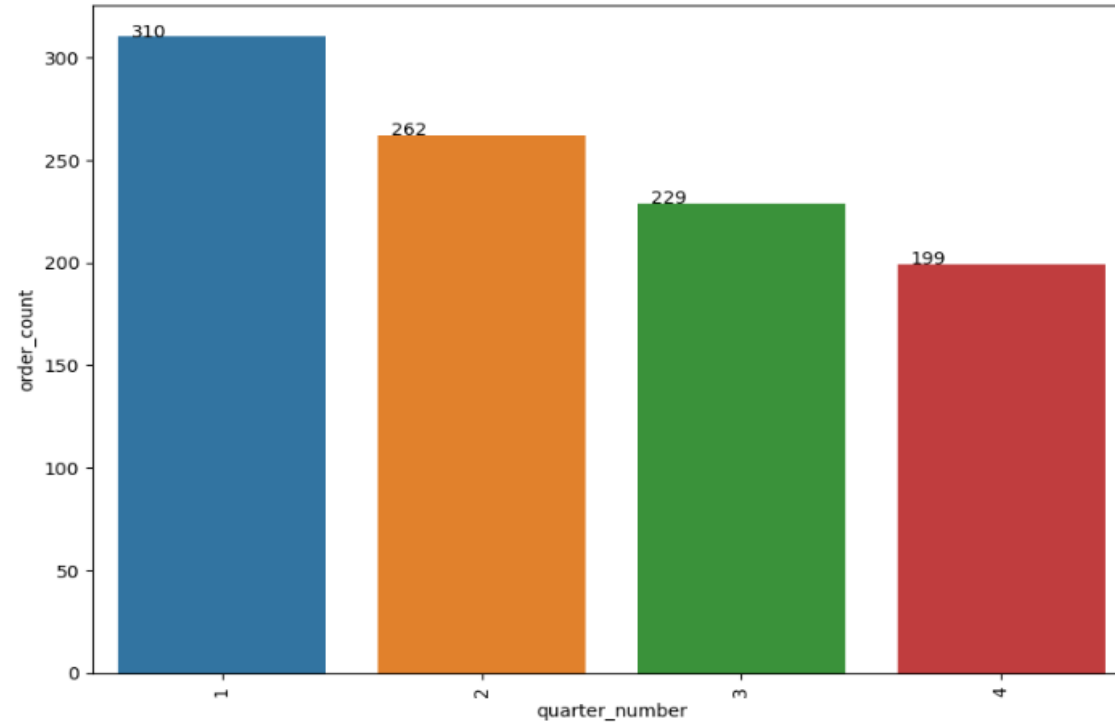## Observations / findings:

- In Texas, the most preferred vehicle is 'Chevrolet'.

- Most preferred vehicle in Florida is 'Toyota'.

- In California, most preferred vehicles are 'Audi', 'Chevrolet', 'Dodge', 'Ford' and 'Nissan'.

REVENUE METRICS

6) Trend of purchases in each quarter

Observations / findings:

- In Q1, there were about 310 purchases, which reduced to 262 in Q2.

- In Q3, purchases reduced to 229 from 262 in the previous quarter.

- Q4 has the least purchases with 199 orders when compared with other quarters.

7) Quarter over Quarter % change in revenue

quarter_number	total_revenue	previous_revenue	revenue_change_percent
1	39493447.44	0	0
2	32783620.68	39493447.44	-16.99%
3	29297793.01	32783620.68	-10.63%
4	23398373.28	29297793.01	-20.14%

Observations / findings:

- We can note a decreasing trend of total revenue over quarters.

- In Q2, total revenue decreased by 16.99% from Q1.

- In Q3, total revenue decreased by 10.63% from Q2.

- Total revenue in Q4 decreased immensely i.e., by 20.14% when compared with the previous quarter.

8) Trend of revenue and orders by quarters

quarter_number	order_count	total_revenue
1	310	39493447.44
2	262	32783620.68
3	229	29297793.01
4	199	23398373.28

Observations / findings:

- Q1 had total revenue of 39 million with 310 purchases in total.

