

SQL and Databases

New-Wheels

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Contents / Agenda

- Business Problem Overview and Solution Approach
- Key findings and insights in each section
- Business recommendations

- **Business Problem overview**
- New-Wheels sales have been dipping steadily in the past year, and due to the critical customer feedback and ratings online, there has been a drop in new customers every quarter, which is concerning to the business. The CEO of the company now wants a quarterly report with all the key metrics sent to him so he can assess the health of the business and make the necessary decisions.
- **Solution Approach**
- Overview of the data.
- Review the patterns and trends using EDA.
- Conclusions and recommendations

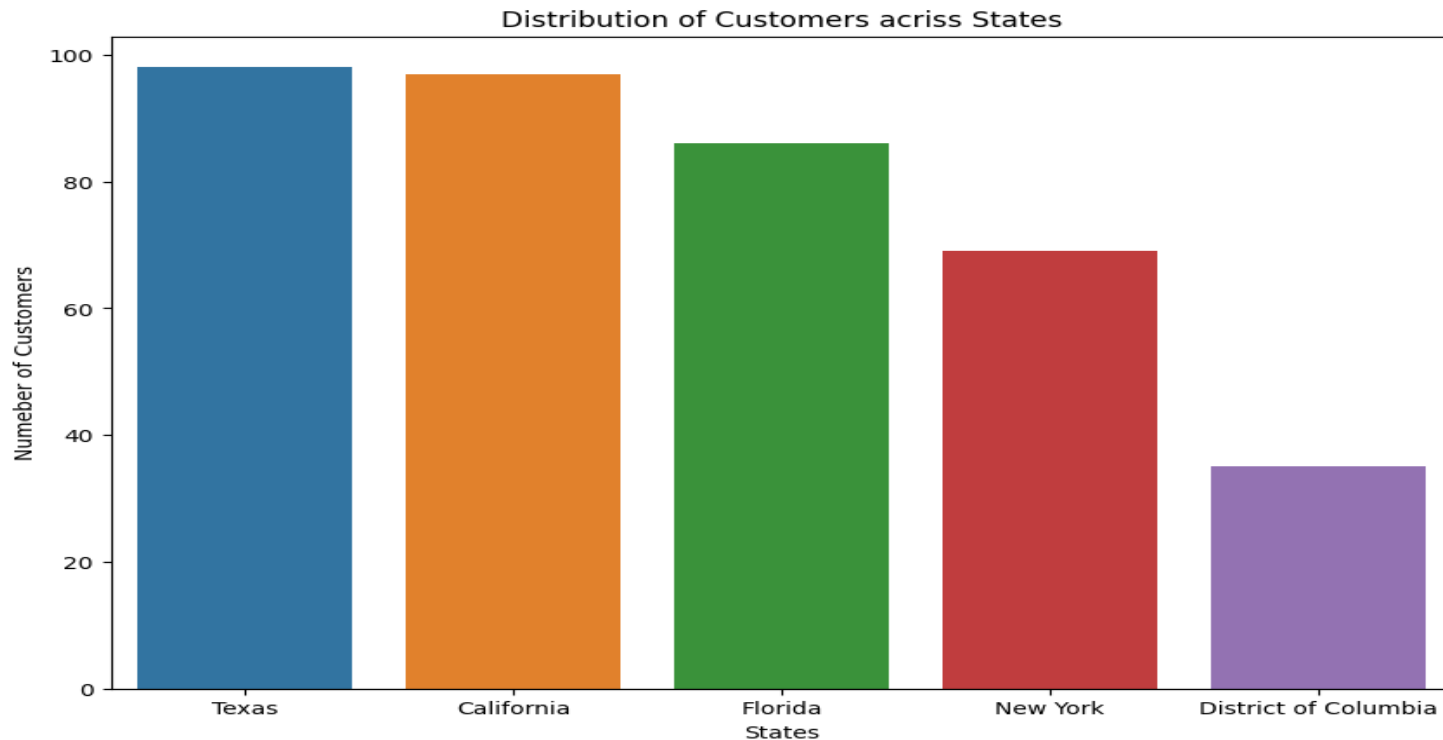
Business overviews

	Q1	Q2	Q3	Q4
Total Revenue(Million)	39.42	32.72	29.23	23.35
Total Orders	310	262	229	199
Total Customers	310	261	229	199
Average rating	3.55	3.35	2.96	2.4
Avg days to ship	57.17	71.11	117.76	174.1
% of good feedback	28.71	22.14	20.96	10.05

- The performance of the company is deterioration on all parameters.

