Making Quality Pay

Looking beyond TQM, re-engineering and other buzzwords to improve the bottom line

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Over the last decade, there has been a rather unusual shift in corporate America's embrace of the quality movement.

Back in the 1980s, American industry turned in force to total quality management (TQM). Most of this change was driven by what we would call "feel-good" business. Quality experts told us that we should like ourselves and our fellow employees. They counseled companies to become good homes for their employees and to not expect any financial results in the near future. After all, the experts said, "quality is a journey."

For most companies, the journey to TQM left them with hefty consulting fees and little change in their earnings reports. Disillusioned, many corporations turned in the early 1990s to the concept of re-engineering. This new approach told corporate executives to start over by obliterating, not improving, key processes.

And while Michael Hammer and James Champy's best-seller, "Reengineering the Corporation," offered an exciting and even revolutionary concept, it provided little in methodology and implementation guidance. Consequently, a majority of re-engineering efforts failed to improve sales, profits, customer satisfaction or competitive position.

While corporate America continues to search for the "silver bullet," a small number of resourceful companies have shunned these business fads and have focused their energies on actually making things work better. Process improvement may not be the most electrifying buzzword, but companies like Southwestern Bell Telephone, GTE, BellSouth and others have used it to make their quality efforts pay off at the bottom line.

Their successes can be easily duplicated by other telecommunications entities that are willing to learn these nine basic lessons.

Lesson 1:
Recognize that the conventional approach has not worked.

Most companies begin quality programs with fanfare. Large numbers of self-directed teams are formed to address a broad range of concerns.

Vast, companywide training programs are also launched, but employees quickly see that attending quality meeting after quality meeting produces no tangible change. Employee enthusiasm soon dies, taking with it any hope of meaningful improvement.

While most quality teams have been exposed to some good, simple tools such as Pareto charts and cause/effect diagrams, these tools are inadequate for making breakthroughs into the mysteries of telecommunications processes, which often encompass conflicting key measures that extend across many areas.

A better focus uses proven statistical tools to sort through the scores of variables in telecommunications processes, as well as in rapidly changing markets. It is an approach that is data-oriented, not people-oriented. It focuses on customers, not internal company needs. Most importantly, it must be driven at high speed to produce significant results quickly.

Lesson 2:
Restart your quality program by improving a small number of problem processes.

Successful quality improvement begins with senior management selecting two or three chronic problems that are "eating the company's lunch." The projects should focus on service performance that is important to customers. And they must be of significant magnitude to hold both management and employee attention, ideally something in the range of $1 million or more per year in improvement. Also, management should know how each percentage of improvement will affect the bottom line.

A small team of the company's best employees should be assigned and given the proper statistical training and resources to aggressively attack the problem. The objective is to demonstrate that quality improvement can produce dramatic results quickly.

The experience of a Southwestern Bell Telephone business-to-business sales unit in western Ok-

lahoma is a good example. Among the company's 12 sales divisions, the unit was last in monthly sales. To make matters worse, a 40% increase in sales was mandated without additional funding.

Using statistically based process improvement techniques, the unit set out to determine the "right recipe" for a successful sales call with four different small business switching products. Internally, the experiment became known as "The Aladdin Project," since the team virtually needed to pull a "genie out of a lamp."

Within one year, sales for the unit increased by more than 300% (without adding staff), which represented a revenue increase of $1.5 million. The changes have recently been implemented in the company's regions in Austin, Texas; Houston; Kansas City, Mo.; and St. Louis with equally dramatic results.

Within any company, initial successes of this magnitude can become legends and help spread process improvement throughout the rest of the organization.

"We've estimated that our process improvement work has resulted in well over $100 million in potential new revenue or in savings to our company," says Edward A. Mueller, president and chief executive officer of Southwestern Bell. "Without question, it's been a part of making Southwestern Bell Telephone one of the best performing Bell companies the last three years running."

Simply put, nothing breeds success like success.

Lesson 4: Challenge existing measurement systems.

QualPro has closely studied measurement processes at many companies.

In the telecommunications industry, for example, there are measurement systems that provide data on installation and repair performance, order entry errors and the accuracy of interexchange carrier data. Often, though, the measurement systems are producing incorrect data.

The key measures to be tracked usually involve providing service correctly and on time. In addition, customer satisfaction is almost always tracked. When there are measurement system problems, they usually involve operational definitions of the key measure, training of the personnel providing the data to the system and continuity between mechanized systems.

When IXCs, for example, measure the performance of local exchange companies on mean time to restore service, there are often discrepancies. If a telephone company receives a trouble ticket for a high-capacity line at 4:30 p.m. on Friday, its clock might run from 4:30 p.m. to 5 p.m., and then again from 8 a.m. on Monday until the problem is fixed at 10 a.m. Restoration time from the local carrier's perspective would be 2.5 hours. The IXC's time measurement, however, might include the weekend hours.

Repair technicians also might not enter problem codes in the same way. In a large urban district, there might be 40 crews with 10 people for each crew, which means that 400 people would have to be trained to properly enter "non-access time" for their repair tickets. How do they account for the time from 4:30 p.m. until 8 a.m.?

The key to all of these problems, which will enhance the chances of producing successful process improvement, is to do your measurement system homework.

Lesson 5: Attack the problem of overadjustment.

