Basic PivotCharts

1.

We will no longer need any other sheet except the raw data in Sample - Superstore sheet so hide all other sheets.

To do this, select the first sheet you want to hide, and, holding Shift key, select all the other sheets, all the way to the last one. Then, right-click on any of them (they will now be grouped) and select *Hide*.

Hint

- You might need to click on the small arrow pointing to the left, which can be found in front of all the sheets, to be able to scroll all the way left to the last sheet.

- If you mistakenly hidden a sheet, you can unhide it by right-clicking on the active tab, selecting *Unhide…* and choosing the sheet.

2.

Based on the entire disaggregated dataset in Sample - Superstore sheet, set up a *PivotChart* in a new sheet entitled "Basic PivotCharts".

Hint

- To add a *PivotChart*, go to the desired sheet, select the entire dataset using CTRL+A key combination, then, using the *Insert* menu add *PivotChart*.

- Excel confirms the selected dataset and asks if you want to place the *PivotChart* in a new or existing sheet. Keep the default settings and click on *OK*.

- To rename a sheet, double-click on its name and type in a new name.

3.

- In the PivotChart, visualize the count of Order ID per Order Date, presented by year and quarter.

- Use the small + and - buttons on your chart to expand or collapse the years and quarters.

Hint

- Drop Order ID field to *Values* in *PivotChart Fields* and Order Date to *Rows*. This will automatically create Years and Quarters fields.

- Remove Order Date from *Rows* and keep only Years and Quarters.

- To expand between years to quarters, use the small + button at the bottom of the chart.

4.

Is the default *Column* chart the best visualization?

- Convert this chart to a more suitable visualization type for evolution over time.

Hint

- *Line* chart works best when visualizing change or measure over time. Click on the chart and go to *Design > Change Chart Type* menu and convert it to a *Line* chart.

5.

Finally, beautify your chart by removing the redundant elements (legend and the gray buttons) and giving it a suitable title.

Hint

- To remove the legend, click on it and press delete button on your keyboard.

- To remove the gray buttons, right-click on any in your chart and select "Hide All Field Buttons on Chart".

- To add the title, double-click on the default "Chart Title" and type in a new title, e.g., "# Orders over time".

6.

In which quarter did we have the most orders?

-
  2019-Q3

- 2017-Q1

- 2016-Q1

Hint

Your final solution should have:

- A *PivotTable* with Years, Quarters in *Rows* and Count of Order ID in *Values*.

- A *Line PivotChart* entitled, e.g., "# Customers over time", with Years, Quarters in *Axis (Categories)* and Count of Order ID in *Values*.

Exploring data with PivotCharts

1.

Duplicate the Basic PivotCharts sheet and call it "Exploratory Analysis".

Hint

- To duplicate a worksheet, right-click on it, select *Move or Copy…* and then select *Create a copy*.

- Double-click on it to change the name of the sheet.

2.

- Adapt the visualization to show an over-time evolution of Sales and Profit, on a single axis.

- Improve the look and feel of the chart by changing the title and making it clear which measure is visualized by which line.

Hint

- To visualize other measures than the one currently in the chart, click on the PivotTable on the left and go to the *PivotTable Analyze > Field List* menu. Then, remove the Count of Order ID from *Values* and replace it with summed Profit and Sales.

- To change the chart title, double-click the default "Chart Title" and type in a new title, e.g., "Sales and Profit over time".

- Add a legend by clicking the small + button next to the chart.

3.

Next, in the same sheet, create another *PivotChart* visualization presenting Segment contribution to total Sales per Region in a chart of your choice. You will need another *PivotTable* for that.

Hint

- To create another *PivotTable* in the same sheet, simply copy the entire *PivotTable* and paste it into other cells.

- In that new *PivotTable*, place Region in *Rows* and Segment in *Columns*.

- Click on your second *PivotTable* and insert a new *PivotChart* using the *Insert* menu.

- Ideal chart is a *100% Stacked Bar* chart.

4.

Beautify the chart by removing redundant elements such as the gray buttons, adding the title, and adapting the legend (colors and position).

Hint

- To remove the gray buttons on the *PivotChart*, right-click on them and select "Hide All Field Buttons".

- To add the *PivotChart* title, click on the small "+" sign next to the *PivotChart* and select "Chart Title".

5.

Finally, add a *Slicer* to the worksheet, allowing you to filter **all** visualizations and PivotTables in this sheet by Category.

Hint

- Click on any *PivotChart* or *PivotTable* present in this sheet, then, go to *Insert > Slicer* menu, tick Category and click on *OK*.

- Then click on the newly added *Slicer* and go to *Slicer > Report Connections* menu and tick all *PivotTables* present in Exploratory Analysis sheet.

6.

Slicing on Furniture, which Region has the largest proportion of Consumer Sales?

South

Slicing on Technology, which quarter had the highest Profit? (Provide the answer in format e.g., 2020-Q2)

2016-Q1

Hint

Your final solution should have:

- A *PivotTable* with Years, Quarters, and Order Date in *Rows* and Sum of Profit and Sum of Sales in *Values*.

- A *PivotTable* with Region in *Rows*, Segment in *Columns* and Sum of Sales *Values*.

