The Healthy Company Business Analyst Task

By:

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Overview

XYZ Pvt Ltd is an E-Commerce Company dealing in a wide range of Healthy Products combined with the power of Artificial Intelligence. But recently it has started facing an issue of HIGH Return Rates throughout India.

(A return order is when the order is in transit but a customer refuses to accept it sighting different reasons)

Problems to solve

1. To figure out the Return Rate Patterns amongst the customers.
2. To identify the reasons for the higher return rates.
3. Recommend solutions

Analyzing Patterns

There are 5 features that we are going to analyze:

Cash Of Delivery and Status
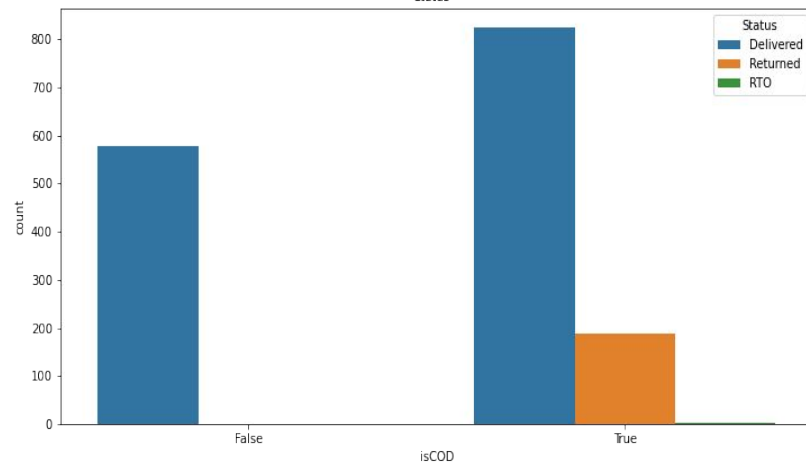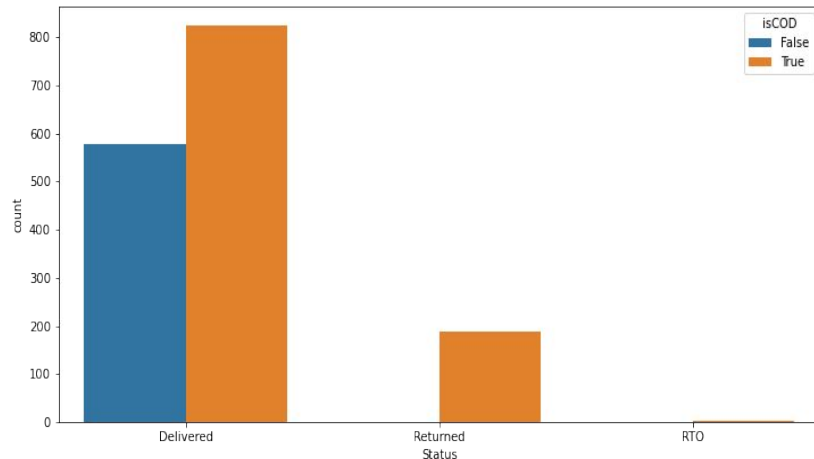States and Order status
Days to Return and Days to Deliver
Average Price and Category for Returned Orders
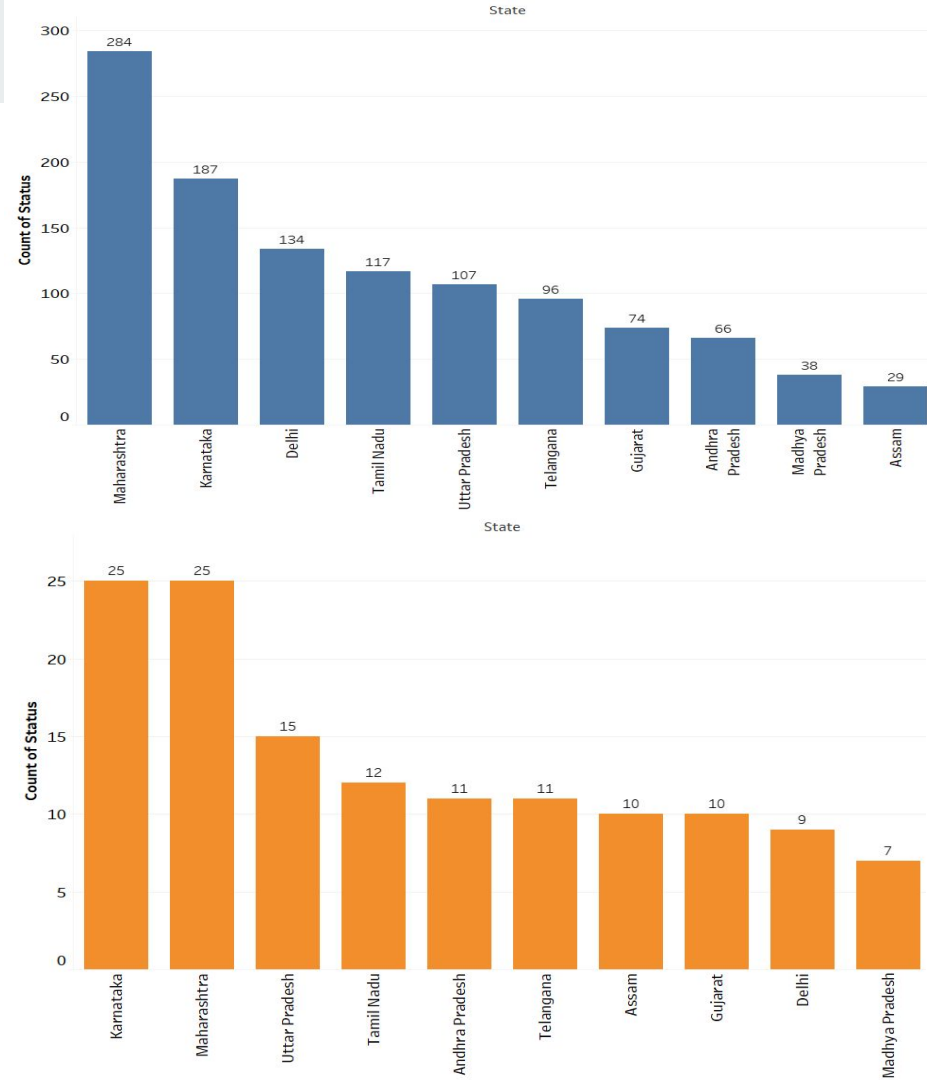
Remarks and Order Status

