Cardio Good Fitness

- Customer profile and Recommendations

Background

A set of observation of stores existing customers is available.

1. With the available data, build a customer profile for different products
2. Generate insights and recommendations that will help the company to get new customers

Objective

To extract actionable insights from the data and recommendations that will help to grow the sales.

Focal points would be-

- Variables than influence the usage of the product
- Identify the core customer group

- Core business idea

  Increase sales

- Problem to tackle

  Identify new customers

Data Overview

Variable	Description
Product	Model no. of the treadmill
Age	No of years, of the customer
Gender	Gender of the customer
Education	Education in no. of years, of the customer
Marital Status	Marital Status of the customer
Usage	Avg. # times the customer wants to use the treadmill every week
Fitness	Self rated fitness score of the customer (5 - very fit, 1 - very unfit)
Income	Income of the customer in Dollars
Miles	Miles expected to run

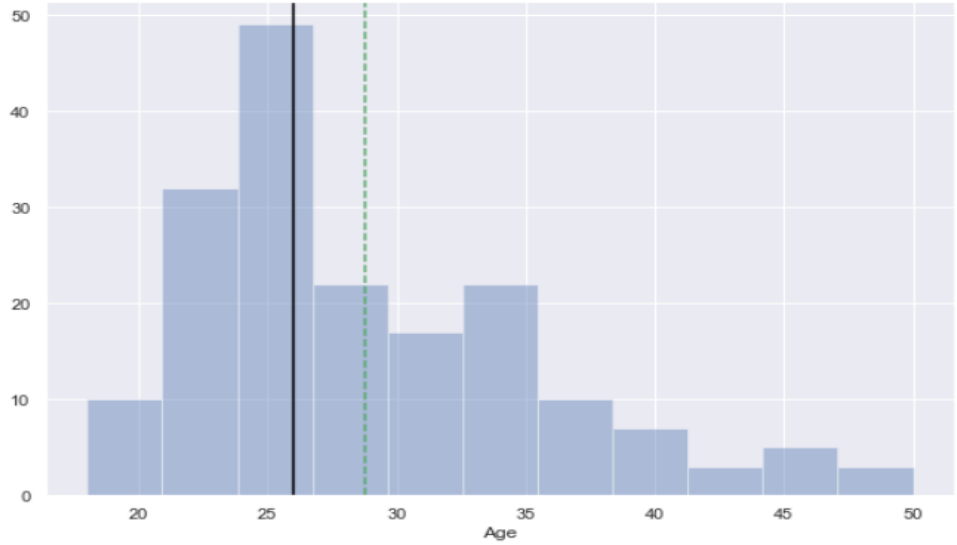
Observations	Variables
180	9

Exploratory Data Analysis - Age

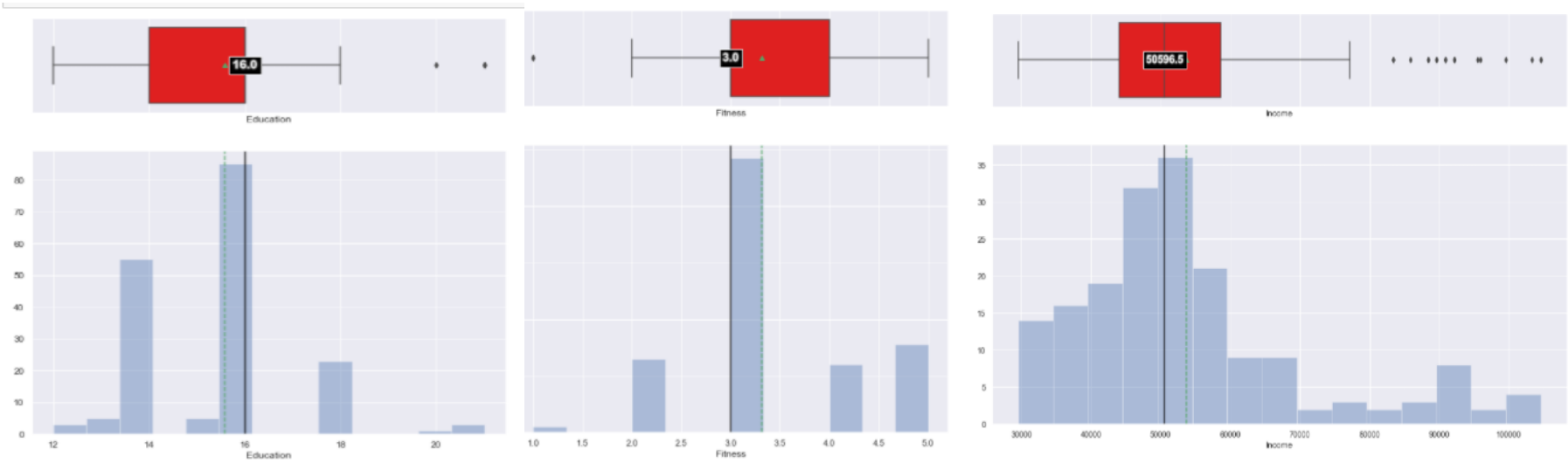
Observations:

1. Average age of the customer is 29 and median value is 26.

2. Age group of 24 -33 form the core group of customers.



Exploratory Data Analysis – Education, Fitness and Income



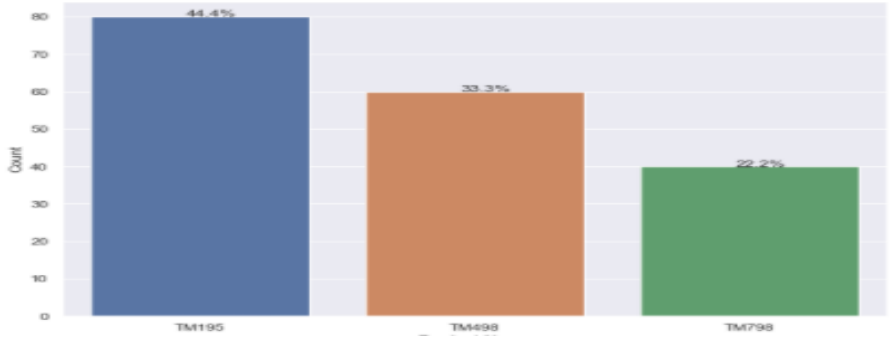
Most customers have at least 15 year of education

Most customers rate themselves with a fitness level of 3

Most customers fall in the income range of 45,000 to 60,000 .

Analysis per product

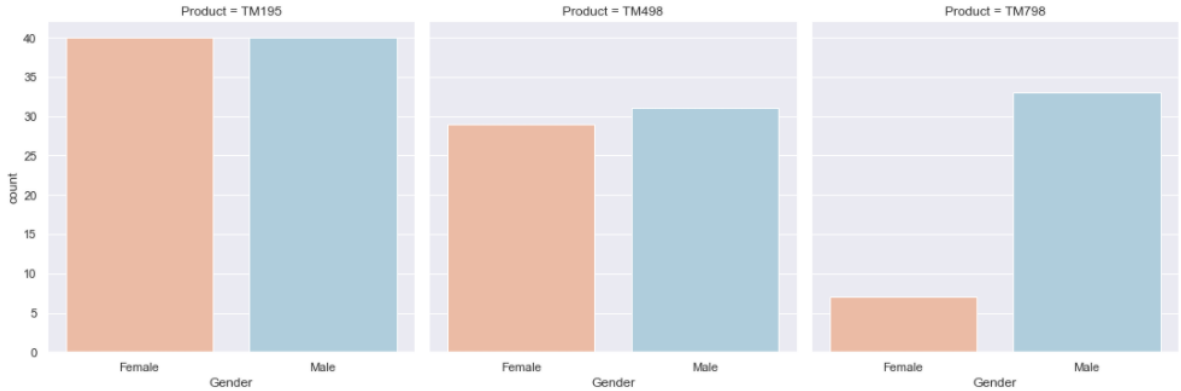
Observation data distribution across product



1. Most customers have TM195 product.
2. TM798 is the product which has lesser customers.

Gender distribution across different product

1. Most customers have TM195 product. On Product,TM195 Equal distribution between male and female customers.
2. TM498 has almost equal distribution between male and female customers.
3. TM798 is the product which has lesser customers, and this product has more male customers.