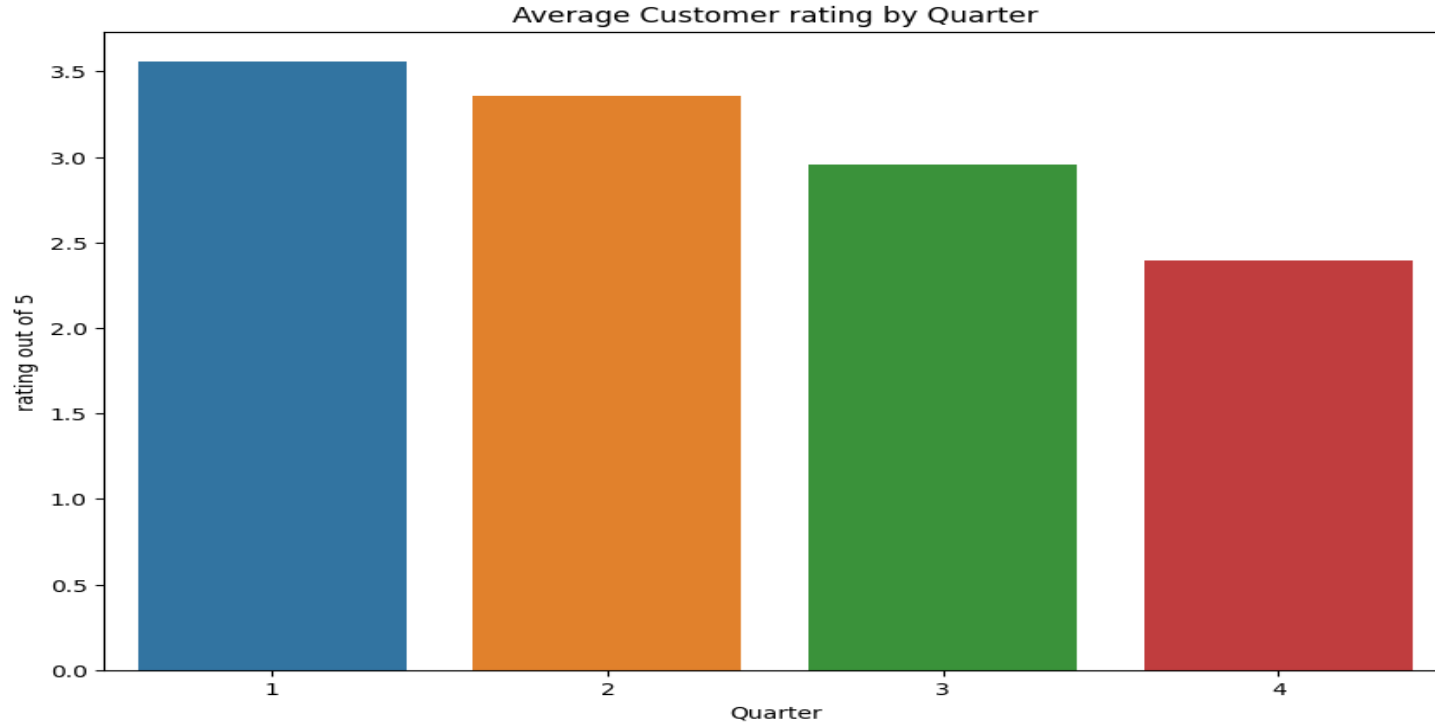
Customer Metrics

Distribution of Customers across States



