greatlearning
Power Ahead

Business Presentation

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June 21, 2021

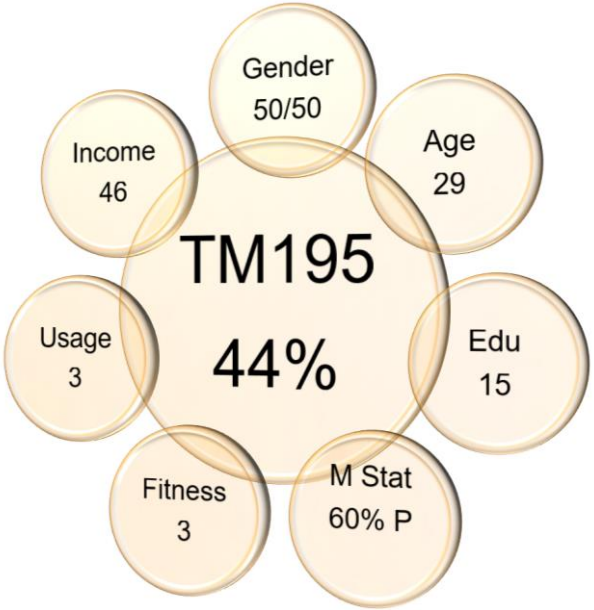
Problem Overview

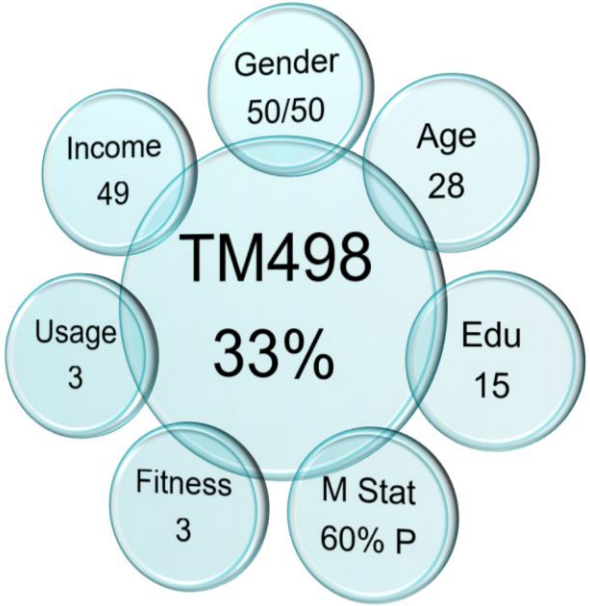
- Core business idea
  - Understanding both customer attributes and behaviour are key business success

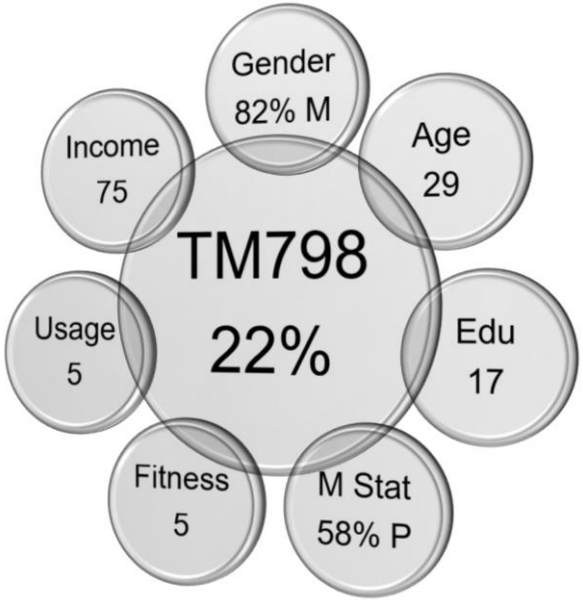
- Problem to tackle
  - Build customer profiles from data provided about our treadmill products
  - Provide insights that lead to action

- Business implications
  - Suggest specific actions based upon key insights that improve profits and/or revenues

