**The Scenario**

This case is based on HBR Case 9‐694‐030.  
  
After reviewing the case, you are tasked with coming up with meaningful KPI’s and metrics to understand how each plant competes with one another. Essentially, you are trying to figure out what each plant’s strengths and weaknesses are, and come up with a strategy for overall company improvement.  
  
You are given KPI Metrics (Production).xls as well as three additional files to work with:  
  
Currency.txt : The exchange rates for each country (for each month) in which Applichem has a plant.

Workers.txt : The number of workers for each plant (for each month).

Costs.txt: The Raw Material, Operating, and Effective Labor costs for each plant.

**You are tasked with answering the following questions:**

1. Calculate the overall output (Sum of Production) per plant per year. (month)
2. Calculate the Average Cost of Raw Materials per plant per year.
3. Calculate the overall efficiency of workers (Average Pounds Per Worker) per plant per year.
4. Calculate the Average Total Labor Cost per plant per year.
5. Create a table summarizing the average values for the above KPI’s.
6. To create a ‘mock’ dashboard, graph the KPI’s you’ve calculated above.
7. Based on the Average of Hundreds Lbs. Per Worker and Average of Production calculations you have made, do you believe that Sunchem would benefit from having more employees?
8. In an effort to find out the most efficient labor practices per plant, one of the senior managers at Applichem suggests surveying employee job preferences, and gathering the following data:
   1. shift preference
   2. job location
   3. job function

She suggests an open-ended survey to gather data, as this will enable employees to answer openly and freely. Is it possible to use this data in a metric or KPI? If so, what would the metric be?

1. Based on your answers to Question 7, from what we’ve covered in class, do you believe open-ended questions would be best, or would specific options for answers be best? Why?
2. Based on your findings from Questions 1-6 , are there any changes to the business model, which you would suggest Applichem implement?
3. A manager suggests Average of Raw Material Cost per Average Production per Plant per Employee would be an effective metric to calculate the overall value each employee brings to the organization. Can this be calculated based on the data you have (if so, explain how)? Do you agree that this would be an effective calculation in calculating overall employee value?

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1. Suggest 3 additional effective KPI’s using the criteria covered in class. Please explain the business significance of each KPI you are suggestion, and calculate and graph these KPI’s like we did in class.