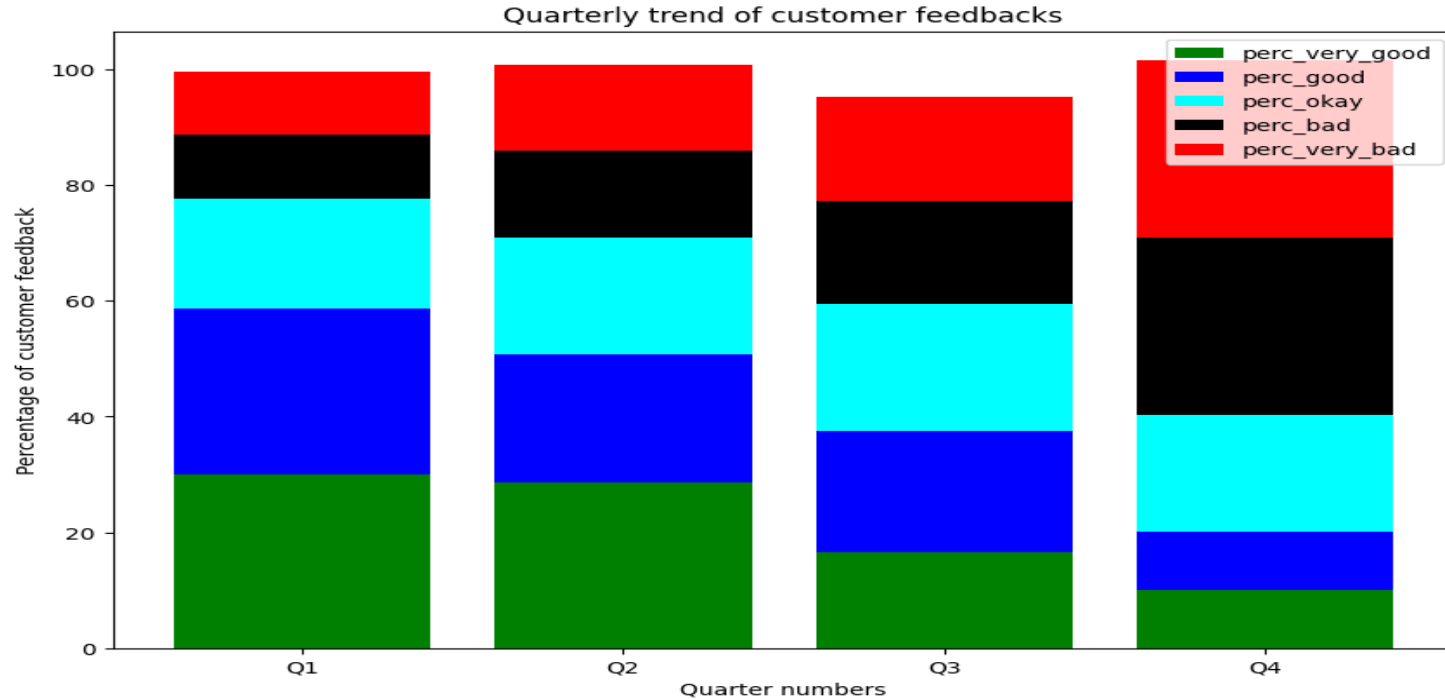
- Texas, California and Florida are the three big states with customers.