Cash Of Delivery and Status

1. All the returned orders (and the two RTOs are on Cash On Delivery orders(COD).
2. Overall Return Rate across India: **11.76%** and Percentage of COD orders across India: **63.64%**
3. Therefore **18.6%** COD orders are being returned by the customers.
4. We can give customers some added benefits so that they opt for prepaid orders.

States and Order status

1. State with maximum orders are: Maharashtra(284), Karnataka(187), Delhi(134), Tamil Nadu(117) and so on.

2. However states with maximum no of orders also have proportionally higher number of return orders. Maharashtra (25), Karnataka (25), UP(15), Tamil Nadu(12), and so on.

States and Order status contd.

However the states with most return rates are Manipur (60%, total 10 orders), Tripura (40%, total 5 orders), Assam (34.5%, total 29 orders), Nagaland (31.5%, total 19 orders), and so on.
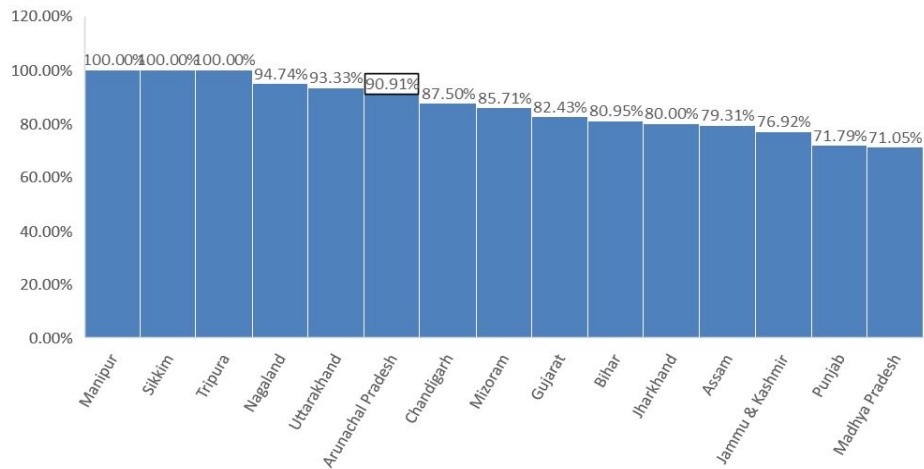
Manipur and Tripura also have 100% of their orders of COD type while Nagaland and Assam have 95% and 80% of their orders of COD.