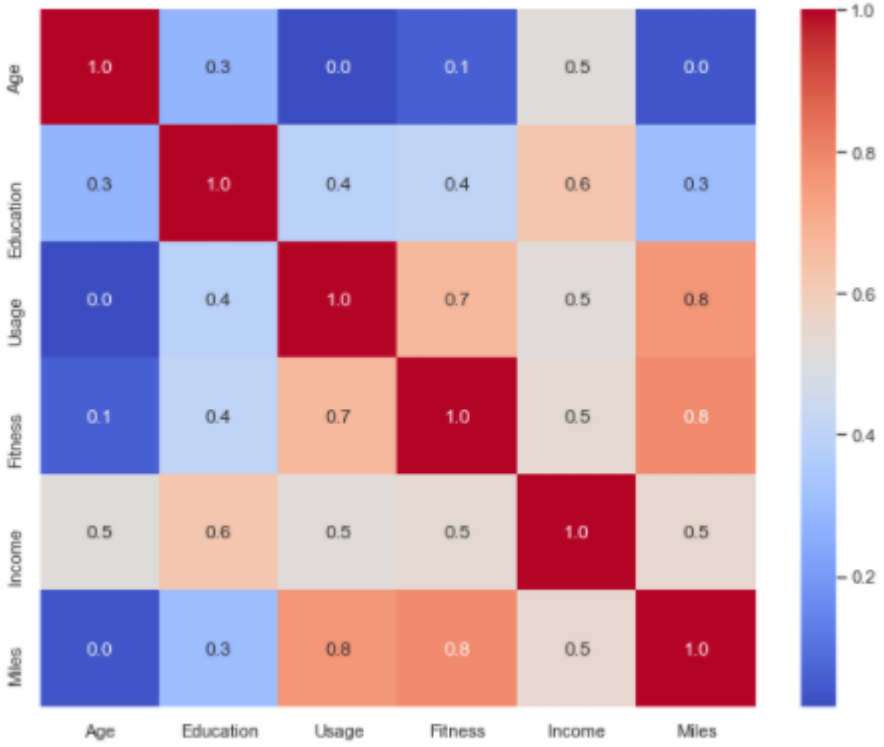
Correlation between variables from observation

1. Usage and Miles, Miles and Fitness are corelated.

- The more the usage the more Miles are run.
- As more miles are run , the user is at a higher Fitness level.

2. Understandably, Fitness and Usage have a correlation.

3. There does not seem to be a strong relationship between Usage and Age.



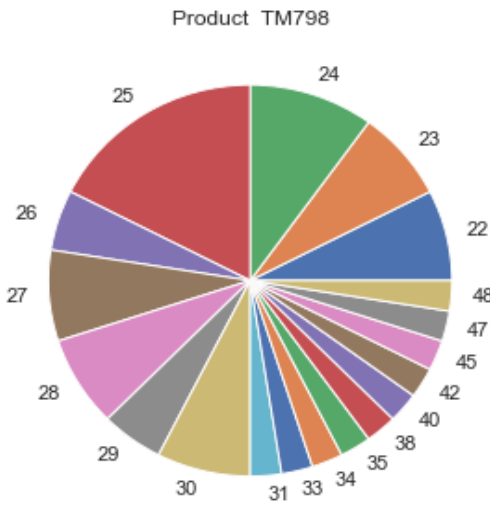
Age and Usage per week

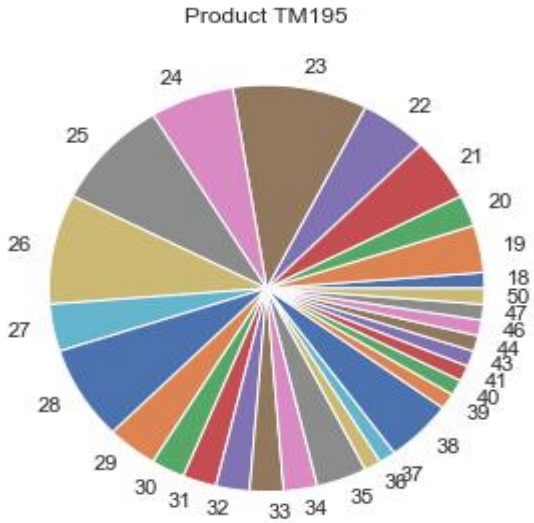
1. Age group 28-30, have the most miles run per week.
2. The data is distributed between Age 20-35.