Average Customer Ratings by Quarter



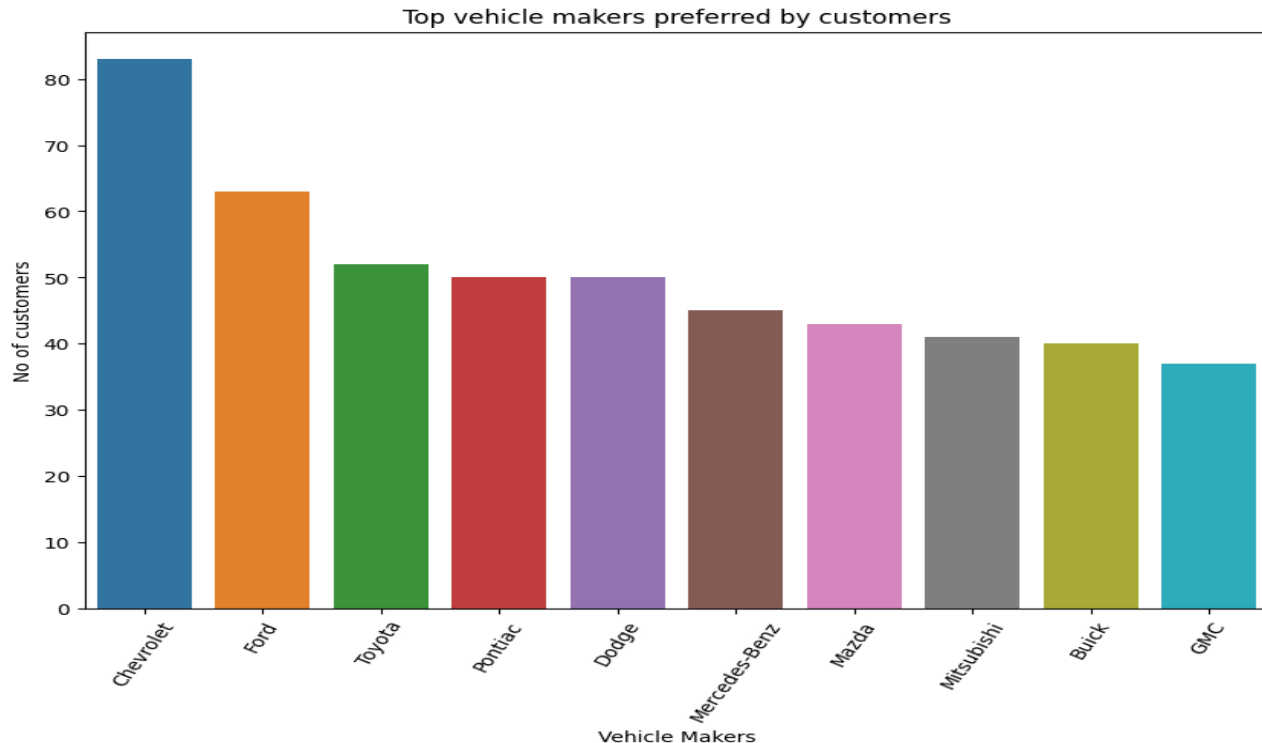
- Customer ratings are declining through time.

Trend of Customer Satisfaction



- From the above stacked bar chart, the very good and good customer feed back is declining through time. On the contrary the number of dissatisfied customers (bad, very bad) is increasing.

Top Vehicle makers preferred by customers



- Chevrolet and Ford are the most preferred vehicles.

