

**EDA TO STUDY
CONSUMER
PREFERENCES FOR A
RETAIL BRAND**

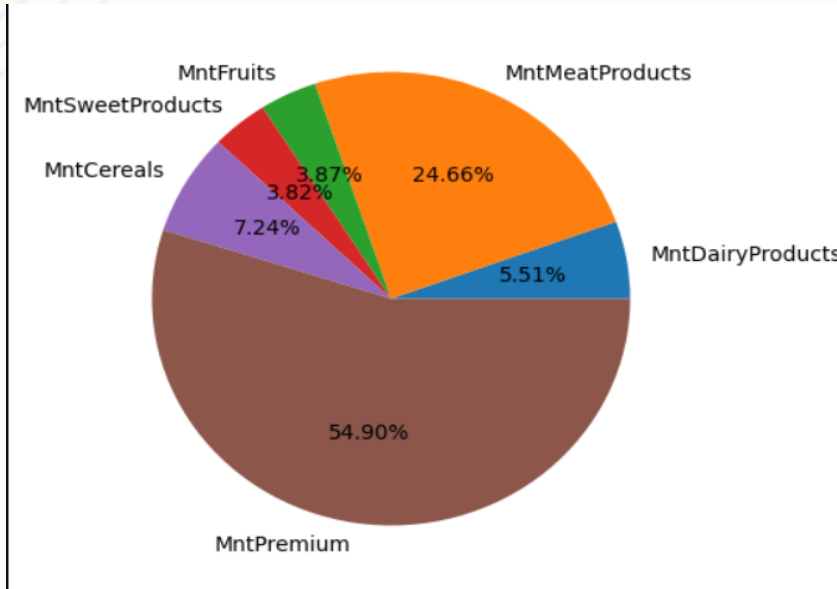
STEPS PERFORMED

2

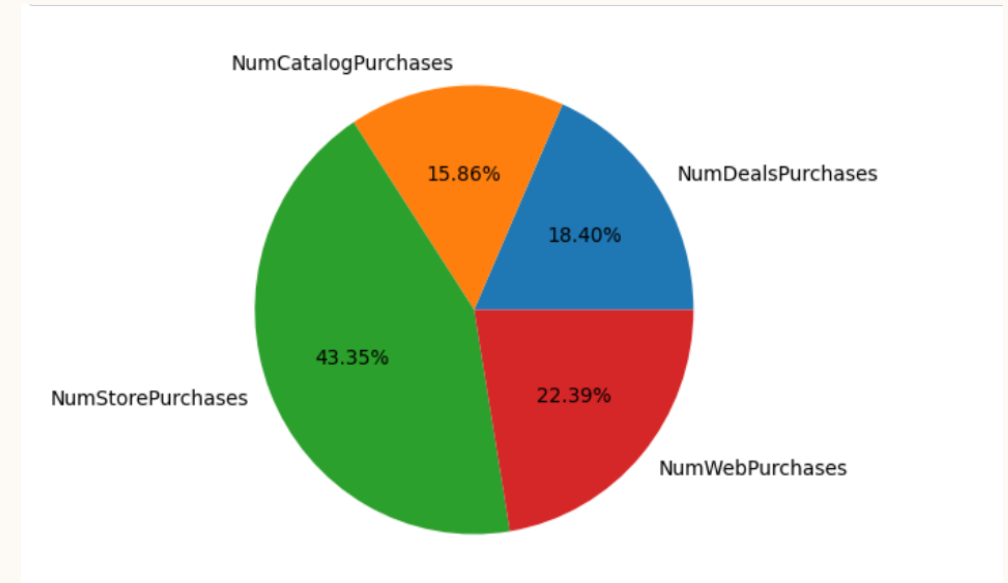
- Data Cleaning and removed unnecessary features by plotting correlation heatmap.
- Analysed the outliers and removed them so as to reduce the deviation.
- Plotted pie charts to analyze income from various categories and sources.
- Performed K means clustering using elbow method and clustered the data into 3 clusters.
- Plotted various barplots to analyze the varying trends with respect to age and marital status.

