

Case 1: Cascade Seating.

Cascade Seating Inc. is a large manufacturer of automobile seat covers. Jan Davis, the controller just received a disturbing call from the plant manager, Dave Garcia. General Motors had just downgraded Cascade from preferred supplier to backup supplier. GM cited the inconsistent fit of the seat covers as the reason, and suggested to Dave that he read an article "How Velcro Got Hooked on Quality."⁹ GM had downgraded Velcro a few years back in a similar fashion, but Velcro had managed to turn its quality around and was again a successful preferred supplier to GM.

Jan and Dave immediately got a copy of the article GM had recommended and read it several times through. Both were alarmed at how familiar the story sounded to Cascade and the current situation. Two main points of the article really hit home. Velcro had a quality program in place and thought it was doing well. "We're in the same boat, Dave," Jan said. "We have a quality program which has been showing steady increases in quality for the past two years. But if it's working, then why are we being cited for poor quality products?" "I don't know, Jan, but I know there's another similarity between Velcro and us." Dave went on, "One of GM's big complaints with Velcro was that they were 'inspecting quality in' rather than 'manufacturing quality in.' We work it the same way. We have 15 people assigned to the Quality Control Department right now, and their main task is to be sure that the product going out the door has been inspected. You'll have to ask Ronald,

⁹ "Slugfest in the Service Biz," *Business Week*, February 28, 1994.

¹⁰ Harvard Business Review, September–October 1989.

the supervisor over there, but I don't see them out on the plant floor working with the production workers, I mostly see them over by finished goods or in their offices."

Jan called a meeting with Dave and the managers of Quality Control, Purchasing, Customer Service, and Inventory Control. As the discussion developed, it became clear that these managers had never met to discuss product quality. Jan listened to each of the managers as they made excuses and pointed fingers at the other departments. "Gentlemen," she finally interrupted, "I don't care about assigning any blame to anyone, and neither does GM. The point here is to figure out where our quality problems lie, and what we can do about them." After that, discussion centered on the problems with quality.

After several hours, the managers concluded that the four main areas of quality problems were in poor quality material, cutting of the material, sewing, or poor inspection. The purchasing manager explained that he spends four hours each month preparing a quality report on the suppliers and performs a yearly review of all suppliers, which takes about 40 hours to complete. Last year he found a new fabric supplier who helped to cut material costs. However, the new supplier's fabric quality was probably not as good as that of his predecessor. As he spoke Jan jotted a note to herself to check the purchasing manager's performance evaluations to see if possibly he was part of the problem as well. She seemed to remember that his evaluations were not very favorable, and that he had not been given a raise above his \$22,000 salary.

Dave was unhappy with the cutters and sewers in the plant. Last year the cost of scrapped material was \$147,900. Upon investigation he found that 63 percent of the cost for scrapped material was from four cutting related reasons while the other 37 percent was from sewing related reasons. He produced the following data from his files to support this contention:

Reason for scrapping of material	Percentage of Total
Cutter cut material incorrectly	28
Cutting machine calibrations off	16
Pattern was incorrect	10
Dull blades on the cutting machine	9
Sewers sewed material incorrectly	25
Sewing machine calibrations off	12

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Dave also told the group that when he discovered that the cutting and sewing machine calibrations were incorrect on one of the machines, he had all the cutting and sewing machines checked. This resulted in \$5,500 in downtime costs for the cutting machines and \$7,400 for the sewing machines. Another \$8,200 had been spent last year in rework by the sewers.

At this point the inventory control manager chimed in, "I kept records on the reason for returns last year, and you must do something about your people, Dave. Poor seaming by the sewers accounted for 31 percent of the \$56,000 in rejected seat covers by the customer. But the biggest reason for returns, 62 percent, were due to poor fit, most likely due to your cutters not following the patterns correctly. Another seven percent were due to defects in the material. And don't forget about the big shipment of material we returned in October. Around \$25,000, as I recall."

Jan was starting to become very dismayed. How could there be quality reports that showed steady increases and yet have all these problems? "Dave, what kind of training takes place for the cutters and sewers?" she finally asked. "Well, cutters go through 40 hours of training, and sewers have six hours. We have 10 cutters, making \$7.25 per hour right now, and 36 sewers at \$5.50 per hour. My training budget's been cut back so many times that I can't afford to give them any more," he replied. "That's okay, Dave," Jan said,

"we're just trying to figure out what our problems are right now, we'll worry about costs and how to solve them later."

Jan next turned to Ronald Fanucci, the manager of the Quality Control Department. He informed her that the quality control procedures had been written four years ago and, except for minor changes, had not been updated since. Further, the procedures had been written primarily by the Quality Control Department with little input from production supervisors. Jan was now quite disturbed. "So where are these 15 people in your department during the day, Ron?" she asked. "Well, three are in incoming inspection, and there's one supervisor over there, and one is in with the pattern making. But the bulk of my staff is in final inspection. I have eight inspectors and one supervisor there." Jan looked at the budget and noted that the inspectors received \$12,000 salary per year, the supervisors \$18,000 per year, and Ron made \$31,000 per year.

As the meeting closed, Jan knew some real progress had been made in determining where the quality problems were. She also knew that there would be a lot of hard work ahead in solving those problems.

Required:

1. Prepare a fishbone diagram, similar to Exhibit 14, identifying the root causes of Cascade Seating's quality problems.
2. Determine the quality costs by category (prevention, appraisal, etc.) and by the performance problems identified in requirement one, similar to Exhibit 12.
3. Why has Cascade run into a quality problem, despite a sizable number of people performing the quality control function?
4. Has the current accounting system helped or hindered the quality efforts?
5. Write a report outlining how Cascade Seating should shift its quality spending to improve product quality?