



SQL and DATABASES:

PROJECT REPORT :- NEW WHEELS

BUSINESS OVERVIEW

TOTAL REVENUE
48.6 M

TOTAL ORDERS
1000

TOTAL CUSTOMERS
994

AVERAGE RATING
3.1

LAST QTR. REVENUE
8.57 M

LAST QTR. ORDER
199

AVG. DAY TO SHIP
98

% GOOD FEEDBACK
44%



CUSTOMER METRICS

DISRTIBUTION OF CUSTOMER ACROSS STATES

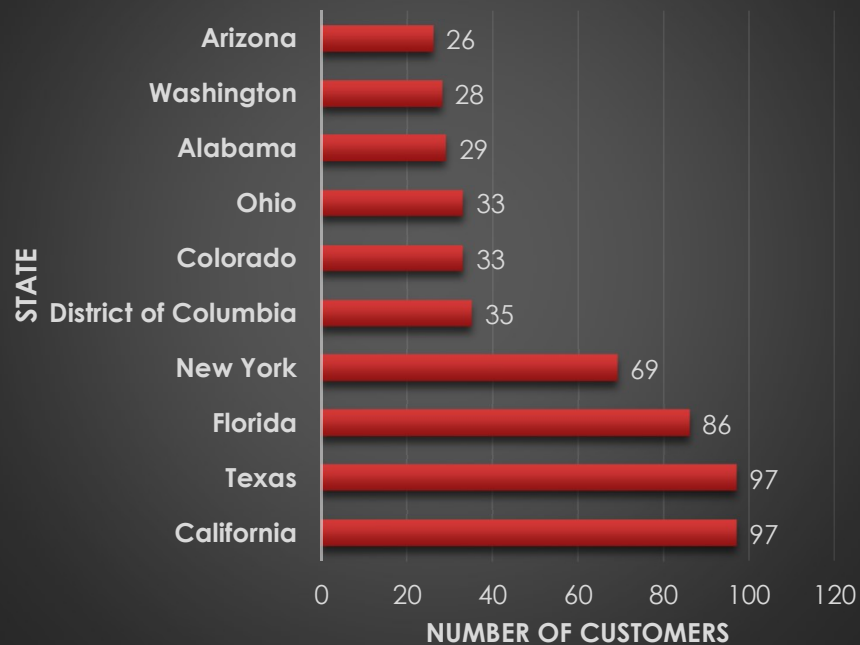
STATE	Dist. of Customer Across States
California	97
Texas	97
Florida	86
New York	69
District of Columbia	35
Colorado	33
Ohio	33
Alabama	29
Washington	28
Arizona	26
Illinois	25
Pennsylvania	25
Virginia	24
Tennessee	23
Missouri	23
Connecticut	22
Indiana	21

STATE	Dist. of Customer Across States
Louisiana	20
North Carolina	20
Georgia	18
Minnesota	17
Nevada	17
Michigan	17
Oklahoma	16
Massachusetts	14
Maryland	14
Kansas	13
Iowa	11
Utah	10
West Virginia	10
Alaska	10
New Jersey	9
South Carolina	9
Wisconsin	8

STATE	Dist. of Customer Across States
Kentucky	8
Nebraska	7
Idaho	7
Oregon	7
Arkansas	6
Hawaii	6
Delaware	6
New Mexico	5
New Hampshire	3
Montana	3
North Dakota	2
Mississippi	2
Maine	1
Wyoming	1
Vermont	1
TOTAL	994 Customers

