**Assignment**

**Scenario:** You are a consultant who works for the Excellent Consulting Group. Your client, the ABC Furniture Company, believes that there may be a relationship between the number of customers who visit the store during any given month (“customer traffic”) and the total sales for that same month. In other words, the greater the customer traffic, the greater the sales for that month. To test this theory, the client has collected customer traffic data over the past 12-month period, and monthly sales for that same 12-month period (Year 1).

**Case Assignment**

1. Using the customer traffic data and matching sales for each month of Year 1, create a Linear Regression (LR) equation in Excel. Use the Excel template provided (see “Case Assignment – LR –Year 1” spreadsheet tab), and be sure to include your LR chart (with a trend line) where noted. Also, be sure that you include the LR formula within your chart.
2. After you have developed the LR equation above, you will use the LR equation to forecast sales for Year 2 (see the second Excel spreadsheet tab labeled “Year 2 Forecast”). You will note that the customer has collected customer traffic data for Year 2. Your role is to complete the sales forecast using the LR equation from Step 1 above.
3. After you have forecast Year 2 sales, your Professor will provide you with 12 months of actual sales data for Year 2. You will compare the sales forecast with the actual sales for Year 2, noting the monthly and average (total) variances from forecast to actual sales.
4. To complete the Case Assignment, write a report for the client that describes the process you used above, and that analyzes the results for Year 2. (What is the difference between forecast vs. actual sales for Year 2—by month and for the year as a whole?) Make a recommendation concerning how the LR equation might be used by ABC Furniture Company to forecast future sales.

**Data:** Download the Module 3 Case template here: [Data chart for BUS520 Case 3](https://tlc.trident.edu/d2l/lor/viewer/viewFile.d2lfile/88075/2861,-1/). (Attached) Use this template to complete your Excel analysis.

**Assignment Expectations**

**Excel Analysis**

* Accurate and complete Linear Regression analysis in Excel.

**Written Report**

* You must submit a *written discussion and analysis.* This means that you should avoid use of tables and charts as “space fillers.”
* Provide a brief introduction to/background of the problem.
* Your written (Word) analysis should discuss the logic and rationale used to develop the LR equation and chart.
* Provide complete, meaningful, and accurate recommendation(s) concerning how the ABC Furniture Company might use the LR equation to forecast future sales. (For example, how reliable is the LR equation in predicting future sales?) What other recommendations do you have for the client?