Creating quality-driven performance appraisal systems

Jai Ghorpade and Milton M. Chen

Executive Overview

The total quality literature, although inspirational in its appeal, currently consists of multiple schools of thought with varying priorities. The research on performance appraisal, although extensive in scope, has been preoccupied with measurement accuracy. What then is a manager in a quality-driven firm to do? These limitations represent a challenge—to create a performance appraisal system that is congruent with quality precepts.

As a prelude to investigating the total quality issues involved in performance appraisal, it is useful first to get a handle on the nature of the challenge this activity presents. Viewed generically, without reference to any particular organizational context, appraisal of human performance at work confronts the appraiser with four realities.

First, this activity is inevitable in all organizations—large and small, public and private, local and multinational. This is so for three reasons: (1) individuals are hired by organizations to perform work needed for the success of the organization; performance appraisal is thus the organization’s way of assessing whether it is getting its rightful due from the individual; (2) individuals differ concerning how well and how conscientiously they do their work; therefore, appraisal is necessary to account for the differences in contributions of individuals; and (3) in today’s legal climate, formal performance appraisal is essential to defend the organization’s negative actions against individuals, particularly those that adversely affect members of minority groups protected by law.¹

Second, performance appraisal is a serious activity whose conduct is fraught with consequences for both the individual and the organization. From the organization’s perspective, a faulty assessment can result in false positive (rewarding bad performance) as well as false negative (failing to reward good performance) errors. From the individual’s perspective, results of performance appraisal have implications for the future relationship with the employing organizations. Positive appraisals can result in the renewal of membership as well as promotions, pay raises and other rewards. Negative appraisals, on the other hand, can result in demotions, and even termination of membership.²

Third, performance appraisal is a complex activity that confronts even the most well-meaning appraiser with a maze of interrelations that frustrate assignment of clean, accurate, and merit-based ratings. Moreover, appraisal gets progressively more complicated with the introduction of additional variables and quality demands. Even modest increments in complexity add disproportionately to the challenge. Take the relatively simple case of the waiter serving food in a restaurant. Customer satisfaction is the result of a
large number of variables (e.g., menu, quality of ingredients used, skills of cooks, coordination among different personnel, physical atmosphere) brought into alignment by a chain of decisions and behaviors involving the entire restaurant staff as well as the suppliers who furnish the ingredients. To reward or to punish any one person for satisfaction of restaurant customers would be both inaccurate and unfair. As complexity increases, it becomes progressively more difficult to meet the criteria that good appraisal systems need to meet; i.e., observability, measurability, job relatedness, importance to job success, controllability, and practicality.  

The fourth reality is that performance appraisal tends to get entangled in the politics of organizations. This is partly due to the complexities of the process, and also to the nature of human organizations. While joining hands to produce a valued output, individuals also compete with each other for a share of the returns of organizational success. When sitting in judgment on co-workers, therefore, there is an ever-present danger of the parties being influenced by the political consequences of their actions in appraising performance—rewarding allies and punishing enemies or competitors.

Deming’s Critique
Examining the works of the pillars of the quality movement we find that all of them recognize that appraising performance is difficult. However, Deming is the only one within this group who has given specific and extensive attention to this issue. In fact, he has made reform of the performance appraisal system an integral part of his action plan. It is therefore useful to view this issue through his eyes.

Deming holds performance appraisal practices of American industry to be a root cause of its quality problems. Even though he has not enumerated his criticisms, four charges keep recurring in his discussion.

1. Current performance appraisal practices are unfair since they hold the worker responsible for errors that may be the result of faults within the system.

To appreciate this argument, it is essential to understand a distinction that Deming makes between common causes and special or local causes of variation in performance within systems. Common causes are faults that are built into the system due to prior decisions, defects in materials, flaws in the design of the system or some other managerial shortcoming. Special or local causes, on the other hand, are attributable to some special event, to a particular operator, to a sub-group within the system. It is Deming’s conviction that over ninety percent of the quality problems of American industry are the result of common causes. Assuming this to be the case, judging workers according to their output can result in gross injustice.

