Improving product and marketing strategies

Rex London (dotcomgiftshop)



About Rex London

Rex London

The home of gifts that are perfect for every occasion, and every non-occasion. We call them Gifts of Random Kindness: beautiful products that you can afford to give whenever you want. Not only because they'll bring joy, but because they're always equally beautifully priced.

Situation

In order to increase sales, Rex London desire to improve their product and marketing strategies.



Content

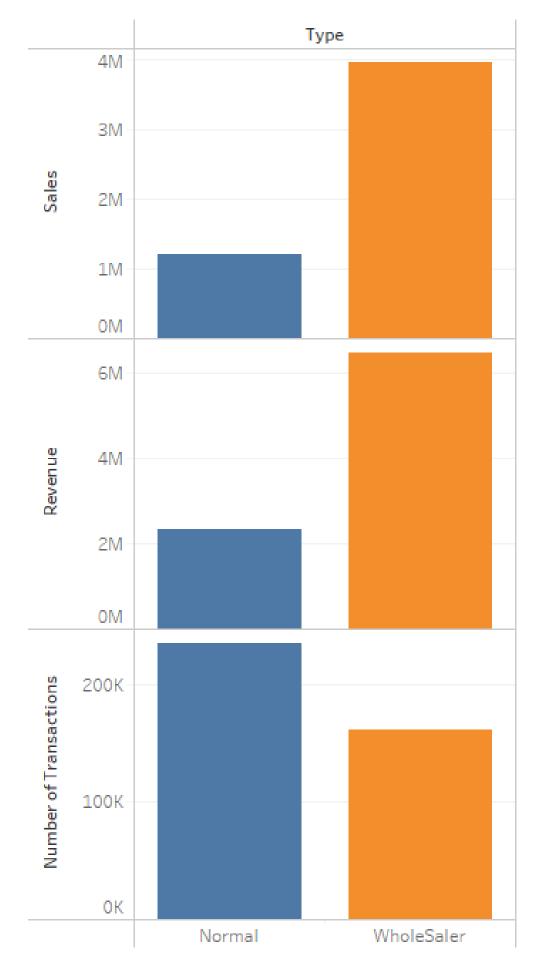
- Overview
- Sales
- Best-selling Products
- Cross-selling
- Up-selling
- Customer Lifetime Value

Customer Segmentation

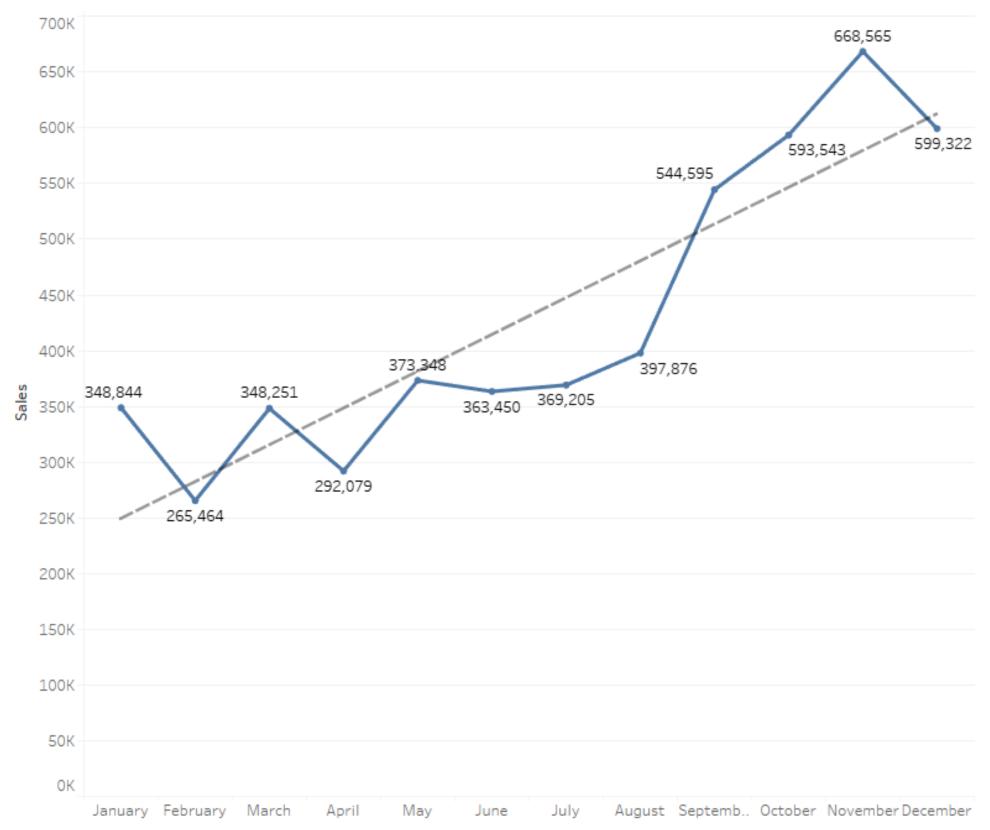
Whole Saler: Avg products per transaction larger than 10.