Executive Summary





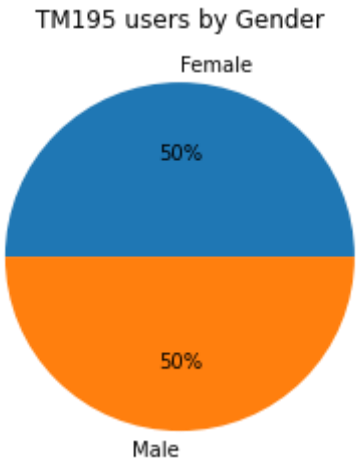


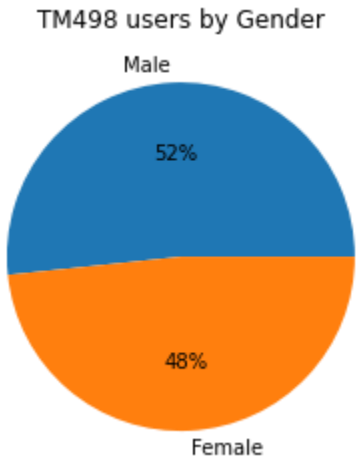
Customer Profile by Product

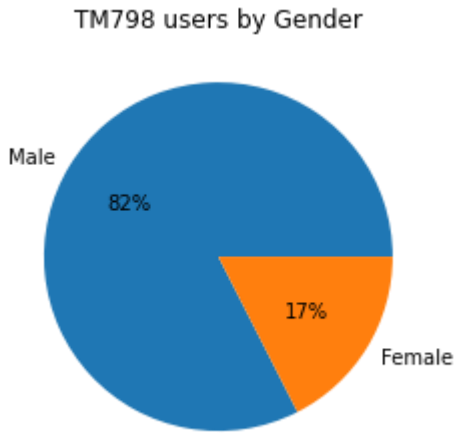
Key Insights and Relationships are detailed on the following slides

Product and Gender

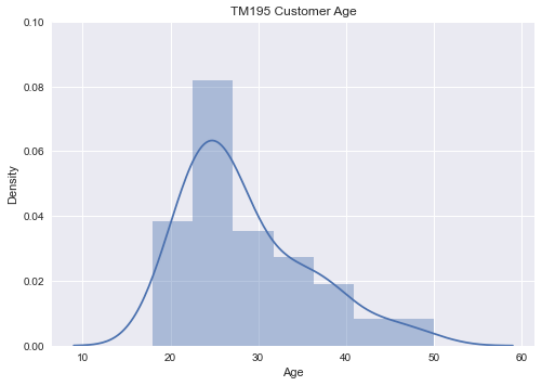
- TM195 and TM498 products are used almost equally by male and female customers
- The majority of TM798 customers are male

