A DETAILED REPORT ON PATTERNS BEING HIGH RETURN RATES AND LOW RETURN RATES

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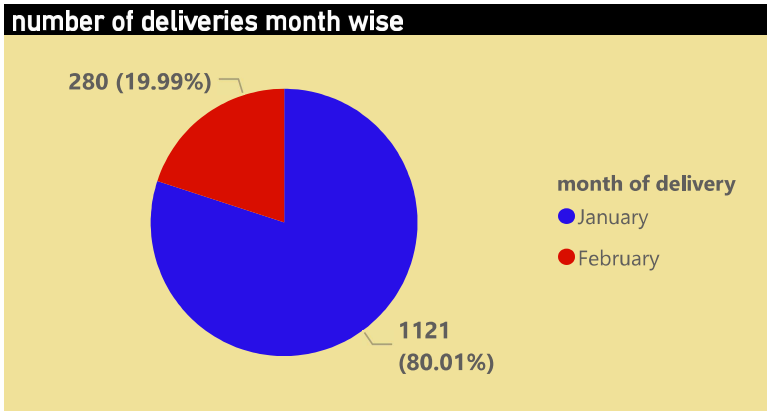
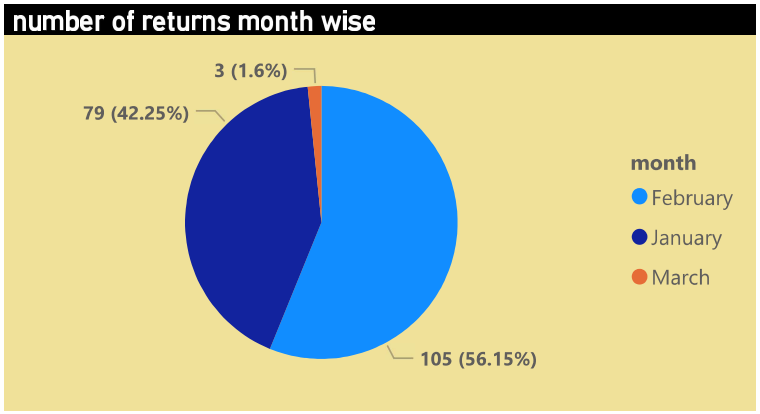
UNDERSTANDING THE DATA SET

1590	36	1401	187	There are 2 items with only order date and no information on delivery or return date.
Total orders	no of different states	total item deliverd	total items returned	

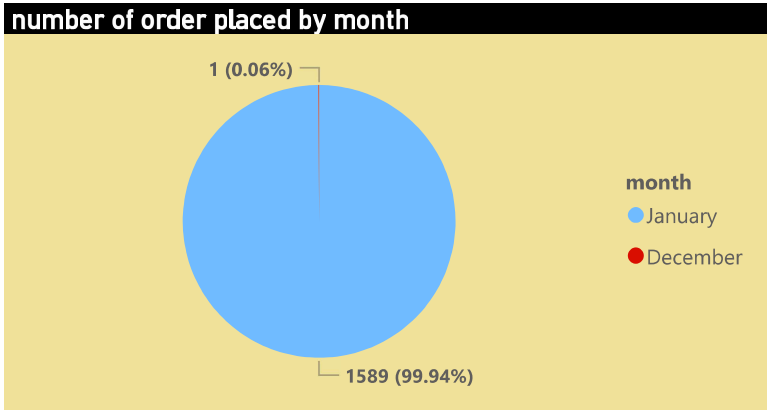
number of deliveries month wise



number of returns month wise



number of order placed by month

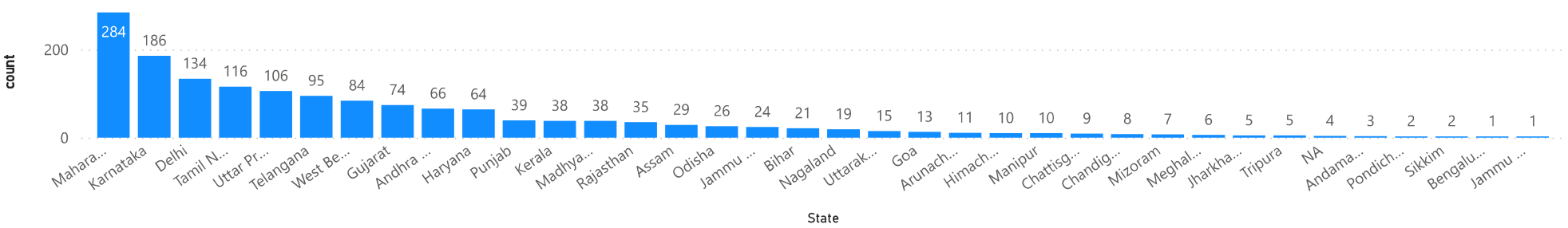


WE CAN SEE FROM ABOVE PIE CHART THAT RETUNS OF ORDERS IN FEBRUARY MONTH IS 13.9% HIGHER THAN THAT IN JANUARY MONTH.