Normal Customer: Avg products per transaction smaller or equal to 10

Whole Saler Vs Normal Customer



Monthly Sales



Sales Season started from September to December with a 48% sales growth rate from August to September

Holiday

Jan: New Year's Eve

March: Mother's Day

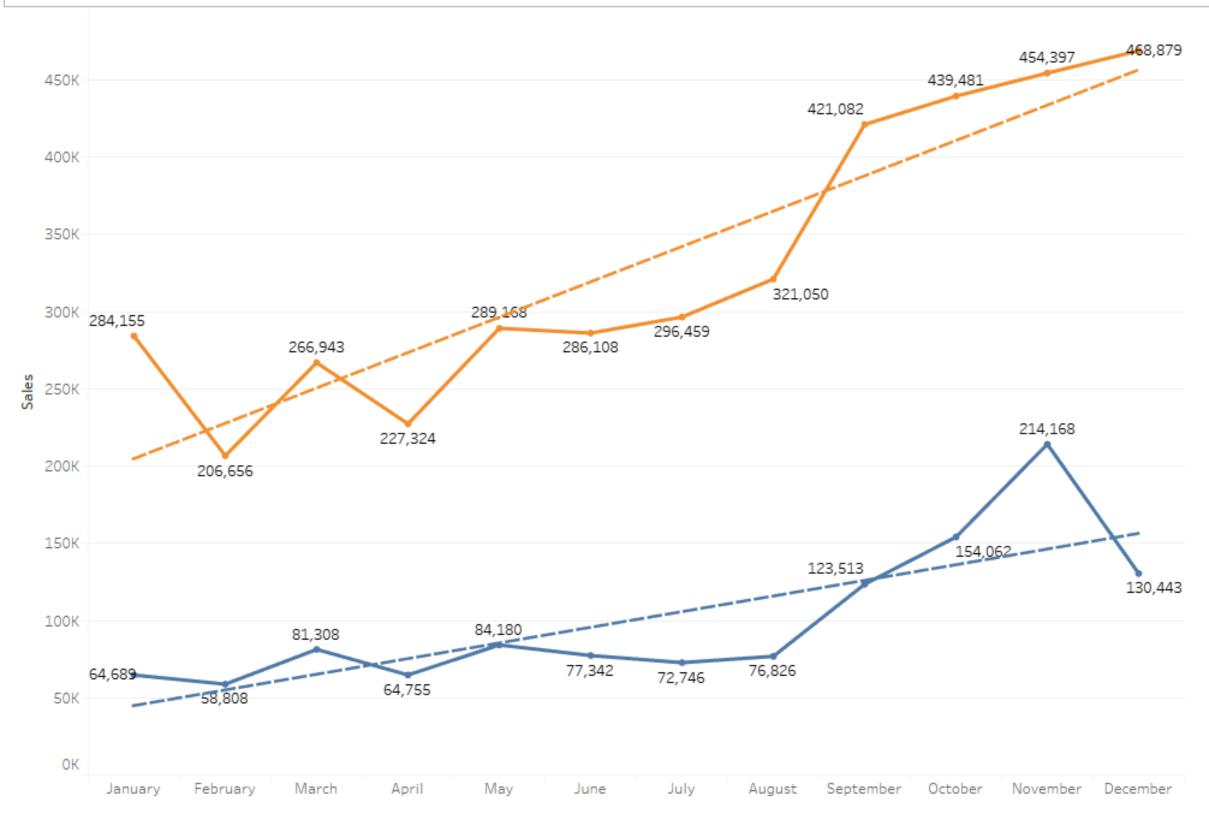