- In Q2, total purchases are 262 and total revenue for the same is 33 million.

- Total purchases reduced to 229 and 199 in Q3 and Q4.

- Also, Total revenue reduced to 29 million and 23 million in Q3 and Q4.

SHIPPING METRICS

9) Average discount offered by different credit card types
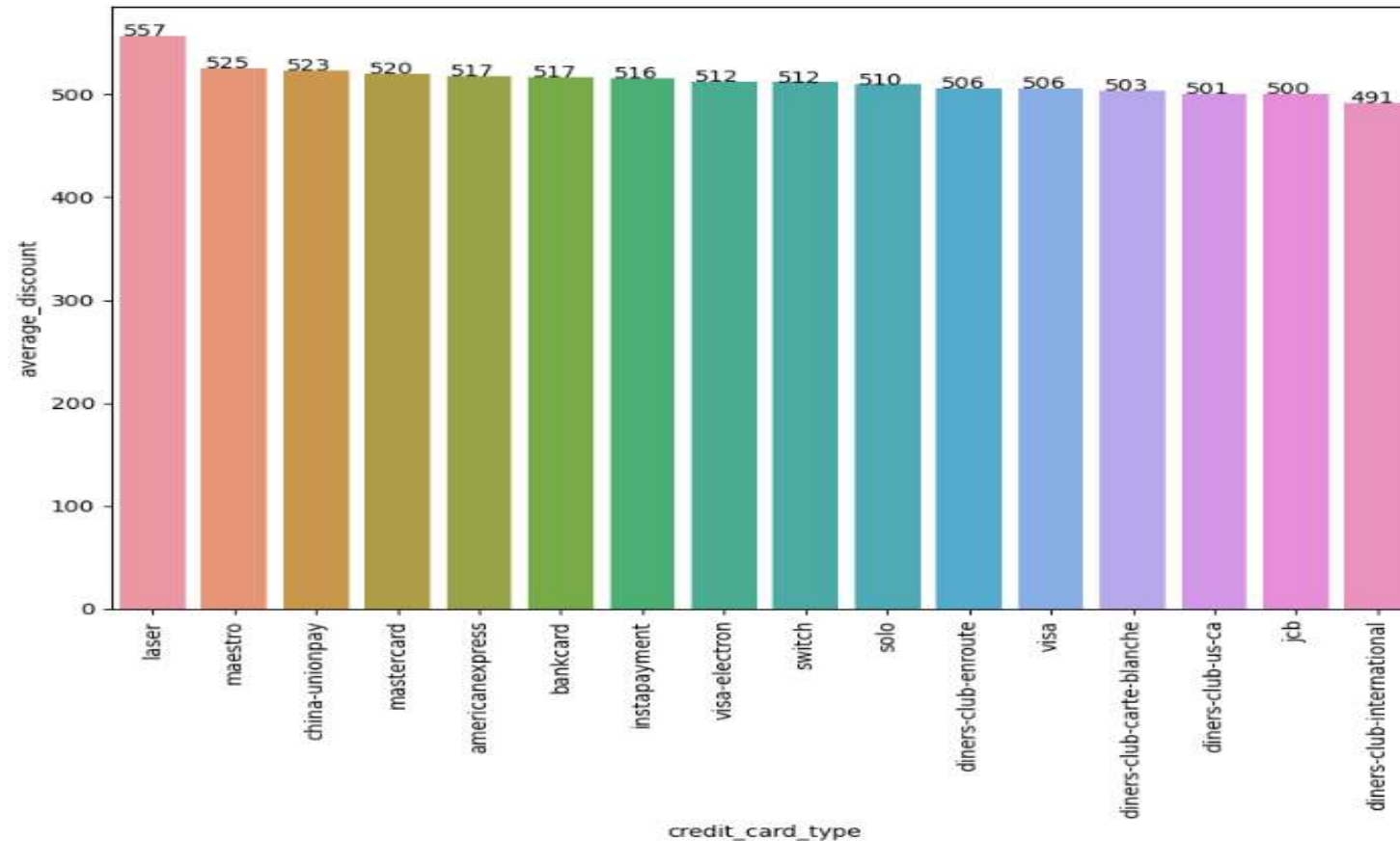
Observations / findings:

- Average discount of 557 offered by the 'Laser' credit card type is the highest.