DISRTIBUTION OF CUSTOMER ACROSS TOP 10 STATES

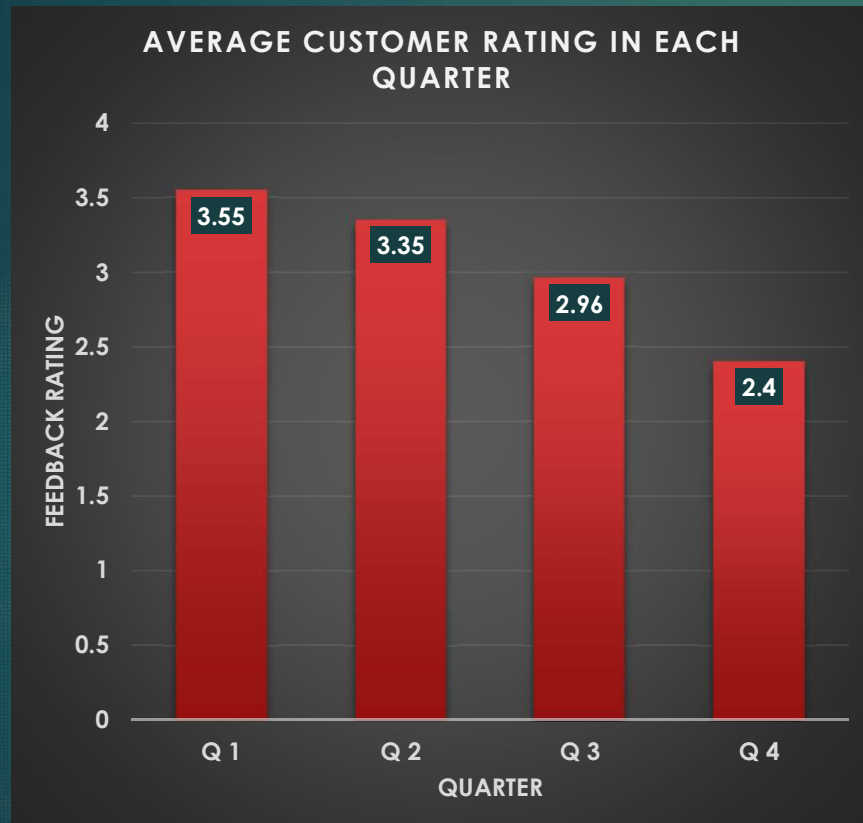
CUSTOMER DISTRIBUTION IN TOP 10 STATES



Inferences

- ▶ “California” and “Texas” has maximum number of customers i.e., 97 customers
- ▶ “Maine”, “Wyoming”, “Vermont” has min number of customers i.e., 1 customers
- ▶ Top 5 states contributes to nearly 39% of total customers
- ▶ Top 10 states contributes to nearly 54% of total customers

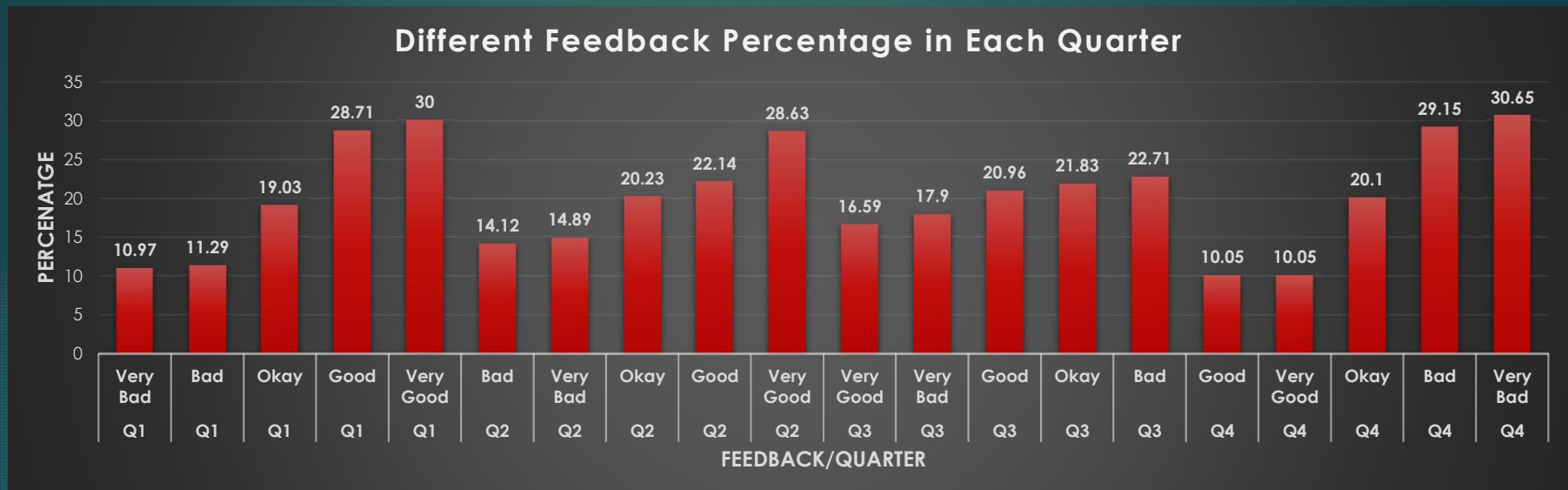
AVERAGE CUSTOMER RATINGS BY QUARTER



INFERENCES

- ▶ In first quarter the average customer rating is maximum
- ▶ In fourth quarter the average customer rating is minimum
- ▶ There is clearly decline in trend in customer average rating with each passing quarter