Therefore in the North Eastern states more focus should be on making customers pre-pay for their orders.

States With Highest Return Rates
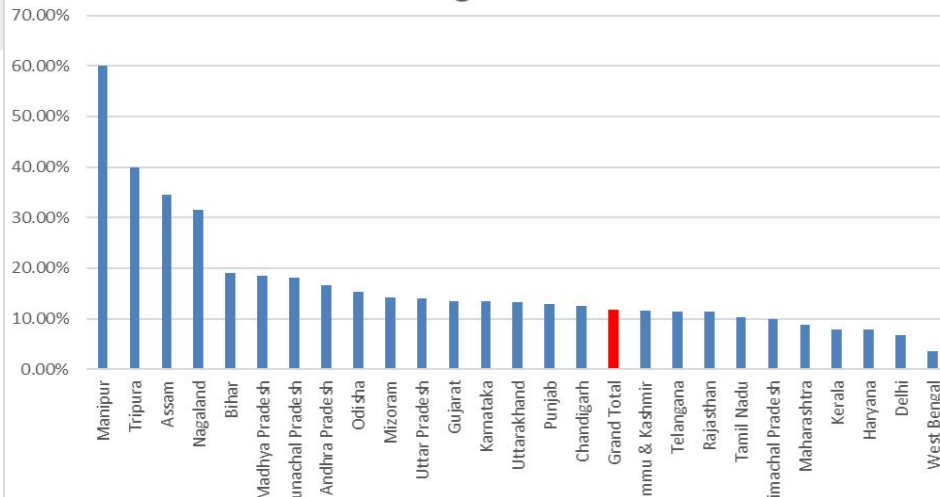

States with max COD order percentage

Days to Return and Days to Deliver

Days To Return: Difference of days b/w Order Date and Return Date ; Days To Deliver: Difference if days b/w Order Date and Deliver Date

The Days To Return distribution of returned orders shows that the large amount of returns happen from the 10th day onwards from the ordered date. This means that the order is not delivered till the 10th day.

The Days To Deliver distribution of delivered orders shows that the majority of successful orders are delivered on and around 3rd to 7th day from the ordered date, hence delivery happens before the 10th day, reducing the chances of returns.
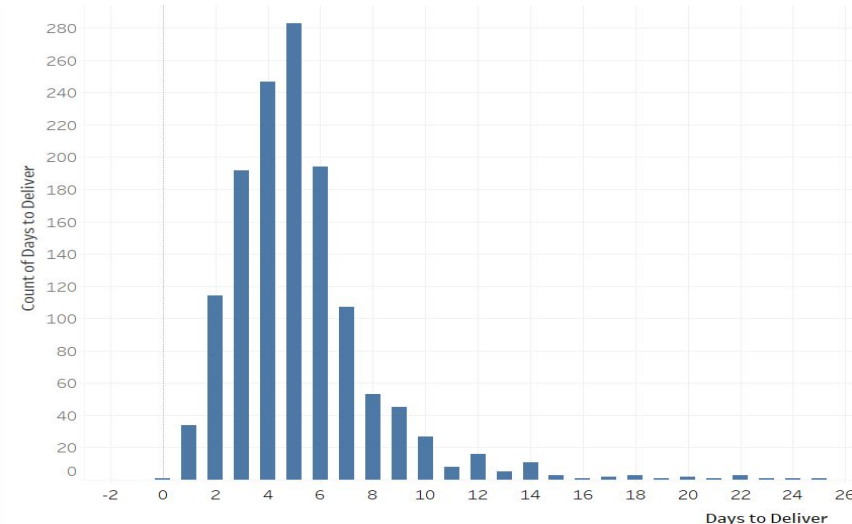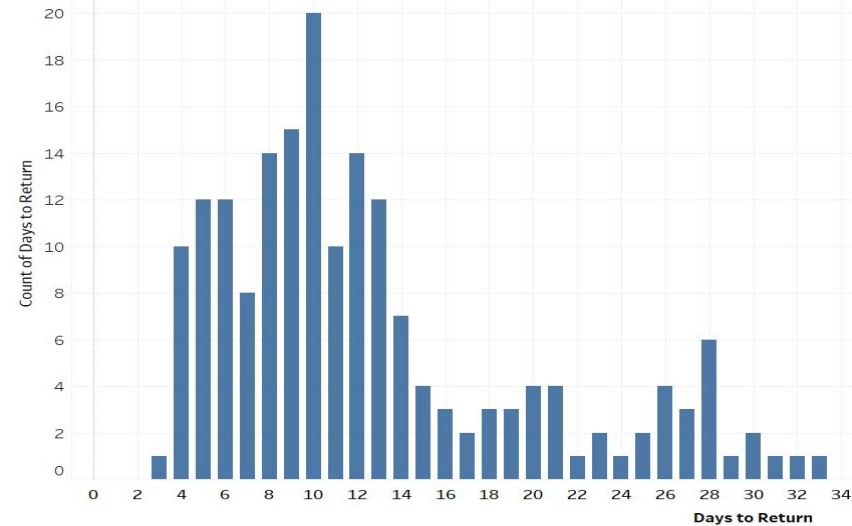
Days to Return and Days to Deliver contd.

