

# Analyzing AeroFit's Customer Demographics and Product Preferences

## 1. Product Preferences: KP281: Leading the Pack in Product Preferences

Among the AeroFit treadmill products, KP281 stands out with the highest overall customer count. Males dominate the customer base, constituting the majority within the Gender category. Partnership seems to play a significant role, as 'Partnered' status holds the highest count in the MaritalStatus category. When it comes to fitness levels, customers rating themselves as '3' exhibit the highest overall count within the Fitness category.



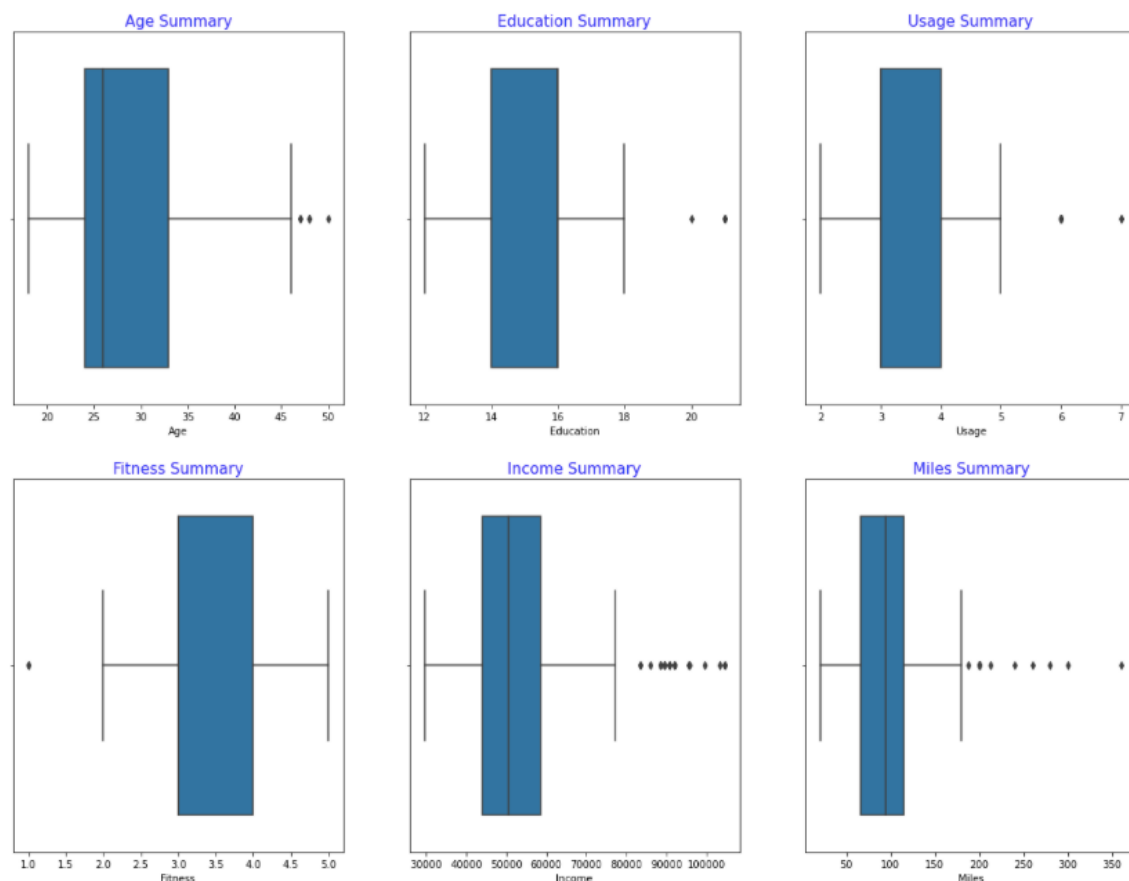
## 2. Descriptive Analysis:

- Demographic Appeal:** AeroFit primarily attracts a younger audience, with an average customer age of 28 and a median age of 26.