DISTRIBUTION OF SALES ACROSS DIFFERENT CATEGORY AND SOURCES

3



So the brand may try to increase sales of other products by giving coupons or attractive discounts on other products.



In order to increase the sales the brand should give exclusive discounts on online shopping and also as purchase through discount coupons is not much so it should try to give better discount coupons with more validity.

K-MEANS CLUSTERS

4

After clustering data we get 3 clusters which are basically according to their mean income.

Cluster0- 27299

Cluster1- 48606

Cluster2- 71463

It is quite obvious that people with more mean income will spend more on items which is also justified by the results.

	cluster no.	Income	MntPremium	MntFruits	MntMeatProducts	MntDairyProducts	MntSweetProducts	MntCereals	NumDealsPurchases	NumWebPurchases
0	0	27299.0	25.0	5.0	20.0	8.0	5.0	15.0	2.0	3.0
1	1	48606.0	209.0	12.0	68.0	16.0	11.0	33.0	3.0	3.0
2	2	71463.0	589.0	41.0	288.0	58.0	41.0	56.0	2.0	2.0

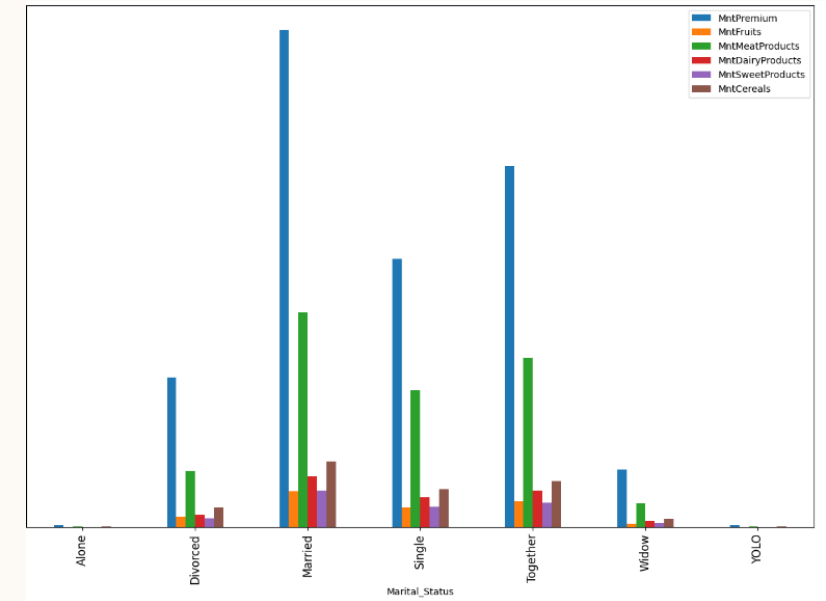
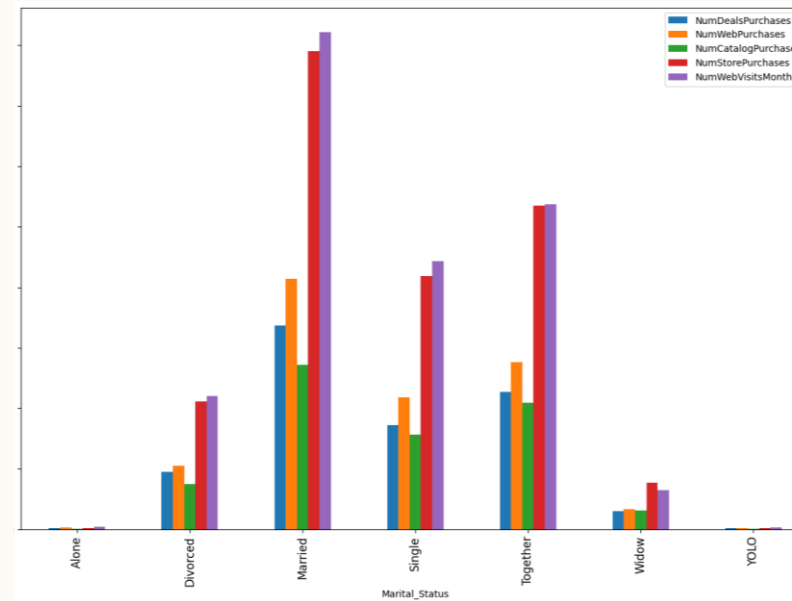
In order to attract people with low and medium income to spend more some attractive offers like buy1 get1 free and others can be used basically on items which have less sales.