The states with higher average of DTR also have the high return rates compared to the states with lower average DTR.

The data shows the average number of Days To Return for States. Manipur, Mizoram, Nagaland, Tripura, Arunachal and Assam have the highest average of DTR. These states also have the highest return rates compared to other states. .

The focus should be on delivering the order within 10 days, especially in the North Eastern states. This will reduce the returns that are happening after 10 days from the order date.
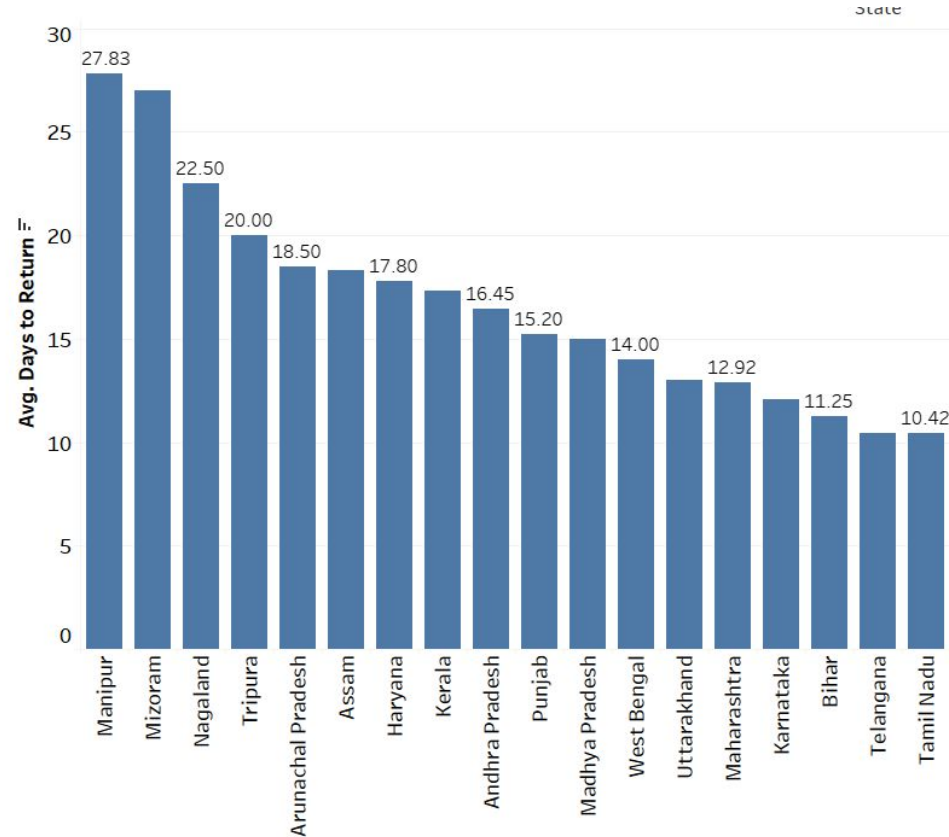
Average Price and Category for Returned Orders

1. The return orders are maximum of 'WL' category, followed by 'D', 'K', 'L' and 'S'

2. The average total price for the returned orders category wise is also shown below in the data. \

3. The total price distribution for returned products shows that products priced at 1000 and 3600 are getting more returns. These products are getting more orders and proportionally getting more returns