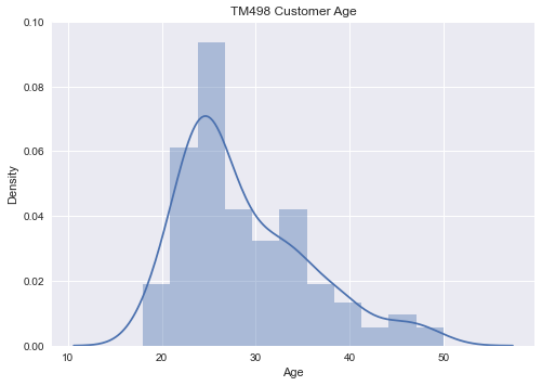


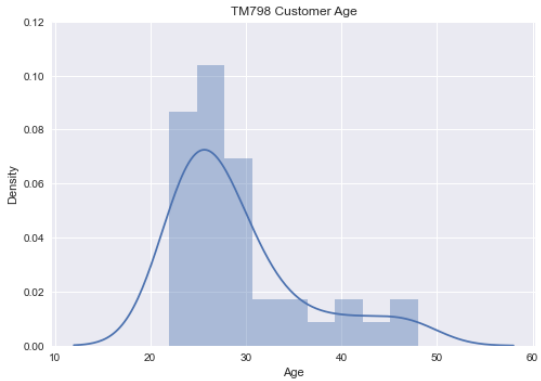




Product and Age

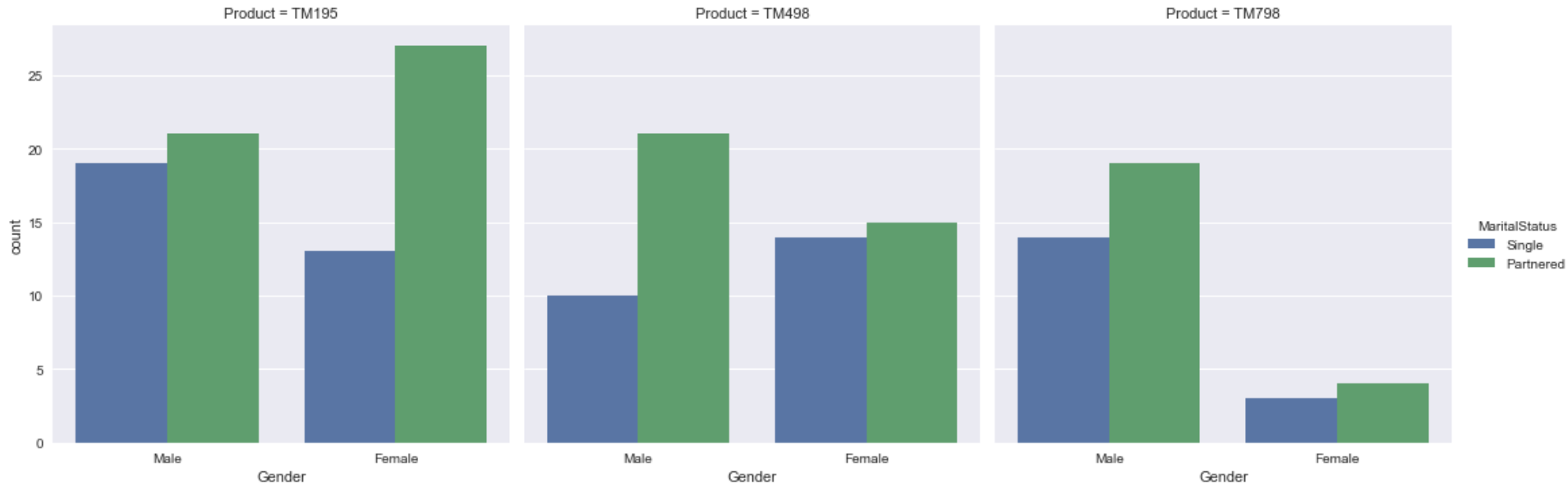






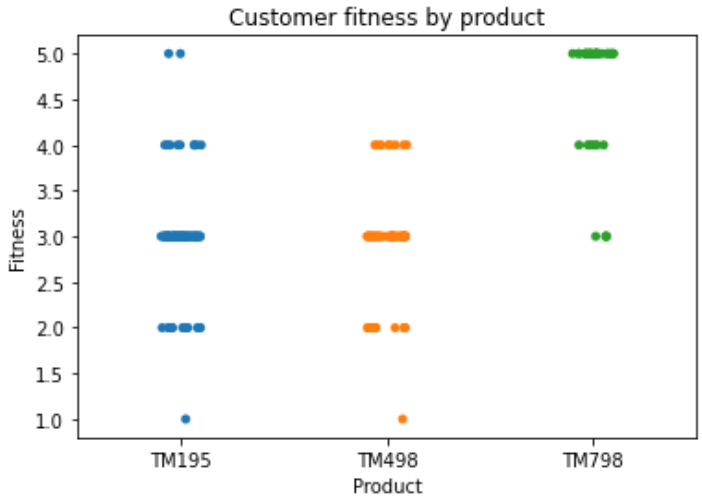
- 25 years old is the most frequent age in the data set
- The average customer age is 28-29 years