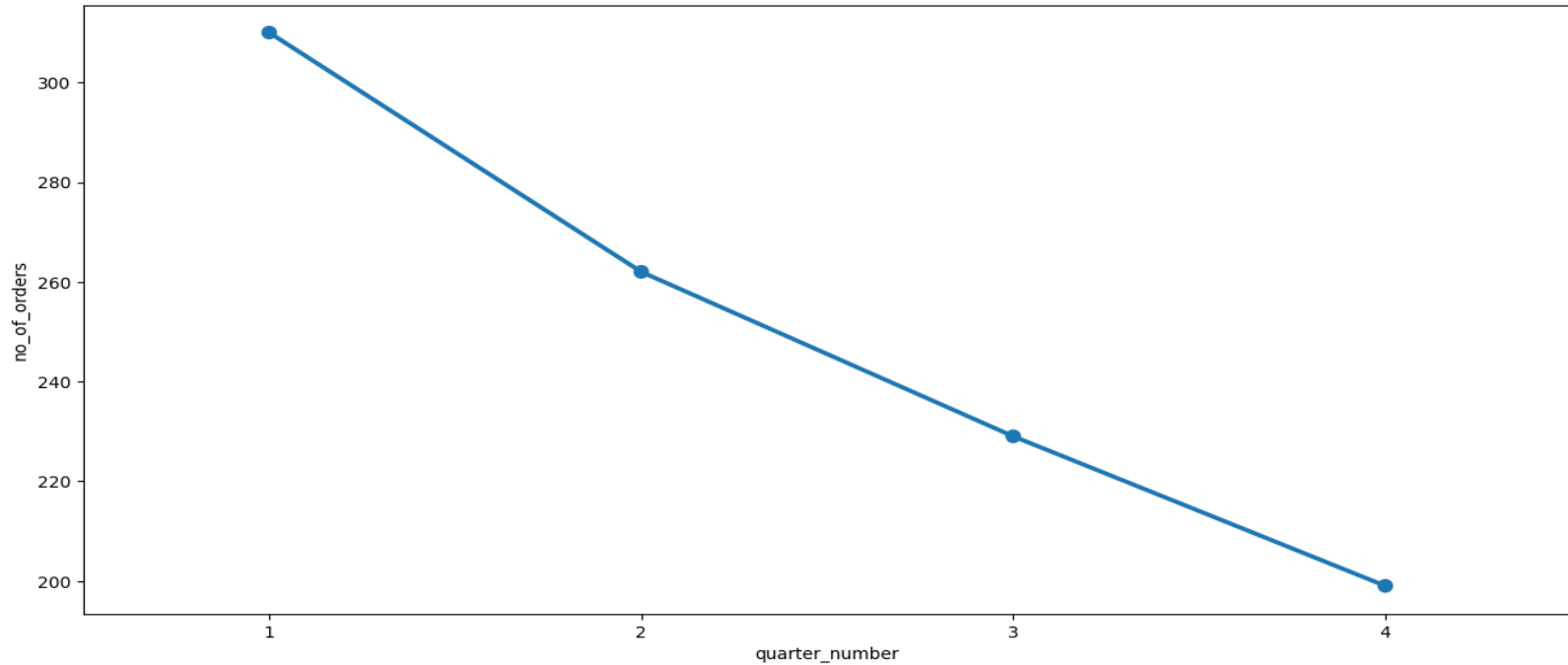
Most preferred vehicle make in each state

Vehicle maker	State
Audi	California
BMW	Louisiana
Cadillac	Arizona
Chevrolet	Alaska, California, Colorado, Connecticut, DC, Illinois, Massachusetts, Missouri, Ohio, Texas, Washington
Dodge	Alabama, California, Idaho, Massachusetts, New Mexico
Ferrari	Oklahoma
Ford	California, Illinois, Louisiana, Maryland, Michigan, Virginia
GMC	Illinois, Minnesota
Kia	Louisiana
Maserati	Connecticut
Mazda	Indiana, Oklahoma, Tennessee
Mercedes-Benz	New Jersey, West Virginia
Mercury	Connecticut
Mitsubishi	Delaware
Hyundai	New Jersey
Nissan	California, Louisiana
Pontiac	Arizona, Louisiana, Nevada, New York
Toyota	Florida, Georgia, New York, Oklahoma, Oregon, Pennsylvania
Volvo	Connecticut, North Carolina

- There are more than one most preferred vehicle makers in almost all States.
- Chevrolet is the most preferred vehicle in most of the states.