Although charges of unfairness have been levelled against performance appraisal practices since the very beginning, Deming breaks new ground in this area. Typically, complaints of unfairness found in the literature have focused on the inaccuracies and errors (e.g., halo, central tendency, leniency) resulting from methods of appraisal. Deming shifts the locus of blame by suggesting that the problem of poor worker performance lies largely with the organization.
2. Current performance appraisal practices promote worker behavior that compromises quality.

This charge can be leveled at just about all the performance appraisal practices found in business. However, in making this charge, Deming appears to be aiming at results-based appraisal systems that are tied to reward systems; i.e. MBO, pay for performance, and goal-setting. His main contention is that when rewards are linked to specific outputs, the attainment of those outputs becomes the central preoccupation of the workers. A short-term perspective results, and energies are directed toward meeting targets and quotas. While many researchers share Deming's concerns, some results-based programs, most notably goal setting, can actually enhance a worker's self-worth and trigger important motivational impulses. Positive results from such programs can be accomplished when goals are specific and difficult enough to be challenging but not impossible to attain, the worker is allowed to participate in an authentic way in setting the goals, and feedback on performance operates in concert with properly set goals.

3. Current performance appraisal practices create a band of discouraged workers who cease trying to excel.

This charge applies to performance appraisal methods that classify workers according to relative rankings, particularly subjective, forced distribution ratings by supervisors. This is comparable to grading on a curve in academic evaluation. Such practices often result in a considerable amount of careless use of measurement terms such as "average" and "satisfactory." Consider the following reports appearing in the public press documented by Deming:

- "Half of our presidents have been above average."  
- "An automotive company has three dealers in Dayton. One of them is below the average of the three."

Numerical relative rankings inevitably result in classifying many workers as average or below average.

The problem here is the tendency to equate "average" with "unsatisfactory." There is nothing wrong with this as long as the standards for satisfactory work are specified. Otherwise, good performance might be denigrated simply because it is low relative to others in the group. Conversely, bad performance might be judged acceptable simply because it falls in the middle. For example, a class of honor students when graded on a curve would appear "normal" since the grade distribution would be similar to those of all other classes that used the same scale. On the other hand, if the honor students were mixed with the general student body, it is possible that they would be at the top.

Numerical relative rankings inevitably result in classifying many workers as average or below average. When linked to absolute counts of outputs (e.g., sales, piece work), such rankings might result in accurate placements of individuals relative to their peers. On the other hand, when they are used as parts of subjective rating scales that are not linked to explicit performance standards, they can result in inaccurate and even unfair judgements against individuals. If such subjective ratings are assigned often and if they are also linked with promotion and pay, the individuals classified as average or below may cease trying to improve. Instead, they may find a "safe" rate of output and coast along without much involvement in their work or desire to improve. Out of insecurity, they may also resist attempts to improve quality.
4. Current performance appraisal practices rob the workers of their pride in workmanship.

This charge encompasses not only the methods used but also the orientation that is brought to the appraisal activity by management. The major route to this debasing of the worker is the focus on average output. In its preoccupation with rating, management tends to judge performance in relative terms. Rather than be given acceptable or desirable goals to attain, workers are forced to chase after the average which is usually unstable and fleeting. This causes frustration and deprives the workers of knowledge of how well they are really doing in terms of quality of output. The focus on average output, combined with quotas and frequent numerical counts, forces workers and their immediate managers to neglect quality in order to turn out output simply to meet the numerical goals.\(^{16}\)

There is considerable support for this argument. Pride in workmanship is a core value of the American workforce. There is also a persistent complaint that this energy is not being harnessed by the corporate sector.\(^{17}\)

İ: Performance Appraisal

The managerial literature is replete with ideas on how performance can be appraised at the workplace.\(^{18}\) However, before examining this rich collection, it is useful to make an observation that is now widely accepted as axiomatic: The system that is used to appraise performance needs to be congruent with the culture and principles that guide the conduct of the organization. Unless congruence is retained, anything that is developed is liable to be rejected.\(^{19}\) Therefore, what follows are several prescriptions for improving quality-driven performance appraisal systems which are congruent with the demands of a total quality environment.