- A *PivotChart* which is a single-series *Line* chart, entitled, e.g., "Sales and Profit over time" with Years, Quarters and Order Date in *Axis (Categories)*, Values in *Legend (Series)* and Sum of Profit and Sum of Sales in *Values*.

- A *PivotChart* which is a *100% Stacked Bar* chart, entitled e.g., "Segments as % of regional Sales" with Region in *Axis (Categories)*, Segment in *Legend (Series)* and Sum of Sales *Values*.

- A *Slicer* based on Category.

Building a dashboard

1.

Create a new worksheet entitled "Dashboard" and move all three PivotCharts and the slicer created in the previous two exercises to that sheet.

Hint

- To create a new sheet, click on the round "+" button next to the last worksheet.

- To move the chart or slicer from another sheet, cut it and paste it into the new sheet using CTRL+X and CTRL+V combination.

2.

- Add another *Slicer* based on Sub-Category and a *Timeline* based on Order Date and denominated in years.

- Make sure all slicers and the timeline connect to all three visualizations.

Hint

- To add a *Slicer* or *Timeline* click on any *PivotChart* present in this sheet, then go to *Insert > Slicer* or *Insert > Timeline* menu, tick an appropriate dimension (Sub-Category and Order Date, respectively) and click on *OK*.

- To change the default *Months* denomination in *Timeline*, click on the small arrow on the right on the *Timeline* and change it to *Years*.

- To connect the slicers and timeline to all visualizations, click on them individually and go to *Slicer > Report Connections* menu or *Timeline > Report Connections* and tick all three PivotTables.

3.

Finally, arrange all the charts and slicers into a small dashboard entitled "Sales Dashboard" (text should be input in any cell above the charts).

Hint

- Experiment with various charts and filters (slicers and timeline) layouts.

- An idea would be to position # Orders over time chart on top of Sales and Profit over time and to place Segments as % of regional Sales chart right to the top chart. Filters could be placed in the bottom right corner. **See an example**

4.

Style the dashboard by removing the *Gridlines* and *Headings*, removing the charts' outlines, and exploring various *Slicer* and *Timeline* styling options in their respective menus.

Hint

- To remove *Gridlines* and *Headings*, go to *View > Show* menu and untick *Gridlines* and *Headings*.

- To remove the charts' outline, click on each chart, go to *Format > Shape Styles > Shape Outline* menu, and select "No Outline".

5.

Having selected Office Supplies: Labels and Paper, and the period between 2015 and 2017, which of the following statements is **incorrect**?

- Overall the Orders and Sales are displaying a positive trend.

- South is lagging in Corporate segment, as compared to other Regions.

- End of 2016 has been very successfull and this is visible across Orders, Sales and Profit.

Hint

Your final solution should have:

- Three PivotCharts, as prepared in the previous exercises.

- Two slicers, one based on Category and another on Sub-Category, connected to all three charts.

- One timeline based on Order Date, with *Years* denomination, connected to all three charts.

Printing our results

1.

Since we'd like to print the dashboard, it would be good to add a PivotTable with sales results per region and segment, which we have in the Exploratory Analysis sheet, so that both percentual and nominal sales are visible.

It would look great under the respective chart, so rearrange the filters (slicers and Timeline) by moving them to the right and copying the correct PivotTable to the Dashboard sheet.

Hint

- To copy a PivotTable, go to the sheet where it's present, select the cells with the entire PivotTable, and press CTRL+C to copy it. Then, in the Dashboard sheet, click on a cell where you want to paste the PivotTable and press CTRL+V.

- See an **example** of a good layout.

2.

Style the PivotTable so that both Row Labels and Column Label cells bear the name of the dimension they present, and ensure that the numbers are presented in dollar currency with no decimal.

Hint

- Overwrite the word Row Labels with "Region" and Column Label with "Segment".

- Select the numbers with cells in the PivotTable and in *Home > Number* menu, go to the drop-down and select "More Number Formats…" and then select "Currency" in *Category*, in *Decimal places* type in "0" and select a dollar currency under *Symbol* (e.g. "$ English (United States)"). Depending on your regional settings, it may already be the default currency.

3.

Set the print area and navigate to the *Print* menu.

Hint

- To set the print area:

  o Highlight all the data you want included (in this case, the three charts and three filters).

  o Navigate to the *Page Layout* tab and open *Print Area* dropdown from *Page Setup*.

  o Select *Set Print Area*.

- To open the print menu, navigate to the *File* tab and select *Print* from the left-hand menu.

4.

Update the settings so the Dashboard sheet displays on one page.

Note: We won't be printing anything, but it's good to know how to update these settings.

Hint

Your print setting should be as follows:

- Print Area: Print Active Sheets

- Orientation: Landscape

- Scaling: Fit Sheet on One Page

5.

What is the best orientation for printing our Dashboard sheet?

- Portrait

- Landscpae

Hint

In your final solution, you have correctly set your print settings as follows:

- Print Area: Print Active Sheets

- Orientation: Landscape

- Scaling: Fit Sheet on One Page

The workbook is protected with a password, and the *Protect structure* option is checked.

If you would like to check the workbook with the final solutions, close any open reports and load 4_4_printing_solution.xlsx from the Workbooks folder.