## BIA 3713

Fall 2021

## ASSIGNMENT 3 POINTERS

## Pointers/Suggestions

a. What is our sales volume by BRAND? (Count the number of transactions by shoe brand)

|  | A | B | C |
| :---: | :--- | ---: | :--- |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 | Row Labels | Count of Trans_OnSale |  |
| 4 | Nike | 943.00 |  |
| 5 | Asics | 302.00 |  |
| 6 | Saucony | 191.00 |  |
| 7 | Brooks | 164.00 |  |
| 8 | New Balance | 148.00 |  |
| 9 | Reebok | 99.00 |  |
| 10 | Adidas | 92.00 |  |
| 11 | Under Armour | 29.00 |  |
| 12 | Air Jordan | 18.00 |  |
| 13 | Tretorn | 14.00 |  |
| 14 | Grand Total | $\mathbf{2 0 0 0 . 0 0}$ |  |
| 15 |  |  |  |

Nike is dominant and makes up for almost $50 \%$ of the total Sales. The next few shoe brands like Asics and Saucony perform decently. However, brands like Tretorn and Air Jordan are having very low sales. With this table, the store manager can have a clear view of which brands are the most popular ones and which brands are not doing well in the store. Therefore, the store manager can come up with specific selling strategies for each brand.
b. What is our sales volume by AGE GROUP? (number of transactions by customer age grouped in 10 's)

|  | A | B |  |
| :---: | :--- | ---: | ---: |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 | Row Labels | Count of Trans_OnSale |  |
| 4 | $10-19$ | 291 |  |
| 5 | $20-29$ | 687 |  |
| 6 | $30-39$ | 337 |  |
| 7 | $40-49$ | 346 |  |
| 8 | $50-59$ | 248 |  |
| 9 | $60-70$ | 91 |  |
| 10 | Grand Total | $\mathbf{2 0 0 0}$ |  |
| 11 |  |  |  |

## Pointers/Suggestions

Customers in the age range of 20 to 29 years purchase most shoes. The second highest age group that purchase the most shoes is 40 to 49 , closely matched with age group 30 to 39 . The fourth largest group of spenders lie in the 10 to 19 age group. So, using PivotTables this way can help the store owner determine what age group buys the most shoes from the store, and at the same time, know what age group to advertise to more or less.
Please think about why customers in age range of 20 to 29 years might be purchasing most shoes.
c. What is the average PURCHASE PRICE by CUSTOMER AGE and CUSTOMER GENDER?


## Pointers/Suggestions

This table shows that males in the age group of 20 to 29 tend to spend the more money when going to the store. The highest purchasing age group in the female column also points towards 20 to 29 years old. So, we can assume that in the future, people in the age group of 20 to 29 will spend the most money on their purchase. Another valuable piece of information the table provides is related to the gender group that spends the most money (not by age). Males seem to spend around $\$ 22$ more than females. Therefore, it is important for the store owner to always have men shoes, and other items, in stock at all times since those will be purchased more often.
d. What are the TOP FIVE most popular shoe COLORS by SHOE GENDER?

| Color Combo | Female Sales |
| :--- | :--- |
| White/White | 191 |
| Pink/Pink | 61 |
| Black/White | 52 |
| white/black | 33 |
| pink/black | 30 |
| White/Pink | 30 |
| Color Combo | Male Sales |
| Black/White | 60 |
| black/black | 56 |
| Red/Red | 35 |
| Black/Orange | 31 |
| white/grey | 29 |

## Pointers/Suggestions

Most popular shoe colors are white and black, white being most popular. Black and White appears to be the most popular color among men while women tend to buy white and white color shoes.
e. What are the busiest days of the week for sales?

|  | A | B | C |
| :--- | :--- | :--- | :--- |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 | Row Labels |  |  |
| 4 | Thu | Count of Trans_OnSale |  |
| 5 | Fri | 319 |  |
| 6 | Mon | 309 |  |
| 7 | Sat | 293 |  |
| 8 | Tue |  | 286 |
| 9 | Sun | 267 |  |
| 10 | Wed |  | 265 |