Consider this a lesson in "tweaking your way to failure." It is a familiar approach to problem-solving—the constant adjustment of dials and knobs to try and control a process.

In many companies, there is an unwritten procedure for each new crew coming on shift to set the process where they like to run it, regardless of how the process was running prior to their shift. Not coincidentally, the frequency of errors increases dramatically in the one- to two-hour period between shifts. Essentially, this approach ends up creating an out-of-control process.

There are many examples where proper strategy has led frequent process adjustment to drop dramatically, from several adjustments per day to adjustments of less than once a month. Add to this success the tremendous reduction on total product variation and the result can be dramatic, often exceeding bottom-line savings of hundreds of thousands of dollars per year from a single process.

Lesson 3: Adopt a single road map for change and get a capable guide.

To borrow from quality guru Dr. W. Edwards Deming, management needs to prepare a road map for change that clearly spells out the time and responsibility assignments for taking all service and production areas through the process improvement strategy. The plan should be executed and monitored, not merely revised every year with the universal goal of "in control and capable by the end of next year."

After choosing a team, make sure it has competent guidance. Just as it would be ridiculous to ask someone to read an aircraft pilot's handbook and fly a plane, it is equally absurd to ask employees to change their approach without giving them proper guidance.

Lesson 6: Listen to customers, but make sure you are on the right frequency.

A good case in point is a Bell regional holding company that was prepared to invest millions of dollars to improve its customer serving time at its residential customer service center because of a public utility commission order. A survey of the company's cus-

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tomers, however, found that customer serving time was not a problem to customers. As a result of this study, the company had hard data to take to the PUC to dispute its order.

Companies like this one are undermining themselves by not knowing what their customers truly need. Statistical customer satisfaction surveys that probe deeply and are compiled on a continuing basis can help change this scenario. The findings may not always be favorable to the company, but they do provide solid data upon which rational decisions can be made.

Lesson 7: Capital investment is usually not the solution.

Since telecommunications companies are naturally capital-intensive operations, they tend to be extremely susceptible to unnecessary capital expenditures to obtain quality.

At Southwestern Bell Telephone, for example, nearly 20% of the company's customers pay their monthly telephone bills through a variety of independent agencies such as banks and grocery stores. But mistakes were causing about 25,000 misapplied payments each month, along with thousands of outraged customers.

The solution of the local experts was to install optical scanners at each facility to read the return billing document and accurately book the payment. The cost of this proposed expenditure was more than $1 million.

A team of Southwestern Bell employees found a simpler solution that didn't cost a dime—adding a check digit to the customer's account number. This action reduced the number of billing errors immediately by 88% and cut customer inquiries in half, which helped the company's finance department save $700,000 annually.

Lesson 8: Experimental design will produce breakthroughs in process improvement.

Experimental design is quality's most powerful tool—yet it is understood only by a handful of U.S. companies. In describing experimental design, an analogy to political polling is helpful. In election contests, sampling of less than 2000 carefully selected individuals can fairly accurately predict the behavior of 100 million voters.

Moving to a manufacturing process that involves 15 key factors, for example, includes more than 32,000 possible operating combinations. It is not practical to check all these possibilities. Experimental design offers an economical way to search the thousands of possibilities and determine the optimum combinations by conducting as few as 16 experimental runs.

For GTE Corp., experimental design helped the company improve a variety of activities associated with its access services. GTE has reduced order entry errors by 83%, reduced unguided, errored and late network usage by a factor of 10 and reduced errors in billing adjustments by 96%. The obvious lesson here is if you do not know about experimental design and your competition does, you are in deep trouble.

Lesson 9: Expand the effort.

Once you've been successful in improving some initial chronic problem processes, it's time to expand the effort—not just to other departments or work areas, but companywide. To build a truly successful quality improvement program, you must train and involve personnel from every department and every location.

As quality improvement becomes a part of every employee's job, the effort will become more successful, producing results that positively affect customer satisfaction, the bottom line and your competitive position in the market. Eventually, you'll build a self-sufficient, never-ending process that puts sound quality improvement theory and techniques to work daily in practical, successful ways.

Within every major industry there are a handful of aggressive competitors that are getting better and faster because of their investments in process improvement.

For each of these companies, quality has paid off dramatically. The path to that quality required expertise, resources and sweat, but it did not take the years that conventional wisdom tells us is necessary for a quality program take hold.

Using a fast, results-oriented approach produces an improved competitive position and dollar return. Leave the business fads and buzzwords behind—and choose instead an improved bottom line. T

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Forget re-engineering!

Telecommunications companies that have improved their bottom lines did so not by re-engineering but by learning these nine simple lessons:

- Recognize that the conventional approach has not worked
- Restart your quality program by improving a small number of problem processes
- Adopt a single road map for change and get a capable guide
- Challenge existing measurement systems
- Attack the problem of overadjustment
- Listen to customers, but make sure you are on the right frequency
- Capital investment is usually not the solution
- Experimental design will produce breakthroughs in process improvement
- Expand the effort

For a complimentary copy of QualPro's "Pocket Advisor," a 108-page pocket guide to process improvement in the telecommunications industry, please contact QualPro's telecommunications department at 800/500-1722 or send your request on company letterhead to QualPro, P.O. Box 51984, Knoxville, Tenn., 37950-1984.

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