# Quarterly Business Report

By

Jayashree Sambasivam Muralidharan Essentials of Data Analytics

### **Business Overview**

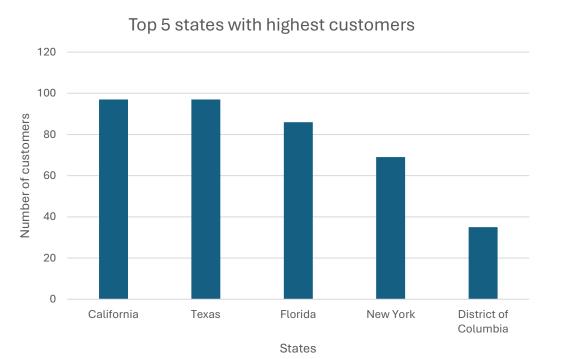
Total Revenue 82.6 M Total Orders 100 Total Customers 994 Average Rating 3.14

Last Quarter Revenue 15.2 M Last Quarter Orders 199 Average Days to ship 98

% Good Feedback 44%

### **Customer Metrics**

#### Distribution of customers across States



Distribution_of_Customers	States
97	California
97	Texas
86	Florida
69	New York
35	District of Columbia

- The top 5 states with highest number of customers are California, Texas, Florida, New York and District of Columbia.
- 78 % of the states have less than 25 customers.
- California and Texas have the highest number of customers and 97 being the total number of customers.

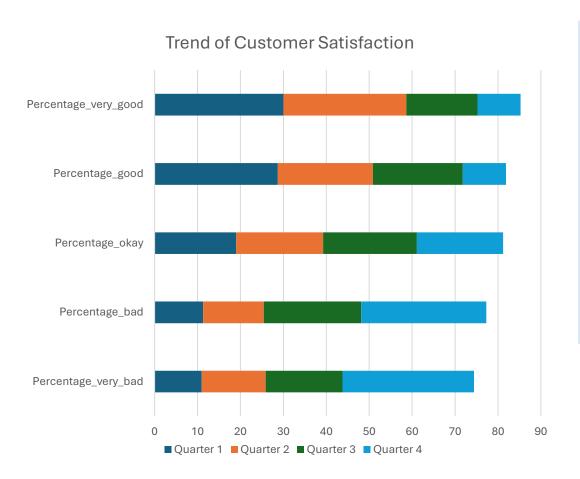
# Average customer ratings each quarter



quarter_number	average_customer_rating
1	3.55
2	3.35
3	2.96
4	2.4

- The average customer rating has a decreasing trend throughout the year.
- The highest customer rating being 3.55 in Quarter 1 and lowest being 2.4 in Quarter 4.

#### Trend of Customer Satisfaction



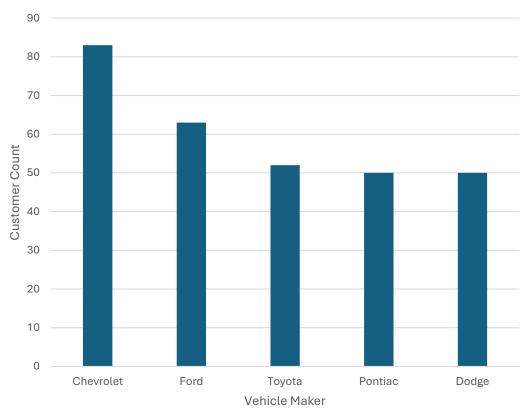
- Customer satisfaction decreased towards the end of the year.
- Quarter 1 has the least number of dissatisfied customers and highest number of satisfied customers.
- Quarter 4 has the highest number of dissatisfied customers and lowest number of satisfied customers.

### Trend of Customer Satisfaction

Quarter_number	Percentage_very_bad	Percentage_bad	Percentage_okay	Percentage_good	Percentage_very_good
1	10.97	11.29	19.03	28.71	30
2	14.89	14.12	20.23	22.14	28.63
3	17.9	22.71	21.83	20.96	16.59
4	30.65	29.15	20.1	10.05	10.05

# Top Vehicle Makers preferred by customers





Vehicle_maker	Number of Customers
Chevrolet	83
Ford	63
Toyota	52
Pontiac	50
Dodge	50

• The top 5 vehicles preferred by customers are Chevrolet, Ford, Toyota, Pontiac and Dodge with Chevrolet being the highest number as 87 and Dodge being the 5<sup>th</sup> with number of vehicles as 50.