VARYING TRENDS WITH RESPECT TO MARITAL STATUS

It is clear that highest sales is by married people and major proportion of sales comes from divorced, married, single and together categories. So to increase its sales the brand must focus more on these people and can use different strategies to increase its customer engagements.

The web purchases are almost half of web visits which means the offers on web are not that much appealing, so it should work on it.

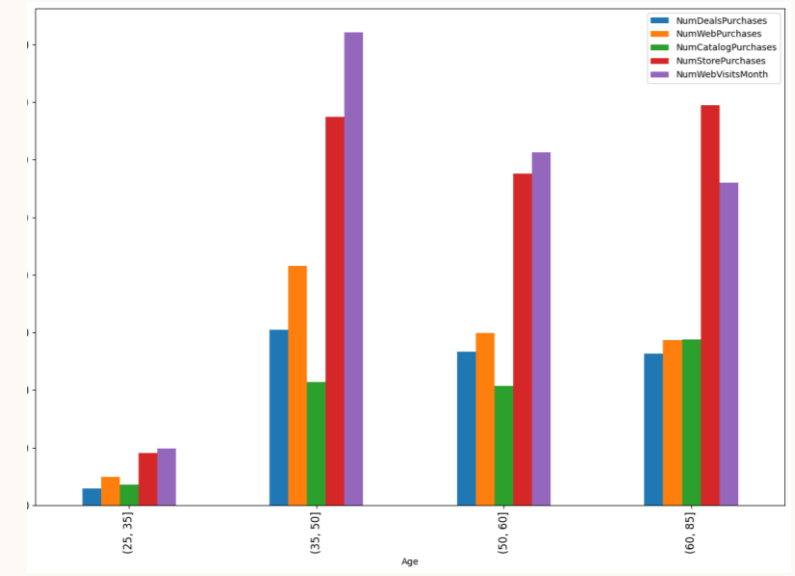
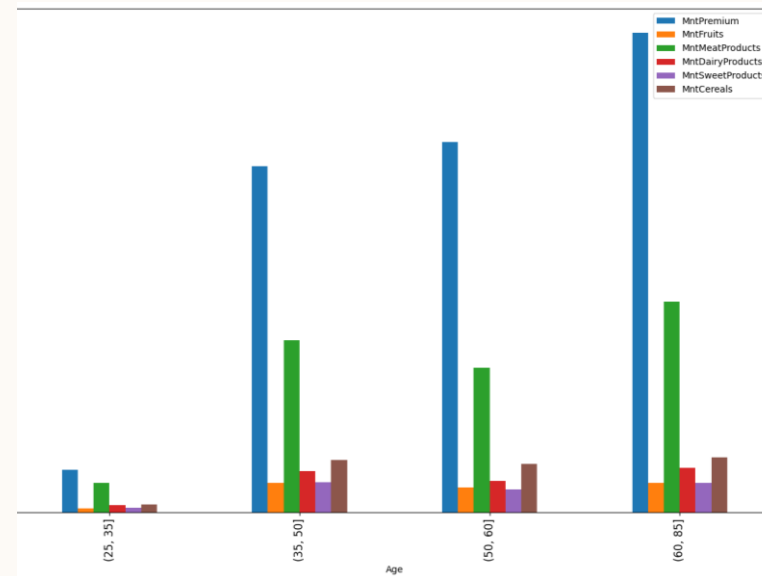
Sales max from premium products which is quite clear as these products are expensive.



