

INSTRUCTOR'S NOTES TO ACCOMPANY

QUALITY AND PERFORMANCE EXCELLENCE: MANAGEMENT, ORGANIZATION AND STRATEGY, Seventh Edition

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These notes are intended to provide guidance for discussion of the questions and cases at the end of the chapters. Most questions have been purposely designed to be open-ended, so there is no one correct answer. Rather, their purpose is to stimulate discussion and make the concepts of total quality more personal to the student. Other questions are designed to ensure that students have grasped the basic concepts in the chapter and are basically review in nature.

Chapter 1: Introduction

Review and Discussion Questions

- 1. Describe how the specific practices of PVHS in the opening Performance Excellence Profile support the principles of TQ.**

Students should link their answers to Table 1.1.

Customer Focus: diversified services; listening to customers to improve ER layout and patient rooms; Getwell Network

Leadership: high-performance culture; communication mechanisms

Involvement of People: interdisciplinary teams; open door policy

Process Approach: innovative systems and technologies

System Approach to Management: mission – to remain independent while providing innovative, comprehensive care of the highest quality, and exceeding customer expectations; vision – to provide world-class health care

Continual Improvement: performance improvement system called Global Path to Success; action plans to address performance issues; innovation strategies

Factual Approach to Decision Making: Balanced Scorecard system; Meditech Information System

Mutually Beneficial Supplier Relationships: partnering relationships

- 2. Explain why quality became the most important issue facing American business in the 1980s. In addition to economic competition from Japan, what other factors may have contributed to the importance that quality has assumed?**

Quality became an important business issue because of the fall of American competitiveness in world markets, and particularly, the economic competition from Japan and other Asian countries. During the preceding decades, American manufacturers focused more on quantity of output rather than quality. As the rate of quality improvement in Japan was faster than that in America, the overall quality of goods produced in Japan exceeded those produced in the U.S. sometime during the 1970s. Other factors include increasingly quality-conscious consumers, rapid advances in technology that required better attention to quality, and growing realization that managers were focused on the wrong goals and objectives.

- 3. Discuss the importance of quality to the national interest of any country in the world. Given China's emergence as a global economic power, of what importance do you believe that quality will play in their future?**

Clearly the ability to compete in today's world depends on quality. Without good quality products to export and sell, a nation's economy is at risk. This was the message that Deming told Japan back in 1950. Students may have read about or researched quality issues that Chinese manufacturers have faced, for example, toys and food products. In many respects, China is in somewhat of a similar situation as Japan was. The big difference is that they can

draw upon all the accumulated knowledge about quality that has been developed since 1950 and will most likely accelerate their progress. Most students will probably agree that quality is an important aspect for their growth, particularly as many Chinese manufacturers are used for outsourcing.

4. Cite several examples in your own experience in which your expectations were met, exceeded, or not met in purchasing goods or services. How did you regard the company after your experience?

Everyone has had such experiences. Getting students to share these provides a better sense of how consumers define quality. This question can be used to develop and discuss alternative viewpoints and definitions of quality.

5. How might the definition of quality apply to your college or university? Provide examples of who some customers are and how their expectations can be met or exceeded.

Schools are ripe for quality improvement. Students and faculty have many examples. It is also important to note that viewpoints differ at different levels; for example, in the classroom, within a specific college, an in the university as a whole. Much controversy exists about who are the customers of a school. This discussion leads easily to conflicting needs and objectives and raises questions about how customers' needs can be satisfied. You might wish to investigate Baldrige education winners. Application summaries are generally available on Baldrige winners' web sites. Start at www.nist.gov/baldrige and click the link for Award Recipients.

6. What implications do you think the forces that will influence the future of quality (see the box "What Will Influence the Future of Quality" in the chapter) will have on management practice?

Students should try to develop ideas on how these trends will change management behavior; for example, how social media is changing the way that quality influences organizational management. As another example, global responsibility and environmental concerns are reflected by the current focus on sustainability and environmental protection; students can discuss issues of global warming as it relates to process design, recyclability as it relates to product design, and so on. A good exercise would be to ask students to create a matrix where the rows are the forces and columns are functional management decision areas such as OM (perhaps broken down by product/service design, supply chains, etc.), marketing, finance, and so on, and to identify management practices that might be changed as a result of these factors.

7. How has social media changed how both consumers and organizations deal with quality? How can organizations exploit social media in their quality approaches and decisions?

