



ADVENTURE WORKS
• CYCLES •

Objective



1. How much we have sold
2. what products we have sold
3. which clients buy our product
4. Sales over time
5. Budget Vs Sales Performance

Agenda



EDA



Measures about Business



Customer Segmentation



Sales last 2 Years



Conclusion

EDA



Data
cleaning

Data
transformation

Data
exploration

Data Transformation

We have created ARPU and Profit feature with Dax in Powerbi

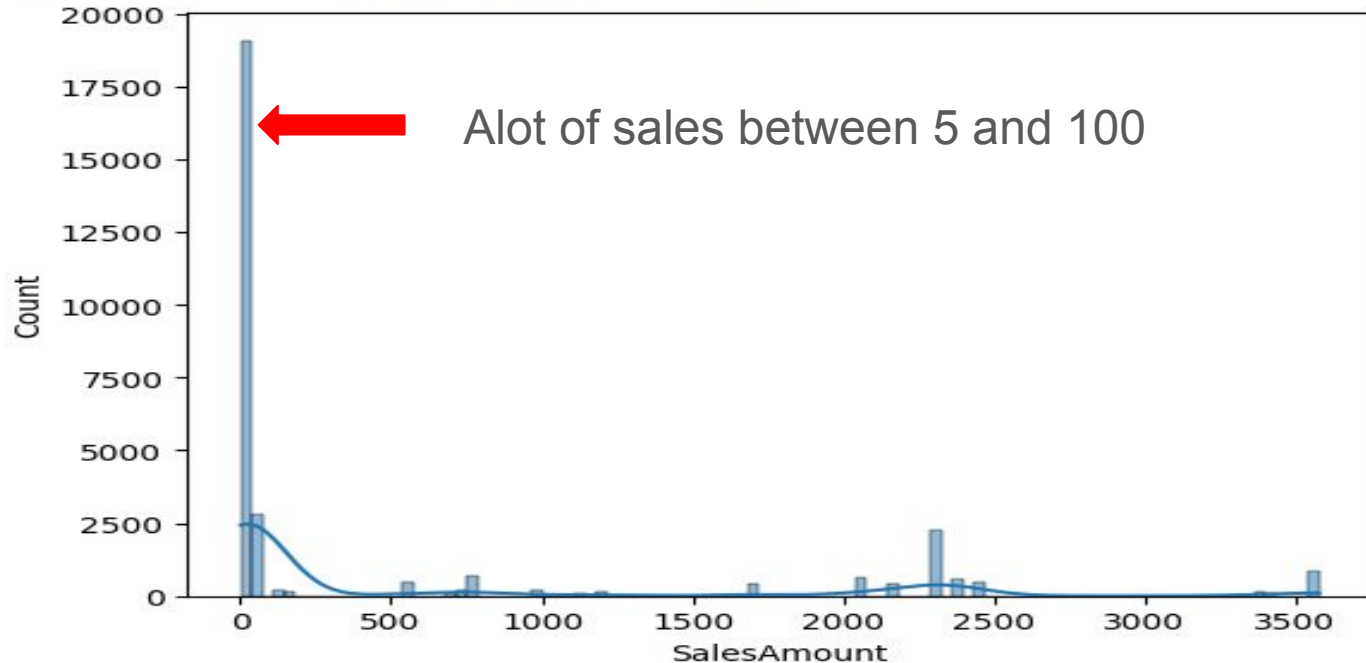
ARPU
1076.714
547.217
1074.841
6.885
1067.681
482.069
858.299
29.657
14.121
9.644
11.744
662.090
516.711
1533.338
525.563
9.180
9.644
10.302
18.224
11.381
18.224
19.427
25.361

Data Exploration

- We use python to explore salesamount feature
- Distribution of salesamount not normal

```
✓ [12] sns.histplot(data['SalesAmount'],kde=True,bins=100)
```

```
↩ <Axes: xlabel='SalesAmount', ylabel='Count'>
```