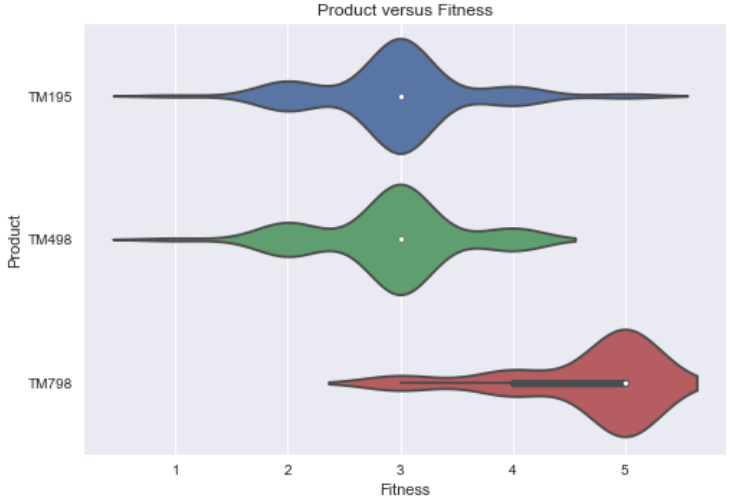
Marital Status and Gender by Product



- Customers are more often partnered than single

Product and Fitness

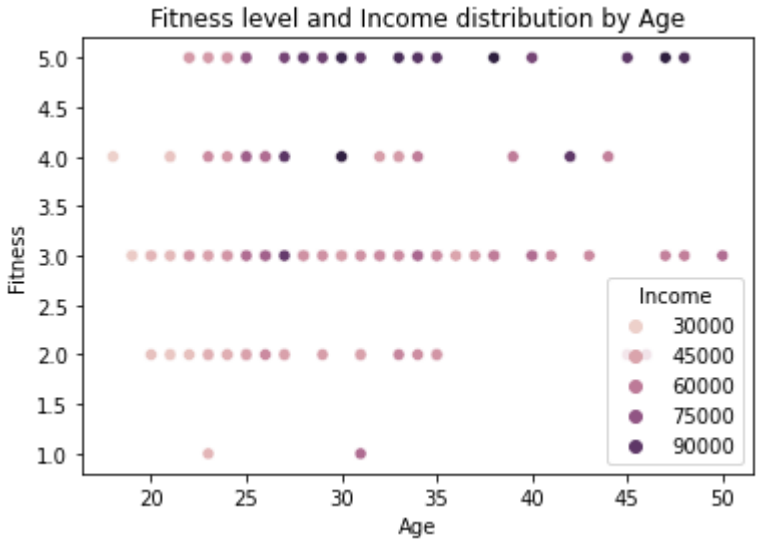


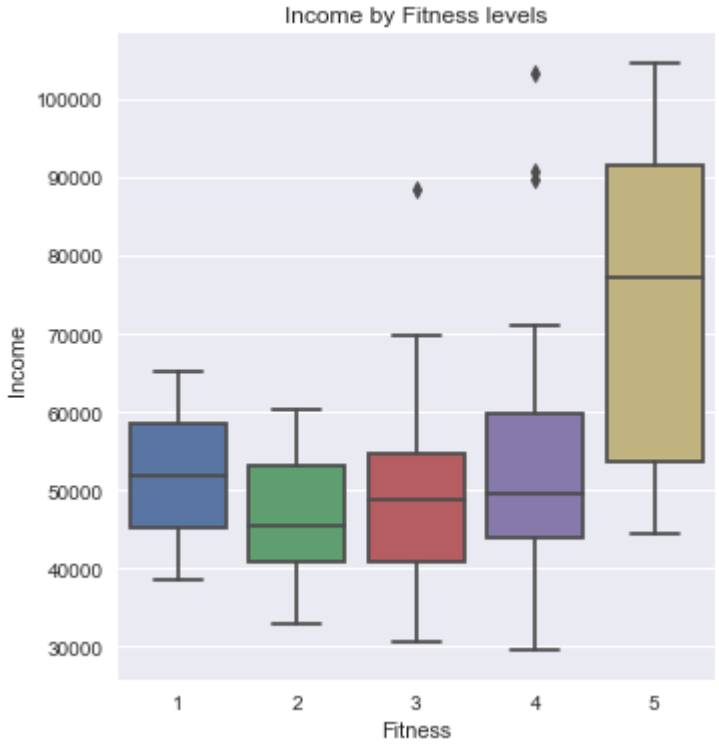


- TM195 and TM498 customer fitness is closely matched
- TM798 customers describe themselves as very fit

