Analyzing the Athletic Shoe Market for SHOE FIEND

# Background

You are the marketing analyst for SHOE FIEND, an online athletic shoe store. To date, your company has done little formal marketing research about athletic shoe buyers in the United States. Using the 2014 MediaMark Reporter (MMR) data from GfK, you recently ran a series of reports about the shoe buying habits of several U.S. consumer segments. At this time, you have decided to focus on the 5 best-selling shoe brands on your website: Adidas, Asics, Nike, New Balance, and Reebok. After looking through the MMR report options, you decided that the most fitting question for your purposes was “Did you buy [SHOE BRAND] in the last 12 months?”.

The report is designed to compare the shoe buying habits of consumers across several different consumer characteristics: gender, age, and internet use. In addition, you also created three sub-segment schemes that combined two different segmentation variables: Gender and Age (Men 18-34 and Women 18-34) and Internet use and Age (Heavy Internet users 18-34 years old).

# Your Goal

First, review the data from the GfK MMR report. You will use this information to make some inferences about the brand preferences of the different segments. Follow this, you will combine the information in the MMR report with some financial assumptions provided by SHOE FIEND to make some recommendations for future marketing tactics.

# The Data

The data in the report can be interpreted in the following manner:

* Market Segment Size (000s): The total number US Adults that meet the criteria for the segment (regardless of whether they did or did not buy a particular shoe brand)
* Market Segment Size (%): The same as Market Segment Size (000s), but presented as a percentage of all US Adults
* Estimated Count (000s): The estimated number of U.S. adults within the segment who bought that particular pair of shoes at least once in the last 12 months.
* % of Total: Among all U.S. adults who bought a particular brand of shoes in the last 12months, the % of them who belong to that particular segment.
* % within Mkt. Seg who Bought in last year: The percentage of people within a particular segment who bought the shoe brand within the last 12 months
* Index: The likelihood of a member of the segment to have bought the particular shoe brand in the last 12 months, indexed to the likelihood of an average US adult (the US average equals an index value of 100). Thus, an index value of 120 can be interpreted as members of that segment being 20 percent more likely than the national average to have bought a particular brand of shoes in the last 12 months.

**[Red is withheld from students; these are calculated exercises]**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Total | Men | | Women | | Adults 18-34 | | Men 18-34 | | Women 18-34 | | Internet 1 (Heavy Users) | | Adults 18-34 & Heavy Internet |
| **Market Segment Size (000s)** | 237,115 | 114,159 | | 122,916 | | 71,961 | | 35,867 | | 36,037 | | 47,361 | | 21,985 |
| **Market Segment Size (%)** | 100 | 48.1 | | 51.8 | | 30.3 | | 15.1 | | 15.2 | | **(Q1) 20.0** | | 9.3 |
| ADIDAS |  |  | |  | |  | |  | |  | |  | |  |
| **Estimated Count (000s)** | 17,096 | 9,635 | | 7,461 | | 6,973 | | 4,053 | | 2,919 | | 4,163 | | 2,392 |
| **% of Total** | 100 | 56.36 | | 43.64 | | **(Q2) 40.78** | | 23.71 | | 17.08 | | 24.35 | | 13.99 |
| **% within Mkt. Seg. who Bought last year** | 7.21 | 8.44 | | 6.07 | | 9.69 | | 11.3 | | 8.1 | | 8.79 | | 10.88 |
| **Index** | 100 | 117 | | 84 | | 134 | | 157 | | 112 | | 122 | | **(Q3) 151** |
| ASICS |  |  | |  | |  | |  | |  | |  | |  |
| **Estimated Count (000s)** | 11,186 | 4,851 | | 6,335 | | 2,948 | | 1,321 | | 1,627 | | 2,453 | | 899 |
| **% of Total** | 100 | 43.37 | | 56.63 | | 26.36 | | 11.81 | | 14.55 | | 21.93 | | 8.04 |
| **% within Mkt. Seg. who Bought last year** | 4.72 | 4.25 | | **(Q4) 5.16** | | 4.1 | | 3.68 | | 4.51 | | 5.18 | | 4.09 |
| **Index** | 100 | 90 | | 109 | | 87 | | 78 | | 96 | | 110 | | 87 |
| NIKE |  |  | |  | |  | |  | |  | |  | |  |
| **Estimated Count (000s)** | 49,453 | 24,685 | | 24,768 | | 20,808 | | **(Q5) 10,841** | | 9,966 | | 12,233 | | 6,818 |
| **% of Total** | 100 | 49.92 | | 50.08 | | 42.08 | | 21.92 | | 20.15 | | 24.74 | | 13.79 |
| **% within Mkt. Seg. who Bought last year** | 20.87 | 21.63 | | 20.16 | | 28.93 | | 30.23 | | 27.64 | | 25.82 | | 31 |
| **Index** | 100 | 104 | | 97 | | 139 | | 145 | | 132 | | 124 | | 149 |
| NEW BALANCE |  |  | |  | |  | |  | |  | |  | |  |
| **Estimated Count (000s)** | 25,338 | 12,488 | | 12,850 | | 4,931 | | 2,681 | | 2,250 | | 4,816 | | 1,638 |
| **% of Total** | 100 | 49.29 | | 50.71 | | 19.46 | | 10.58 | | 8.88 | | 19.01 | | 6.46 |
| **% within Mkt. Seg. who Bought last year** | 10.69 | 10.94 | | 10.46 | | 6.86 | | 7.47 | | 6.24 | | 10.17 | | 7.45 |
| **Index** | 100 | 102 | | 98 | | 64 | | 70 | | 58 | | 95 | | 70 |
| REEBOK |  |  | |  | |  | |  | |  | |  | |  |
| **Estimated Count (000s)** | 9,919 | 5,234 | | 4,685 | | 2,891 | | 1,681 | | 1,209 | | 2,149 | | 952 |
| **% of Total** | 100 | 52.77 | | 47.23 | | 29.14 | | 16.95 | | 12.19 | | 21.66 | | 9.6 |
| **% within Mkt. Seg. who Bought last year** | 4.18 | 4.59 | | 3.81 | | 4.02 | | 4.69 | | 3.35 | | 4.54 | | 4.33 |
| **Index** | 100 | 110 | | 91 | | 96 | | 112 | | 80 | | 108 | | 103 |
|  |  | |  | |  | |  | |  |  |  | |  | |