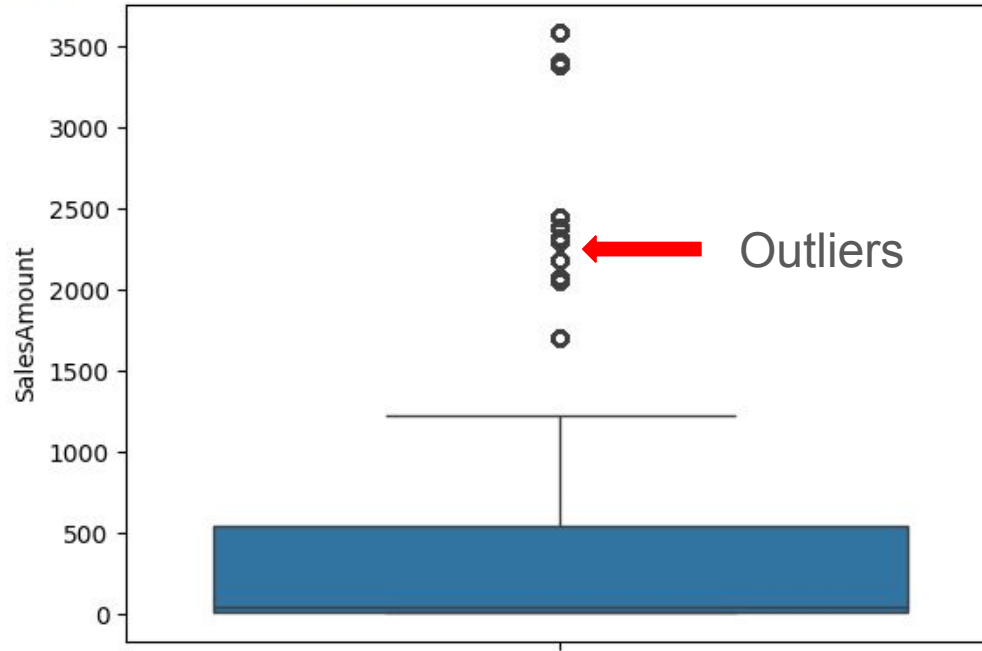


Data Exploration

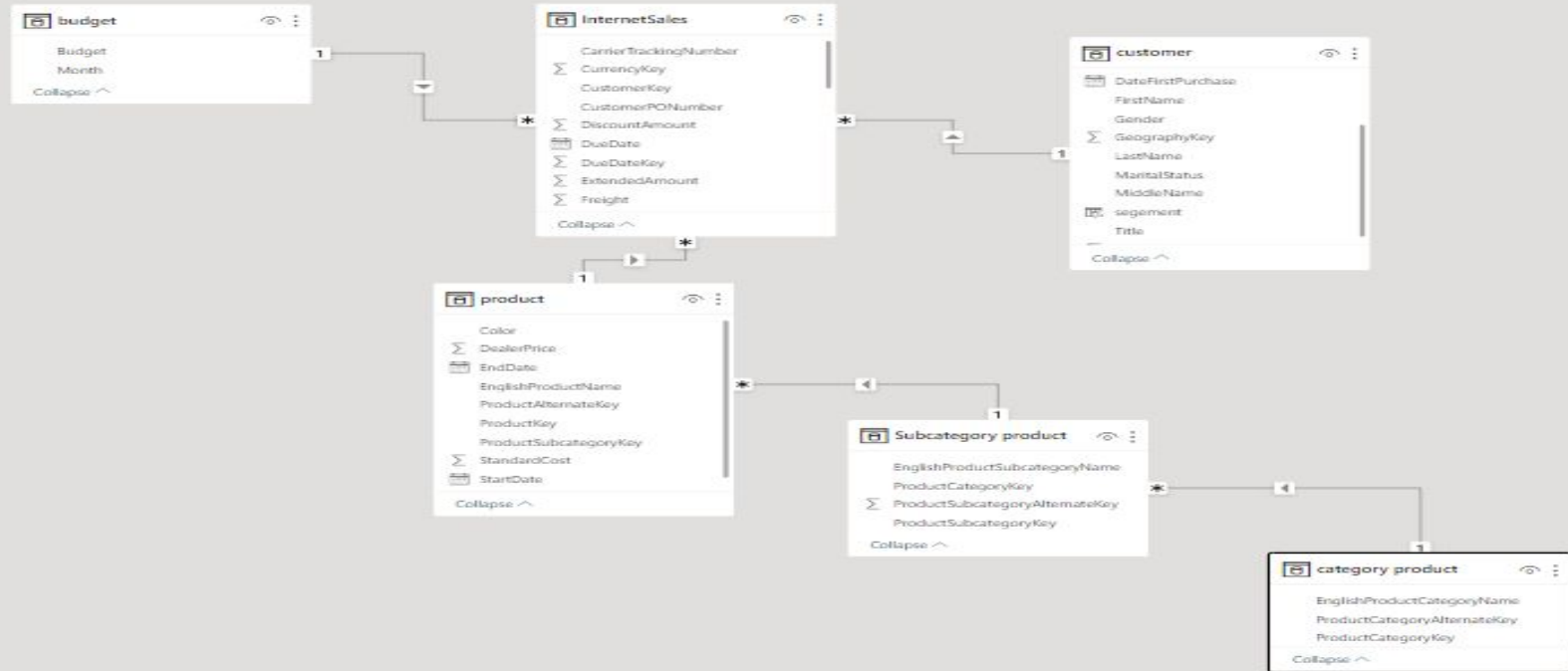
salesamount feature has outliers

```
✓ 0s [▶] sns.boxplot(data['SalesAmount'])
```