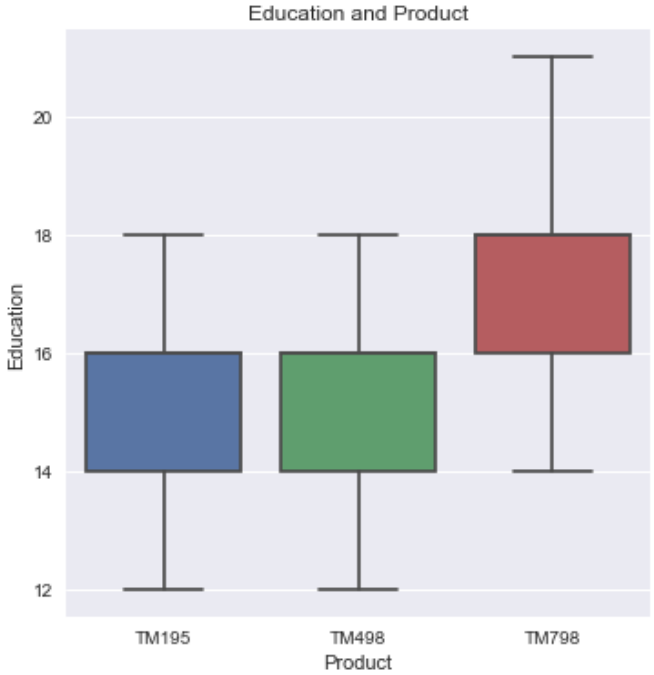
Fitness and Income

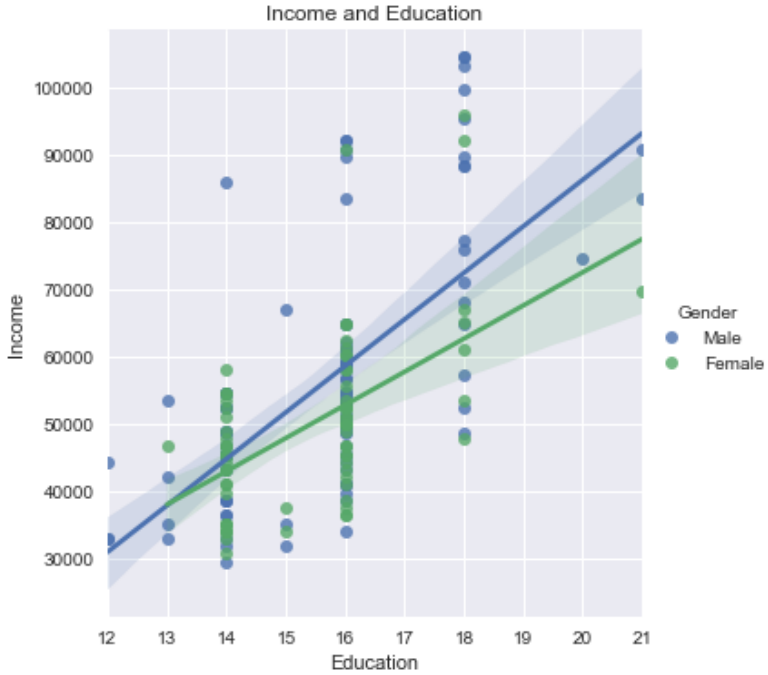
- Very fit customers report a higher income for ages over 25