## Pointers/Suggestions

Add a new column called Day of Week, use the formula TEXT to get which day of the week did that transaction happened. Therefore, the busiest days is Thursday. For the shoe store, they need to come up with some solutions on how to improve sales on other days of each week. For example, the store has the least sales on Wednesday, to change that, store can give discounts on every Wednesday or provide small gifts if someone purchase shoes
for more than $\$ 100$. Also, please think about why Thursday and Friday might be the busiest days of the week for sales.
f. What is the SALES REVENUE for each of our SALES PERSONS?

| - | A | B | C |
| :---: | :---: | :---: | :---: |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 | Row Labels 17 | Sum of SHOE_price |  |
| 4 | Garrison | \$ 43,293.93 |  |
| 5 | Franklin | \$ 36,806.62 |  |
| 6 | Carson | \$ 28,044.65 |  |
| 7 | Islington | \$ 21,470.91 |  |
| 8 | Harris | \$ 19,771.93 |  |
| 9 | Anderson | \$ 18,827.95 |  |
| 10 | Jackson | \$ 18,826.78 |  |
| 11 | Davis | \$ 17,567.96 |  |
| 12 | Edwards | \$ 15,343.87 |  |
| 13 | Brown | \$ 11,056.97 |  |
| 14 | Grand Total | \$ 231,011.57 |  |
| 15 |  |  |  |

## Pointers/Suggestions

According to the PivotTable, we can see what's the sales revenue for each salesperson. We can see the range of the numbers is quite big, which means the ability of selling shoes between each salesperson is very different. Garrison, who gets the biggest number is the best salesperson, and Brown, who gets the smallest number is not doing very well. To change that, the manager may let Garrison be the sales team leader, and therefore she can share experiences and teach her team how to get more sales.
g. What are the two or three most popular brands of shoes that they sell?

| 4 | A | B |
| :---: | :---: | :---: |
| 1 |  |  |
| 2 |  |  |
| 3 | Row Labels $-\downarrow$ | Count of Trans_OnSale |
| 4 | Nike | 943 |
| 5 | Asics | 302 |
| 6 | Saucony | 191 |
| 7 | Brooks | 164 |
| 8 | New Balance | 148 |
| 9 | Reebok | 99 |
| 10 | Adidas | 92 |
| 11 | Under Armour | 29 |
| 12 | Air Jordan | 18 |
| 13 | Tretorn | 14 |
| 14 | Grand Total | 2000 |
| 15 |  |  |

## Pointers/Suggestions

Nike is selling way more products than other brands. Followed by Asics and Saucony. If the store wants to get more sales from Nike, one recommendation would be to provide more spaces for Nike. And for the brand Tretorn, there might be two solutions. One is just
give-up on it and stop providing any spaces for this brand. The second solution might be to provide more discounts on this brand than other brands.
h. Which age groups buy the most shoes at this store?

|  | $A$ |  | C |  |
| :--- | :--- | :--- | :--- | :--- |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| 3 | Row Labels | - | Count of SHOE_brand |  |
| 4 | $10-19$ |  | 291 |  |
| 5 | $20-29$ | 687 |  |  |
| 6 | $30-39$ | 337 |  |  |
| 7 | $40-49$ | 346 |  |  |
| 8 | $50-59$ | 248 |  |  |
| 9 | $60-70$ | 91 |  |  |
| 10 | Grand Total |  | 2000 |  |

## Pointers/Suggestions

The age groups that buys the most shoes at this store are 20-29 years old. It might be worth thinking of targeting advertising to other age groups to increase sales, especially because sports shoes are very comfortable for everyday use, not just exercising.
i. Which gender and age groups spend the most on a pair of shoes (highest average price)?

