Sample Answers to In-Text Questions

# Chapter 5: Managing for Quality

## Discussion Questions

1. List the eight dimensions of product quality. Pick the product offerings of any two competing firms. What are the similarities and differences between the products when it comes to each dimension? Given these similarities and differences, what strategic implications do they hold for the companies in relation to their target markets?

Answer: The Quality dimensions are: performance, conformance to specifications, features, durability, reliability, serviceability, aesthetics, and perceived quality. Student examples will vary.

1. List and briefly explain the costs of quality.

Answer: Prevention costs prevent defects, Appraisal costs are the costs of measuring and inspecting, Internal failures are the costs of scrap or rework, and External failure costs are the costs of liability lawsuits, and recalls, and the like.

1. What are the consequences of poor quality products?

Answer: Consequences of poor quality could be loss of sale or loss of customer. In the extreme it could be permanent damage to the brand image, lawsuits, recalls, or fines.

1. Why is being ISO 9000 certified important to global firms?

ISO certifications are required by many firms outside of the US. It shows that the company has demonstrated good systems in place to prevent quality problems, and fix problems when identified.

1. What practices characterize TQM?

Answer: TQM focuses on continuous improvement, methodical improvement processes, focus on good planning and design, good execution, good processes, and employee involvement to prevent quality failures, etc.

1. Explain how improving the quality of products and services can increase a firm’s productivity and lower its production costs.

Answer: improving quality products improves productivity by producing more yield with less resources, and can lower production costs due to stopping production, due to errors, and the cost of rework, or scrap, or wasted efforts by the staff, etc.

1. What are the criteria for the Baldrige Performance Excellence Program?

Answer: A company must prove that they have good leadership, planning, workforce development, measurement, customer and operational focus, and that they have successful results.

1. What is the Six-Sigma approach to quality management? Briefly explain the DMAIC process.

Answer: 6 Sigma is a philosophy and an almost perfect measurement to strive for. DMAIC is the improvement methodology:

Define processes to be improved, Measure the current state, Analyze possible causes of problems, and recommend ways to Improve. They then measure the success, to determine if the corrective measures are working.

1. What are the dimensions of service quality?

Answer: Dimensions of Service Quality are Reliability, Responsiveness, Assurance of trust, and results, Empathy with the customer, and the Intangibles of the facilities, personnel equipment, etc. Some of these are the same as in product quality.

1. Discuss the five gaps in the GAP model of service quality.

Answer: The knowledge Gap, the Service design and standards Gap, The Service delivery performance Gap, the Communications Gap, and the combined Customer Expectations Gap

1. What is electronic service quality (e-SQ)? What gaps can form between a consumer and electronic-service provider?

Answer: It is the combined sum of the Customer’s electronic experience. Gaps can be in Marketing Information, Design gap, and the Fulfillment gap.

1. Choose an electronic service provider you have done business with and evaluate its service quality using the four gaps we discussed.

Answer: Student examples can vary

1. List the approaches that can be used to improve a product or service’s quality during the different stages of its lifecycle, including the procurement phase.

Answer: A Quality design can payoff in all life cycles, the Processes used in procurement, production and delivery are surely linked to quality improvement and customer satisfaction.

1. What can global companies do to improve the quality of their goods and services?

Answer: It is very important that the exact meaning of quality be translated and quantified in communications between countries. Vague terms such as good quality, pure, on-time, on-budget, compliance, with diligence, without error, human rights, are not useful due to interpretations of different cultures.

1. Explain why product quality and sustainability are closely linked

Answer: A quality product that lasts longer, is made of recyclable parts, has less packaging, can assist with sustainability. The reduction in scrap and rework due to higher quality is more environmentally friendly, and minimizing defective parts and materials can improve overall quality.

1. Describe the relationship between product quality and company’s ethical behavior

Answer: Fair trade items, socially responsible production methods, and the like can improve a company’s image in being socially responsible, and having ethical, and environmental practices.

## Critical Thinking Questions

The purpose of this exercise is for the students to become aware that a company in order to deliver a quality product to its customers has to ensure that the quality of its product is maintained throughout the supply chain – from supplier to the final customer.

Do a search on the web for the following key phrase: “Toyota accelerator recall.” Then read some of the news articles you found about the recall.

1. Why is the information in the articles important to operations managers?

Answer: This is a good lesson that quality problems can emerge at any time. Operations Managers must be diligent to detecting surprise problems, and manage risk. They should always have a plan B, even when things are going the smoothest.

2.    How did Toyota identify and fix the defect?  
Answer: They did a lot of testing, and many of the problems were very hard to replicate in the lab. They blamed the defects on several possible problems, but might have been caused by the ECTS system, or computer. They never really did state exact “fixes.”

3.    How can Toyota prevent their recurrence in the future?    
Answer: possible answers are, more diligence to quality problems, eliminate the can’t happen here psychology, don’t take anything for granted, always be open and trusting when discussing possible problems, Etc.