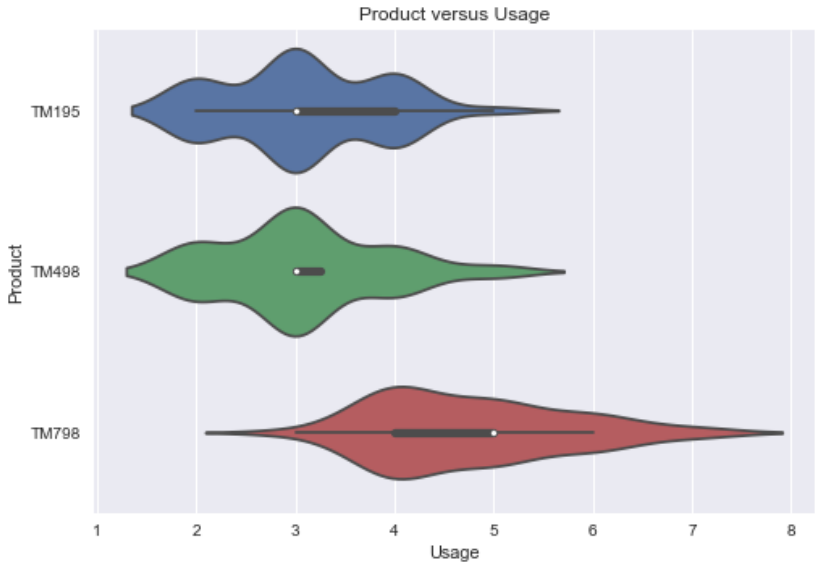
Product and Education

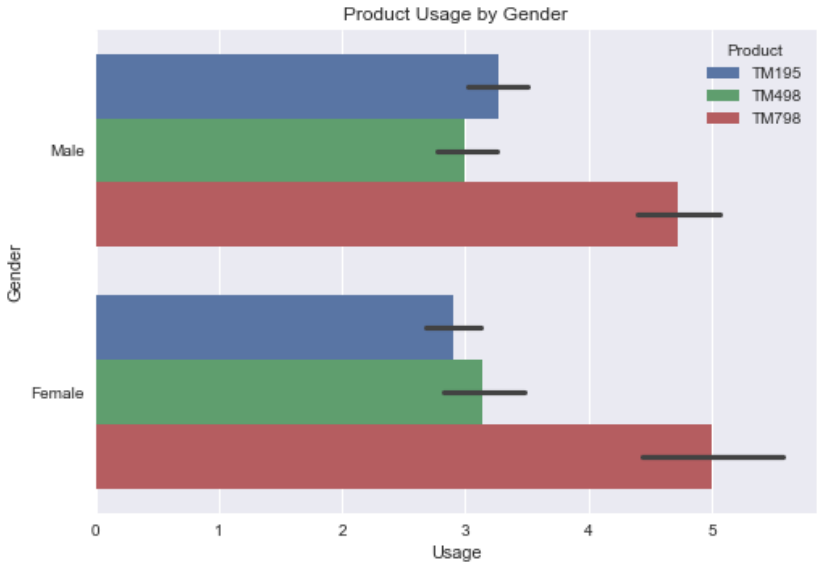




- TM798 customers report a higher education level
- Income increases with education although at a lower rate for females

Product and Usage





- TM798 customers use their products almost 2 times more on a weekly basis regardless of gender

Key Take-Aways: TM195, TM498

Insights

- TM195 and TM498 combined represent 77% of the customers
- TM195 and TM498 customer profiles are very similar in gender, age, education, marital status, income, usage

Key questions

- Why have 2 product models? Why do customers choose TM195 vs. TM498?
- Fitness is a progression: Level 1 to Level 2, to Level 3, and so on – market progression

Business Implication and Action

- Improve profits if it is possible to consolidate to one model (with further investigation)
- Promotional upsell/upgrades of fitness level 4 and level 5 customers to TM798
- Increase sales using target marketing to attract lower fitness levels

Key Take-Aways: TM798

Insights

- TM798 products are used by 22% of the customers
- TM798 customers are considerably different than their TM195, TM498 counterparts
    - Over 50% greater income and 2 years more education (on average)
    - Primarily male
    - Exercise almost 2 more times per week
    - Running on average 2x that of TM195 and TM498 customers

Key questions

- How to grow TM798 revenue? Conclusion: Very fit women are underserved.

Business Implication and Action

- Increase sales to very fit women who also have high income and education
- Launch marketing campaign at this customer segment

Business Insights and Recommendations

- Product management observations can be made from customer data
- Product segmentation can be improved as noted on previous slides
- Additional data sources that will increase success rates include
    - Product Features by Model
    - Pricing and Cost
    - Geographic information regarding markets served
    - Sales channels

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Thank You!