# Task 1: Correct the Table:

Unfortunately, it appears that someone accidentally left some of the calculated values blank in the table. Luckily, you know you can use the other available information in the table to calculate the missing values.

* Q1: Calculate the Market Segment Size (in %) for Heavy Internet Users
  + CALCULATION =   
    [Market Segment Size (000s) in the Internet 1 (Heavy Users) Column ]  
    / [Market Segment Size (000s) in the Total Column]
* Q2: Calculate the % of Total Market for Adults 18-34 who Bought Adidas in the last 12 months
  + CALCULATION =   
    [Estimated Count (000s in Adults 18-34]   
    / [Estimated Count (000s in Totall) ]
* Q3: Calculate the Index for Adults 18-34 who are Heavy Internet Users who Bought Adidas in the last 12 months
  + CALCULATION =   
    100+  
    ( [% within Mkt. Seg. Who Bought last year in Adults 18-34 Heavy Internet] –   
    [% within Mkt. Seg. Who Bought last year in Total] )   
    / [% within Mkt. Seg. Who Bought last year in Total]   
    \*100
* Q4: For the Women column, calculate the % within Mkt. Segment who Bought Asics in the last 12 months
  + CALCULATION =   
    [Estimated Count (000s)]   
    / [Market Segment Size (000s) ]
* Q5: For Men 18-34, calculate the Estimated Count (000s) who Bought Nike shoes in the last 12 months
  + CALCULATION =   
    [Market Segment Size (000s) for Men 18-34]   
    \* [% within Mkt. Seg. who Bought last year for Men 18-34]

# Task 2: Making Inferences about Athletic Shoe Buyers

1. Generally speaking, does it appear that heavy internet users are more or less likely than the average US adult to have bought these shoe brands in the last 12 months?
   1. ANSWER: Heavy internet users are generally (slightly) more likely to have bought these shoe brands, as evidenced by 4 of the 5 brands having Index values above 100 (New Balance being the exception).
2. If you were going to run a series of advertisements for SHOE FIEND targeting younger adult women, which brand would you recommend to feature on the advertisement? Which shoe brand would you be disinclined to feature? Why?
   1. ANSWER: Adidas and Nike are both good answers here, but class debate can emerge on the relative pros and cons. On one hand, Adidas has the highest index value for young women (157). However, the raw estimate of women who have bought Adidas is only second highest, far below the raw count estimate for Nike. This is an excellent time to debate between the different uses and merits of “total market” metrics vs. “individually averaged” metrics like the Index values. The same line of reasoning can be extended to debating between New Balance and Reebok being both candidates for exclusion from the advertisement.
3. Lately, management for SHOE FIEND has worried that its positioning has completely overlooked serving the wants of “older” consumers (over 45 years old). If SHOE FIEND decides to market toward older U.S. adults, which of the brands should SHOE FIEND be more conscientious about featuring?
   1. ANSWER: The answer here is New Balance, although the class could debate about the merits of Asics and Reebok as well. For New Balance, only 19.46% of all people who bought New Balance in the last year were 18-34. A reasonable inference from here is that older US adults are accounting for those remaining sales.

# Task 3: Estimating the Value of the Shoe Buying Segments

Using some assumptions provided by the CFO, you are tasked with estimating the annual sales (in $) for each shoe buying segment. To do so, you will need to make the following assumptions:

* + **Average number of pairs bought within 12 months**
  + **Average price of shoe brand**

These numbers are estimates that came from the internal efforts of your financial analyst team.

|  |  |  |
| --- | --- | --- |
|  | If someone buys at least one pair of a shoe brand in the last 12 months, how many total pairs of that brand do they buy, on average? | Average price per shoe pair |
| Adidas | 2.0 | $70 |
| Asics | 2.0 | $70 |
| Nike | 1.5 | $75 |
| New Balance | 2.0 | $70 |
| Reebok | 1.5 | $65 |

1. What are the total estimated sales of these five shoe brands for Heavy Internet users in the last 12 months?
   1. CALCULATION =   
      4,163\*1,000\*2.0\*$70 +  
      2,453\*1,000\*2.0\*$70 +  
      12,233\*1,000\*1.5\*$75 +  
      4,816\*1,000\*2.0\*$70 +  
      2,149\*1,000\*1.5\*$65
2. For a random U.S. adult woman, how much would we estimate she spent on Asics shoes in the last 12 months?
   1. CALCULATION =   
      5.16 / 100 \*2.0 \* $70

# Discussion and Debate:

1. Based solely on the information that was analyzed, do you think it makes more sense for SHOE FIEND to: treat the whole market as homogeneous (no segmentation), use a single variable segmentation scheme (just gender, just age, just Internet usage), or a multivariate segmentation scheme? Regardless of your answer, identify the advantages and limitations associated with your argument.
2. You are about to ask a junior analyst at SHOE FIEND to run another MMR report for you. Which additional variables do you think would be best to add into the report for segmentation purposes? Why?