Average Price & Count of Categories
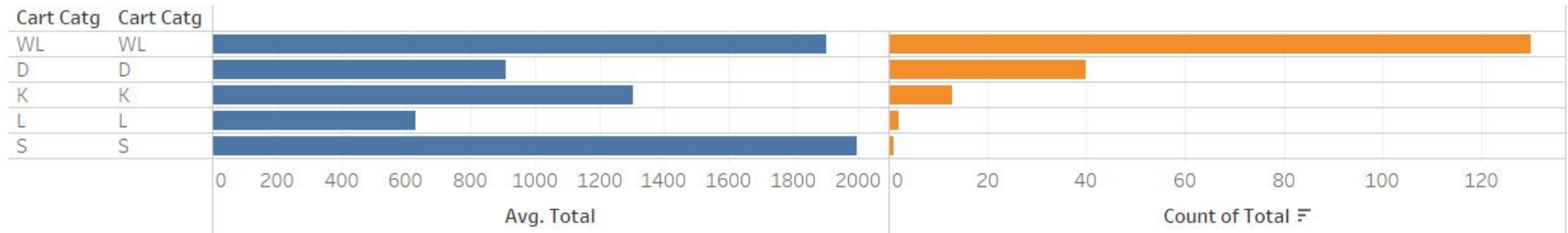
Remarks and Order Status

1. The most no of remarks for the returned orders are DPU (33+13 =46), Customer Refused (19), Call declined(17), On Call(15) and so on.
2. While the remarks here do not give clarity on why the customer actually returned the order,
3. But some returned orders with remarks like 'Customer Refused' , 'Do Not Want' etc can be can be rectified by asking the customers before the order is set out to get delivered.
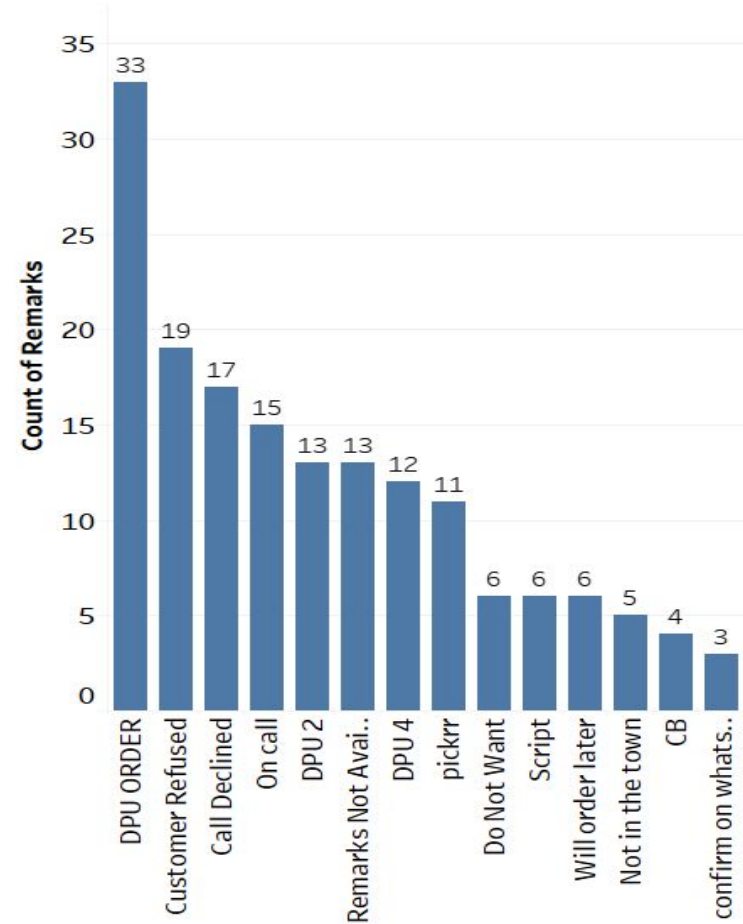
Further Analysis

I have split the cart feature to analyze the category feature in it. The cart feature can be further splitted into the components to find some patterns viz a viz higher return rates.

Appendix

Please find my tableau file: https://public.tableau.com/app/profile/ashwani.kumar.singh3440/viz/Ashwani_BA_assignment_Alnourish/StatesReturns?publish=yes

Thank you.