Oct: Halloween

Nov: Black Friday

Dec: Christmas Eve

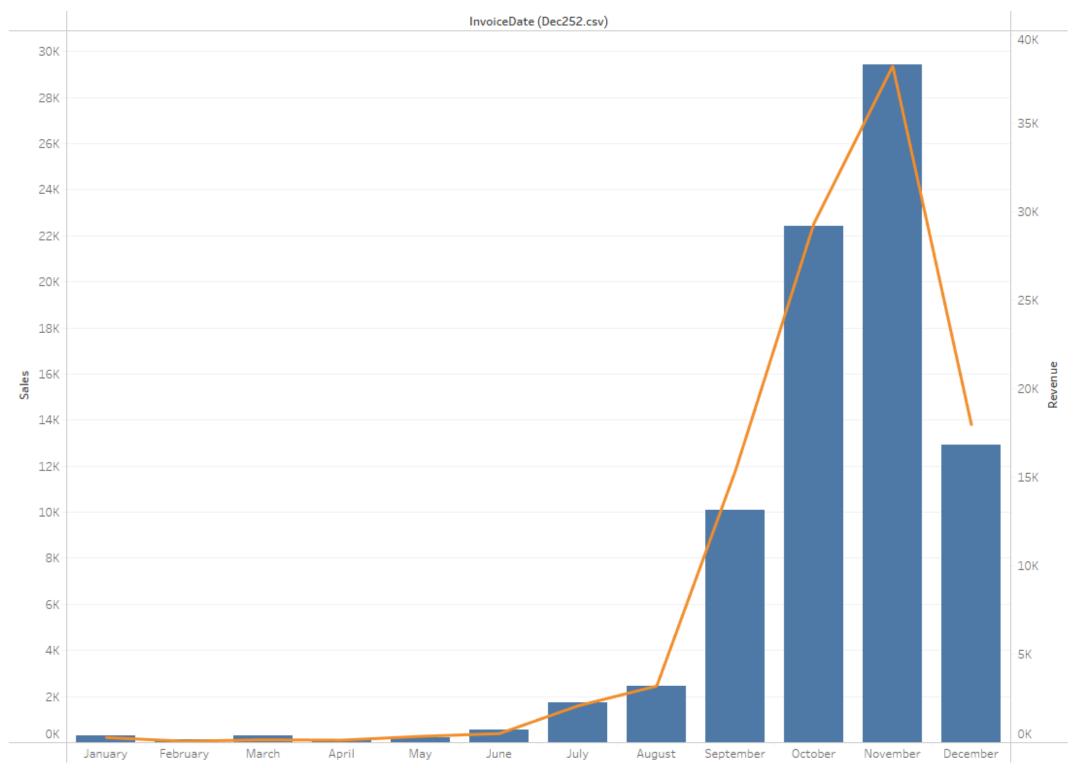
I. Sales

Whole Salers' Monthly Sales Vs Normal Customers' Monthly Sales



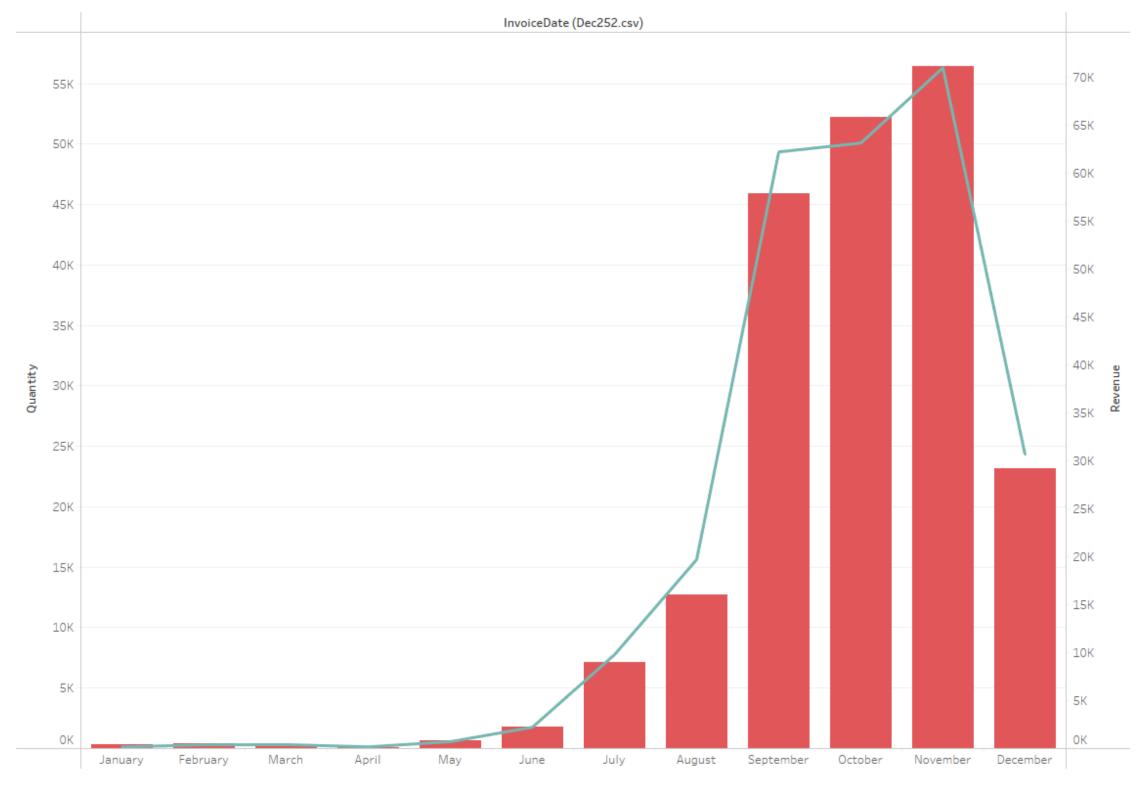
Normal
Customers'
Sales dropped
significantly in
December