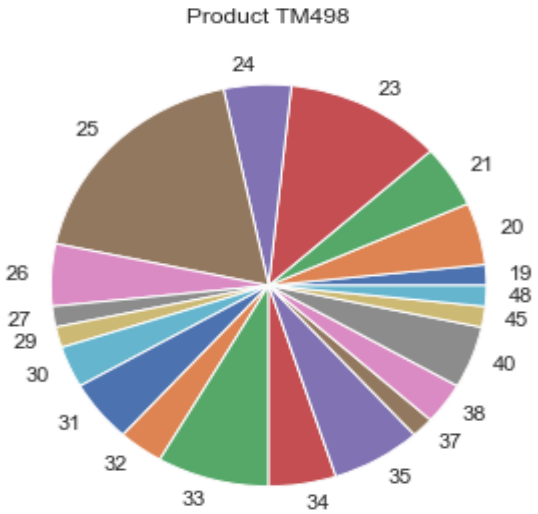
Miles and Usage per week

1. Age group 28-30 ,have the most miles run per week.
2. There is a good amount of dispersion in Usage for Age 20-35.

Age distribution per product



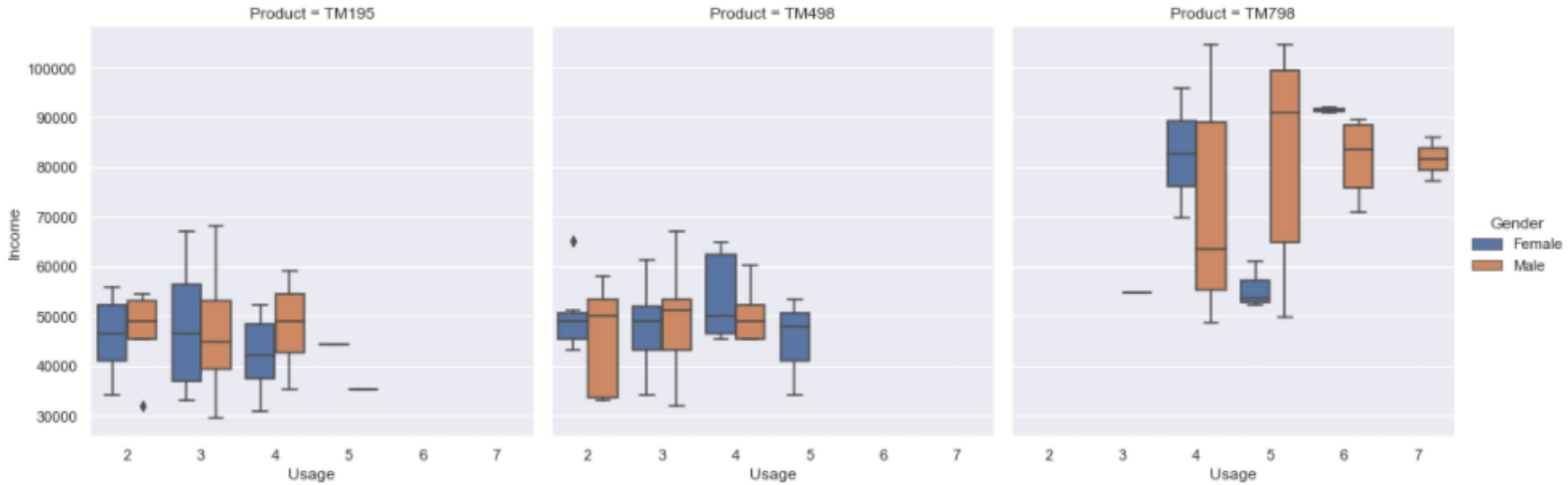




1. TM798 - Widely used by customers in Age 22-30.
2. TM195 - Widely used by customers in Age 22-29.
3. TM498 - Widely used by customer in Age 23-25.

Age group of 24 -33 form the core group of customers.