↔ <Axes: ylabel='SalesAmount'>



- We used SQL Server and Adventure DB to extract tables such as : Internet_sales, Product, Budget, Customers.....
- We use **Snowflake Data Model** in PowerBI
- We make **Normalization** by Product Table



Measures about Business

No of orders

60K

Total Sales

29.36M

Total Profit

15.16M

We achieved 15.16M Profit

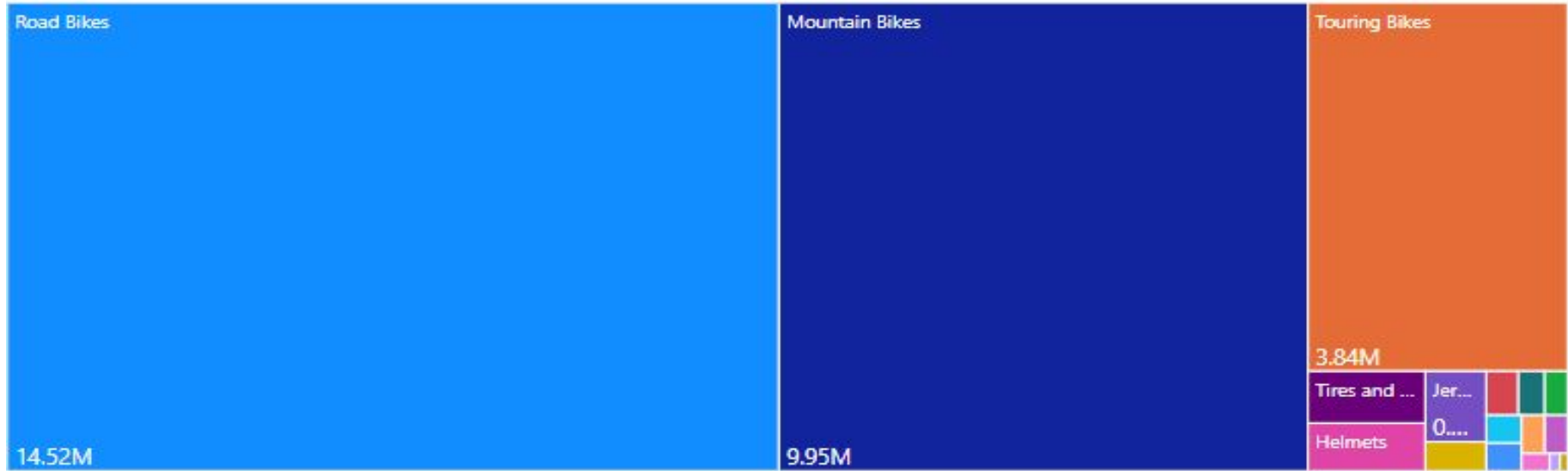
Most Product We sold



Bikes the main Products we sold

Most Subcategory We sold

sales by subcategory



Road Bikes the most SubCategory we sold and the second Mountain Bikes