TREND OF CUSTOMER SATISFACTION

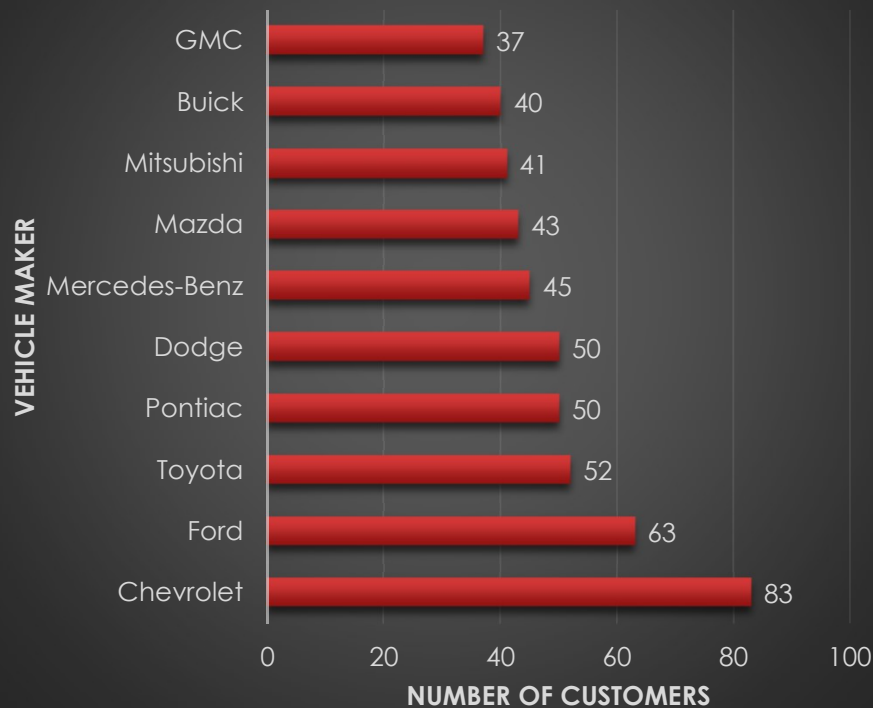


Inferences

- ▶ In first two quarter most of the customer feedback is 'very good' or 'good'
- ▶ In last two quarter most of the customer feedback is 'very bad' or 'bad'.
- ▶ We can clearly observe that customer feedback is declining over the time .

TOP VEHICLE MAKERS PREFERRED BY CUSTOMERS

TOP 10 VEHICLE MAKER PREFERRED BY CUSTOMERS



Inferences

- ▶ Maximum number of customers have preferred 'Chevrolet' car manufacturer.
- ▶ Among 54 vehicle manufacturer, these 10 brands i.e., 'Chevrolet', 'Ford', 'Toyota', 'Pontiac', 'Dodge', 'Mercedes-Benz', 'Mazda', 'Mitsubishi', 'Buick', 'GMC' contributes more than 50% i.e., 504 out of 1000.

MOST PREFERRED VEHICLE MAKER IN EACH STATE

STATE	Vehicle Maker	Number of Vehicle
Alabama	Dodge	5
Alaska	Chevrolet	2
Arizona	Pontiac	3
	Cadillac	3
Arkansas	Suzuki	1
	Chevrolet	1
	Pontiac	1
	Volkswagen	1
	Mitsubishi	1
	GMC	1
California	Ford	6
	Dodge	6
	Audi	6
	Nissan	6
	Chevrolet	6

STATE	Vehicle Maker	Number of Vehicle
Colorado	Chevrolet	5
Connecticut	Chevrolet	2
	Mercury	2
	Maserati	2
	Volvo	2
Delaware	Mitsubishi	2
District of Columbia	Chevrolet	4
Florida	Toyota	7
Georgia	Toyota	3
Hawaii	Ford	1
	Toyota	1
	Pontiac	1
	Nissan	1
	Cadillac	1
	GMC	1

STATE	Vehicle Maker	Number of Vehicle
Idaho	Dodge	2
Illinois	Ford	3
	GMC	3
	Chevrolet	3
Indiana	Mazda	4
Iowa	Chrysler	1
	Chevrolet	1
	Hyundai	1
	Isuzu	1
	Dodge	1
	Mazda	1
	Porsche	1
	Jeep	1
	Ford	1
	Pontiac	1