2. **Education Diversity:** Customers exhibit varied education levels, ranging from 12 to 21 years. Tailored communication may be necessary to accommodate this diversity.
3. **Usage Patterns:** On average, customers plan to use their treadmills 3.4 times per week, but usage varies from 2 to 7 times. Versatile product features and engagement strategies are essential.
4. **Fitness Range:** Customers rate their fitness level at an average of 3.3 on a 1 to 5 scale, indicating a broad spectrum of fitness backgrounds.
5. **Income Spectrum:** Most customers earn around \$58,000 annually, but incomes range from \$30,000 to \$104,000. Pricing and financing options should cater to this income diversity.

### 3. Outliers:

1. **Age Diversity:** AeroFit attracts a wide age range, with a concentration of customers aged 23-33. Notable outliers exist in the 45-50 age group.
2. **Varied Education Levels:** Customers have diverse educational backgrounds, with many having 14-16 years of education. Some outliers possess over 20 years of education.
3. **Usage Habits:** Most customers use AeroFit treadmills 3-4 times a week, but dedicated users, using them 6-7 times a week, are also present.
4. **Fitness Levels:** Customers generally rate their fitness at 3-4 out of 5. However, there are outliers with lower fitness levels (minimum 1), indicating inclusivity.
5. **Income Range:** The majority earn \$45k-\$60k annually, but outliers with incomes exceeding \$85k demonstrate a broad income spectrum among customers.



#### 4. Effect of Categories on Product Purchased:

##### 1. Gender Preferences:

- KP281 is equally popular among both males and females.
- KP481 and KP781 are predominantly purchased by males.

##### 2. Marital Status Impact:

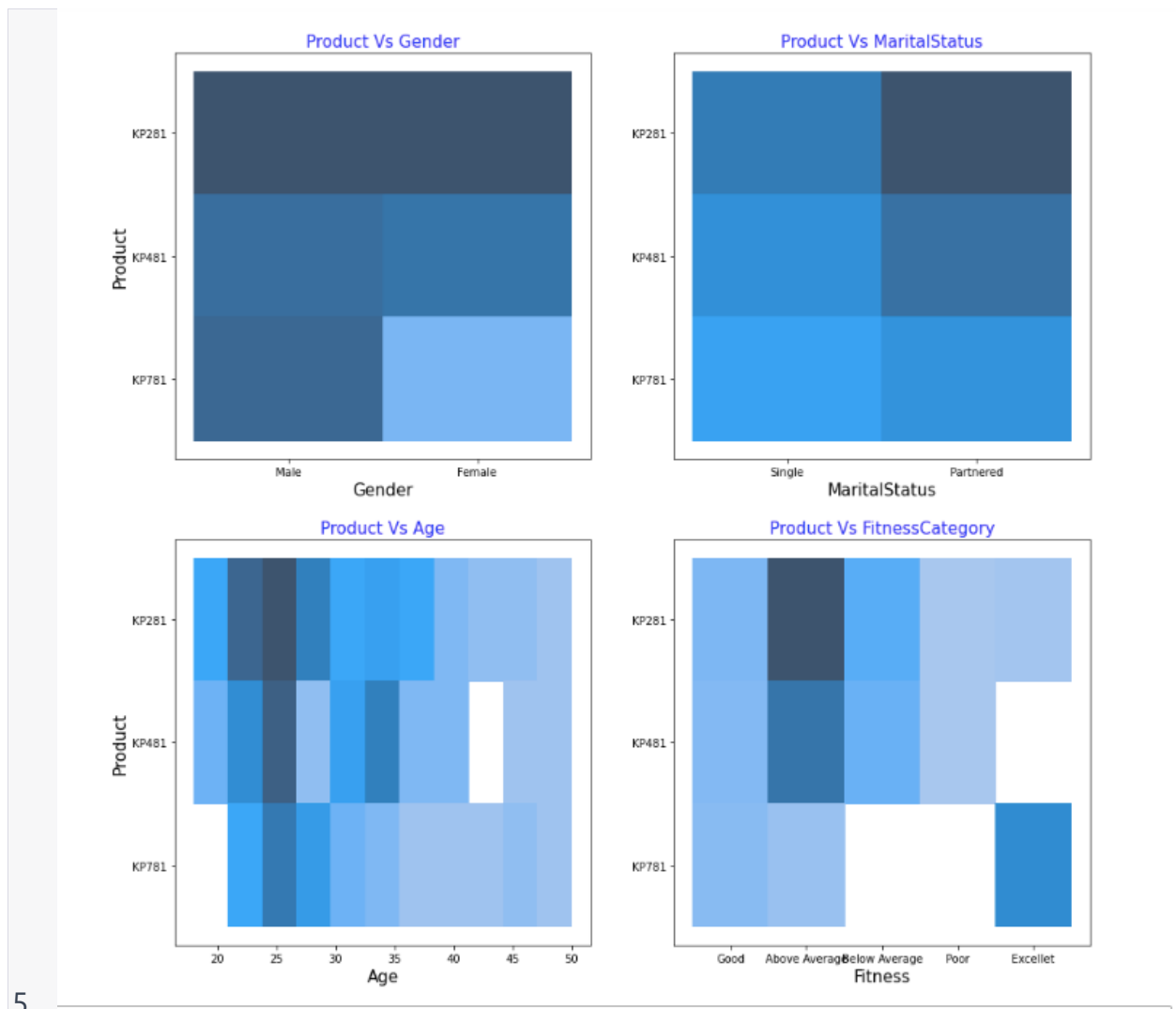
- All products are more popular among partnered customers compared to single customers.
- KP281 is the most purchased product for both single and partnered customers, followed by KP481 and KP781.