Revenue Metrics

Trend of purchases by Quarter

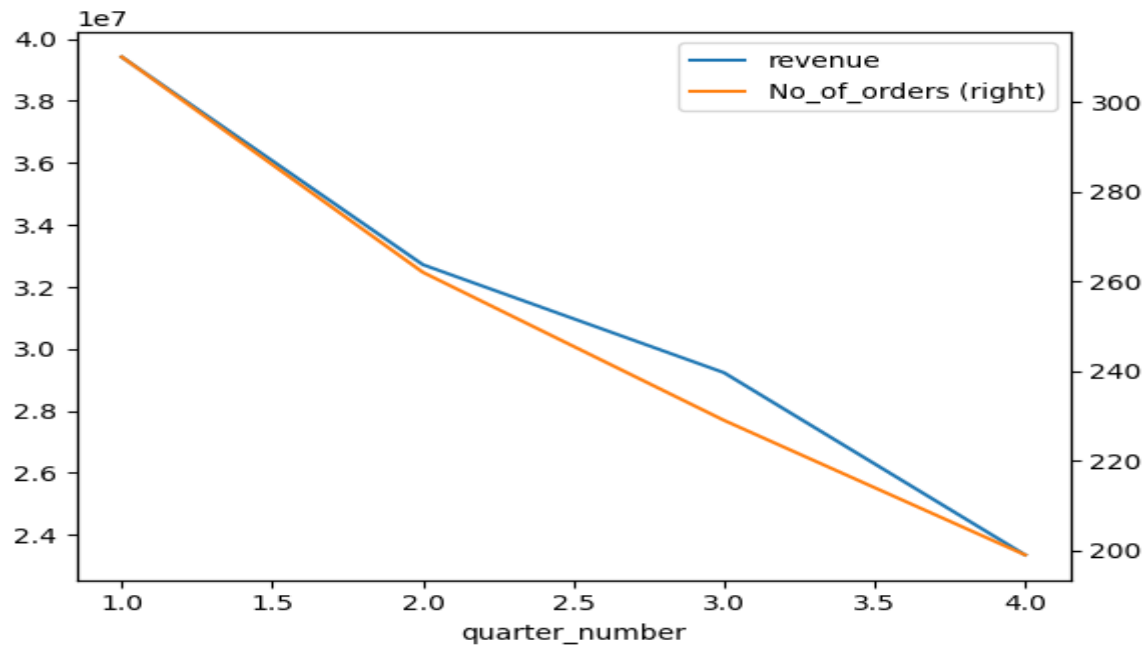


- The number of orders are declining.

Quarter on Quarter % change in Revenue

quarter number	revenue	%age of quarter change
1	39421572	NULL
2	32715830	-17.0103
3	29229898	-10.6552
4	23346776	-20.1271