Supplemental Slides in Back Up

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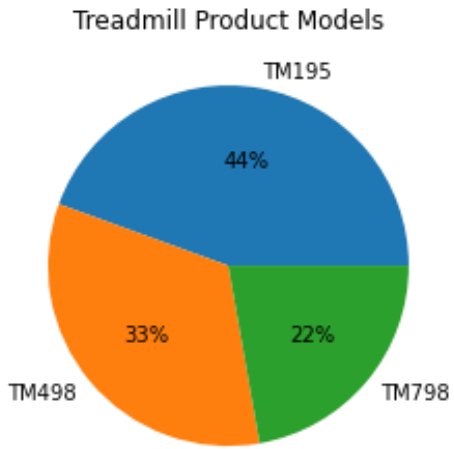
Happy Learning !

Data Overview



- The source data allows us to focus on 3 product models: TM195, TM498, TM798
- Our source data includes 180 records by nine variables (columns)

Data Description and Solution Approach

- Data types and variables
  - Product variables

    Product model
  - Fitness data variables

    Usage, Fitness level, Miles
  - Personal data variables

    Age, Gender, Education, Marital Status, Income

Index	Column Description	Data Type	
0	Product	object	Categorical
1	Age	int64	Continuous
2	Gender	object	Categorical
3	Education	int64	Discrete
4	MaritalStatus	object	Categorical
5	Usage	int64	Discrete
6	Fitness	int64	Discrete
7	Income	int64	Continuous
8	Miles	int64	Continuous

- Approach: Examine the customer attributes in aggregate and more specifically for each of the three specific Product models

EDA - Comparing

TM195 mean (44% share)

- 29 years, 15 yrs edu, 3x/week user, level 3 fitness, 46K income, 83 miles

TM498 mean (33% share)

- 28 years, 15 yrs edu, 3x/week user, level 3 fitness, 49K income, 88 miles

TM798 mean (22% share)

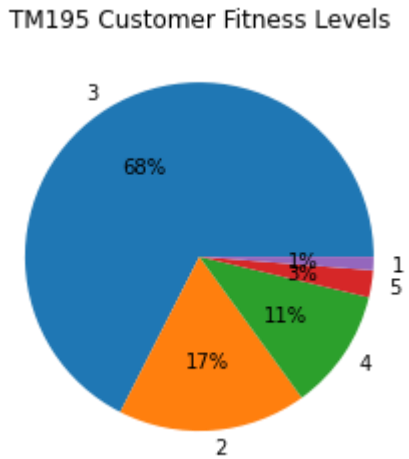
- 29 years, 17 yrs edu, 4.8x/week user, level 4.6 fitness, 75K income, 167 miles

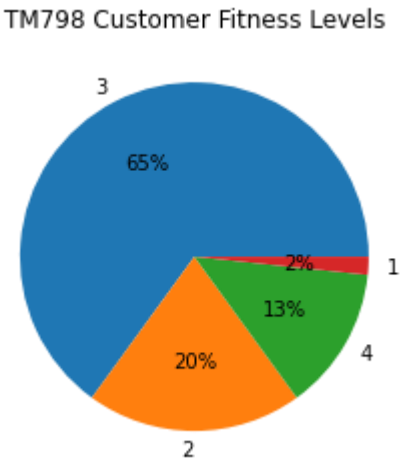
Conclusion

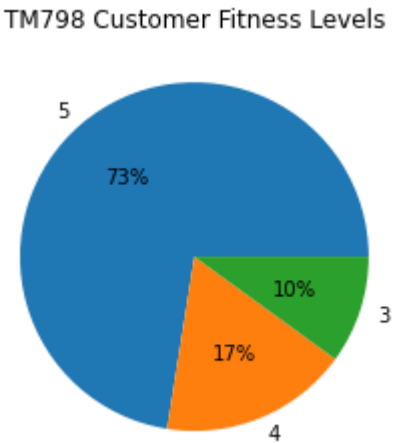
- TM195 and TM498 customers are quite similar
- TM798 customers have significantly higher income, fitness, usage and miles

Product and Fitness

- TM195 and TM498 share similar customer fitness profiles; the largest percentage is 3 or average fitness.
- The majority of TM798 customers are very fit with only 10% rated as average fitness

