

Create a calculated column

1. In the PowerPivot window, select the FactSales table.
2. On the Design tab, in the Columns group, click Add.
3. In the formula bar above the table, type the following formula. AutoComplete helps you type the fully qualified names of columns and tables, and lists the functions that are available. For tips on how to use AutoComplete, see [Building Formulas for Calculated Columns and Measures](#).

=[SalesAmount] - [TotalCost] - [ReturnAmount].

4. When you have finished building the formula, press ENTER to accept the formula.

Values are populated for all the rows in the calculated column. If you scroll down through the table, you will see that rows can have different values for this column, based on the data that is in each row.

5. Rename the column by right-clicking CalculatedColumn1 and selecting Rename Column. Type **TotalProfit**, and then press ENTER.

Important

Always create PivotTables from the PowerPivot window or the PowerPivot tab in the Excel window. There is also a PivotTable button on the Insert tab in the Excel window, but standard Excel PivotTables cannot access your PowerPivot data.

To Add a PivotTable to Your Analysis

1. In the PowerPivot window, on the PowerPivot Home tab, click PivotTable.
2. Select New Worksheet.

Excel adds an empty PivotTable to the location you specified and displays the PowerPivot Field List. The Field List displays two sections: a field section at the top for adding and removing fields, and a section at the bottom for rearranging and repositioning fields.

3. Select the empty PivotTable.

If you get an error message telling you the data list is no longer valid, right-click the table and select Refresh Data.

4. In the PowerPivot Field List, scroll down and locate the **FactSales** table.
5. Select the **SalesAmount** field. Ensure this field displays in the **Values** window of the Field List.
6. In the **DimChannel** table, select the **ChannelName** field. Ensure this field displays in the **Row Labels** window of the Field List.
7. In the **DimDate** table, select the **CalendarQuarter** field. In the PivotTable Field List, move this field from the **Values** box into the **Column Labels** box.
8. Rename the PivotTable by double-clicking Sum of **SalesAmount** in the first cell, erasing the current text, and typing **Sales by Channel**.

9. Format the display of the data to make it easier to read and compare. Highlight the data **cells**, **right-click and select Format Cells**. In the **Format Cells** window, select **Currency** and make sure that **2** is selected in the Decimal places dropdown. Select **\$** for **Symbol**. Click **OK**. Change column widths if numbers aren't readable.

The Sales by Channel PivotTable lists the sum of sales for Contoso and for each Sales Channel, by quarters from first quarter 2007 through fourth quarter 2009.

To Add Another PivotTable to Your Analysis

1. In the Excel window, on the PowerPivot tab, click PivotTable.
2. Select New Worksheet.

Excel adds an empty PivotTable to the location you specified and displays the PowerPivot Field List.

3. Select the empty PivotTable.

If you get an error message telling you the data list is no longer valid, right-click the table and select Refresh Data.

4. In the PowerPivot Field List, scroll down and locate the **FactSales** table.
5. Select the **TotalProfit** field. Ensure this field displays in the Values window of the Field List.
6. In the PowerPivot Field List, locate the **ProductCategory** table.
7. Select the **ProductCategoryName** field. Ensure this field displays in the **Row** Labels window of the Field List.
8. In the PowerPivot Field List, locate the **DimDate** table.
9. Select the **CalendarYear** field. In the PivotTable Field List, drag this field from the **Values** window into the **Column** Labels window.
10. Rename the PivotTable by **double-clicking Sum of TotalProfit** in the first cell, erasing the current text, and typing **Profit by Category**.
11. Format the display of the data to make it easier to read and compare. Highlight the data cells, right-click and select **Format Cells**. In the Format Cells window, select **Currency** and make sure that **2** is selected in the Decimal places dropdown. Select **\$** for **Symbol**. Click **OK**. Change column widths if numbers are not readable.

The Profit by Category PivotTable lists the sum of profits, by year, for each Contoso product category.

To Delete a PivotTable

1. Click inside the PivotTable.
2. In the PivotTable Tools tab, select Options.
3. In the Actions group, click Select.
4. Select Entire PivotTable. On the Home ribbon select Delete and then click Delete Sheet.