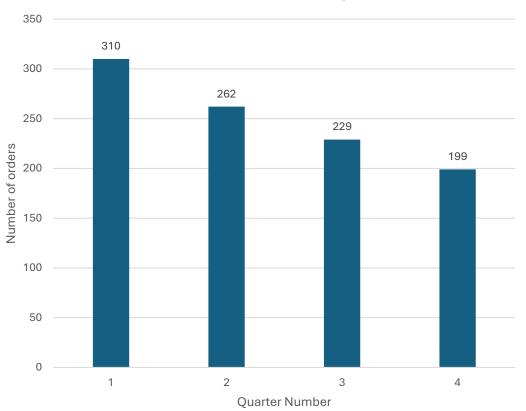
# Most preferred vehicle make in each state

Most\_Preferred\_vehicle\_each\_state

# Revenue Metrics

# Trend of purchases by Quarter

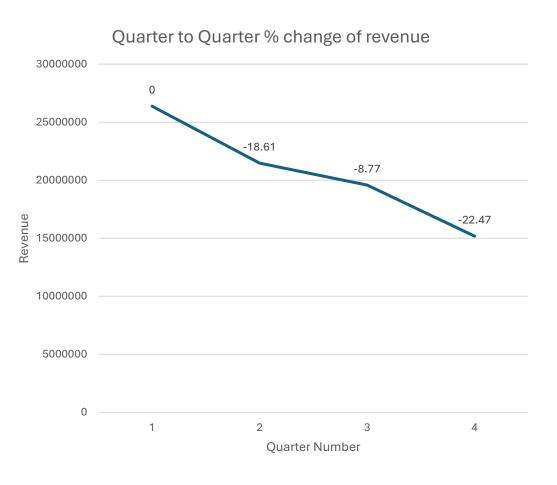




Quarter_number	Number of orders
1	310
2	262
3	229
3	
4	199

- The number of orders shows a decreasing trend throughout the year.
- The total number of orders is highest in Quarter 1 being 310 and lowest number of orders is seen in quarter 4 with number being 199.

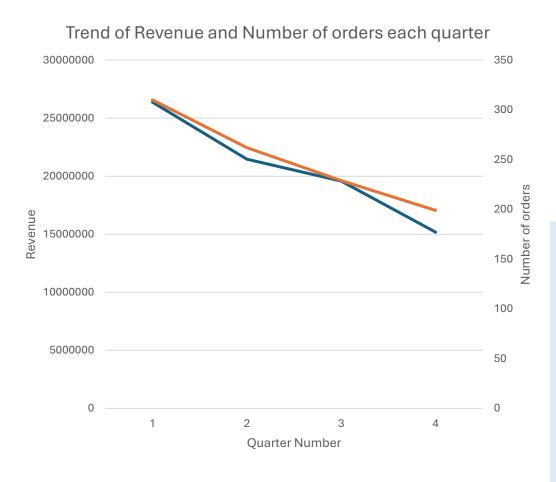
# Quarter on Quarter % change in Revenue



quarter_number	revenue	previous_quarter_revenue	percentage_change_in_revenue
1	26375016	0	0
2	21465757	26375015.66	-18.61
3	19582283	21465757.27	-8.77
4	15182375	19582283.12	-22.47

- The revenue has a declining trend throughout the year.
- The percentage decrease slightly improved in third quarter but decreased a lot by the end of fourth quarter.

## Trend of Revenue and Orders by Quarter



Quarter_number	no_of_orders	revenue
1	310	26375016
2	262	21465757
3	229	19582283
4	199	15182375

- Both revenue and the number of orders follow a declining trend.
- This shows that there is a direct correlation between revenue and number of orders.
- The revenue has decreased as the number of orders has decreased.
- The revenue can be increased by improving customer satisfaction.

# Shipping Metrics

# Average discount offered by Credit Card type

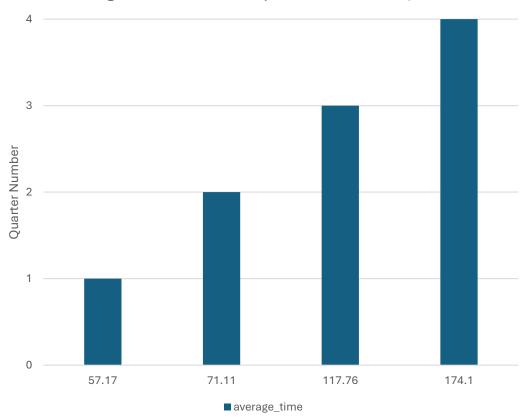


credit_card_type	average_discount
americanexpress	517.37
bankcard	516.74
china-union pay	523
diners-club-carte-blanche	503.24
diners-club-enroute	506.05
diners-club-international	491.22
diners-club-us-ca	500.54
instapayment	515.53
jcb	500.42
laser	557.24
maestro	525.41
mastercard	519.62
solo	509.64
switch	511.8
visa	506.05
visa-electron	512.19

- The laser offers the highest discount on credit cards while the diners club international offers the lowest discount.
- There is no significant difference in the discounts offered by different credit card companies.

## Time taken to ship orders by Quarter





quarter_number	average_time
1	57.17
2	71.11
3	117.76
4	174.1

- The average time taken to ship orders keeps increasing in each quarter and reaches the maximum towards the end of the year.
- The time taken to ship the orders plays a crucial role in customer dissatisfaction which in turn resulted in a decrease in revenue.
- The average time to ship the orders has gone up by more than three times by the end of the year.

### Insights and Recommendations

- New wheels have generated a revenue of 124.71 million in the year 2018.
- The revenue has dropped by 40.8% compared to the first quarter.
- The time taken to process and ship the order must be addressed to achieve customer satisfaction,
- The shipping needs to be done within a short period of time.
- Focus can be given to the top 5 vehicle makers to increase the number of orders and revenue.