MOST PREFERRED VEHICLE MAKER IN EACH STATE

STATE	Vehicle Maker	Number of Vehicle
Iowa	Subaru	1
Kansas	GMC	1
	Lexus	1
	Buick	1
	Mercedes-Benz	1
	Suzuki	1
	Honda	1
	Dodge	1
	Volkswagen	1
	Ford	1
	Mazda	1
	Maserati	1
	Nissan	1
	Saab	1
Kentucky	Acura	1

STATE	Vehicle Maker	Number of Vehicle
Kentucky	Mercury	1
	Audi	1
	Ram	1
	Volvo	1
	Pontiac	1
	Nissan	1
	Mercedes-Benz	1
Louisiana	BMW	2
	Nissan	2
	Ford	2
	Pontiac	2
	Kia	2
Maine	Mercedes-Benz	1
Maryland	Ford	5
Massachusetts	Dodge	2

STATE	Vehicle Maker	Number of Vehicle
Massachusetts	Chevrolet	2
Michigan	Ford	3
Minnesota	GMC	3
Mississippi	Dodge	1
	Toyota	1
Missouri	Chevrolet	4
Montana	Chevrolet	1
	Mitsubishi	1
	Dodge	1
Nebraska	Chevrolet	1
	Mercedes-Benz	1
	Volkswagen	1
	Nissan	1
	Pontiac	1
	Toyota	1

MOST PREFERRED VEHICLE MAKER IN EACH STATE

STATE	Vehicle Maker	Number of Vehicle
Nebraska	Cadillac	1
Nevada	Pontiac	3
New Hampshire	Chrysler	1
	Lincoln	1
	Lexus	1
New Jersey	Mercedes-Benz	2
	Hyundai	2
New Mexico	Dodge	2
New York	Toyota	5
	Pontiac	5
North Carolina	Volvo	3
North Dakota	Hyundai	1
	Ford	1

STATE	Vehicle Maker	Number of Vehicle
Ohio	Chevrolet	6
Oklahoma	Toyota	2
	Ferrari	2
	Mazda	2
Oregon	Toyota	2
Pennsylvania	Toyota	3
South Carolina	Acura	1
	Buick	1
	BMW	1
	Kia	1
	Mazda	1
	Mitsubishi	1
	Dodge	1
	Jaguar	1
	Isuzu	1

STATE	Vehicle Maker	Number of Vehicle
Tennessee	Mazda	3
Texas	Chevrolet	9
Utah	Maybach	1
	Volkswagen	1
	Isuzu	1
	Subaru	1
	Lincoln	1
	Chevrolet	1
	Oldsmobile	1
	Pontiac	1
	Dodge	1
	Buick	1
Vermont	Mazda	1
Virginia	Ford	5
Washington	Chevrolet	5

MOST PREFERRED VEHICLE MAKER IN EACH STATE

STATE	Vehicle Maker	Number of Vehicle
West Virginia	Mercedes-Benz	2
Wisconsin	Pontiac	1
	Chevrolet	1
	Acura	1
	Mazda	1
	Nissan	1
	Cadillac	1
	Dodge	1
	Honda	1
	Buick	1

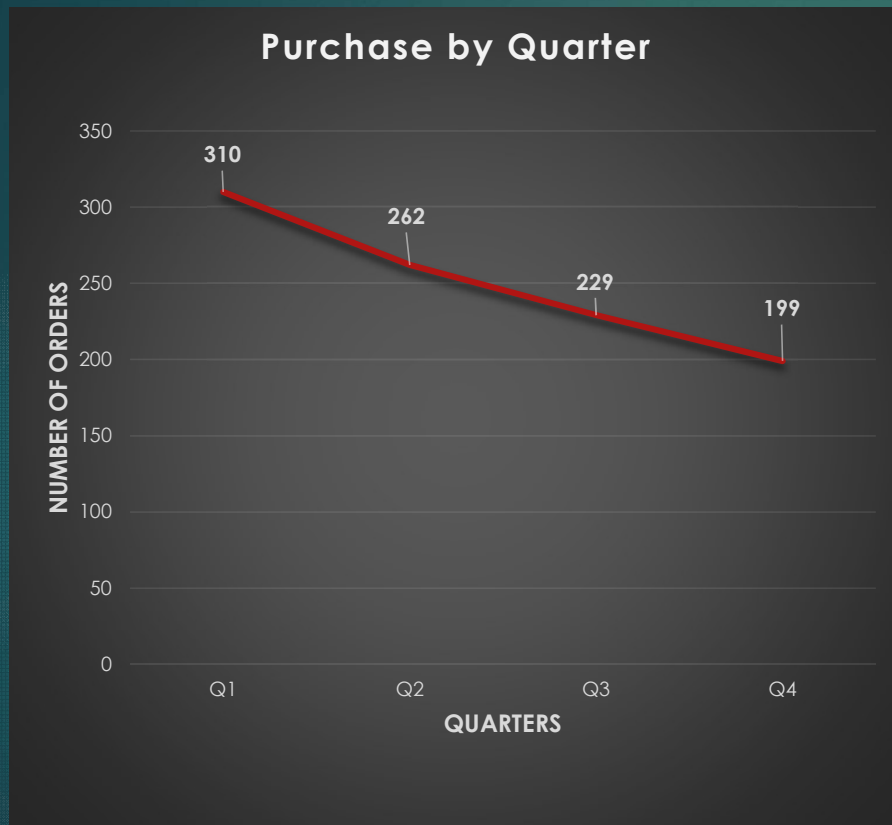
Inferences from tables of Most preferred Vehicle Makers In Each State