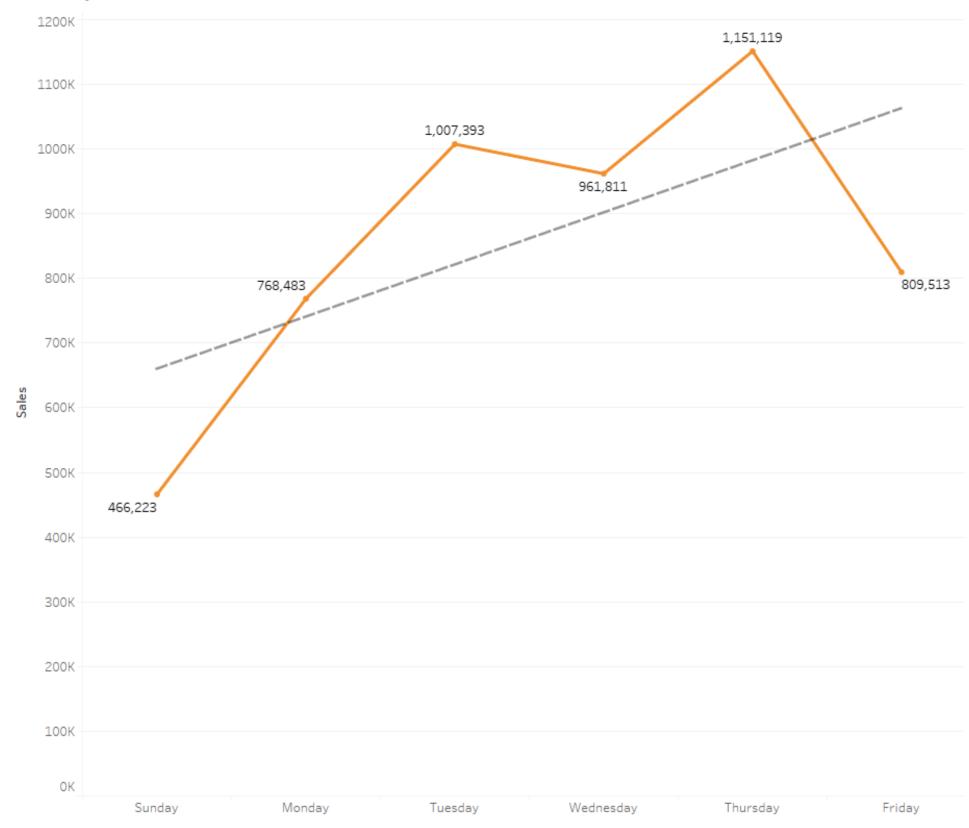
Normal
Customers
started buying
Christmas
products in
September and
got peak Sales
from Oct to Nov

Whole Salers' Chrismas Item Sales & Revenue



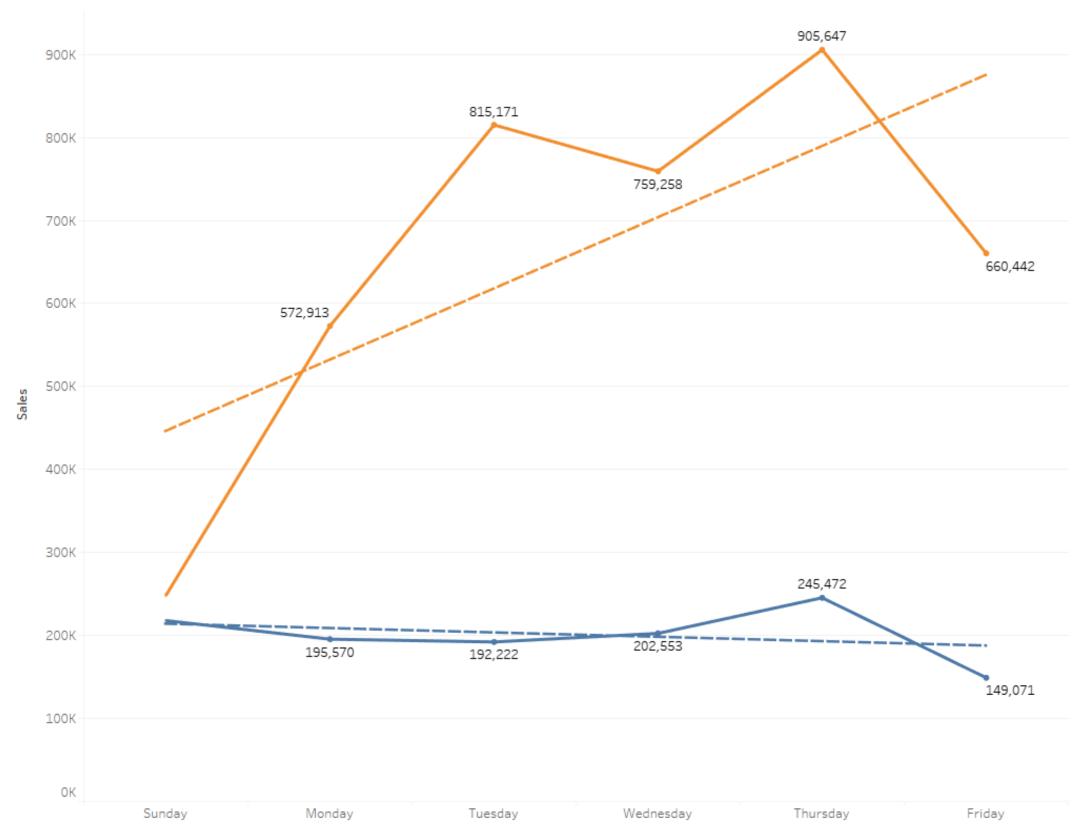
Christmas Items
Sales of
Wholesalers
highly sold from
Sep to Nov