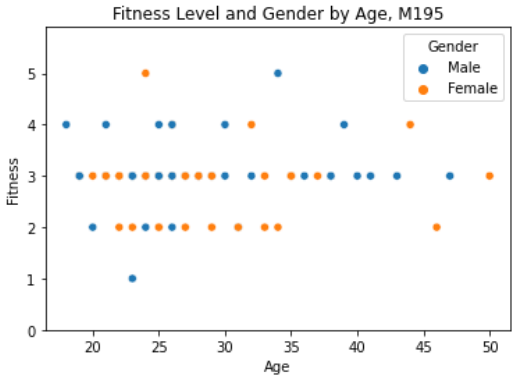


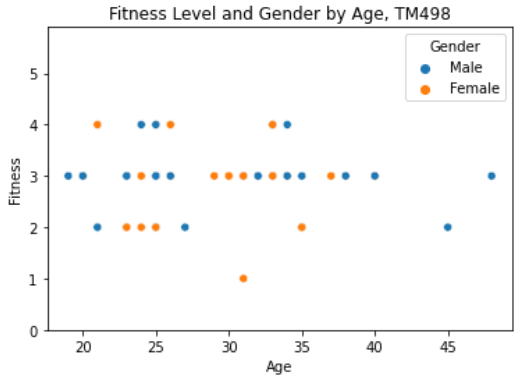


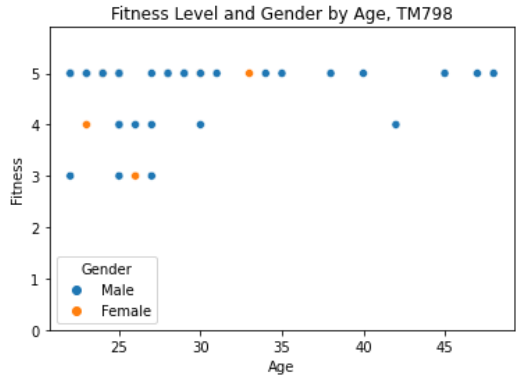


Customer Fitness

- TM798 customers are mostly male with very high fitness levels
- TM195 and TM498 customer fitness is distributed around the average fitness level







TM195 EDA

	Age	Education	Usage	Fitness	Income	Miles
count	80.0	80.0	80.0	80.0	80.0	80.0
mean	29.0	15.0	3.0	3.0	46418.0	83.0
std	7.0	1.0	1.0	1.0	9076.0	29.0
min	18.0	12.0	2.0	1.0	29562.0	38.0
25%	23.0	14.0	3.0	3.0	38658.0	66.0
50%	26.0	16.0	3.0	3.0	46617.0	85.0
75%	33.0	16.0	4.0	3.0	53439.0	94.0
max	50.0	18.0	5.0	5.0	68220.0	188.0

TM498 EDA

	Age	Education	Usage	Fitness	Income	Miles
count	60.0	60.0	60.0	60.0	60.0	60.0
mean	29.0	15.0	3.0	3.0	48974.0	88.0
std	7.0	1.0	1.0	1.0	8654.0	33.0
min	19.0	12.0	2.0	1.0	31836.0	21.0
25%	24.0	14.0	3.0	3.0	44912.0	64.0
50%	26.0	16.0	3.0	3.0	49460.0	85.0
75%	33.0	16.0	3.0	3.0	53439.0	106.0
max	48.0	18.0	5.0	4.0	67083.0	212.0

TM798 EDA

	Age	Education	Usage	Fitness	Income	Miles
count	40.0	40.0	40.0	40.0	40.0	40.0
mean	29.0	17.0	5.0	5.0	75442.0	167.0
std	7.0	2.0	1.0	1.0	18506.0	60.0
min	22.0	14.0	3.0	3.0	48556.0	80.0
25%	25.0	16.0	4.0	4.0	58205.0	120.0
50%	27.0	18.0	5.0	5.0	76568.0	160.0
75%	30.0	18.0	5.0	5.0	90886.0	200.0
max	48.0	21.0	7.0	5.0	104581.0	360.0

Contents

Assignment 1: Cardio Good Fitness Treadmill Products

1. Create customer profile of the different products
2. Perform uni-variate and multi-variate analyses
3. Generate a set of insights and recommendations that help company target new customers

Jupyter Notebook

- Submit html file of jupyter notebook, remove warnings and errors
- Well documented: inline and markdown cells for code, observations, insights

Powerpoint

- C-level audience, key take-aways, refer to handout instructions