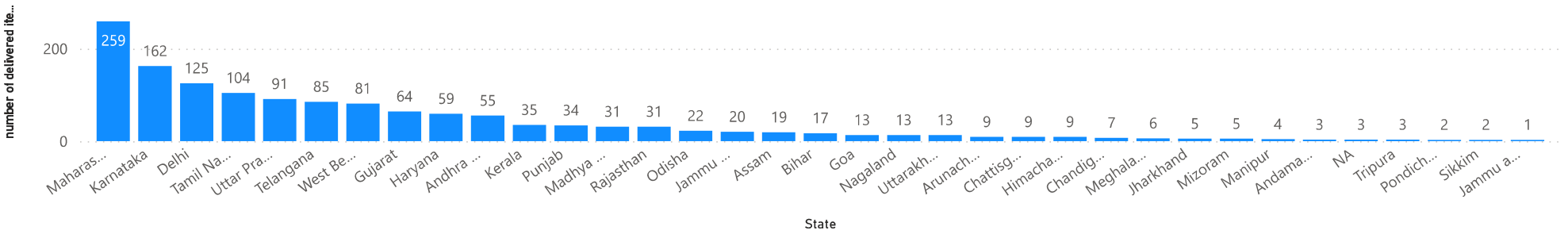
No missing values were found in different columns of the given data set.
So it was not required to perform any kind of imputation on the data.