Weekday Sales



Sales increase in Weekday and decrease in Weekend

Whole Salers' Weekday Sales Vs Normal Customers's Weekday Sales



Sales increase on
Weekdays with
Wholesalers, increase
on Thursday with
Normal Customer

Monthly Sales follow Normal Customers' pattern

Weekdays Sales follow Wholesalers' pattern

Conclusion

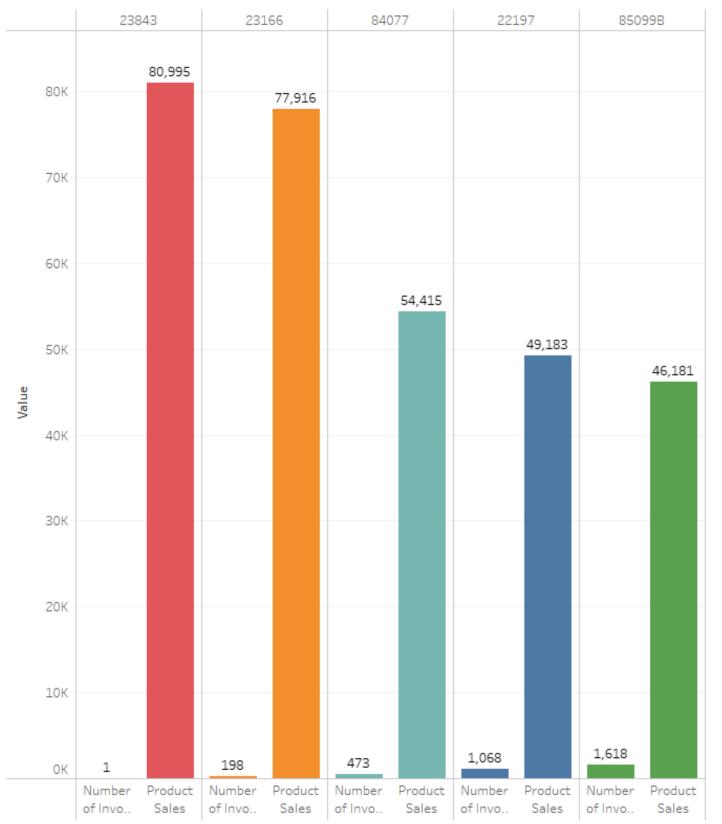
- Sales Season: Jan, March, especially Sep to Dec
- Normal Customers started buying Christmas products in September and got peak Sales from Oct to Nov
- Christmas Items Sales of Wholesalers highly sold from Sep to Nov
- Sales increase on Weekdays and decrease on Weekend
- Avg sales all week with Normal Customers, Sales increase on Weekdays with Wholesalers
- Monthly Sales follow Normal Customers' pattern
- Weekday Sales follow Wholesalers' pattern

Recommendation

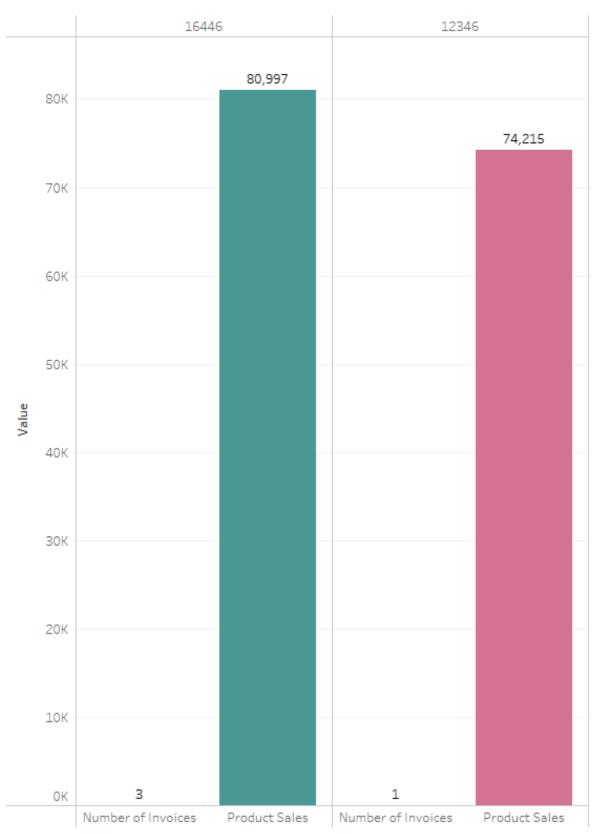
- Normal Customers define Monthly sales behavior, Wholesaler define Weekday sales behavior. Use this to build product and marketing strategies.
- Release new Christmas products before Sep and marketing strategies before Oct.
- Release new items on weekdays for wholesalers

