# **SQL and Databases:**Project Report

#### **Business Overview**



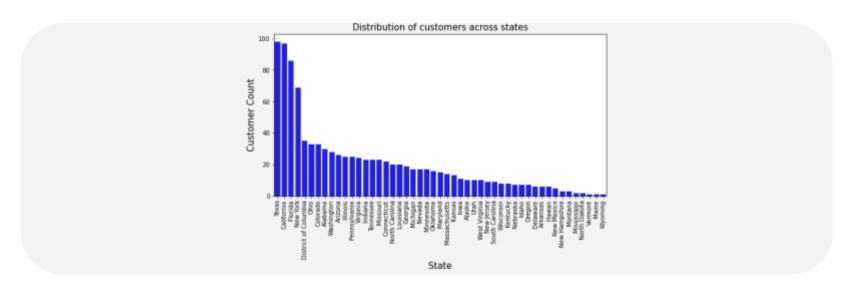
Total Revenue	Total Orders	Total Customers	Avg Rating
124 M	1000	994	3.1
Last Qtr Revenue	Last Qtr Orders	Avg Days to Ship	% Good Feedback
23 M	199	98	21



## **Customer Metrics**

#### **Distribution of Customers across States**



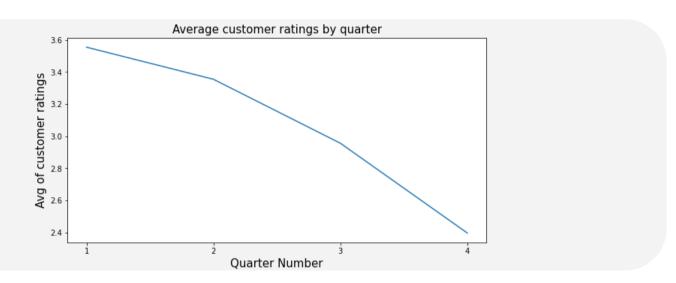


#### **Observations/Findings**

- From the above graph it is observed that maximum number of customers are from Texas followed by California, Florida and New York.
- It is observed that least number of customers are from Vermont, Maine and Wyoming.

## **Average Customer Ratings by Quarter**



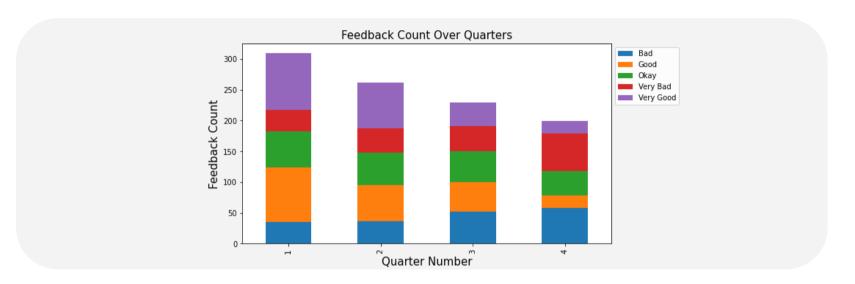


#### **Observations / Findings**

• In quarter number 1, the average customer rating is better compared to other quarters. But still, the average customer rating is below good, which is not a good sign for the business.

#### **Trend of Customer Satisfaction**



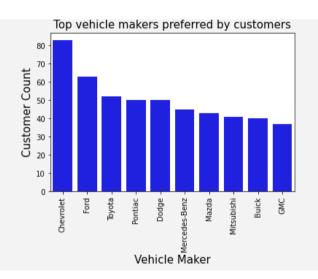


#### **Observations / Findings**

• In quarter 1, the customers who gave good and very good ratings are more but as we move further, the customer satisfaction rate is dropping to very bad, as you can see in the graph above.

## Top Vehicle makers preferred by customers





#### **Observations / Findings**

Chevrolet is the most preferred by customers, followed by Ford and Toyota.

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## Most preferred vehicle make in each state



State	Vehicle_Maker	Vehicle_Sold
Texas	Chevrolet	9
Florida	Toyota	7
California	Audi	6
California	Chevrolet	6
California	Dodge	6

#### **Observations / Findings**

- As we can see above, Chevrolet is the most popular vehicle in Texas.
- In Florida, the most preferred vehicle is Toyota.

## Most preferred vehicle make in each state





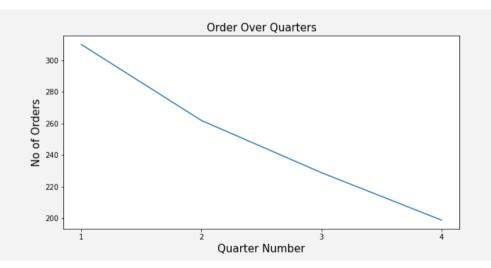
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## **Revenue Metrics**

## Trend of purchases by Quarter





#### **Observations / Findings**

Maximum orders came in quarter 1 and have decreased going forward.