- We can see multiple vehicle makers preferred for some states as these states has equal number of Vehicles for each Vehicle Maker.
- Out of all states, 'Texas' has maximum number of vehicle from same vehicle maker i.e., 'Chevrolet' (9).
- Second most number of preferred vehicle in a state is 'Toyota' in Florida'.



REVENUE METRICS

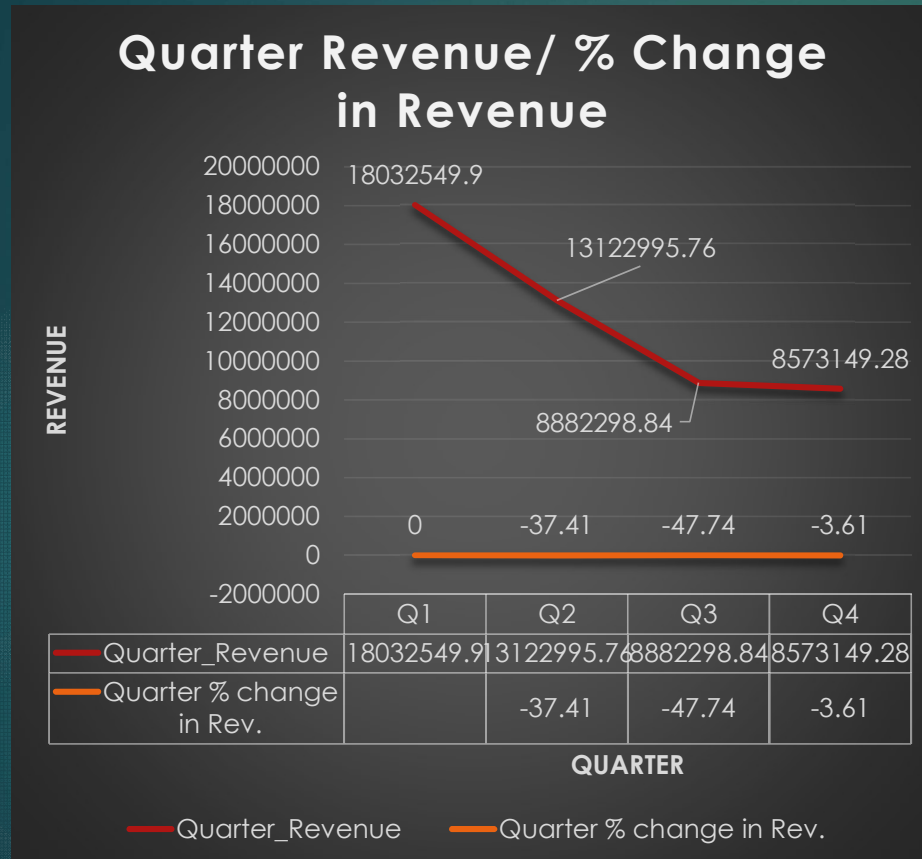
TRENDS OF PURCHASES BY QUARTER



Inferences

- ▶ We can clearly observe that there is decline in number of orders with the time
- ▶ For quarter 1 there is the highest number of orders i.e., 310 whereas quarter 4 has the lowest number of order i.e., 199