2. Best-selling products





New Wholesaler



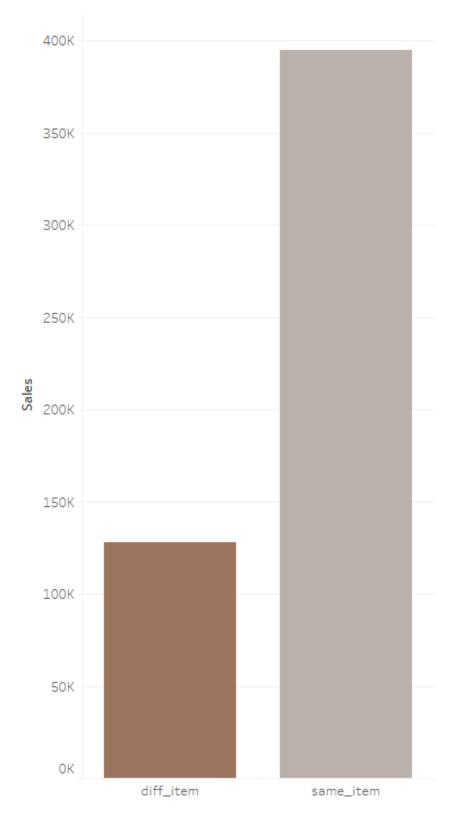
Only 2 invoice made 23843 and 23166 to the top 1 best-selling product

And that Wholesalers is 16446 and 12346

These new wholesalers need to be focused on with partnership and promotion

3. Cross-selling

Same Item In Set vs Diff Item In Set - Sales



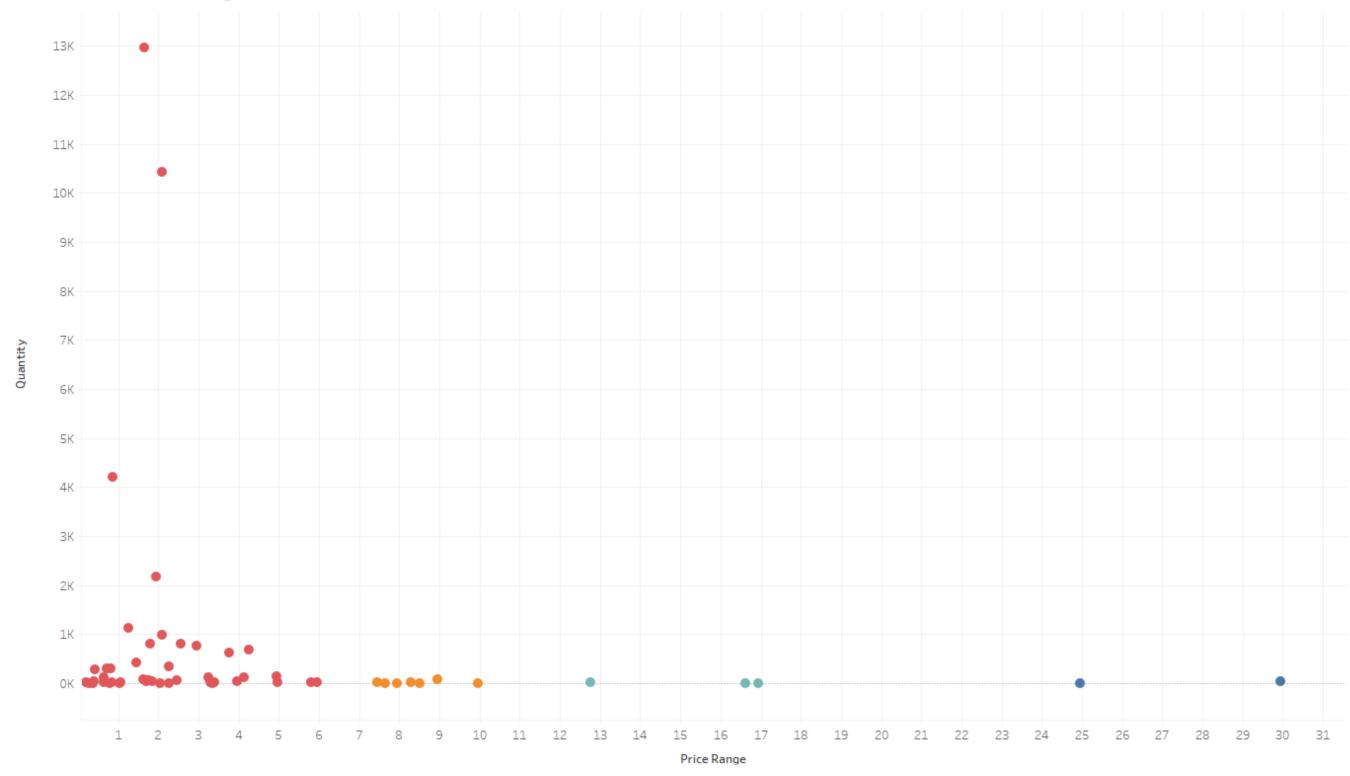
Set with different items contribute 25% of Sales, Revenue, Number of Unique Items