İ1: Within a quality environment, the primary purpose of performance appraisal should be to help the employees improve their performance. Within all organizational contexts, an inevitable purpose of performance appraisal is to arrive at some judgement about the worth of the individual's contribution to the organization over a period of time. In an ongoing relationship, however, appraisal cannot stop at an assessment of past achievements or failures. In addition, it is widely recognized that a second purpose of appraisal is the development of the individual.\(^{20}\)

While both judgmental and developmental purposes are of interest to all companies, a company that seeks to pursue quality over an extended period of time would make the development of the individual a primary concern of the appraisal activity. In most cases, the judgmental aspect would serve as a basis for counseling, guiding, and aiding the individual in improving future performance. In those instances where appraisals result in termination or some other negative action, the quality-driven company, with its commitment to fairness, should be in a position to provide the individual with an accurate assessment of the behavior that led to the decision.

İ2: Modification of the existing performance appraisal system should be brought about with the active involvement of all those who are affected by the activity. Inclusion of all the customers, defined as all those affected by the working of the system, in decision making is a basic quality tenet. With regard to performance appraisal, the entities that are affected by appraisal activity are
employees and their peers, supervisors, and consumers. Given a commitment to performance appraisal that is directed at helping to improve performance, it makes sense to include a wide range of individuals in all stages of this activity. Employees are more likely to view the appraisal process as fair and to accept the results when they have had a voice in shaping the system. The various customers of the appraisal system can serve as sources of information about how the established system works and what needs to be done to improve it. They can provide insight on whether the appraisal system is measuring what it ought to be measuring. They can also be consulted about how the activity is being conducted, including the fairness of the methods used and the policies guiding the appraisal activity. In addition, they can be useful sources of information on whether the system currently has enough representation from the various constituencies, and how well the current appraisers are performing their job.

R3: The evaluation of the existing performance appraisal system should be approached like any other quality improvement effort.
Reforming the performance appraisal system should be viewed in the same way as any other quality improvement effort. Practically, this means that the system would be analyzed by using the same tools commonly used in quality management processes. The focus would be on finding the sources of conflict and identifying opportunities for improvement. Local causes behind any variations would be separated from common causes, which would then become the focus of the improvement effort.

Although developed originally for diagnosing quality problems in manufacturing settings, tools such as process flowcharts, cause and effect diagrams, and pareto diagrams have proven to be quite versatile. Process flowcharts can be used to understand the existing process of appraisal, and to locate process flaws and wasteful steps, particularly those that result in rework of the appraisal; e.g., grievances resulting from faulty appraisals. This analysis would give an indication of the total time actually spent in appraisal activity. In addition, cause and effect diagrams could capture, display, and classify untested assumptions about problems with the performance appraisal system. A result of such an analysis might be a grouping of the problems according to categories; e.g., person, method, or policies. Finally, pareto diagrams can be used to identify the vital few elements that account for the bulk of the effects. In performance appraisal activity, this method can be used to rank opinion surveys of the existing appraisal system.

R4: Within a quality-driven environment, the focus of appraisal should be on behavior, with output and input used for diagnostic and developmental purposes.
Three choices are available with regard to performance dimensions: output, process and input. Clearly, all three have a place in performance appraisal. However, it is our contention that behavior, the process dimension, would be most compatible with a quality orientation. As a performance criterion, behavior is observable, inherently job related and relatively more controllable by the worker. Behavior-based appraisal systems are also likely to be viewed as fair by parties affected. They would simplify identification and correction of individual performance problems that contribute to failure when two or more parties depend upon each other to complete the job.

Even though we are strongly attracted toward behavior as a performance dimension, we acknowledge that there may be circumstances in which other
dimensions of performance may be relevant. There may also be situations in which a combination of dimensions would make sense.

Output as a performance dimension can be highly attractive in simple job situations where workers produce single products that are tangible, important to job success, and, most important, traceable directly to individual workers. In such instances, not only does it make sense to use output as a performance criterion, but the workers may demand it. Unfortunately, such independent and disjointed situations are rare in the real world. Even salespersons working in department stores typically do not have the luxury of selling just one product, and are required to do housekeeping activities.\textsuperscript{24} Input such as the personal capabilities brought by the worker into the work situation cannot be strictly considered a performance criterion except when appraisal is used for promotion to a higher position. For performance appraisal generally, personal capabilities of workers have little value as performance criteria. Focus on this dimension gives rise typically to preoccupation with personality traits, a practice that can open the doors to the exercise of personal bias on the part of the raters.