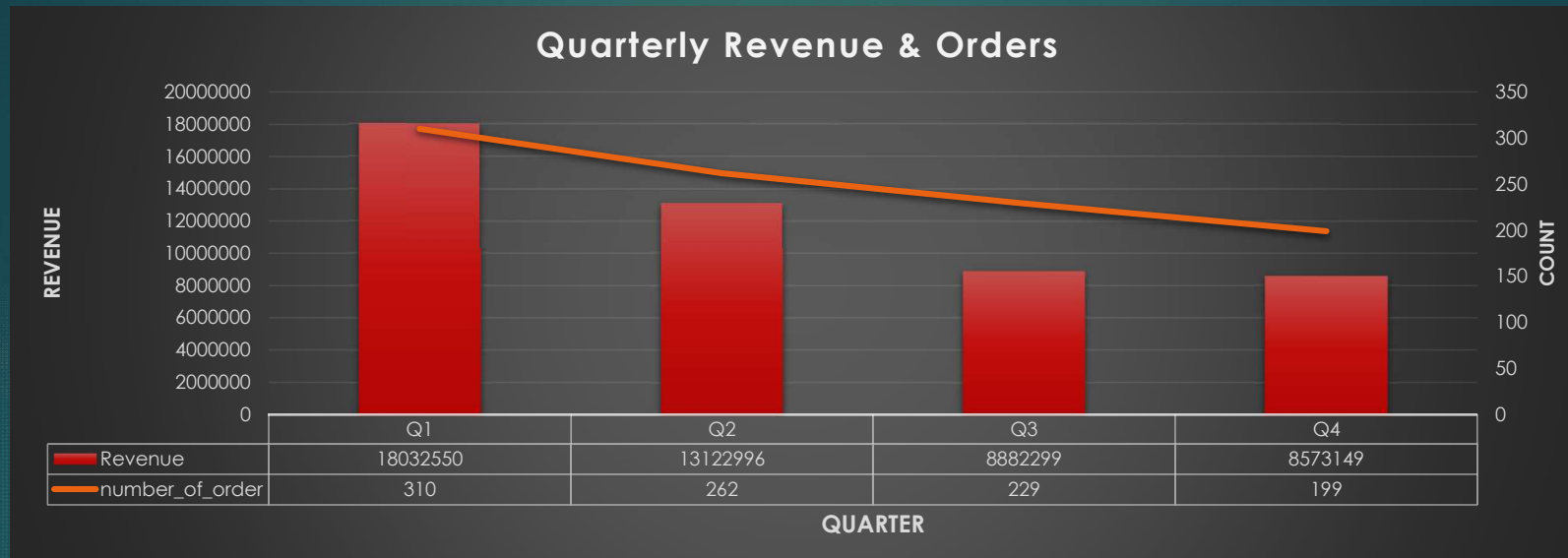
QUARTER ON QUARTER % CHANGE IN REVENUE



Inferences

- ▶ In 1st quarter revenue has been maximum whereas in 4th quarter revenue has been minimum
- ▶ From 1st quarter to 2nd quarter, revenue has dropped by 37.41%
- ▶ From 2nd quarter to 3rd quarter, revenue has dropped by 47.74%
- ▶ From 3rd quarter to 4th quarter, revenue has dropped slightly by 3.61%
- ▶ From above observations, we conclude that the revenue has dropped drastically with time

TRENDS IN REVENUE AND ORDERS BY QUARTER



Inferences

- ▶ In 1st quarter revenue and orders both are maximum i.e., 18032550 & 310 respectively.
- ▶ In 4th quarter revenue and orders both are minimum i.e., 8573149 & 199 respectively
- ▶ We can see both revenue and orders has dropped drastically with time.



SHIPPING METRICS

AVERAGE DISCOUNT OFFERED BY CREDIT CARD TYPE

Credit Card Type	Average Discount
laser	0.64
mastercard	0.63
maestro	0.62
visa-electron	0.62
china-unionpay	0.62
instapayment	0.62
americanexpress	0.62
diners-club-us-ca	0.61