The ability to rapidly exchange and share opinions makes it easier for consumers to identify

both good and poor goods and services (e.g. the United Breaks Guitars example). A quick search on a smart phone can change a potential purchase to a lost customer. Organizations can also “mine” an immense amount of data and learn about customer behaviors, likes, and dislikes quite easily.

8. Think of a product with which you are familiar. Describe the eight “multiple quality dimensions” (e.g, performance, features, and so on) for this product that are listed in this chapter.

This question is designed to get students to think about the different dimensions. The results can be used to prioritize needs (as a good lead-in to QFD or the development of customer survey questionnaires, for instance).

9. What might the eight “multiple quality dimensions” mean for a college or university? For a classroom?

This enables students to apply the concepts to something they all know about and in which they have a vested interest. A key issue is what are the "products" and services a school provides.

10. Explain the differences between manufacturing and service organizations and their implications for quality.

Most students would probably have seen this in an introductory operations management course. These differences include higher labor intensity, immediate consumption and lack of storage of the "product," generally a higher degree of customization, a large volume of transactions, time sensitivity, and an increased reliance on the human element. The quality dimensions important to customers are different; thus, quality efforts are also different. Key issues are described in the chapter in the Quality in Services section.

11. Describe the key principles of total quality.

Students should be able to list and explain the concepts in Table 1.1.

12. How might you apply the concepts of TQ to your personal life? Consider your relations with others and your daily activities such as being a student, belonging to a fraternity or professional organization, and so on.

Students should consider issues such as Who is my customer? How do I plan to be a "quality person"? What do I do to continuously improve? (Good examples include class preparation and interpersonal relations.) The instructor may wish to consult some of the writings of Harry Roberts, such as "Using Personal Quality Checklists" in *Quality Progress*, June 1993, p. 51, or Harry Forsha, *The Pursuit of Quality Through Personal Change*, Milwaukee: American Society for Quality Control, 1992. Many articles in *Quality Progress* over the last few years have dealt with these issues. ASQ has a nice search engine. Go to www.asq.org and select the Publications link.

13. Why is a customer focus a critical element of a high-performing organization?

Customers are the judges of quality. No customers, no sales, no jobs. Simple idea, but awfully difficult for many organizations to see and implement.

14. Make a list of your personal “customers.” What steps might you take to understand their needs and build customer engagement?

This question is designed to make quality more personal -- parents, spouses, roommates, teachers, etc. The instructor might try to relate these personal issues to those of a company like Coca-Cola.

15. Cite an example in which you did not purchase a product or service because it lacked “dissatisfiers” as defined in the chapter. Cite another example in which you received some “exciters/delighters” that you did not expect.

This question is similar to #3, but focused on products. It will help elicit key dimensions that customers want and help students realize the necessity of both meeting customer expectations and trying to anticipate and exceed them. The instructor might comment that one of the goals of the course is to transform students into "customers from hell."

16. In what ways might the lack of top management leadership in a quality effort hinder or destroy it?

Top management has the ultimate responsibility for instilling quality among their employees. Role models are powerful influences. All talk and no action can easily kill a quality program. These issues are discussed in the Strategic Planning and Leadership subsection.

17. Explain the various areas within an organization in which continuous improvement and learning may take place.

Everywhere! Product design, manufacturing, engineering support, sales, etc. It is easy to establish the importance of every activity in a company in meeting both internal and external customer needs. No activity is immune to continuous improvement, and the students should be encouraged to provide many examples.

18. Why is measurement important in an organization pursuing performance excellence?

Problem solving should be based on objective data and facts. Measures are needed to understand the problems and opportunities for improvement and for monitoring progress. Many executives have stated that "you can't manage what you can't measure," although Deming rejects this statement, stating that "the most important figures are unknown or unknowable." These two points of view can be made as a basis for class discussion and debate.

19. Examine some process with which you are familiar. Make a list of ways that the process can be measured and improved. What difficulties might you face in implementing these ideas?

Students should be encouraged to select simple processes with which they are very familiar and understand well. This question can lead to how to describe a process (see Chapter 3 on tools). Key issues that should be addressed are what measurements to take. Many organizations fail in this regard, taking unnecessary measurements that are useless for decision making, or failing to take critical measurements that address customer needs. One way of approaching this is by a QFD-type matrix, listing customer needs on the rows and measurements on the columns. An assessment of how well the measures address customer needs will allow you to choose the right ones or determine if any important ones are missing.