##### 3. Age Group Analysis:

- Customers aged 20-30 form the primary customer base for all products.
- KP281 appeals to all age groups.
- KP481 lacks sales in the 40-45 age group.
- KP781 isn't bought by teenagers.

##### 4. Fitness Level Influence:

- KP781 attracts customers with excellent, good, and above-average fitness levels (ratings 3, 4, 5).
- KP481 is favored by those with an above-average fitness level (rating 3).
- KP281 is mostly used by customers with above-average fitness levels (rating 3).



## 5. Correlation among different factors:

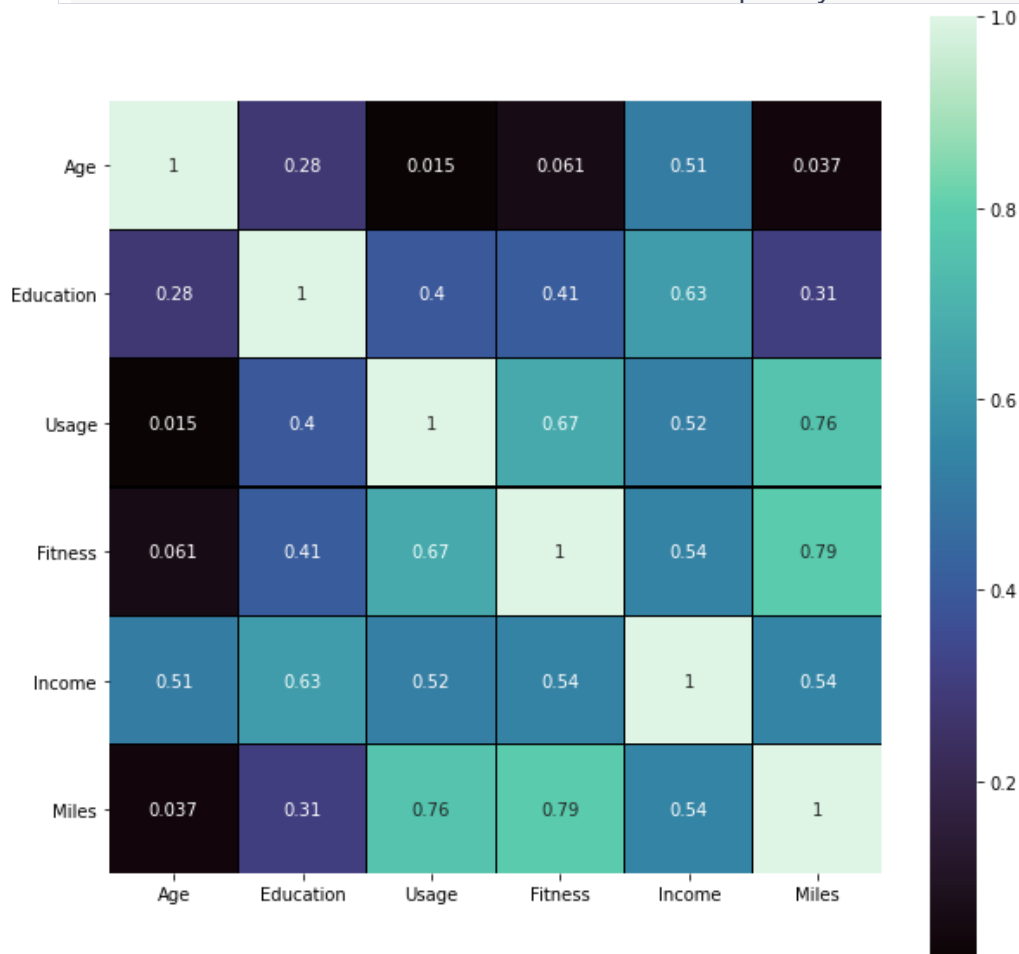
### Strong Correlations:

- The data reveals strong positive correlations between:
  - Fitness and Miles (0.79)**, indicating that customers who rate their fitness higher tend to cover more miles each week.
  - Usage and Miles (0.76)**, suggesting that customers who use the treadmill more frequently tend to cover greater distances.
  - Usage and Fitness (0.67)**, implying that customers who use the treadmill more also rate their fitness levels higher.

### Moderate Correlations:

- Additionally, moderate positive correlations exist between:
  - Fitness and Income (0.54)**, hinting that customers with higher fitness levels tend to have higher incomes.

2. **Usage and Income (0.52)**, indicating that customers with higher incomes tend to use the treadmill more frequently.



## 6. Marginal and Conditional Probabilities:

**Gender Preference:** KP281 is popular with both genders. KP781 is primarily used by males. KP481 has an equal gender ratio.

**Age Groups:** Adults and middle-aged customers dominate. KP281 is favored across age groups. Teens rarely use KP781.

**Fitness Levels:** Most customers have "Above Average" fitness. KP281 attracts diverse fitness levels. KP781 is preferred by "Excellent" fitness customers.

**Marital Status:** More partnered customers. Partnered customers prefer all models, especially KP281.

## 7. Recommendations and Actionable Insights:

**-Product Marketing:**

- **KP281**: Given its popularity across genders and age groups, continue marketing efforts for KP281 to maintain its broad appeal.
- **KP781**: Target male customers more aggressively, as they are the primary users. Consider promotional strategies to attract female customers.
- **KP481**: Focus on maintaining its balanced popularity among genders and age groups. Identify ways to increase appeal to teens

#### **-Fitness-Centric Strategies:**

Leverage the trend of "Above Average" fitness customers preferring KP281 by promoting its fitness benefits.

Emphasize the "Excellent" fitness aspect for KP781 to attract more customers.

Develop fitness-related content and features to engage customers.

#### **-Marital Status Targeting:**

- Recognize that partnered customers are a significant market. Tailor marketing campaigns for KP281, KP481, and KP781 to appeal to this group.
- For singles, explore opportunities to increase engagement with KP781.

#### **-Age-Group Customization:**

- Continue to make KP281 appealing to all age groups, given its versatility.
- Investigate the reasons behind the lack of interest in KP781 among teens and explore strategies to attract this demographic.

#### **-Gender-Balanced Promotions:**

- Implement gender-specific marketing campaigns for KP781 to improve its appeal among females.
- Maintain a balanced gender approach for KP481 to sustain its popularity.

#### **-Market Expansion:**

- Explore opportunities to introduce new products or features based on the observed trends in fitness levels and age groups.

These recommendations aim to optimize marketing strategies, improve product positioning, and enhance customer engagement for AeroFit's treadmill products.