| $\triangle$ | A | B | C | D | $\bullet$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 | Average of SHOE_price | Column Labels $\square$ |  |  |  |
| 4 | Row Labels - | F | M | Grand Total |  |
| 5 | 10-19 | 87.92 | 117.85 | 102.11 |  |
| 6 | 20-29 | 114.05 | 146.20 | 130.06 |  |
| 7 | 30-39 | 105.19 | 106.02 | 105.52 |  |
| 8 | 40-49 | 111.82 | 143.03 | 122.10 |  |
| 9 | 50-59 | 103.17 | 110.65 | 107.36 |  |
| 10 | 60-70 | 79.75 | 86.94 | 82.59 |  |
| 11 | Grand Total | 105.49 | 127.72 | 115.51 |  |
| 12 |  |  |  |  |  |

## Pointers/Suggestions

The 20-29 years old age group spends on average the most on shoes at $\$ 130.06$ with females at $\$ 114.05$ and males at $\$ 146.20$. The younger age group could be the largest spender because young people tend to keep up with shoe trends as a hobby. Young and middle-aged males spend more on shoes on average than females, with differences being very minimal in other age groups.
j. What are the most popular colors for men's shoes? For women's?

| Shoe Color | F |  |
| :--- | ---: | ---: |
| White/White |  | 61 |
| pink/pink |  | 52 |
| Black/White | 33 |  |
| White/Black | 30 |  |


| Shoe Color | M |
| :--- | :---: |
| Black/White | 60 |
| Black/Black | 56 |
| Red/Red | 35 |
| Black/Orange | 31 |
| White/Grey | 29 |

## Pointers/Suggestions

The most popular shoe colors for males are black/white and black/black and for females is white/white. Males tend to prefer darker shoes that include black, red, and grey while females tend to prefer lighter shoes that include white and pink. The use of some white and black for both genders' shoes seems to be universally popular with black/white being in the top five colors for each gender
k. Who are the top salespeople?

|  | A |  | B | C |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 | Row Labels | IT | Sum of SHOE_price |  |  |
| 4 | Garrison | $\$$ | $43,293.93$ |  |  |
| 5 | Franklin | $\$$ | $36,806.62$ |  |  |
| 6 | Carson | $\$$ | $28,044.65$ |  |  |
| 7 | Islington | $\$$ | $21,470.91$ |  |  |
| 8 | Harris | $\$$ | $19,771.93$ |  |  |
| 9 | Anderson | $\$$ | $18,827.95$ |  |  |
| 10 | Jackson | $\$$ | $18,826.78$ |  |  |
| 11 | Davis | $\$$ | $17,567.96$ |  |  |
| 12 | Edwards | $\$$ | $15,343.87$ |  |  |
| 13 | Brown | $\$$ | $11,056.97$ |  |  |
| 14 | Grand Total | $\$$ | $231,011.57$ |  |  |
| 15 |  |  |  |  |  |
| 18 |  |  |  |  |  |

Top sales people are Garrison, Franklin, and Carson, both by revenue and by volume.

1. Based on these answers, what are two recommendations you have for Alex (the store manager)?

## Pointers/Suggestions

Based on our analysis, we recommend for Alex to do employee training on brands that are not as known as Nike to bring up the sales of other brands. Nike has triple the sales of its next best competitor Asics so advertising other selling brands like Asics, Saucony, Brooks, and New Balance can bring up Athlete's Foot sales. Additionally, training employees to suggest alternative colors and styles when customers cannot find their preferred colors can keep customers in the store rather than losing their business to popular online shoe vendors like Eastbay or Zappos.

We recommend offering a price match policy to offset the loss of sales to online vendors. Since customers are walking into the store and trying out sneakers that they know they find online for a better deal, a price match policy can increase Athlete's Foot sales
volume. Additionally, we suggest freeing up space for most popular brands and getting rid of the least popular brands (like Tretorn and Air Jordans) for more designs suitable to women since women spend less than men. Having more styles and colors that women prefer like white and pink would bring in greater revenues.

Ramping up targeted advertising towards the age groups that buy the least number of shoes, the middle-aged people and elderly in their $50 \mathrm{~s}, 60 \mathrm{~s}$, and 70 s , can expand the target audience for Athlete's Foot. By addressing the need to wear comfortable shoes, marketing athleisure to young and especially elderly could raise sales from these age groups. The elderly are much more likely to be responsive to television and paper ads given they are less likely to be online shoppers.