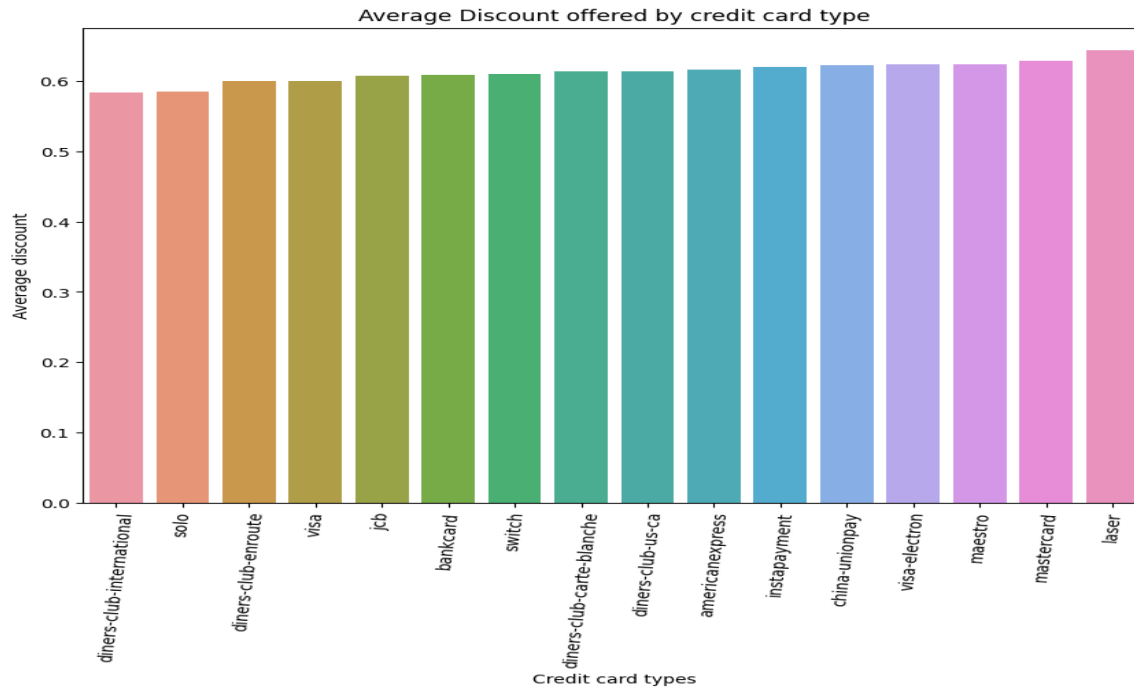
Trend of Revenue and Orders by Quarter



- Revenue and orders are declining

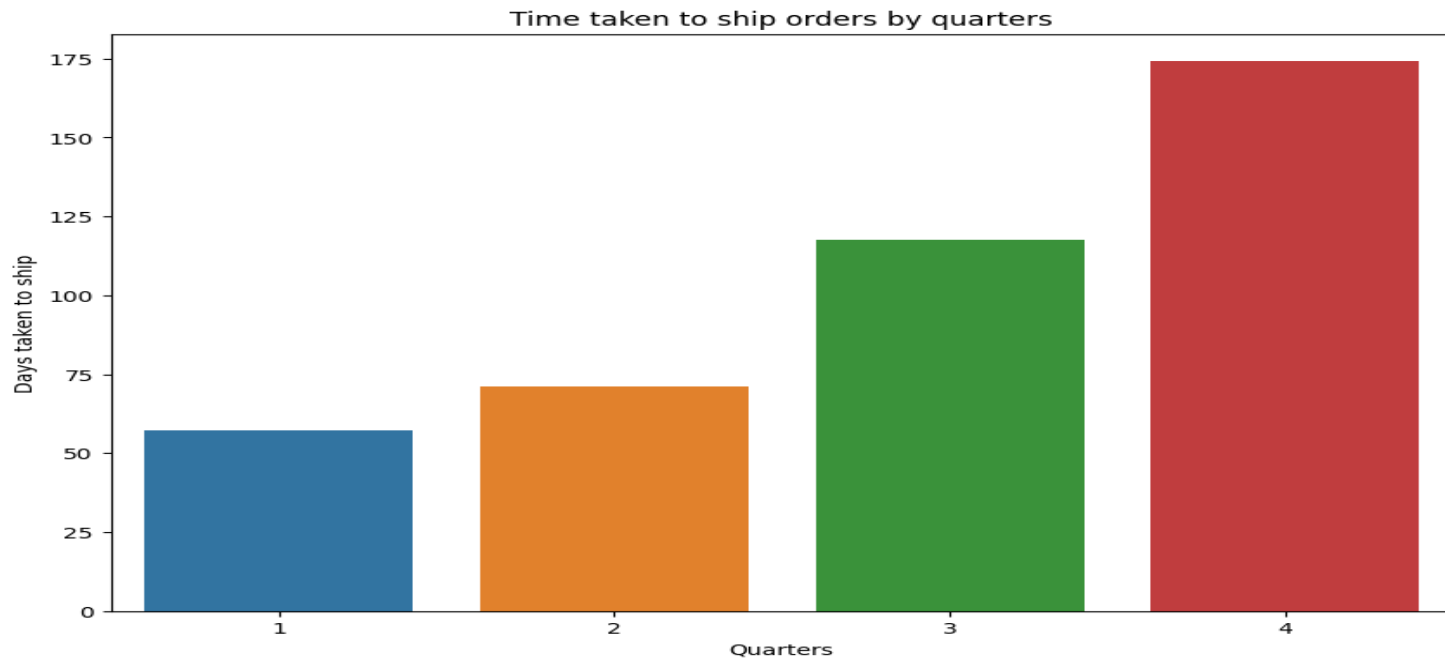
Shipping Metrics

Average discount offered by Credit Card type



- The discount offered by all credit card types are almost the same.

Time taken to ship orders by Quarter



- The number of days took to ship the vehicles is increasing.

Conclusions and recommendations

- As the performance of the company is deterioration in all parameters. There should be an immediate resolutions for the feedbacks from customers.
- The company should discuss with shippers to expedite the shipping process.
- The company should evaluate the bad feedbacks from customers and work to resolve the problems to not occur again.