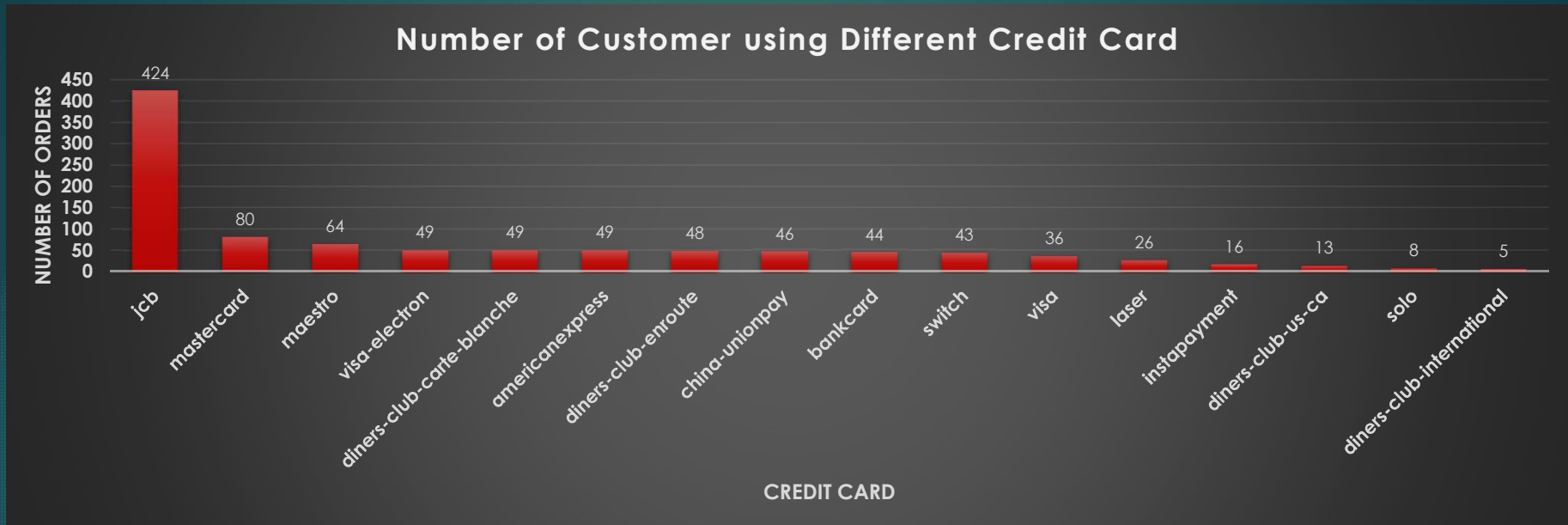
Credit Card Type	Average Discount
diners-club-carte-blanche	0.61
switch	0.61
bankcard	0.61
jcb	0.61
visa	0.6
diners-club-enroute	0.6
solo	0.59
diners-club-international	0.58



Inferences

- ▶ On an average every credit card offer discount of 0.60%.
- ▶ Maximum average credit card discount is given by 'laser'
- ▶ Minimum average credit card discount is given by 'dinner club international'.

NUMBER OF CUSTOMER USING DIFFERENT CREDIT CARD

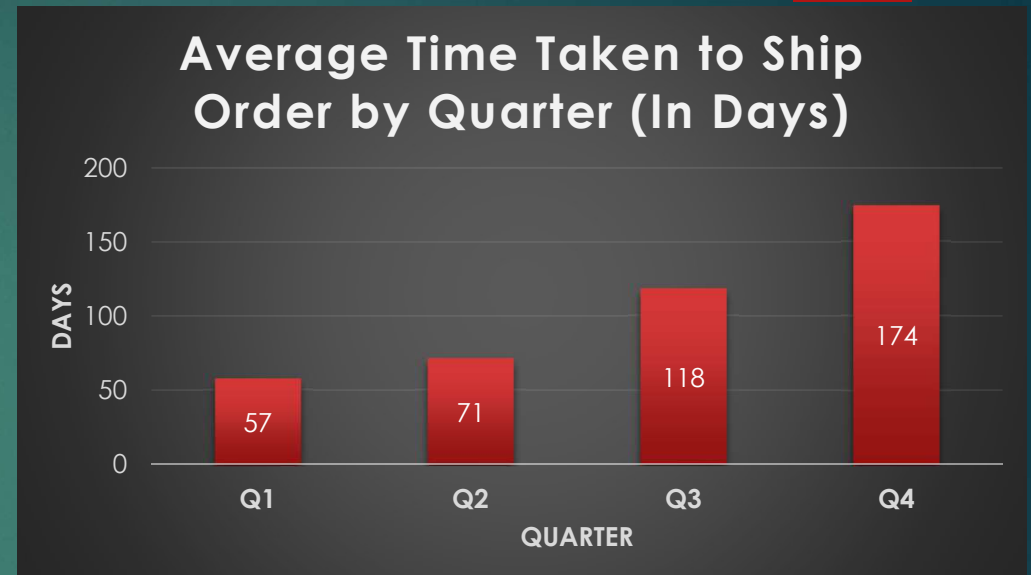


Inferences

- ▶ Most of the customers are using 'JCB' credit card i.e., 42.4%
- ▶ Very few customers are using 'SOLO' or 'diners club international'