SET OF 20 VINTAGE CHRISTMAS NAPKINS
SET OF 6 RIBBONS VINTAGE CHRISTMAS
SET OF 2 CHRISTMAS DECOUPAGE CANDLE
SET OF 2 CERAMIC CHRISTMAS TREES
SET OF 2 CERAMIC CHRISTMAS REINDEER
SET/3 CHRISTMAS DECOUPAGE CANDLES
SET/9 CHRISTMAS T-LIGHTS SCENTED
SET OF 36 VINTAGE CHRISTMAS DOILIES

List of Christmas Sets
Not a single Set with different
items

4. Upselling





- 75% of bag products have prices <6,
- 16% have prices <10
- 5.4% have prices < 20
- 3.6% have prices > 20

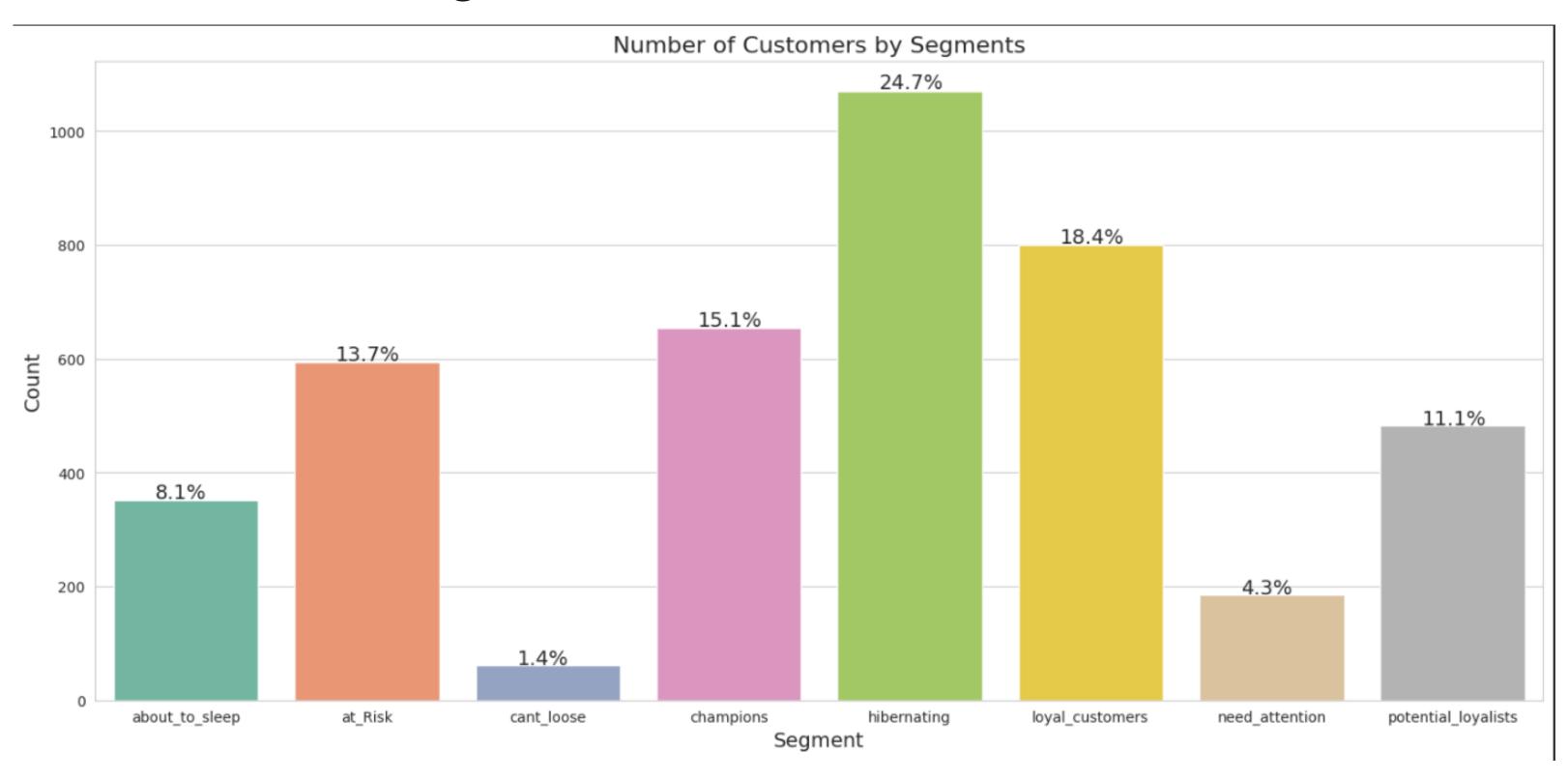
3. Cross-selling & 4. Upselling: Opportunities