Important

Always create PivotCharts from the PowerPivot window or the PowerPivot tab in the Excel window. There is also a PivotChart button on the Insert tab in the Excel window, but standard Excel PivotCharts cannot access your PowerPivot data.

To Add a PivotChart to Your Analysis

1. Start on the worksheet that contains your **Sales by Channel** PivotTable.
2. On the PowerPivot tab in Excel, click the arrow below PivotTable and select PivotChart.
3. Select Existing Worksheet and click OK.

Excel adds an empty PivotChart to the same worksheet that contains your Sales by Channel PivotTable.

4. Select the empty PivotChart and in the PivotChart Tools tab, select Design and then Change Chart Type.
5. Select the first chart in the Line group and then click OK.
6. In the **FactSales** table, select the **SalesAmount** field. Ensure this field displays in the **Values** window of the Field List.
7. In the **DimChannel** table, select the **ChannelName** field. In the PivotTable Field List, move this field from the **Axis** Fields box into the **Legend** Fields box.
8. In the **DimDate** table, select **CalendarQuarter**. In the PivotTable Field List, move this field from the **Values** box into the **Axis** Fields box.

The PivotChart and PivotTable now display the same data – in very different layouts.

9. Format the display of the data to make it easier to read and compare. Right-click the **axis** numbers and **select Format Axis**.
 1. Click Number and in the Category list, select Currency.
 2. Set Decimal places to 0, and then click Close.
 3. Right-click the Sum of **SalesAmount** axis label and select **Value** Field Settings.
 4. Change Custom Name to **Sales by Channel** and then click **OK**.

To Add Another PivotChart to Your Analysis

1. Start on the worksheet that contains your **Profit by Category** PivotTable.
2. On the PowerPivot tab in Excel, click the arrow below PivotTable and select PivotChart.
3. Select Existing Worksheet and click OK.

Excel adds an empty PivotChart to the same worksheet that contains your Profit by Category PivotTable.

4. In the **FactSales** table, select the **TotalProfit** field. Ensure this field displays in the **Values** window of the Field List.
5. In the **ProductCategory** table, select the **ProductCategoryName** field. Ensure this field displays in the **Axis** Fields window of the Field List.
6. In the PivotChart Tools tab, select Design and click Change Chart Type.
7. Scroll down and select the first Pie chart type and click OK.

8. In the Chart Styles group, select the 3-dimensional style with a black background and click OK.
9. On your pie chart, select the **title (Total)** and change it to **Profit % by Category**.
10. Next, you add and format data labels.
 1. On your pie chart, right-click and select **Add Data Labels**.
 2. Right-click again and select **Format Data Labels**.
 3. Highlight **Label Options**, then select the **Percentage** checkbox and deselect **Value**.
 4. Click Close. Resize the chart to make sure that all product categories are displayed.
 5. Resize the chart to make sure that all product categories are displayed.
11. Save your PowerPivot workbook.

Note

This PivotChart displays percentage values for each product category. Because FactSales and other tables are filtered, the percentages are percentages of total sales in six of the eight categories of Contoso products.

To Delete a PivotChart

1. To delete a PivotChart, click inside the PivotChart.
2. Right-click and select Cut.

Deleting the PivotChart does not delete any associated PivotTable reports or data.

To Add Slicers to the Profit by Category PivotTable

1. Click anywhere inside the Profit by Category PivotTable to display the PowerPivot Field List.
2. In the PivotTable Tools area of the Excel ribbon, click Options.
3. Click Insert Slicer.
4. In the Insert Slicers window, locate the **Geography** table and select **RegionCountryName**.
5. Under the **DimChannel** table, select **ChannelName**.
6. Under the **ProductCategory** table, select **ProductCategoryName**.
7. Under the **DimProductSubcategory** table, select **ProductSubcategoryName**.
8. Click OK.

[Format Slicers](#)

To Format Slicers

1. Arrange the slicers so that they can all be seen. To move the Slicers, click the gray border and drag.
2. The title of the **ProductSubcategoryName** Slicer is truncated. To format this Slicer, right-click the Slicer and select Slicer Settings.
 1. In the Caption box, type Subcategory.
 2. Verify that Display header is selected.
 3. Click OK.