TIME TAKEN TO SHIP ORDERS BY QUARTER

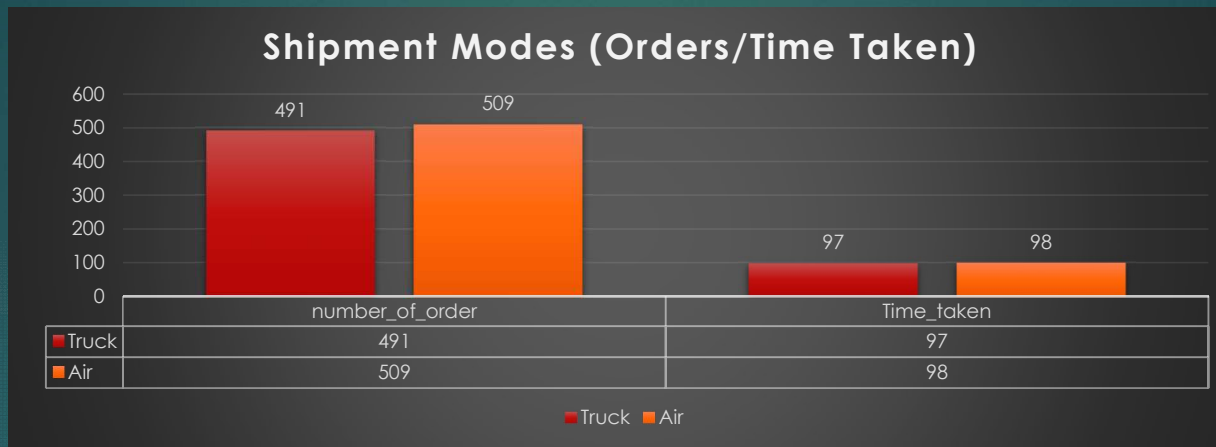
Quarter	Average Time Taken (In Days)
Q1	57
Q2	71
Q3	118
Q4	174



INFERENCES

- ▶ In 1st quarter, time taken to ship the orders are least i.e., 57 days
- ▶ In 4th quarter, time taken to ship the order are most i.e., 174 days
- ▶ We see that time taken to ship the orders has increased with every quarter.

DIFFERENT MODES OF SHIPMENT



Inferences

- ▶ There are basically two modes used to ship the products, Truck & Car.
- ▶ Slightly more number of products are shipped by Truck compared to Air i.e., 509 and 491.
- ▶ On an Average it takes 97 days to ship an order by Air whereas it takes 98 days to ship an order by Truck.



INSIGHTS AND RECOMMENDATIONS

INSIGHTS

- ▶ Business is declining in almost every parameters such as Revenue, Orders, Customer Feedback, shipping time.
- ▶ Orders and Revenue are considered as backbone of an Organization. Orders has been dropped drastically i.e., 310 in 1st Quarter to 199 in 4th Quarter, similarly Revenue has also dropped from 18 M in 1st Quarter to 8.5 M in 4th Quarter which is most concerning for an organization.
- ▶ Customer satisfaction has also declined over the time i.e., most of customer feedback are 'Good' or 'Very Good' in 1st Quarter whereas in 4th Quarter most of the feedback are either 'Bad' or 'Very Bad'.
- ▶ Shipping Time has also increased over the time i.e., 57 days in 1st Quarter to 174 days in 4th Quarter.
- ▶ States such as 'Vermont', 'Maine', 'Wyoming', 'Mississippi', etc. has very few customers.

RECOMMENDATIONS

- ▶ Customer feedback in last two quarters is pretty evident that customers are not satisfied which can be reason behind drop in orders. So we might need to look into customer requirements more precisely. We can also call back the customers and ask for the suggestions and feedbacks again.
- ▶ Almost 42% of customers i.e., 424 customers are using “JCB’ Credit card , so we can offer some extra discounts or coupons to those customers who are using ‘JCB’ credit card.
- ▶ We need to review our partnership with the shipping companies as the time taken to ship the product in Quarter 1(57 days) to Quarter 4(174 days) has increased by 300% and also we have used more than 350 shipping companies. This could also be the reason behind drop in orders
- ▶ Company may reconsider there sales or promotional policies in states like Vermont’, ‘Maine’ , ‘Wyoming’ , ‘Mississippi’ , etc. as there are very few customers in these states.