\textbf{R5: For each dimension of performance considered, employees should be asked to provide examples of two types of behavior: task performance and quality improvement.}

In offering this prescription, we draw on the discussions that have taken place over the years about the survival needs of organizations. Although these can be expressed in various ways, there is common agreement that organizations need to invest resources simultaneously on two fronts: to attain goals, and to take actions to preserve the wholeness and viability of the system for the future.\textsuperscript{25} This dual need is experienced at all levels of the organization. At the level of the job, workers need to engage in two kinds of behavior to assure the success and long-term viability of the system: those relevant to completing their tasks or job assignments, and those that promote cooperation, teamwork, and system improvement. Traditional appraisal systems have generally focused on task attainment behavior. In a quality-driven environment, it is important for both types of behavior to be recognized and rewarded. The message to be conveyed to workers is that in an organization dedicated to quality and long-term success, mere task performance is not enough. They should be judged both by how proficiently they do their tasks and by the contributions that they make towards furthering teamwork and system improvement.

\textbf{R6: Workers should be judged by absolute rather than relative standards of performance.}

Relative standards that use the average as a basis of discrimination are not sufficient for assuring quality output. Focus on relative performance standards tends to pit workers against each other, impairing effective teamwork and cooperation. Absolute standards, on the other hand, direct workers toward the levels needed to assure quality output.\textsuperscript{26} Such standards provide definite goals for individuals without their having to worry about their competitive position with their peers.

\textbf{R7: Responsibility for appraisal should continue to rest with the manager.}

It is tempting to suggest that appraisal activity be opened up to all those affected by it. In fact, we have taken that position relative to efforts to modify the existing system. However, a blanket commitment to broad-based involvement should not be exaggerated towards allowing everybody to pass judgment on the performance of everybody else that they come in contact with at work.\textsuperscript{27} No matter how the appraisal system is structured, it is the superior
who is ultimately responsible for making this evaluation. Broadening the base of appraisals by including persons other than the manager does not automatically bring about better appraisals. It is widely agreed that inclusion of co-workers increases the types and amounts of information that become available about individual performance for decision making. Each level contributes a different perspective on performance, enriching the data pool and enhancing the possibility of arriving at a more complete and accurate assessment of the individual's contributions. However, there is a political connection. It appears that co-workers are not necessarily more impartial than supervisors. For example, peer ratings have been found to be more useful when they are anonymous and used for developmental purposes than when used for administrative decisions. In politically charged contexts, friendships can lead to inflation of peer ratings.

Self-ratings can tend toward leniency when the rater has a direct interest in receiving high ratings and if the ratings are not to be checked against an objective criterion. Subordinates who are dissatisfied with their supervisors tend to withhold positive ratings by assigning neutral ratings.

We recognize that quality-driven companies need to break away from the exclusive use of manager-controlled appraisal systems by including co-workers in the appraisal process. However, since total delegation goes against the force of tradition and is fraught with pitfalls, a good compromise is to train supervisors and others involved in appraisal activity to systematically secure information from coworkers. As the organization progresses towards its cooperative ideal, such information might be given increasing weight. Perhaps a stage might be reached when superiors could be expected to accept co-worker assessments, unless they are able to find a reason for rejecting them. Superiors can also be kept in line by installing an impartial and effective grievance system.

Prognosis
While total quality management has aroused much excitement, the road to quality improvement is by no means easy to follow. Along the way, managers are going to be faced with evaluating performance—a responsibility that has been extremely difficult in the past and now made even more demanding in a quality-driven context. This new demand will require more than tampering with the old system, it will necessitate a fundamental change. Symbolic changes, such as altering the appraisal scale format, aren't enough. What we have prescribed will require altering the very foundations of the appraisal system. As with most innovations, we are hopeful, yet realistic enough, to foresee the road ahead as bumpy but not impassable.

