

Group # 2
CEM 515

Ali

Affinity Diagram:

1. What sort of data is affinity diagram technique is used for and why?

Answer: it is used for analyzing qualitative data. It makes them easier to measure and help in decision making.

Bar Chart:

2. Why is a bar chart easier to use for comparison than a pie chart?

Answer: It is more difficult for the eye to discern the relative size of pie slices than it is to assess relative bar length.

Brainstorming:

3. List three things that could go wrong a brainstorming session?

Answer:

- a. the session is dominated by one or two people.
- b. Long periods of silence.
- c. participants withhold ideas because they fear criticism or repercussions when a superior is present.

4. What conclusions can we draw when a brainstorming session did not help us find a better solution?

Answer: 1. current process is optimal.
2. The subject was not suitable for brainstorming
3. People should have been given more information in the beginning

Ahmed

5. What are the five Why,s?

Answer: After identifying the probable cause of a problem in the fishbone diagram ask WHY is that true and when you get an answer ask again WHY is that trueAnd repeat it five times

6. Define the fishbone diagram?

Answer- It is a chart of possible causes of a problem; it also called (the cause & effect diagram)

7. Can the check sheet analyze the data?

Answer: The check sheet is a consistent, organized method to trace & collect data and not analyze it.

8. In the control chart, is it true that process improvement should be applied to the processes that are out of statistical control only?

Answer: Process improvement is applied to the processes that are in statistical control only, and the processes out of statistical control need to be investigated and brought back into control before improvement efforts are made

Arun

9. An Organization is facing problems in finalizing a solution from the available options to improve one of their systems. What TQM technique do they need?

List the data input required in implementing this technique with one example.

Answer:

10. An Organization is facing problems in importing raw-materials from outside the Kingdom. The team do not know where are what are the factors causing these problems in accomplishing this task. Identify the TQM technique required in solving the above problem. Brief General Steps involved in building this tool.

Answer:

11. The management of a bank in Saudi Arabia has decided to introduce its customers a new service, "Internet Banking Services". When the management called for consensus, some of the employees involved in the process have raised objections mentioning that, it is not secured to offer such

information on the net and some others informed that it adds additional works to the employees.

The management decided to take help of a TQM tool/technique in pursuing their goal. Please suggest the suitable TQM technique required in this situation and define general steps involved in building this technique.

Answer:

Hamood

12. Identify the TQM tools that usually used in action planning and management purpose?

Answer:

1. Affinity diagram
2. Decision matrix
3. Gantt chart

13. List all steps to determine process capabilities?

Answer:

1. conduct a pilot or test run
2. collect and display data
3. interpret the data

14. List all types of TQM tolls that use a frequency table in construction?

Answer:

Histogram

15. How many bars for a histogram when the number of data is 12?

Answer:

From 5 to 7 bar

16.If you are using Pareto chart, how you can obtain the data?

Answer:

By using existing data, brainstorming categories and collecting new data

Soughair

TQM Tool: Pie Chart (% of Difficulties = 60)

17 : What are the tips for constructing a pie chart ?

Answer:

- Avoid too many segments (generally, four to five is a maximum).
- Label each segment clearly.
- Organize the segments clockwise and in descending size order.
- Begin the segments at the 12 o' clock position.
- Colour the segments from dark to light, starting from the 12 o' clock position.
- Avoid 3 dimensional pie charts as they can show a misleading impression of segment size.

TQM Tool: Process mapping (% of Difficulties = 80)

18: How do we interpret our Flowcharts? And what are the interpretation steps?

Answer:

- Determine who is involved in the process.
- Form theories about root causes.
- Identify ways to streamline the process.
- Determine how to implement changes to the process.
- Locate cost- added- only steps.
- Provide training on how the process works or should work.

Step 1: Examine each process step

Step 2: Examine each decision symbol (*Can this step be eliminated?*)

Step 3: Examine each rework loop (*Can it be shortened or eliminated?*)

Step 4: Examine each activity symbol (*Does the step add value for the end-user?*)

TQM Tool: Run Chart (% of Difficulties = 80)

19: Why should we use run charts?

Using run charts can help you determine whether your process is stable (free of special causes), consistent, and predictable. Unlike other tools, such as pareto charts or histograms, run charts display data in the sequence

in which they occurred. This enables you to visualize how your process is performing and helps you to detect signals of special causes of variation

TQM tool : Run Chart (% of difficulty = 70)

20. What are the benefits from using a run chart?

You can benefit from using a run chart whenever you need a graphical tool to help you:

- understand variation in process performance so you can improve it;
- analyze data for patterns that are not easily seen in tables or spreadsheets;
- monitor process performance over time to detect signal of changes; and
- communicate how a process performed during a specific time period.

TQM Tool: Run Chart (% of Difficulties = 85)

21: How do we interpret a run chart?

Interpreting a run chart requires you to apply some of the theories of variation. You are looking for trends, runs, or cycles that indicate the presence of special causes.

- A **trend** signals a special cause when there is a sequence of seven (7) or more data points steadily increasing with no change in direction. When a value repeats, the trend stops..
- A **run** consists of two (2) or more consecutive data points on one side of the centerline. A run that signals a special cause is one that shows nine (9) or more consecutive data points on one side of the centerline.
- A **cycle**, or repeating pattern, is the third indication of a possible special cause. A cycle must be interpreted in the context of the process that produced it. A cycle must recur at least eight (8) times before it can be interpreted as a signal of a special cause variation. When interpreting a cycle, remember that trends or runs might also be present, signaling other special causes of variation.

Sultan

22-what is the segment wheel?

23-Name the six problems solving process?

24-which TQM Tools are applicable for each?

25-explain weighted voting implementation?

26-for solving a problem how the three actual rule help?

27-some variables in scatter diagram are difficult to control how we can solve it?