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Homework #1 – An Introduction to Quality

TECH 50000 - Quality Standards

Tuesday, January 11, 2011

Review Questions

2. What factors have contributed to the increased awareness of quality in modern business?

Global Competition is a big factor that has contributed to the increased awareness of quality in modern business. The recognition of Japanese competition had a huge impact on quality awareness concerning goods and services. American consumers bought American goods and services regardless of their quality, but during the 1970's, they started to notice the difference in quality between American and Japanese goods. Because of this, they demanded high quality, long lasting, and reliable products. If that meant buying Japanese products, then so be it. This in turn hurt the American economy. Laws came about that supported the American consumer who expected products that functioned properly under normal use. According to our text, awareness of the importance of quality increased, also because of, "Extensive product recalls mandated by the Consumer Product Safety Commission in the early 1980s and the extensive media coverage of the Challenger space shuttle disaster in 1986, in which the Challenger exploded shortly after takeoff killing all seven astronauts." Also, consumers, now more than ever, compare, evaluate, and choose products critically for total value-quality, price, and serviceability.

Excellent!!! Improvements in technology, reassessment of inadequate managerial philosophies, and the economic impact of international competitiveness have also been important factors.

3. Explain the various definitions of quality. Can a single definition suffice? Why or why not?

Everyone defines Quality based on their own perspective of it. Typical responses include; Perfection, Consistency, Eliminating waste, Speed of delivery, Compliance with policies and procedures, Doing it right the first time, Delighting or pleasing customers, and Total customer satisfaction and service. The Judgmental Perspective defines quality as the goodness of a product. Shewhart's transcendental definition of quality – "absolute and universally recognizable, a mark of uncompromising standards and high achievement." Examples of products attributing to this image: Rolex watches, Lexus cars. The Product-Based Perspective defines quality as a "function of a specific, measurable variable and that differences in quality reflect differences in quantity of some product attributes." Example: Quality and price perceived relationship. The User-Based Perspective defines quality as "fitness for intended use." Because individuals have different needs and wants, they have different quality standards. Example – Nissan offering 'dud' models in US markets under the brand name Datsun which the US customer didn't prefer. The Value-Based Perspective defines quality in a product as one that is as useful as competing products and is sold at a lesser price." US auto market – Incentives offered by the Big Three are perceived to be compensation for lower quality. The Manufacturing-Based Perspective defines quality as

“the desirable outcome of a engineering and manufacturing practice, or conformance to specification.” Engineering specifications are the key! Example: Coca-cola – “quality is about manufacturing a product that people can depend on every time they reach for it.” A single definition cannot suffice because you have various stakeholders involved when producing a product or service. The ultimate outcome is total customer satisfaction, and that not only involves external customers, but internal ones as well. Other external customers may not be purchasers but may have some connection with the product.

Comprehensive one!!!

6. Describe the three fundamental principles of quality.

1. A focus on customers and stakeholders is a principle that views the customer as the principal judge of quality. Customers are not only the entire society, but employees as well. To exceed the customer's needs and expectations, a company must first understand them. To do this, the company must build relationships with their customers so that they can fully understand what product attributes their customer's value. Relationships are built by listening, involving, and informing customers. The ultimate outcome from this focus is customer satisfaction and loyalty.
2. Participation and teamwork involves everyone in the organization. This principle of quality focuses on the entire organization as a whole. Everyone's job is important. The workers at the bottom of the employee chain are as important as those at the top. Empowering employees in all areas of the organization and rewarding them for their good work, not only improves customer satisfaction, but motivates the employees. I have always believed that if you don't like your job, you will not perform it well. Empowering employees and giving them incentives that reward them for a job well done, is one step to providing an organization with a competitive edge. If everyone works well together, the outcome from that work can only be good.
3. A process focus supported by continuous improvement and learning involves focusing on the total set of related activities or processes which actually deliver the product or service to the customer instead of focusing on the optimal performance of separate departments and divisions. This leads to better overall performance and results for the company.

Great work!

16. Explain the three levels of quality and the key issues that must be addressed at each level.

1. At the organizational level, quality concerns center on meeting external customer requirements. An organization must seek customer input on a regular basis by asking questions to help define quality at the organizational levels. These questions include the following:
 - a. Which products and services meet your expectations?
 - b. Which do not?
 - c. What products or services do you need that you are not receiving?
 - d. Are you receiving products or services that you do not need?
2. At the process level, organizational units are classified as functions or departments. Because most processes are cross-functional, the danger exists that managers of particular

organizational units will try to optimize the activities under their control, which can suboptimize activities for the organization as a whole. At this level, managers must ask particular questions to succeed in linking external and internal customer requirements. These questions include the following:

- a. What products and services are most important to the (external) customer?
 - b. What processes produce those products and services?
 - c. What are the key inputs to the process?
 - d. Which processes have the most significant effect on the organization's customer-driven performance standards?
 - e. Who are my internal customers and what are their needs?
3. At the performer level, standards for outputs must be based on meeting internal customer requirements. These standards include requirements for such things as accuracy, completeness, innovation, timeliness, and cost. Questions one must ask for each output of an individual's job include the following:
- a. What is required by the customer, both internal and external?
 - b. How can the requirements be measured?
 - c. What is the specific standard for each measure?

Well written!! Employees should have input on quality standards and ways of improving their own work processes in order to produce high quality intermediate, as well as finished products.

Quality in Practice:

The Evolution of Quality at Xerox: From Leadership through Quality to Lean Six Sigma

Key Issues for Discussion

2. What lessons might this experience-particularly in responding to new crisis-have for other organizations?

The way I see it, the main lesson other organizations can learn from the new crisis (and the old) at Xerox, is that strengthening quality is an ongoing process that should be implemented at the very beginning and worked on continuously, regardless of whether or not your company is #1 in a particular industry.

The first crisis that hit Xerox could have been avoided if, in the very beginning, they had thought out possible future crises and planned strategies to deal with them. I'm not saying that Xerox isn't a good company. They indeed are. However, I think that when a company comes along that introduces a new industry like Xerox did with their first black and white copier; they don't realize that someone else may eventually come along wanting to tap into that same industry as well. Just because you are king of something, doesn't mean you'll stay king at it. The TQM approach that Kearns was determined to initiate, stating that they would take the time to "design it right the first time", should have been designed back in 1959 at the get go. However, once it was designed and implemented, it helped Xerox greatly, making them rise back to the top. Once they rose back to the top, they lost their focus on

quality, which was a big factor in the new crisis. Maybe this was done unconsciously, while being in the hype of rising back to the top. Regardless, when an organization is just starting out, it needs to take into consideration all things that could happen in the future, and create strategic TQ plans to implement and deal with them from the beginning, while continuously working to strengthen them. TQ should be planned and implemented first and foremost.

Thoughtful and diagnostic answer!!!