Endnotes
(Cambridge, MA: Center for Advanced Engineering Study, Massachusetts Institute of Technology, 1986).
7 Deming, ibid.
11 Murphy and Cleveland, op. cit.; P.P.
15 Ibid., 58.
17 Deming, Out of the Crisis, 77-86; see also, K. Yoshida, "Deming Management Philosophy: Does it Work in the U.S. as Well as in Japan?" Columbia Journal of World Business, Fall 1989, 10-17.
19 Landy and Farr, op. cit.; Mohrman, Resnick, and Lawler, op. cit.
20 Murphy and Cleveland, op. cit., 25-72.
22 Murphy and Cleveland, op. cit., 300.
24 Murphy and Cleveland, op. cit.
27 Deming, op. cit.; Yoshida, op. cit., 10-17.

About the Authors
Jai Ghorpade (Ph.D., University of California, Los Angeles) is professor of management in the College of Business Administration, San Diego State University, San Diego, California. He has published articles in the Academy of Management Journal, Journal of Business Ethics, Multivariate Behavioral Research, Pacific Sociological Review, and Personnel Psychology. He has also consulted widely with large and small organizations. An association that he had with Sony Corporation in San Diego, which lasted for eight years, was particularly influential in shaping several of the ideas expressed in this article.

Milton M. Chen (Ph.D., New York University), a student of the late W. Edwards Deming, is professor of information and decision systems in the College of Business Administration, San Diego State University. Besides publishing extensively in scholarly journals, he is heavily involved in promoting the TQM/JIT philosophy. He serves on the Malcolm Baldrige National Quality Award Examination Board, and is the founder and program director of the Institute of Quality and Productivity, San Diego State University.

Executive Commentary
Joseph Caggiano, Chevron Corporation

At least two factors make performance appraisal one of the more sensitive areas of organizational activity and change. First, people have a direct stake in
appraisals that affect their pay and prospects. Credible appraisal systems; i.e., those seen as fair, timely, and accurate, contribute to employee satisfaction and commitment. Appraisal systems without credibility generate cynicism and discontent. Second, organizations increasingly view performance appraisal as a key system that can hinder or promote initiatives such as reengineering or teamwork. As a result, appraisal systems are being scrutinized and changed to align with new organizational goals and processes. Deming was sensitive to both the worker’s stake in the appraisal system and the importance of changing these systems to achieve sustained quality improvement.

Deming’s observations about performance appraisal as summarized in this article recall key points in his overall diagnosis of U.S. industry. For example, inferior performance often comes from concentrating more on output than on the processes producing the output. Similarly, people are often held responsible for problems that should be addressed on a system-wide level. When relating Deming’s insights specifically to performance appraisal, it’s clear that the real issue is job design. Narrowly defined, routinized jobs focus people’s attention too narrowly. It then becomes difficult for individuals to relate their particular jobs to the whole system, let alone take responsibility for the system’s performance. At the same time, since it’s relatively easy to observe the output of a narrowly defined job, appraisal shifts to results just as Deming describes.

Many organizations are addressing such performance appraisal issues as part of rethinking business processes. Restructurings that include horizontal management, teamwork, and cross-functional processes are taking a systems view that produces more broadly defined jobs and encourages workers to see and improve their efforts as part of an interconnected system. Furthermore, performance appraisal is managed as a key system for encouraging new behavior and developing new leadership practices. For example, the business units in my company have used a quality improvement approach to redesign our appraisal system. The QI effort is itself participatory and usually leads to appraisal systems that encourage teamwork, customer focus, and quality consciousness. These appraisal dimensions supplement the more traditional technical skills required by jobs and are typical of the new behavior companies seek to encourage.

Appraising teamwork or customer focus is a shift in emphasis as well as a continuing challenge for appraisal systems. The shift I refer to is a movement away from the industrial model of work with routine, narrowly defined outputs to one centered on knowledge. Knowledge-based work often requires close cooperation within and between teams in order to stay on top of changes in customer requirements and technologies. Such work demands continuous learning and social interaction—another set of skills to be included in performance appraisal.

Designing performance appraisals systems that can stand up to these changes and demands is a real challenge. Standards of performance must be defined along with the skill and behavioral dimensions required by the work. What, for example, should be the basis for assessing problem-solving skills or leadership behavior in a product development team? Should the assessment be made just
for individuals? For the team? Or for both? Whether or not the appraisals are made by individual managers is also an open question.

Joseph Caggiano is Organization Systems Consultant for Chevron Pipe Line Company in San Ramon, California, and for Chevron Corporation's domestic and international operating companies. He is a member of AME's Executive Advisory Panel.