Post B Need 300-350 words ( DOC2)

Post C Need finish all requirements (DOC3)

Post B

Please read DOC2

Socio-cultural Analysis

See attached document for assignment criteria and expections

Cite all your sources using APA style. See External Links for guidance in using APA style citations.

Please type assignment up as a MS Word document;

Need 2-4 pages

Post C

**PLEASE NOTE:** If the population standard deviation is provided, then use it for this project, otherwise if it is not provided.

There are two cases in this project.  Below are the details on the two cases in the SPC Project (Based on Chapter 6S Statistical Process Control).  In this module, there is an Excel spreadsheet labeled ***SPC Project - BLANK New\_2019*** that has the sample data and includes spaces to add your SPC Control Chart data (for Case 1) and includes the data to build the SPC Charts in Case 2.  That Excel file should be submitted during Week 4. Make sure to substitute your name for the word BLANK when you save the Excel file.

**Case 1: Frito-Lay Salt Test**

1. Read the first case (Frito-Lay) description below.
2. Watch the video in this module for the Frito-Lay case (**the video must be watched in its entirety to get full credit)**.
3. You must also submit a Word document containing a memo to Angela McCormack and answering the additional two questions.

**Case 1 Description**

Frito-Lay, the multi-billion-dollar snack food giant, produces billions of pounds of product every year at its dozens of U.S. and Canadian plants. From the farming of potatoes-in Florida, North Carolina, and Michigan-to factory and to retail stores, the ingredients and final product of Lay's chips, for example, are inspected at least 11 times: in the field, before unloading at the plant, after washing and peeling, at the sizing station, at the fryer, after seasoning when bagged (for weight), at carton filling, in the warehouse, and as they are placed on the store shelf by Frito-Lay personnel. Similar inspections take place for its other famous products, including Cheetos, Fritos, Ruffles, and Tostitos.

In addition to these employee inspections, the firm uses proprietary vision systems to look for defective potato chips. Chips are pulled off the high-speed line and checked twice if the vision system senses them to be too brown.

The company follows the very strict standards of the American Institute of Baking (AIB), standards that are much tougher than those of the U.S Food and Drug Administration. Two unannounced AIB site visits per year keep Frito-Lay's plant on their toes. Scores, consistently in the "excellent" range, are posted, and every employee knows exactly how the plant is doing.

There are two key metrics in Frito-Lay's continuous improvement quality program: (1) total customer complaints (measured on a complaints per million bag basis) and (2) hourly or daily statistical process control scores (for oil, moisture, seasoning, and salt content, for chip thickness, for fryer temperature, and for weight).

In the Florida plant, Angela McCormack, who holds engineering and MBA degrees, oversees a 15-member quality assurance staff. They watch all aspects of quality, including training employees on the factory floor, monitoring automated processing equipment, and developing and updating statistical process control (SPC) charts. The upper and lower control limits for one check point, salt content in Lay's chip, are 2.22% (UCL) and 1.98% (LCL), respectively. To see exactly how the limits are created using SPC, watch the Frito Lay Control Charts video in the Module below that accompanies this case.

In the Excel document (below in this Module) you are going to create a new set of UCL and LCL measurements based on the below sample data and using the provided population parameter for standard deviation.  Calculate the measurements and show your work.

Angela is evaluating a new salt process delivery system and wants to know if the upper and lower control limits at 3 standard deviations for the new system will meet the upper and lower controls specifications currently used (2.22 and 1.98). The population standard deviation is s = .07 and each sample is n=4. **In a Word document, write a memo to Angela** explaining whether or not the new salination process (from which we obtained the sample data) is delivering a new set of UCL/LCL measurements that is within the specifications set by the current set of control limits.  In other words, does the new set of UCL/LCL measurement exceed the prior limits (meaning it is unacceptable) or equals or is less than the current specifications?

Additionally, in the same Word document, answer the following two critical thinking questions about Frito-Lay's current quality process.

     Question 1: How much of an improvement in variability did Frito-Lay make by implementing SPC?

     Question 2: What are the steps Karen Engels and Barbara Boudreau go through as part of a testing cycle?

The data (in percent) from the initial trial samples using the new salting process are:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sample 1: | 1.98 | 2.11 | 2.15 | 2.06 |
| Sample 2: | 1.99 | 2.0 | 2.08 | 1.99 |
| Sample 3: | 2.20 | 2.10 | 2.20 | 2.05 |
| Sample 4: | 2.18 | 2.01 | 2.23 | 1.98 |
| Sample 5: | 2.01 | 2.08 | 2.14 | 2.16 |

**Case 2: Stensil Fertilizer and Chemical Co. Inorganic Fertilizer Testing**

1. Read the second case (Stensil) description below (also found in the Excel file, second tab).
2. Watch the second video in this module which explains how to build an SPC chart in Excel **(the video must be watched in its entirety to get full credit)**.
3. You must also submit a Word document containing a memo to Bill Evans, Quality Control Manager for Stensil.

**Case 2 Description**

Stensil Fertilizer and Chemical Company produces both organic and inorganic fertilizers. Organic fertilizers are generally safe, but inorganic fertilizers are carefully monitored by the EPA due to the presence of hazardous waste materials (hazmat). Most bags contain some hazardous content, but theoretically there should be none. The EPA allowable specification is 90 parts per million (PPM). The quality control department at Stensil feels that there is no problem with hazardous material content, which has been averaging just over 50 PPM. The production department estimates that a substantial investment would be required to lower the amount of this contaminant. These two departments, after consulting with the marketing department and the EPA, suggest that a control chart be set up to monitor hazmat content. Five samples will be tested per day and plotted as one point on the chart. Use the data in Table 1 to set up the control limits. Then, after the limits are in place for this process, use Table 2 to determine whether or not the process remains in control for the week of September 6—10.

The Excel file includes a second tab for the Stensil Fertilizer Case (Case 2).  This is the data you need for the problem.  Build an appropriate SPC X-bar Chart and R-chart for the Table 1 data on this tab of the Excel worksheet.

Then, test to determine whether the Table 2 data indicates the process is under control for that period.  Show your work for this part in the same Excel worksheet and submit it. Build an appropriate SPC X-bar Chart and R-chart for the Table 2 data on this tab of the Excel worksheet.

Assuming the role of Quality Control Analyst, write a memo (using Word) to the Manager of Quality Control for Stensil Fertilizer & Chemical Company (Bill Evans) explaining the process you went through and making a recommendation regarding current hazmat levels in Stensil's fertilizer.

Please watch this two videos

Frito Lay Control Charts

<https://www.youtube.com/watch?v=bXmYAkz2tCw>

Create a Basic control chart

<https://www.youtube.com/watch?v=os17KYZAnd0>

finish all requirements

you will need DOC3

This project are weighted 20%, it is important

finish all requirements

Do not share this work to anyone or upload this work in any website

Read Doc 1 first , do not miss anything or details. If you have any question or need anything please let me know

All work is needed write in right format and no errors in grammar,punctuation, word choice, spelling.

Do not use any real name or real company name, for all work you can use “A company” without a name (No need to introduce the company in detail) or use I have Internship in a company.

Do not use too many other resources, use your own words to finish this or change and rewrite it, do not share this work or upload it to any website, and it has to be your original work.