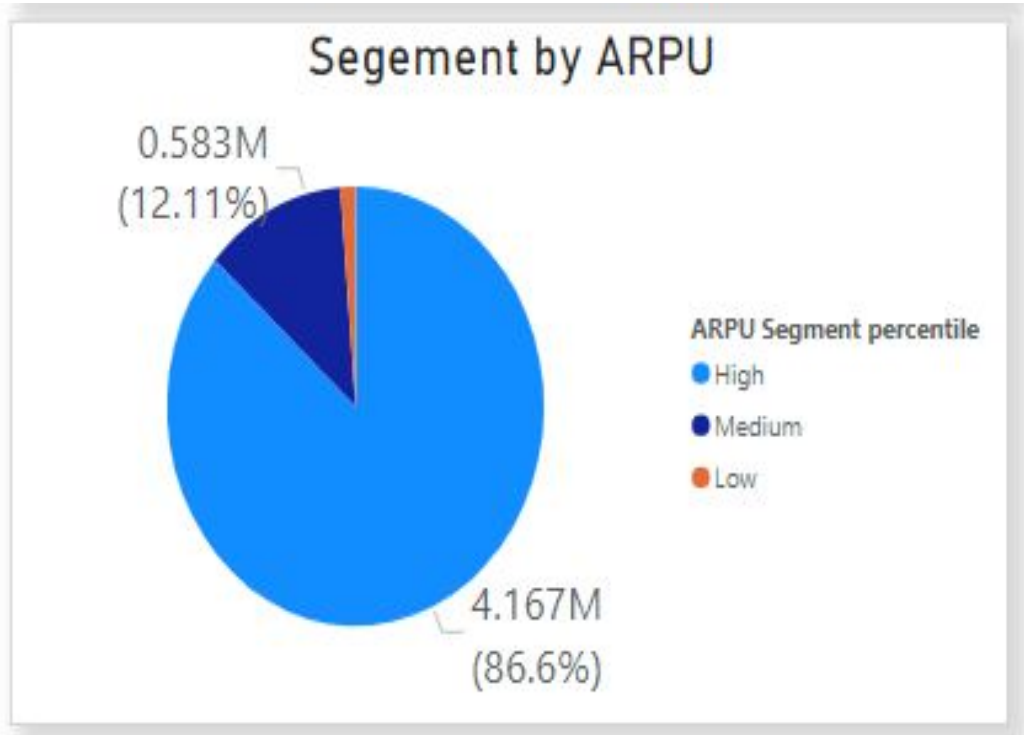
Segmenting Customers based on ARPU

Because of extreme value in data we use : **Percentile-Based Segmentation**

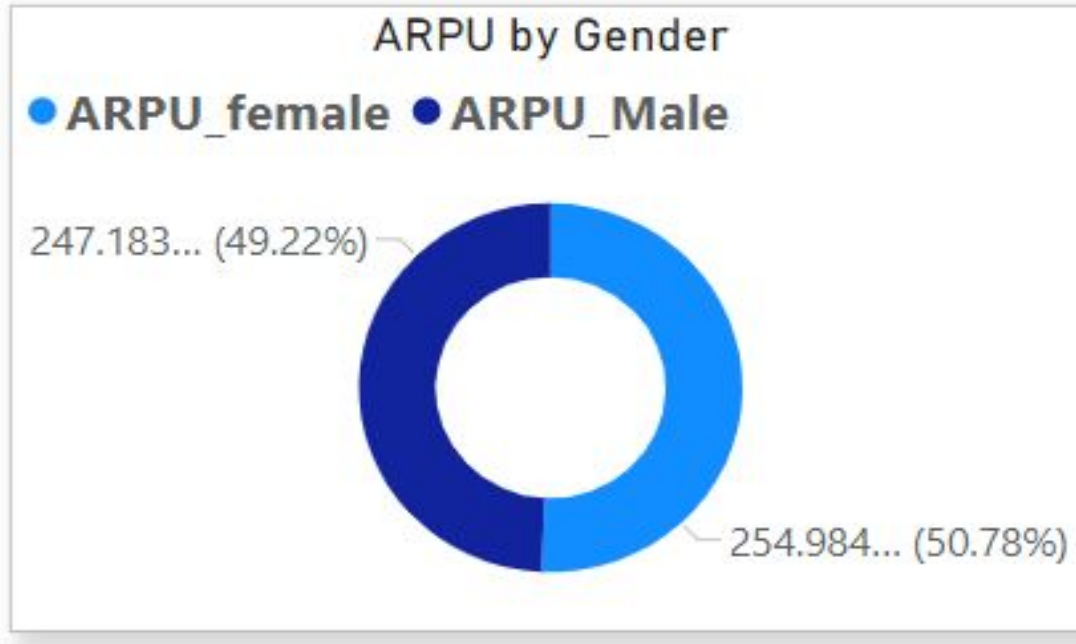
You can divide your data into three equal-sized groups (Low, Medium, High) using percentiles:

- **Low ARPU:** Bottom 33% of the ARPU values.
- **Medium ARPU:** Middle 33% of the ARPU values.
- **High ARPU:** Top 33% of the ARPU values.

Most sales comes from High segment so we need to focus on this segment in marketing