STATE WISE VISUALIZATION OF TOTAL ORDERS, DELIVERY AND RETURN

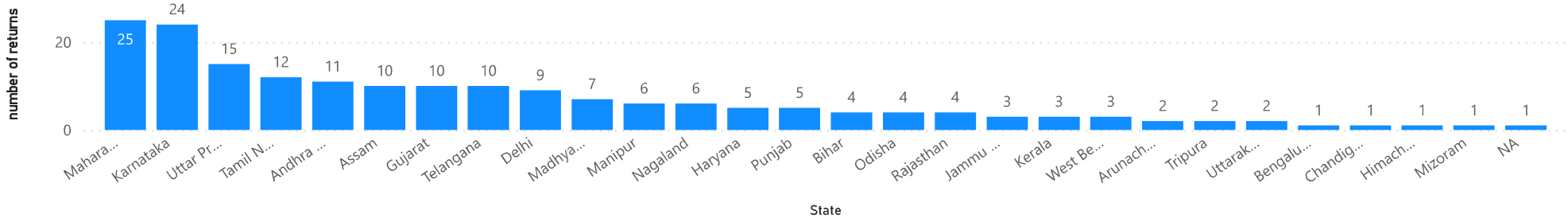
Number of times ordered



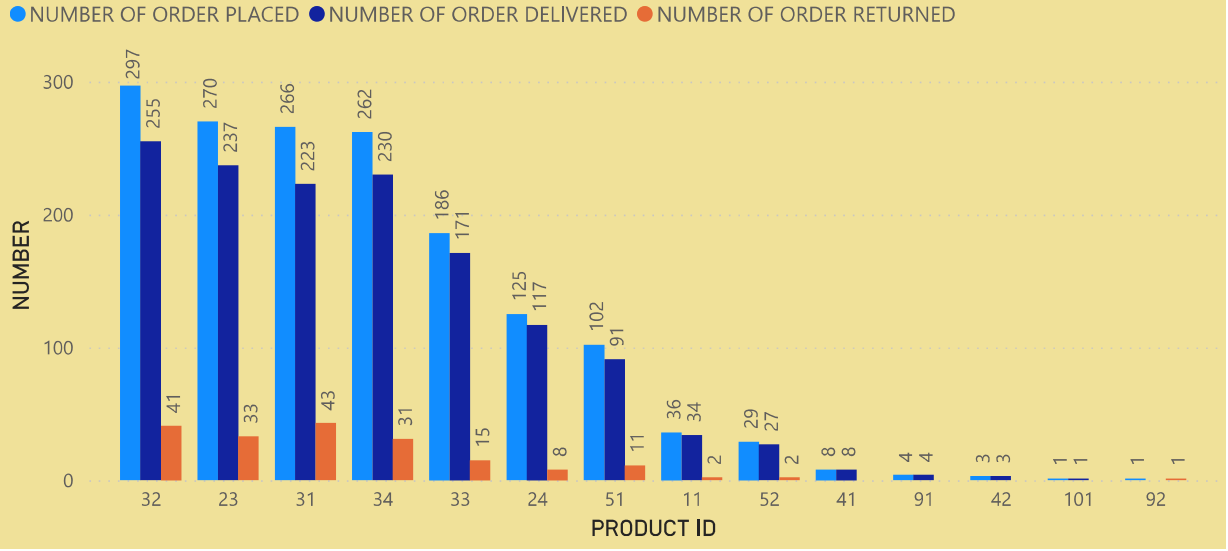
number of deliveries state wise



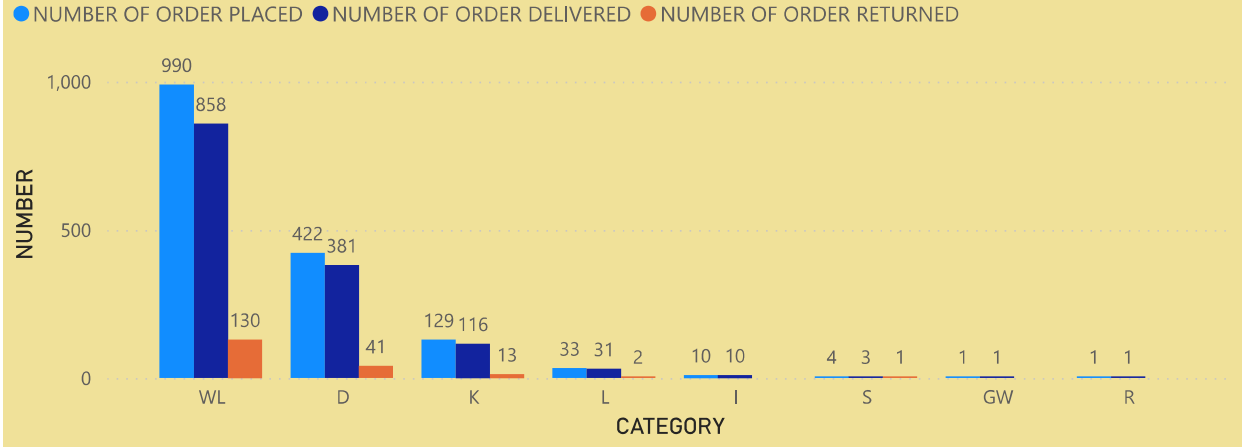
number of returns state wise



NUMER OF ODER PLACED,DELIVERED,RETURNED VS PRODUCT ID

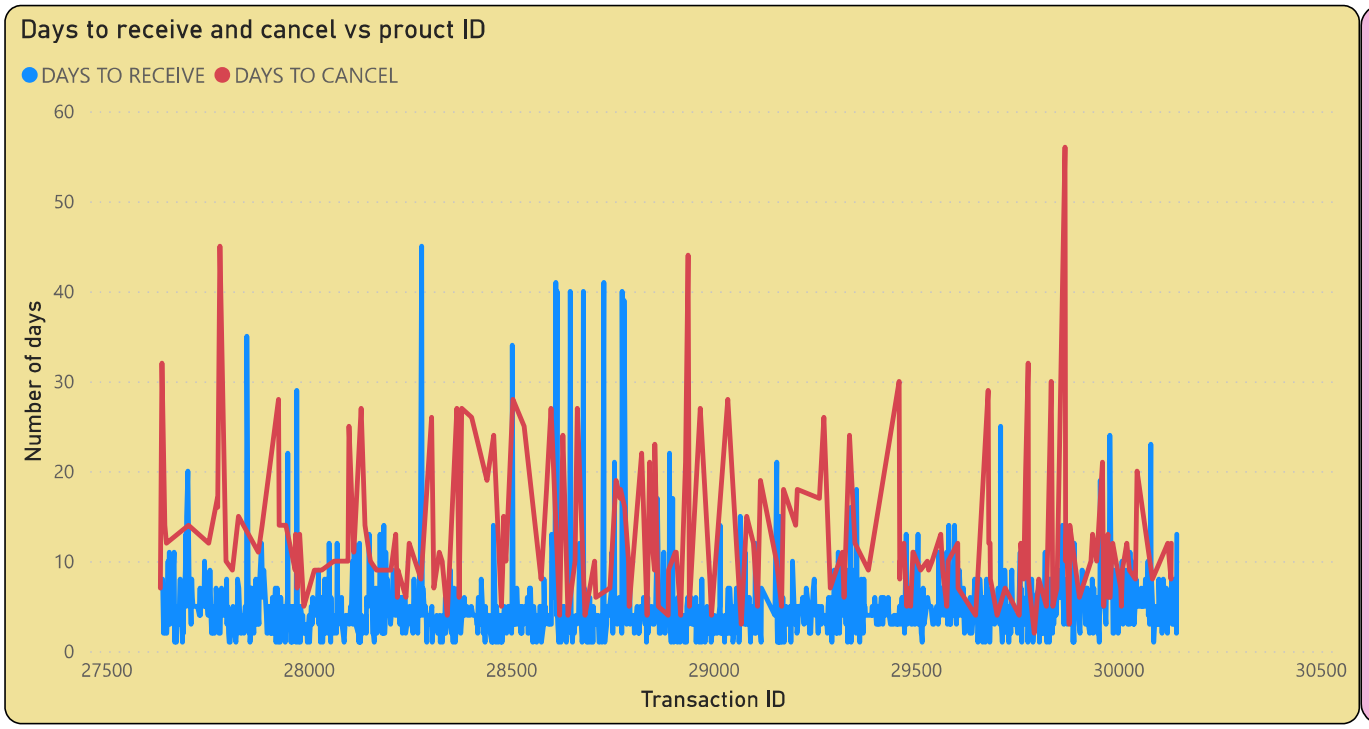


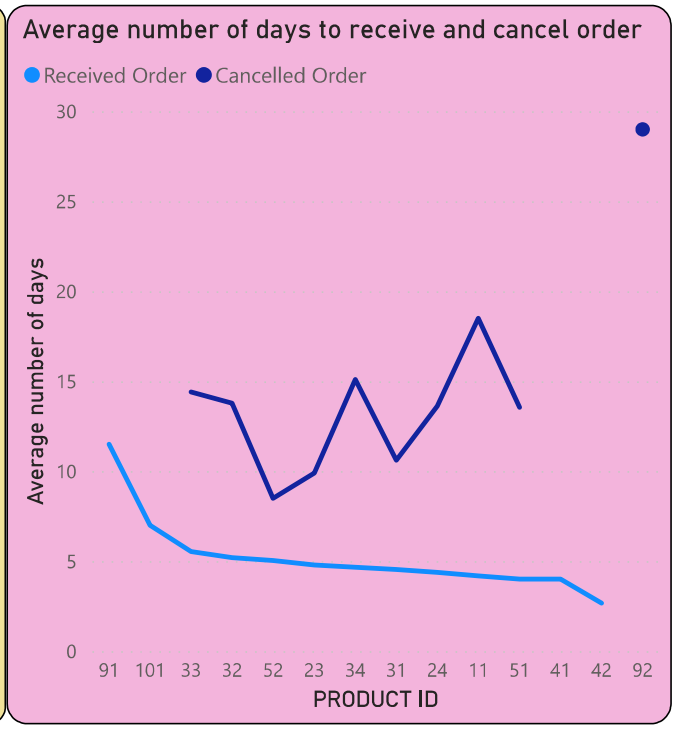
NUBER OF ORDER PLACED,DEILIVERED,RETUND VS PRODUCT CATEGORY



PRODUCT ID	PRODUCT	
32	One Week Weight loss(peach)	(WL)
23	One week detox Trial	(D)
31	One Week Weight loss (mint)	(WL)
34	One month weight loss (peach)	(WL)
33	One month weight loss(mint)	(WL)
24	One Month Detox	(D)
51	One Week Keto Booster	(K)
11	Lean Bar Week	(L)
52	One month keto Booster	(K)
41	One Week immuni-Tea Booster	(I)
91	Glow 14 day skin care plan One month glow regime	(S) (R)
42	One Month immuni-Tea Booste	(I, D)
101	Skin * Sleep	(GW)
92	Glow 1month Skin care plan	(S)

