

Question:

How to measure the performances of our employees over time?

Analysis:

Analyzing the sales fulfilled by our employees over time, our HR department can measure the performances of our employees to enhance their performances. To measure the employees' performances, we want to analyze the employees by sales, by category, by gender and seniority over time. To understand the impact of the key categories, gender and seniority breakdown for the sales allows our marketing department to target certain aspects to increase sales.

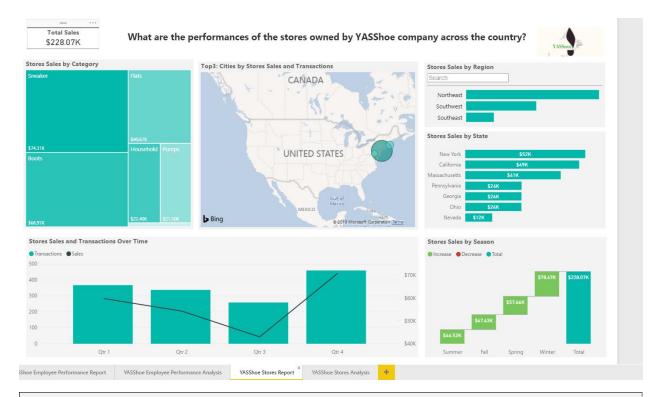
From the stacked area diagram, the employees who have been working for over 6 years have the largest area of sales over time. Also, the employees who have been working for 4-6 years have more sales than those who have less than 3 years' seniority. So, the positive relationship between seniority and sales in our company gives the hint that the higher seniority, the more sales. This diagram also shows a trend of sales over time. The sales by employees who have over 6 years' seniority experienced a downward trend till the third quarter and show a strong upward trend afterwards. However, the sales by employees who have less than 6 years' seniority show an opposite trend during the first quarter but experienced a similar trend in the rest of three quarters. Besides, we could see the peaks and deeps over time as well. December has the highest volume of sales among the three seniority breakdowns.

By using the gender attribute slicer, we could directly see that the female employees have more sales than male employees. But from the sales by category graph next to the gender slicer, we could easily tell that the pumps category sales made by male employees ranks higher than by female employees. By selecting the male attribute in the gender attribute slicer, there are more blanks in the date calendar than the blanks by selecting the female attribute, which supports our analysis from the date dimension. Also, the date December 25th in the calendar graph always has the darkest square by using the gender slicer, which means all the female and male employees have the highest volumes of sales on the Christmas day.

From the scatter chart, the employees are separated into three clusters by comparing each employee's sales and transactions with the average sales at \$3801.18 and average transactions at 24. The cluster 1 in green has the sales and transactions under the average value. The cluster 2 in black has higher sales and transactions than the cluster 1. Moreover, the employees in the cluster 3 have both high sales and high transactions. Annie Chang and Francisco Cobb are the top two employees who have the highest sales and transactions on the first group of category in the YASShoe company. Also, by using the employee cluster slicer, we could see from the stacked area graph and sales by date calendar that the employees from the cluster 1 and cluster 2 both have the least sales in the third quarter. The employees in the cluster 3 have the least sales in the second quarter.

Recommendation:

Since we see such a high connection to the seniority and sales, we highly recommand for our HR department to recruit more experienced employees in the futrure. Also, we recommend for our stores to set male employees in the pumps section to increase sales beacause of the higher sales made by male employees on the pumps category. According to the three clusters in the scatter chart, our HR department can seperate the employees into three groups and provide targeted sales strategy training to hone the sales skills in different groups. For example, our HR department should provide more sales strategy trainings for the employees in the group 1 and group 2 especially before the third quarter to increase our sales. Since Annie Chang and Francisco Cobb are the top two employees who have the best performances, the HR department should give them extras as encouragement. In addition, due to the high volumue of sales on the Christmas day, special rewards should be given to our employees on that day.



Question:

What are the performances of the stores owned by YASShoe company across the country?

Analysis:

We will measure the sales of stores by territory drilldown to find the best location and set marketing targets. This will help our marketing department choose the right place to broaden our market share and result in more sales. The map highlights the cities with the most sales using the size attribute and with the highest transactions using the color attribute. Not only does this graph with the sales by region attribute slicer show the distribution of our stores which are mainly aggregated in the northeast and the southwest, but replenishes the specific information about the number of the stores and the average sales in the territory by using the tooltip. By selecting the Northeast region in the sales by region slicer, New York state has the largest sales volume in the stores sales by state bar chart. Then we could easily tell from the map that New York city has the largest and darkest blue bubble. Also, from the treemap, the New York state has large highlighted area on boots and sneaker, which means the stores in the New York state have more sales on the boots and sneaker category.

From the stores sales and transactions over time chart, although the first three quarters go through a downward trend on sales and transactions, it shows a strong upward trend after the third quarter. In addition, our stores show different volumes of increase sales among the four seasons. The waterfall chart shows that our stores have the most increasing sales in the winter, which means our stores have large demand in the winter season.

Recommendation:

From the map and sales by region attribute slicer, our company can focus on the northwest region to boarden our targeted market due to the vacancy in this area. Since the map shows that the New York city, Boston and York each has the highest sales in its state, we recommend for our HR department to award these three store managers with the most sales in the bonus system. Besides, since both high sales and transactions in the top three cities tell us that those cities have more customer groups require for the shoes and a large shoes market, our marketing department should plan to enlarge our sales channels and pur more resources in those cities in order to increase our company's total sales. Also, other stores can refer the successful strategy from the top three cities. We recommend for our stores to have enough shoes storage on sneaker and boots before the winter comes due to the high demand on those two categories of shoes during the winter. Moreover, we recommend for our stores to add some promotions on our products especially during the third quarter because of the low sales in that period.