Total Quality Management

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1. Describe the three processes of Dr. Shewhart’s control charts.

The three processes identified by Dr. Shewhart are to identify, monitor and eventually remove the sources of variation in a process which is repetitive in nature. He used the statistical processes to maintain quality of organizational processes. Some causes are common to the whole process while some other causes are related to specific parts of the process. The common causes can be associated to the whole process and are harder to find. Special causes are associated to some specific part of the process and are easier to identify. When an issue has been identified in a process, management takes note of it. Monitoring the process identifies whether the issue is common to the whole process or to a specific part. The removal of these sources of variation means that company has to incur a certain level of costs.

3. Which point from Dr. Deming’s 14 points do you agree with the most strongly? Why?

I agree with Dr. Deming’s point in which he postulates to drive out fear. This will mean that there will be certain risks taken in implementing the quality processes. A person should be ready to take on any of these risks to make sure that the quality standards are achieved. The managers should allow creativity in the tasks assigned to the subordinates so that they can come up with unique solutions to any given problem. Mistakes should be corrected in a way that results in teaching employees about the management expectations. Setting the control charts will help a company to set the limits within which people are expected to perform. If they are not working within those limits, then the reasons should be identified by the top management. Initiating improvement in a process may be related to many risks. The risk of failure will mean that the financial costs and other efforts made to improve the process will sink. People may think that their jobs will be at risk if they undertake a certain aspect of the product improvements.

6. Dr. Juran presented a concept he called big Q, little q, describe the difference between big Q and little q.

A big Q represents a big or dramatic change to a process which has a greater impact on the bottom-line processes undertaken by the company. It is an issue related to the overall organizational system. A small q represents a change which is related to one step of a particular process at a given point in time. This issue can hurt the organization in achieving its short-term goals and objectives. The managers have to bring both changes to their system in order to make sure that total quality management is achieved. There are higher costs associated with the bigger Q aspects as compared to smaller q.

9. A. What is Crosby’s definition of quality?

Conformance to requirements

B. Explain Crosby’s system of quality.

Prevention of defects

C. What is Crosby’s performance standard?

Zero Defects

D. Why do you believe this can or cannot be meet?

Some parts of a process can be controlled by humans whereas other parts are uncontrollable. It will be impossible to bring in zero defect because changes take place in the machines and systems due to their depreciation. The other two aspects of quality are achievable for the system but zero defects are not possible to be maintained over a longer period of time.

13. Briefly summarize the concept Dr. Taquchi is trying to get across with his loss function.

The loss function provided by Dr. Taquchi show that a process should be run in a way that can minimize marginal cost per unit. This curve shows that the firms are expected to attain a level of production that results in a minimum marginal cost. Marginal cost is the amount of money that is added to the total costs when an additional unit is produced by the company. If a company is producing at a point where marginal cost is decreasing, there will be some margin for increasing its production. If it is producing at a point of increasing marginal cost, it has to improve the process to decrease its costs.