Relevant Project by using pivot table in the excel

Brand	Category	Name	Sum of Product Sa
⊟ A2	⊟ Flats	Hazard Wc	6.1%
	⊟ Household	Ava Slip O	1.7%
		Folded Tra	6.7%
		Kelly Flip F	1.4%
	⊟ Sandals	Kawa Slide	1.0%
⊟ B5	⊟ Boots	Edlyn Slip (	5.1%
		Ellen Boot	3.4%
		Peggy Clo	3.7%
		Robard No	5.5%
		Winter Boo	11.7%
	⊟ Pumps	Deborah S	4.9%
⊟ C1	⊟ Flats	Low Tie Ca	1.1%
⊟ Clarks	⊟ Flats	Albury Plai	8.3%
	⊟ Pumps	Tate Light	4.6%
⊟ Nike	⊟ Sneaker	Bayshore :	4.6%
		Gold Stripe	6.1%
		Quick Run	3.3%
		Sam Socc	11.8%
⊟ Vans	⊟ Flats	Van Shoe	2.3%
	⊟ Sneaker	Ward Mid '	6.8%
Grand Total			**100.0%**

Time	Total Quar	Total Sales
⊟ 2017	4786	#####
⊟ Q1	1255	#######
⊟ Q2	1051	#######
⊟ Q3	890	#######
⊟ Q4	1590	#######
Grand Tot	**4786**	**#####**

Categor	Sum of Pr	Sum of Sales Grwoth
Boots	29.4%	108.9%
Flats	17.8%	154.0%
Household	9.8%	93.3%
Pumps	9.4%	35.0%
Sandals	1.0%	11.4%
Sneaker	32.6%	92.0%
Average	16.7%	82.4%

Analysis Based on Business Requirement

Question:
What kinds of shoes have more sales and how to adjust the projected orders of the shoes by different brand and category to have more sales in the future?

Analysis:
YASShoe company operates a chain of shoe retail stores across the U.S. The product sales(%) are calculated from the sales fact table, which illustrates the market share of various brand, category and individual product. We analyze the sales of the shoes by using product drilldown, which includes brand, category and name of the product. Also, we use matrix diagram and sales over time diagram to help sales department make some adjustment to the orders for the next year.

From the sunburst diagram on the left, we could clearly see that brand A2, Nike and B5 account for the most of the total sales, which probably means that they are the Top3 popular brands in YASShoe company's targeted market.
However, by using the brand slicer, we could see from the second diagram that brand B5 and Clark have a downward trend of quantity sold over time. And both of them have a low R square. Instead, brand A2, C1, Vans and Nike have an upward trend of quantity sold. Among these brands, Nike and C1 have higher R square, at 0.56 and 0.84 respectively, which means Nike and C1 show stronger evidence to explain the upward trend of total sales over time. In the Sneaker category, Sam Soccer Kids accounts for the most of the sneaker sales, at 11.8%. In the boots category, Winter Boots for School accounts for 11.7% of the boots sales. And for the category of Flats, Albury Plain Oxford accounts for the largest part of the flats sales.

From the matrix diagram on the left, it can be seen that category flats, boots and sneaker are in the first quadrant, which means that these three categories all have high sales share in the market and high sales growth. The category of household is in the second quadrant, which shows that this cateogry has higher sales growth than the average growth but has a low sales share in the market. Pumps and sandals are in the third quadrant, with both low sales growth and low sales share in the market. This diagram helps to adjust the categories from each brand. Sandal has the smallest share in the sunburst diagram and has the lowest sales share in the matrix diagram, which means sandal may not be in high demand in our targeted market.

Recommendation:
From our analysis above, we suggest that the sales department should plan to order more shoes from brand Nike for the next year. We also suggest that the objective of the monthly sales for brand C1 should be set higher, because this brand shows a strong upward trend over time. For the sales department, we strongly recommend that our company could have more cooperations with Nike and C1 to attract more customers and bring more sales in the future. For the categories, we recommend that the sales department should add up the orders mainly on boots and sneakers.

Time	Prior Month	Total Sales	Transactions
⊟ 2017			
⊟ Q1			
⊞ January		$24,342.90	153
⊞ February	$24,342.90	$17,286.70	112
⊞ March	$17,286.70	$18,202.00	103
Q1 Total		$59,831.60	368
⊟ Q2			
⊞ April	$18,202.00	$21,001.30	133
⊞ May	$21,001.30	$18,453.80	112
⊞ June	$18,453.80	$14,878.50	93
Q2 Total	$18,202.00	$54,333.60	338
⊟ Q3			
⊞ July	$14,878.50	$14,294.50	89
⊞ August	$14,294.50	$15,342.30	86
⊞ September	$15,342.30	$13,391.10	84
Q3 Total	$14,878.50	$43,027.90	259
⊟ Q4			
⊞ October	$13,391.10	$12,531.20	83
⊞ November	$12,531.20	$21,503.00	144
⊞ December	$21,503.00	$36,843.50	233
Q4 Total	$13,391.10	$70,877.70	460
2017 Total	#########		1,425
Grand Total	#########		1,425

Region: Midwest, Northeast, Southeast, Southwest
State: Ohio, Massachusetts, New York, Pennsylvania, Georgia, California, Nevada

Analysis Based on Business Requirement

Question:
What are the sales of shoes over time by different regions and what is the monthly trend of each month's sales?

Analysis:
By analyzing the sales over time, we find trends and patterns in sales and find times when demand is highest and where we need to increase our supply to meet peak demands.
From the shoe sales over time we could see in the fourth quarter that the trend of total sales has the positive correlation with the trend of transaction sales. This illustrates that the demand of the fourth quarter in 2017 is the highest.
Also, March, April, August, November and December have higher sales than each prior month, which means these five months might have stronger demands than the rest of the months.
By using the region and state slicer on the left, the Southwest has an aggressive move in April and December. And the Southeast and the Midwest both fluctuate widely over the third quarter. However, in the Northeast area, it has a smooth fluctuation over the first three quarters and shows a strong upward trend during the last quarter. All in all, all the regions have their highest sales in December.

Recommendation:
For our shoe stores in the Midwest, the warehouse management department needs to ensure the second and the last quarter have enough stock to meet the demand. For the stores in the Southwest, the warehouse department should focus on the last two quarters, especially in August and December and ensure these two months have enough stock. As for the stores in the Southwest, enough stock of shoes need to be ensured in January, April and December. Finally, in the northeast area, the warehouse department only need to ensure enough stock for the last quarter.

Product Sales Percent | Sales&Transactions Over Time