- 'Diners club international' is the lowest with average discount of 491 among other credit card types.

10) Average time taken to ship the placed orders for each quarters
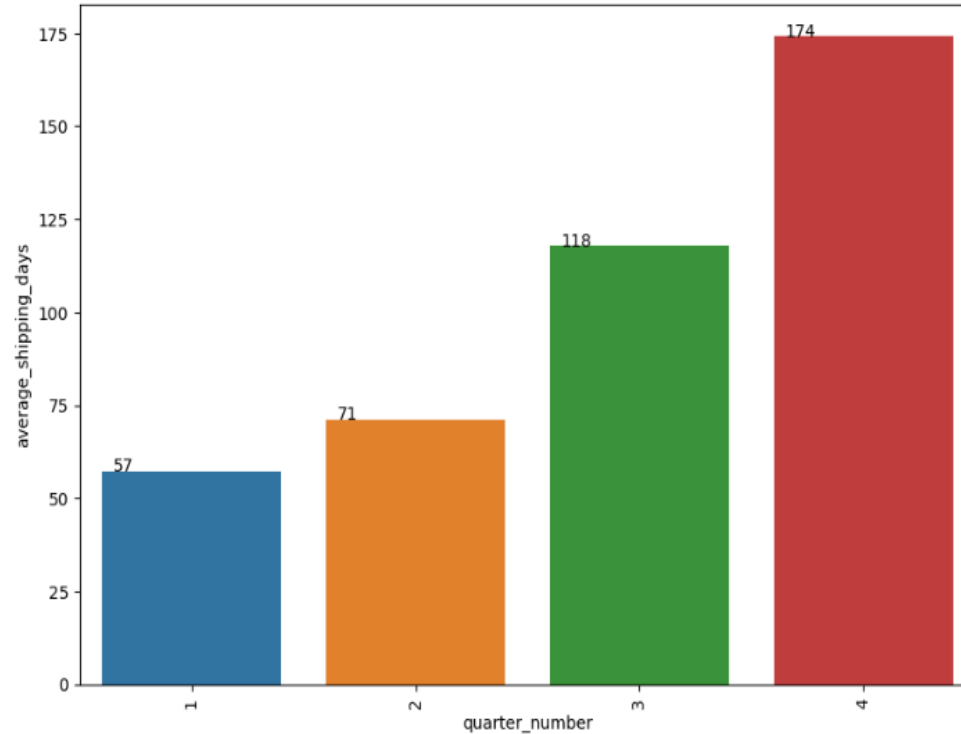
Observations / findings:

- Average time taken to ship the orders in Q1 and Q2 were 57 and 71 days respectively.

- In Q3 and Q4, average time taken to ship orders increased to 118 and 174 days.

Insights and Recommendations

- Company should primarily focus on addressing all the negative feedbacks and work on the same to improve or reduce it.

- Time taken to ship the orders play a key role for the customer dissatisfaction. As a measure, company should focus on reducing the average time taken to ship the placed orders.

- Average discount can be increased not only based on the vehicle make but also based on the premium customers.

- Company should come up with the attractive offers for states with less customer count.

- Decision can be taken on increasing the vehicle models based on the preferred vehicle make across states and can stop or reduce selling of least preferred vehicles.

- A separate team can be set up to handle customer grievances.

- We can also observe from the data that company deal with the vehicles of year 1953, 1962 and so on. So, it would be good if company deals with only less aged vehicles, as more issue occur with aged vehicles.

- Business can slightly increase the purchase price and introduce warranty and guarantee for the vehicles sold, as customer trust and faith play a vital role in the success of a business.