• Cross-selling: Small number of Sets with different items and No Christmas Set with different items

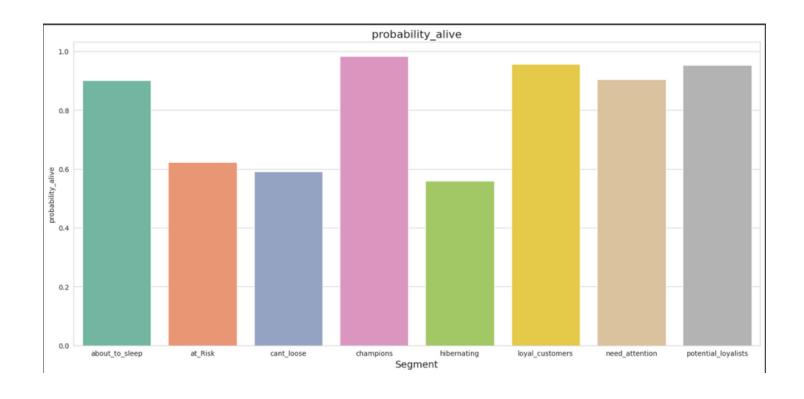
• Upselling: Wide range of prices with a large number of lowest group products to upselling

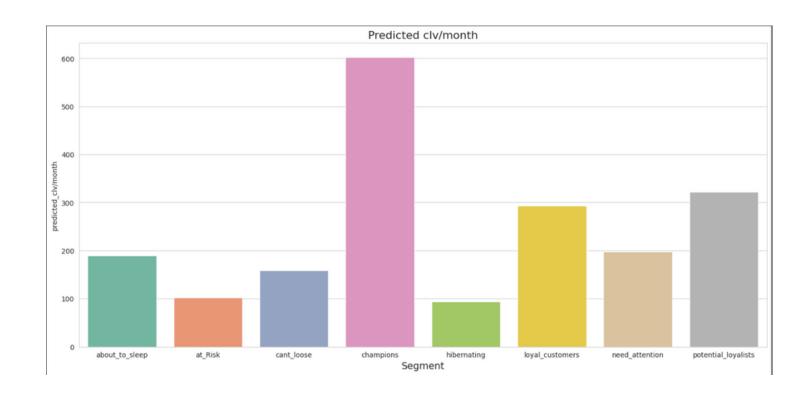
5. Customer Lifetime Value

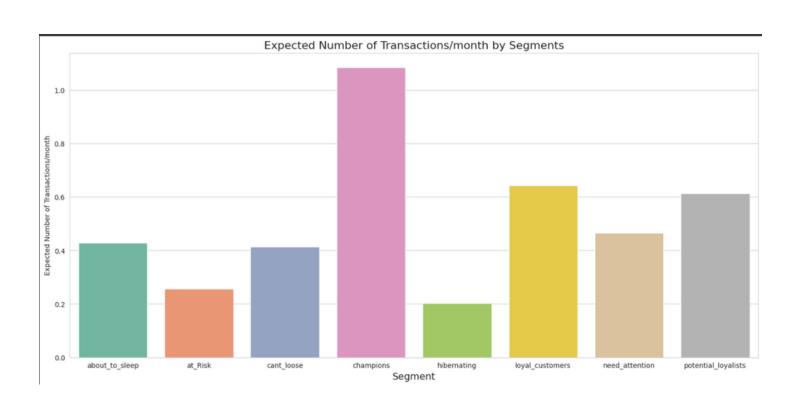
RFM Customer Segment



5. Customer Lifetime Value







Predict probability_alive,
Expected Number of
Transaction/ month with
BetaGeoFitter
Predict CLV/ month with
GammaGammaFitter

Segment to focus on:
 champions
 loyal_customers
 need_attention
 potential_loyalists
 about_to_sleep

Data Limitation

I. Missing values

1454 Missing values in 'Description' column 135000 Missing values in 'CustomerID' column Solution: Drop missing values

2. Wrong type

CustomerID dtype: float64

Solution: astype to string

3. Negative values

Negative values in 'Quantity' and 'UnitPrice' column Solution: Drop all negative values

4. Not necessary type of transaction

Postage fee and bank charge included in the transaction list Solution: Drop all fees and charges

Recomendation

Normal Customers define Monthly sales behavior, Wholesaler define Weekday sales behavior. Use this to build product and marketing strategies.

Release new Christmas products before Sep and marketing strategies before Oct.

Release new items on weekdays for wholesalers

2 new Wholesalers: 16446 and 12346 need to be focused on with partnership and promotion

Segments to focus on: champions, loyal_customers, need_attention, potential_loyalists, about_to_sleep