VARYING TRENDS WITH RESPECT TO AGE

Divided the age group into four categories->

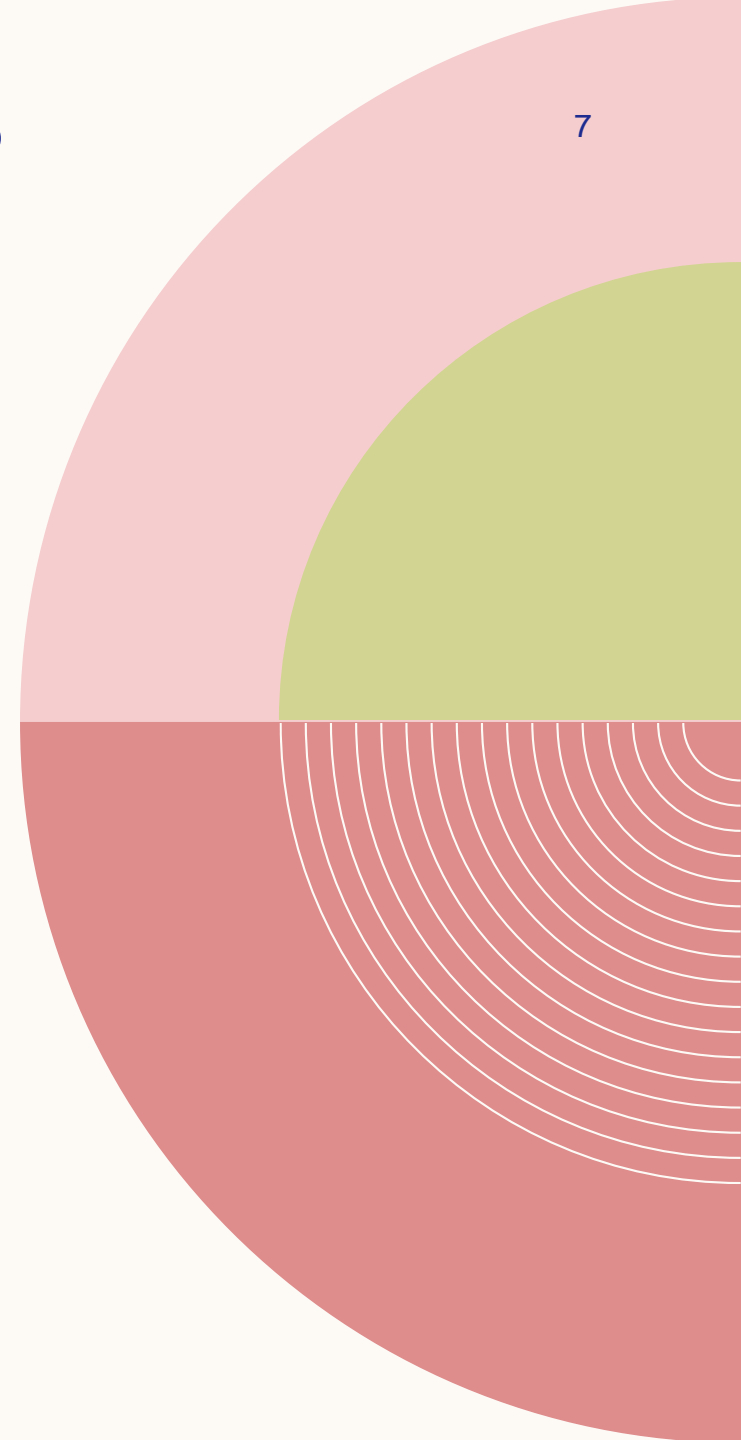
1. 25-35-> this age group is less in proportion so brand can focus to increase the engagements of younger gen by keeping latest goods and involving more in online methods.
2. 36-50-> highest web visits and web purchases and has decent engagement.
3. 51-60->good engagement and sales given by this age grp is good.
4. 61-85->has highest store purchases which is clear as they are not much into online. Also premium products sales are given highest by this category. So to increase their engagement can give special senior citizenship discount to involve them more.



WEB CONVERSION RATE IS 50.23%

Brand should focus to increase its web conversion rate. It could be done by->

- 1.By giving special discount coupons which are applicable online only.
2. It should try to change its interface and make it more smooth.
3. Should ease the payment options and must include pay on delivery option.
4. Should ensure easy returns and other services.
- 5.Should try methods like fast 10-15min delivery which could help to boost sales a lot.





THANK YOU

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