Usage per week vs Income per product

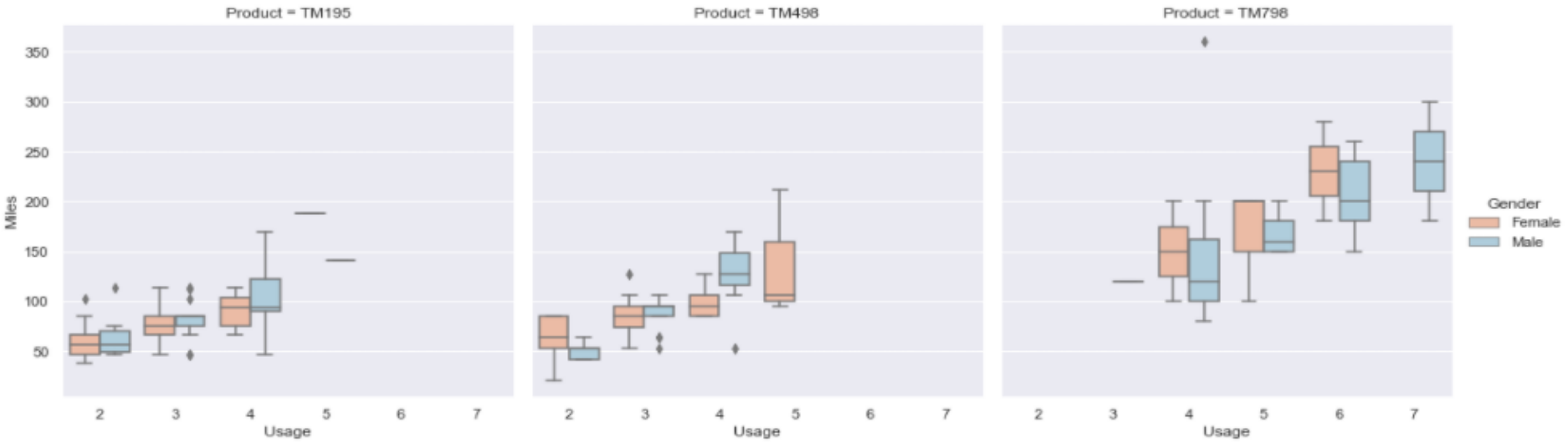


1. TM195 - Customer with annual income between 40000 and 55000 are likely to use this product

2. TM498 - Customer with annual income below 60000 are likely to use this product

3. TM798 - Customer with annual income more than 60000 are the core users for this product.

Usage vs Miles per week per Product



1. TM195 - Customer who like to run between 50 and 100 miles per week are likely to use this product.
2. TM498 - Customer likely to between 100 to 150 miles per week are likely to use this product.
3. TM798 - Customer who like to run more than 100 miles per week are more likely to use this product.

Business Insights and Recommendations

Conclusion based on interpretation of the model input variables

1. Most customers have TM195 product.

2. There are more male customer than female customers.

3. There are more customers who are with Marital Status of Partnered.

4. Customers between 24 to 33 are more likely to use the product

5. TM195 & TM498 , have a similar customer profile regarding usage level, Age, income and miles run per week

a) Usage per week : 3
b) Gender : Male
c) Fitness level: 3
d) Miles run per week : 50 -100
e) Annual Income: 40000 to 60000
f) Education : 14 to 16 years
g) Age: 23-28

Conclusion –contd.

6. TM798's customer profile:

a) Usage per week : 4
b) Gender : Males
c) Fitness level: 5
d) Miles run per week : 100
e) Annual Income: Above 60000
f) Education : More than 16 years
g) Age: 22-30

Further Analysis needed

- TM798 has a different customer profile from the other two , more data needs to be collected to analyze this.
- Data collection should have more variable that influence the usage, like the reason the customer wishes to buy product
- Data should also be collected to infer if price of the product impacts the decision of the model purchased.

Recommendation

Recommendation to business

1. Age group of 24 -33 form the core group of customers. Sales should focus on this group

2. TM798 is more popular among Male customers.

3. TM798 is more popular with customer desiring a higher fitness level and having higher income.

4. TM195 is the most popular product.