## **Quarter on Quarter % change in Revenue**



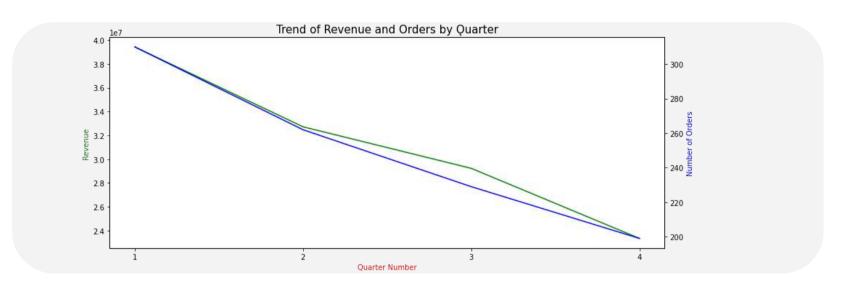
quarter_number	revenue	previous_revenue	qoq_perc_change
1	39421572	NULL	NULL
2	32715830	39421572	-0.1701
3	29229898	32715830	-0.1066
4	23346776	29229898	-0.2013

#### **Observations / Findings**

The total revenue generated throughout the year was \$124 million. In quarter 1, the company generated revenue of \$39 million. We can see there is 17 % dip in the first and second quarter, which is not good for the company.

## Trend of Revenue and Orders by Quarter





#### **Observations / Findings**

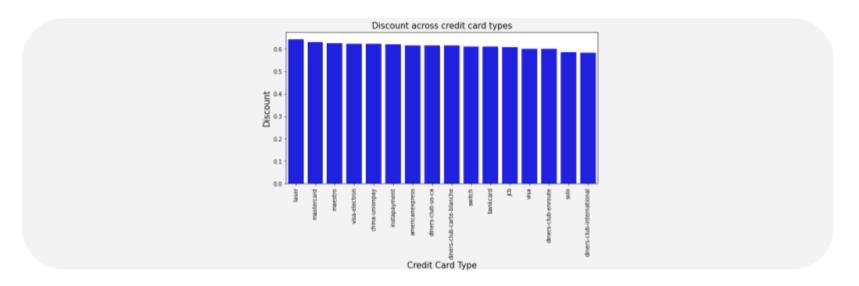
It is observed from the above plot that the number of orders and revenue are decreasing across the quarters. Revenue dipping does not fully depend on the number of orders; it also depends on the vehicle price, discount, and quantity.



# **Shipping Metrics**

# **Average discount offered by Credit Card type**



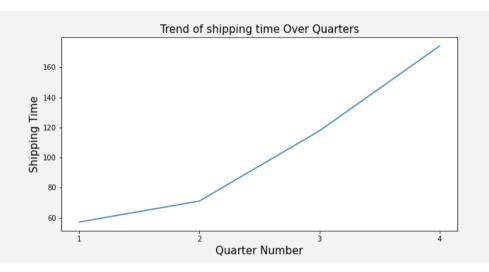


#### **Observations / Findings**

- Overall, same discount is given by every credit card type.
- From the graph, it is observed that laser have offered a maximum average discount of 0.64%.

## Time taken to ship orders by Quarter





#### **Observations / Findings**

For quarters 1 and 2 the shipping time taken to ship the car is done within 90 days.



# **Insights and Recommendations**

## **Insights**



- The total revenue generated throughout the year was \$124 million. In quarter 1, the company generated revenue of \$39 million. We can see there is more than a 17% dip in the first and second quarter, which is not good for the company.
- The maximum number of customers is from Texas, followed by California and Florida. Chevrolet is the preferred vehicle in Texas and California. Apart from Chevrolet, California customers also prefer Audi and Dodge.
- It is observed from the above plot that the number of orders and revenue are decreasing across the quarters. Revenue dipping does not fully depend on the number of orders; it also depends on the vehicle price, discount, and quantity.
- Customer ratings are dipping from very good to very bad from quarter 1 to quarter 4. There can be multiple reasons for the customer's dissatisfaction. One of those reasons can be longer shipping time, as you observed in slide number 15.
- From the graph, it is observed that lasers have offered a maximum average discount of 0.64%.

#### Recommendations



- The shipping time of the vehicle must be reduced as the customers will not be happy to wait for a longer period of time.
- Customer acquisition needs to be done from other states also, as major customers are coming from Texas, California, and Florida only.
- Need to be more focused on the brand preference and the vehicle model for the respective region and Why?
- It is recommended to do a campaign to gather the customer preference on vehicles for the respective regions. A test campaign can be started in Texas, California, and Florida.