20. Describe the three ways of viewing teamwork.

Vertical, horizontal, and interorganizational. See discussion in the Empowerment and Teamwork subsection.

21. Describe some possible ways in which vertical, horizontal, and interorganizational teamwork can be applied at a college or university.

This will help students better understand the differences among the three types. How much teamwork in a university involves its customers and suppliers, or cuts across colleges and departments, or engages two-year as well as four-year programs? If your school is typical, the answer is probably obvious. It is easy to brainstorm many opportunities.

22. What is employee engagement? How does it differ from empowerment? How might an employee really know that he or she is truly empowered? How might an organization know that employees are truly engaged?

Employee engagement simply means that workers have a strong emotional bond to their organization, are actively involved in and committed to their work, feel that their jobs are important, know that their opinions and ideas have value, and often go beyond their immediate job responsibilities for the good of the organization. Empowerment is giving people the authority and responsibility to make decisions that affect the welfare of their customers. Indicators of empowerment include the freedom to take risks, lack of bureaucratic red tape, management actions and defense of employee decisions, management through leadership instead of control, financial support, etc. Engagement is manifest in doing things without being asked or directed, volunteering suggestions for improvement, willingly helping co-workers, and so on.

23. Have you ever felt restricted in your work because of a lack of empowerment? Can you cite any experiences in which you noticed a lack of empowerment in a person who was serving you? Why is this such a difficult concept to implement in organizations?

Most students have had this experience, particularly in part-time or summer jobs. How about as a student? How much empowerment do instructors typically give students? (How much do *you*?) Inhibitors include a lack of trust, fear of relinquishing control, and the reward system itself.

24. How does TQ differ from agency theory?

As discussed in the section in the chapter, agency theory takes a rather sterile approach to organizational theory and removes people from the system. Differences include how people are motivated, alignment of goals, sharing information, time perspective, risk taking, and role of leadership. We have never heard a top executive – especially from Baldrige winning organizations – state that people are *not* the key to their success. Indeed, what we have observed is simply that successful organizations go to great lengths to treat their employees as valued people.

25. Explain the mechanistic, organismic, and cultural models of organizations, and how TQ is similar to or different from them.

See Table 1.2 and its associated discussion for a summary of the differences and similarities.

26. Investigate recent quality initiatives in either health care or education. What have these organizations learned from business? What unique issues do they face with respect to quality? How are they trying to overcome them?

Many articles have appeared, especially since health care and education were made Baldrige categories in 1999. The American Society for Quality journals, *Quality Progress* and the *Quality Management Journal*, are good sources of reference. Winning practices of Baldrige winners also provide considerable insight (however, to date we are still waiting for a health care recipient). Basically, these organizations that pursue TQ have adopted many of the practices used by their business counterparts and related to the basic TQ principles. Some of the unique issues they face are intense public scrutiny, dealing with professionals such as doctors and professors, and long-standing traditions that make change difficult. Overcoming these issues requires dedicated leadership, a commitment to improvement, and a framework for change, such as the Baldrige criteria or a similar philosophy of TQ.

27. Today, both manufacturing and service depend greatly on information technology and the Internet. What would be some ways of evaluating the quality of a Web site?

Content that is intuitive and understandable, accurate, and current. This means that the design of the site must meet the customers' requirements, not the company's. The web site must be easy to navigate and locate information (such as ways to contact the company!). If customers misinterpret information and make a wrong purchase, expect returned products and non-returning customers. Product offerings and price data change quickly, and need to be kept accurate and current. One of the author's unfortunate experiences involved purchasing an accessory listed as compatible with a PDA only to find out that it didn't work, leading to wasted time getting a return authorization, repackaging, and returning the product (the Web

site was corrected a few weeks later). Technical issues might include the speed and reliability of the web site, as reflected by page loading rates, and the number of clicks required to navigate through the site, and server uptime/downtime.

CASES

The Reservation Nightmare

1. Summarize the service failures associated with this experience.

Basically, everything the company did was a service failure, from the complexity of the menu, excessive wait time, repeating the 19-digit customer service number, and transfer to another operator without response.

2. What might the travel agency have done to guarantee a better service experience for Mr. Harrington? How do your suggestions relate to the TQ principles?

Students usually identify numerous improvements including simplifying the messaging system, better staffing, cross-training operators, and so on. The company needs to better understand customer requirements (How long of a wait is acceptable? How complex system do customers tolerate?), improve its processes (eliminate redundancy, tie the 19-digit input to the operator's computer), use data better (determine how many customers use each feature, for example), and empower and train employees to be able to answer a wider variety of questions.