- SO THE COMPANY IS DOING GOOD BUSINESS IN WL SEGMENT .
- IN WL SEGMENT IT HAS ALMOST SIMILAR PERFORMANCE FOR PRODUCT ID 32, 31 AND 34.
- THOUGH PRODUCT ID 33 HAS LOWER SALES NUMBER ITS RETURN % IS ALSO LOWER.
- D CATEGORY PRODUCTS HAVE LOWER RETURN % THAN WL CATEGORY
- L CATEGORY PRODUCTS HAVE LEAST RETURN %



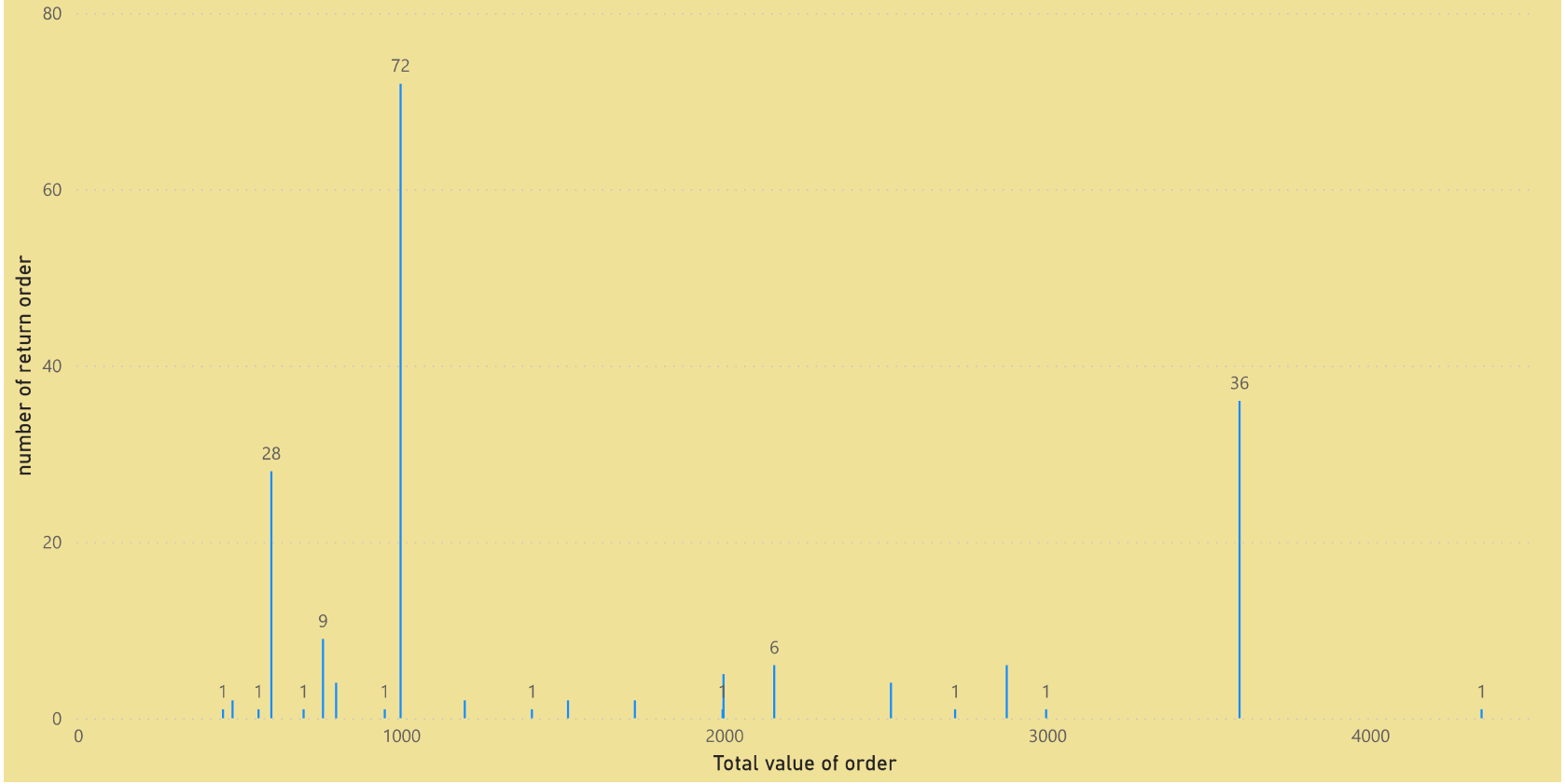


FOLLOWING CONCLUSIONS MADE FROM ABOVE GRAPH:

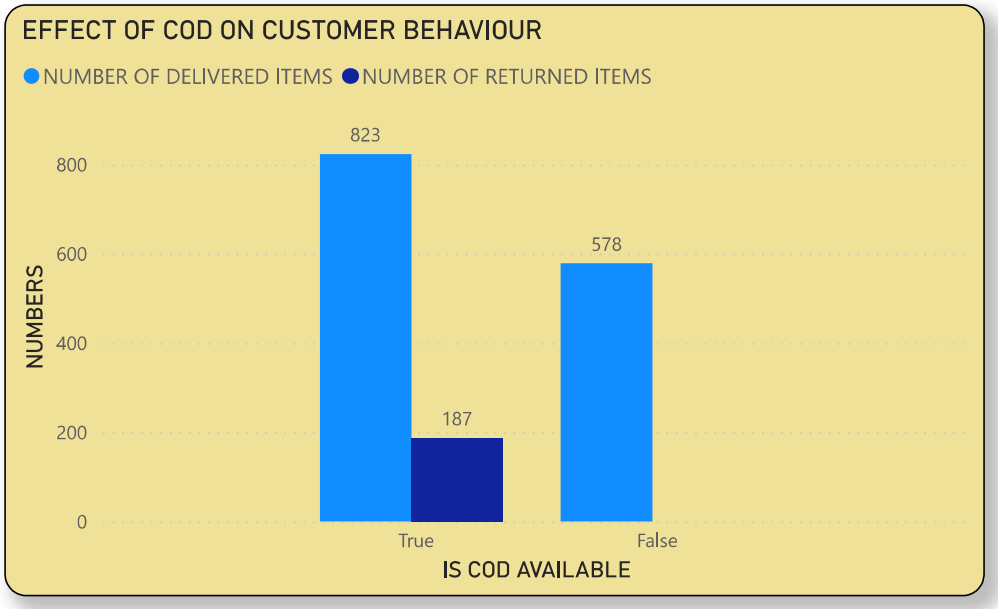
- **NUMBER OF DAYS TAKEN FOR CANCELLED ORDERS ARE GENERALLY HIGHER THAN THOSE FOR THE ORDER THAT ARE PLACED. SO THE DELAY IN THE ORDER TO RECEIVE AFTER A CUSTOMER HAS PLACED AN ORDER CAN BE ONE OF THE REASONS FRO THE HIGH CANCELLATION RATE.**

- **FROM THE LEFT LINE GRAPH WE SEE THE RIGHT PART OF THE GRAPH HAS HIGHER RED PEAKS AND ALSO THE FREQUENCY OF THESE PEAKS ARE HIGHER. THESE PEAKS INDICATE HIGHER TIME TAKEN TO DELIVER THE PRODUCTS IN MONTH OF FEBRUARY THAN IN JANUARY. SO IMPROVING DELIVERY EFFICIENCY CAN HELP IN IMPROVING THE LOW RETURN PATTERN.**

NUMBER OF RETURNED ORDER VS VALUE OF ORDER



HERE WE DONOT FIND ANY PATTERN OR RELATION BETWEEN NUMBER OF RETURNED ORDERS AND COST OF PLACED ORDER. SO VALUE OF ORDER MIGHT NOT BE A CONDITION EFFECTING THE NUMBER OF RETURN ITEMS.



SO WE CAN SEE THERE IS 0 RETURNED ITEMS FOR NON AVAILABILITY OF COD ITEMS. SO PROVIDING COD OPTION BY THE COMPANY FOR COMFORT OF USERS CAN BACKFIRE IN SOME MANNER AS AN USER HAS NO OBLIGATION TO GET THE PRODUCT DELIVERED , AND CAN RETURN THE PRODUCT WHILE IN TRANSIT.

SO THE MAJOR REASONS ANALYSED FOR HRR ARE:

- **AVAILABILTY OF COD WHICH GIVES CUSTOMER NO OBLIGATION TO PAYOUT ANYTHING FOR CANCELLING ORDER.**
- **HIGHER DELIVERY TIME IN THE MONTH OF FEBRUARY COMPARED TO JANUARY HAS LED TO HRR IN FEBRUARY.**