3. Sometimes Slicers must be resized in order to display their contents correctly. Resize the **RegionCountryName** Slicer by adding columns.
 1. Right-click the **RegionCountryName** Slicer and select Size and Properties.
 2. Highlight Position and Layout.
 3. In the Number of columns dropdown, select 4. Click Close.
 4. Drag the corners until all content is visible.
4. Continue to format your Slicers as needed.

[Use Slicers to Analyze your PivotTable Data](#)

To Use Slicers to Analyze your PivotTable Data

1. At Contoso we want to evaluate our sales profit trends by channel. Based on what we discover, we may have to redistribute marketing budgets and/or close channels.
 1. In the **ChannelName** Slicer, select **Catalog**. Catalog should now be the only shaded item in the Slicer list.
 2. By looking at the PivotTable you see that catalog sale profits are declining.
 3. One at a time, click **Online**, **Reseller**, and **Store** to reveal those profit trends. You see that online profits are increasing, store profits are decreasing and reseller profits are decreasing slightly.
 4. Clear the filters you have set by clicking the icon in the upper-right corner of the Slicer.
2. Dig a bit further by slicing your profit data by subcategory and country. Here are several interesting things that you might discover:
 1. Profits have more than doubled for cellphone accessories, televisions, and recording pens with the biggest percentage increase coming from online sales. While most sales were made in stores, store profit percentage increase was the lowest. *Given that most sales come from stores, what can be done to maximize profits from this channel?*
 2. Cellphone accessories profits took a significant jump in 2009 for the Reseller and Store channels. *Prior to that, profit increase was fairly flat in those 2 channels. To what can this jump be attributed?*
 3. Overall profits from the sales of televisions more than doubled from 2007-2009. However, most of that increase came in 2008 with very little profit increase seen in 2009. *Why were profits flat in 2009 and how can they be increased?*
 4. Sales of Desktops dropped significantly. With total profits of almost 260 million, only 21 million came from catalog sales. Catalog sales saw profits drop from almost 10 million (2007) to 4 million (2009). Perhaps Contoso should close this channel?
 5. Profits in Asian countries are increasing whereas profits in European countries, and North America are decreasing.

Contoso can use this information, and much more, to make intelligent business decisions.

To Add Slicers to a PivotChart

1. Click anywhere inside **the Profit % by Category** PivotChart to display the PowerPivot Field List.
2. In the PivotChart Tools area of the Excel ribbon, click **Analyze**.
3. Click Insert Slicer.

4. In the Insert Slicers window, locate the **DimDate** table and select **CalendarYear** and **CalendarMonth**.
5. Under the Geography table, select **RegionCountryName**.
6. Click OK.

To Format Slicers

1. Arrange the Slicers so that they can all be seen. To move the Slicers, click the gray border and drag the Slicers.
2. Sometimes Slicers must be resized in order to display their contents correctly.
 1. Select the **CalendarYear** Slicer and resize it so that only 2007, 2008, and 2009 are displayed.
 2. Right-click **RegionCountryName** and select Size and Properties.
 3. Highlight Position and Layout.
 4. In the Number of columns dropdown, select 6. Click Close.
3. By default, Slicer items are displayed in alphabetical and numeric order, with items with no data displayed last. To change this view:
 1. Right-click the **CalendarMonth** Slicer, and select Slicer Settings.
 2. Uncheck Show items with no data last. Click OK.
4. Continue to format your Slicers as needed.

To Use Slicers to Analyze your PivotChart Data

1. Use the **CalendarYear** Slicer to explore profit by year. The PivotChart clearly shows the profit share increase for **COMPUTERS** and **TV** and **VIDEO (at the expense of CAMERAS and CAMCORDERS)** from 2007 to 2009. Profit share for the other categories shows almost no fluctuation.
2. To dig even deeper, use the **CalendarMonth** Slicer. You will discover that **CAMERAS** and **CAMCORDERS** had the highest profit share in the latter months of 2007.
3. Explore your data more by using the **RegionCountryName** Slicer. Clicking through the countries reveals many interesting facts.

Contoso can use this information to make intelligent business decisions.