Santa Cruz Guitar Company

Based on this tour of SCGC, can you identify how the operations and quality practices reflect the principles of TQ?

(1) customer and stakeholder focus – attention to detail and perfect tone; hand-making necks to customer specifications; adjustments to optimize feel and playability

(2) a process orientation supported by continuous improvement and learning – manufacturing layout and inspection activities; detailed process requirements (such as humidity control and use of CNC machining for critical dimensionality)

(3) employee engagement and teamwork – small staff of experienced and empowered luthiers who provide personal attention and hand-crafting of the guitars; recruiting luthiers who want to work in a team environment and have a passion for guitar making; encouraging workers to enhance their skills

(4) management by fact – luthiers recording what they did while building tops and using the records to duplicate outstanding results

(5) a strategic focus on quality as a source of competitive advantage – small scale operation with a focus on high quality; web page where owners can ask questions

(6) visionary leadership that views performance excellence as an integrated system – lack of a formal quality department so that quality is understood to be everyone’s job; encouraging training and even encouraging workers to open their own businesses.

Alice’s Restaurant

Use the principles of TQ and any other concepts discussed in this chapter to advise Alice on what she might consider to ensure achieving her quality goals for this venture.

Many students may have had experience in the food industry and everyone is a consumer, so this case should be easy to address (students will probably gravitate to their own good or bad experiences to frame their comments). The principles in Table 1.1 should provide a useful guide. In addition, students should use the “effective practices” that are described for each principle in this chapter and suggest how they can be applied to a restaurant business. For example, in customer focus we have:

- Researching and understanding customer needs and expectations;
- ensuring that goods and services are linked to customer needs and expectations;
- communicating customer needs and expectations throughout the organization;
- measuring customer satisfaction and using the results to improve;
- systematically managing customer relationships; and
- ensuring a balanced approach between satisfying customers and other stakeholders (such as owners, employees, suppliers, local communities, and society as a whole).

Students might elaborate on these; for instance, what methods might Alice use to understand customer needs?

Walker Auto Sales and Service

Drawing upon the principles of TQ and the unique nature of services, describe some of the issues that Darren must consider in achieving his vision. Develop a list of action plans that he might consider.

Darren should examine each of the quality management principles in Table 1.1 and consider their implications in the business. He must also consider the differences between service and manufacturing:

- Customer needs and performance standards are often difficult to identify and measure in services, primarily because the customers define what they are and each customer is different.
- The production of services usually requires a higher degree of customization, so employees must tailor their services to individual customers

- The output of many service systems is intangible, so service quality can only be assessed against customers' subjective, nebulous expectations and past experiences. (What is a "good" sales experience?)
- Services are produced and consumed simultaneously, and many services must be performed at the convenience of the customer. Attention must be paid to training and building quality into the service as a means of quality assurance.
- Customers often are involved in the service process and are present while it is being performed, or at least, in specifying their problems and needs prior to work being done on their car.
- Services are generally labor intensive, and the quality of human interaction is a vital factor for services that involve human contact. Thus, the behavior and morale of service employees is critical in delivering a quality service experience.
- Many service organizations must handle large numbers of customer transactions. Such large volumes increase the opportunity for error.

Action plans that Darren might consider developing must tailor the systems to the needs of various types of customers. He must ensure that he develops appropriate infrastructure, practices and tools to support his vision. For example, car buyers have different needs from those who are coming in for shop service to their cars. For car buyers to be able to obtain a wide range of vehicles and options to evaluate, have access to available salespeople, enjoy a prompt greeting, and feel comfortable and un-pressured in reaching a buying decision, Darren must plan on exercising leadership and strategic planning to develop the required infrastructure. Because customers expect salespeople to be courteous, to be knowledgeable about the cars, to respect their time, and to honor verbal promises, courteous salespeople must be hired and trained to support customer relationship management, develop good processes, and work to improve systems through information and knowledge management. For repair and maintenance service, customers want to have the work explained appropriately, to be fully informed of any additional necessary work, and to have all work reviewed on completion. They want good time estimates and communications with the service department. Thus repair service people must not only be technically proficient, but also be customer focused, and understand and support the need for continuous improvement through information and knowledge management.

He should use the "effective practices" that are described for each principle in this chapter and apply them to his business.

Chapter 2: Frameworks for Quality and Performance Excellence