# Lesson 8 – Exercise 8.2: Reference line, Trend line, and Forecasting

## **Business Scenario**

The CEO of a retail company is preparing for the annual meetings. He needs to show the sales trend of his company. He also wants to view future values for sales and a line representing overall average sales. Based on this analysis, answer the following questions.

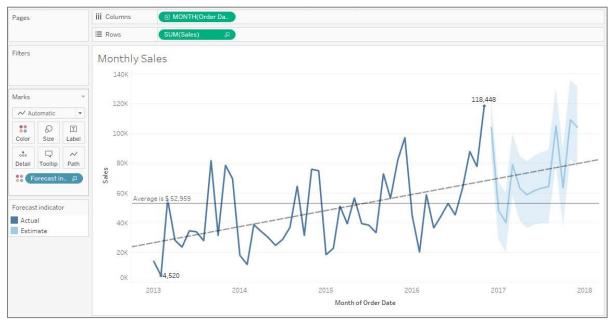
- What is the R-Squared value for an Exponential Trend model?
- What is the P value for a Polynomial Trend model with Degree 3?

### Overview

In this exercise, you will:

- Create a line chart with continuous Order Date at month level and Sales.
- Add a Reference Line and customize the label.
- Add forecasting to the view.
- Add a trend line excluding the forecasted values.
- Show labels only for minimum and maximum values, excluding the forecasted values.

The result should resemble the image given below:



## **Detailed Instructions**

- 1. Navigate to a new sheet. Use the **Sample Superstore** saved data source.
- 2. Create a line chart with **Order Date** at month level and **Sales**.
- 3. To achieve this, drag the **Order Date** dimension to Columns and the **Sales** measure to **Rows**.
- 4. Right-click the **Year Order Date** pill and change it to **Continuous Month**.
- 5. Right-click the view, navigate to Trend Lines, and select **Show Trend Lines**.
- 6. To enable the forecast option, right-click the view and select **Forecast > Show Forecast**.
- 7. To modify the trend line, right click the Trend Line and select **Edit Trend Lines**.
- 8. To display a single trend line, in the trend Lines options window, exclude **Forecast Indicator.**
- 9. To disable confidence bands, un-check the **Show Confidence Bands** option.
- 10. Click **OK**.
- 11. To add a reference line, right click the **Sales** axis and select **Add Reference Line**.
- 12. Set the scope as **Table**, and under the value section, select **Sum(Sales)**
- 13. To customize the label, select **Custom** in the Label drop-down.
- 14. Click the drop-down arrow, select **Computation**, type **is \$**, and select **Value**. The Custom text should look like this: **<Computation> is \$<Value>** 15. Click **OK**.
- 16. To display labels, click **Label** on the Marks card.

- 17. Select **Show Mark Labels**.
- 18. To show minimum and maximum values, in the Marks to Labels option, select **Min/Max**.
- 19. Rename this sheet as **Monthly Sales**.
- 20. Save the workbook as Lesson 8 Exercises.
- 21. Close the workbook.

#### Answers

Based on the view, these are the answers to the questions in the problem statement:

- What is the R-Squared value for an Exponential Trend model?
  Answer 0.352608
- What is the P value (significance) for a Polynomial Trend model with Degree 3?

Answer - **0.0001**