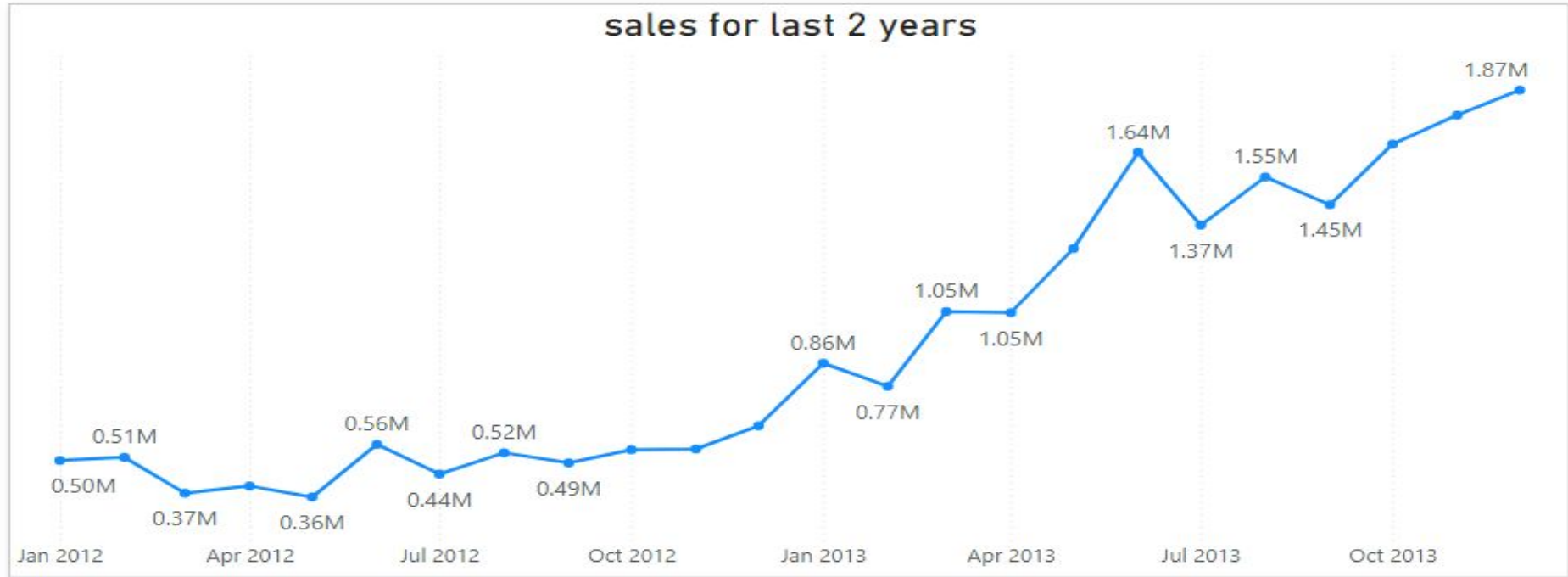


ARPU by Gender



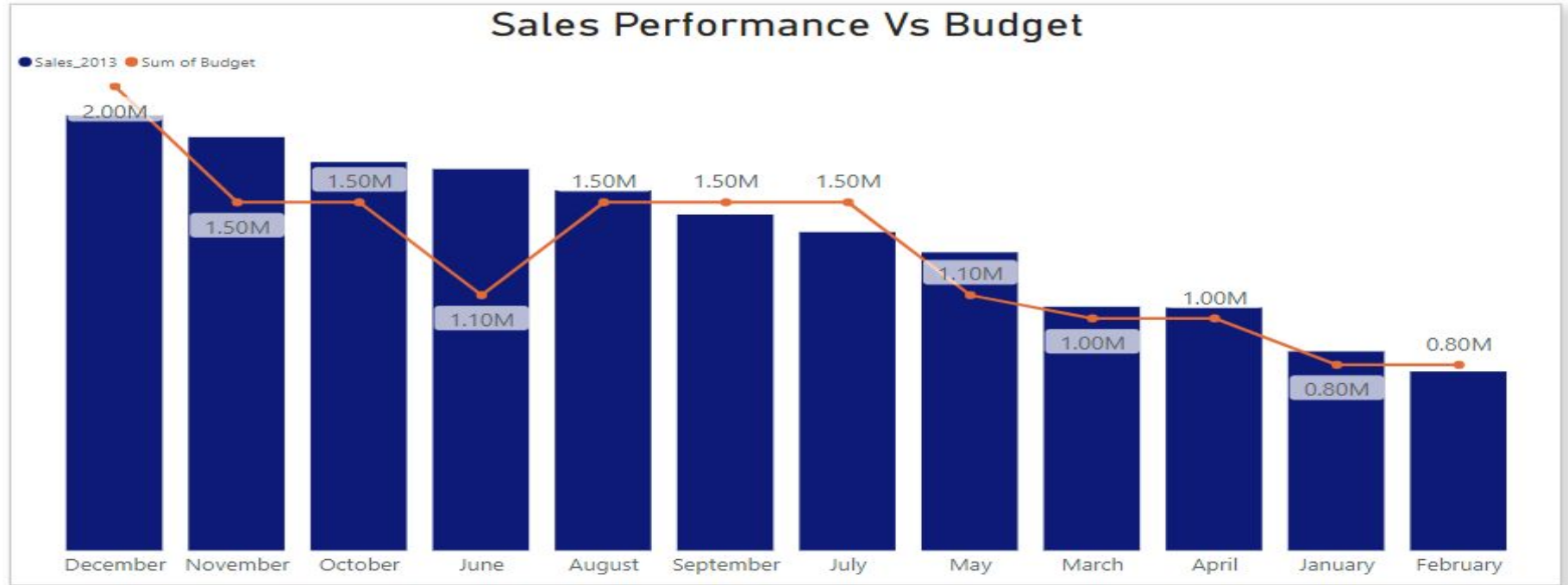
Female buy more than Male

Sales last 2 years



We achieved in 2013 sales more than 2012 and The fourth quarter of every year is the best selling quarter so we need to increase marketing in these months

Sales Performance Vs Budget in 2013



We do well in all Months except February, July, September and December so we need to make a new strategy for these months

Conclusion



- Most product sales are Bikes
- Most Revenues comes from High segment customers so we need to focus on these segment in marketing
- Female buy more than Male
- The fourth quarter of every year is the best selling quarter so we need to increase marketing in these months
- We do well in all Months except February, July, September and December so we need to make a new strategy for these months