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# Quality, Strategy, and Competitiveness

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# Quality, Strategy, and Competitiveness

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***For decades, major business periodicals have chronicled the many faces of corporate competitiveness. Reflecting on current competitive realities, executives from a wide spectrum of American industries lament their increasingly contentious interactions with "Japan, Inc." However, Japan is only a part*** of the overall picture, as South Korea and other countries within the Pacific Rim have also emerged as formidable contestants. And before the ink on many corporate battle plans has had a chance to dry, the realm of competition has continued to enlarge. Many businesses must now also worry about the impact of the European Common Market on their bottom line.

In response to the changing character of competition, the definition and scope of corporate strategy is being revised. A common denominator in many of the discussions on competitiveness and strategy is the issue of quality. How important is quality to the long-run success of the organization? Some individuals suggest that quality needs to be the focal point for all operational activities.[1] However, before the role of quality can be discussed, it is necessary to examine how corporate strategy has developed.

In his classic book, *The Mind of the Strategist*, Ken Ohmae provides some cogent commentary on the evolution of business perspectives. In particular, he defines the competitive potential of a company in terms of its "strategic capacity." The significance of strategic capacity is that it determines the fundamental framework for developing corporate strategy. The strategic capacity of any company is a product of its business portfolio: market attractiveness and company strength.[2] Market attractiveness refers to how much or how little growth there is within given markets, while company strength refers to how a particular business is operated.

Ohmae identifies a shift in perspective on the relative importance of the two components of the business portfolio. The changing perceptions of what constitutes the "correct" make-up of a business portfolio has, in turn, changed what is "appropriate" corporate strategy. Before the 1970s, market attractiveness and company strength were perceived as being of relatively equal importance. Consequently, there was a balance in the use of both market attractiveness and company strength as basic elements of corporate strategy.

## Strategy in the 1970s

In the 1970s, however, many firms tended to see market growth as the means to apparently boundless corporate growth. Thus, corporate strategies tended to shift away from developing company strengths and began to emphasize market attractiveness as the major component of corporate strategy. This shifting strategic business perspective was matched by a shift in corporate structure as companies sought to capitalize on market growth by forming conglomerate organizations. Many corporations thus became groups of businesses or products that had little in common other than providing a means for continued financial growth. In general, value for the corporation came by way of external acquisitions rather than through internal business creation.

The 1970s witnessed the ascendancy of the strategic portfolio models concept of corporate strategy. One widely popular approach was provided by the Boston Consulting Group (BCG) with its Growth Share Matrix.[3] The popularity of the BCG model and other similar types of portfolio models of strategic management was a function of two major factors. First, the strategic portfolio models linked marketing, financing, and operating considerations together to provide an interactive wholeness lacking in earlier formulations of the strategic management process. Second, and from a more pragmatic perspective, the BCG model of strategic management defined market attractiveness as market growth and company strength as market share relative to dominant companies within the market.

Strategic actions within a corporation primarily consisted of shifting resources so that they maximized the contribution of either growth or cash to support growth in the overall corporate entity. In the BCG Growth Share Matrix, products and businesses were defined as stars (market leaders in growing markets), cash cows (market leaders in mature markets), question marks (participants but not leaders in growing markets), and dogs (the name speaks for itself) based upon how these products or businesses were contributing cash or growth to the overall organization. The strategic portfolio presented the framework and the conglomerate structure provided the vehicle for optimizing the operations of the corporation.

From the strategic portfolio perspective, the scope of competitive strategy is basically an external, endogenous event to be monitored, managed, and exploited. When utilizing a strategic portfolio approach within a conglomerate structure, the measurement of success comes from the only common element that makes any sense among the diverse, unrelated businesses or products—namely, financial data.

## Strategy in the 1980s

With the onset of the 1980s, the perspective shifted away from market attractiveness and toward company strength. Often described as the "back to the basics" movement, this change in strategic posture was, in large part, a function of some simple observations of the business environment. One observation was that the BCG style portfolio strategies were, in general, providing mixed results. Another, perhaps more important, observation was that "Profit is not enough. Profit, as a goal, is insufficient even to sustain profit."[4] To see evidence of this, one only has to look at companies such as Toyota and Wal-Mart, which started out in market niches perceived as relatively poor.These companies not only survived, but prospered—and in many respects, they have even come to dominate their respective industries.

As a result of his book *Competitive Strategy*, Michael Porter's ideas became the standard for a different style of thinking on competitive strategy in the 1980s. Even though he used terminology similar to the earlier portfolio models, Porter's basic views are quite different. For example, Porter defines market attractiveness as a function of five fundamental forces, which can vary from industry to industry. From this standpoint, the BCG view of strategic management represents only one component of one force defining market attractiveness. Under one set of conditions, the portfolio models could be exactly correct. Under a different set of conditions, the conclusions of portfolio models might portray appropriate actions that are at best partially accurate. Hence, the reasons for the inconsistency of results experienced using the strategic portfolio models become quite obvious even with a cursory examination.

Porter identifies and clarifies important aspects present in the strategic management process by stepping back from the primarily financial perspective of the earlier views of strategy. In doing so, he can examine the underlying factors that are responsible for creating the end result. In terms of company strength, Porter widens the scope of corporate action with three basic courses of action which he refers to as generic strategies.

*Overall Cost Leadership*—"a set of functional policies aimed at . . . aggressive construction of efficient-scale facilities, vigorous pursuit of cost reductions from experience, tight cost and overhead control, avoidance of marginal customer accounts."[5]

> *Differentiation*—"creating something that is perceived *industrywide* as being unique. Approaches to differentiating can take many forms: design or brand image, technology, features, customer service, dealer network, or other dimensions."[6]
>
> *Focus*—"the low cost and differentiation strategies are aimed at achieving their objectives industrywide, the entire focus strategy is built around serving a particular target very well, and each functional policy is developed with this in mind."[7]

The three generic strategies take competitive strategy from the realm of being external, primarily reactive, corporate actions to endeavors which are internal, primarily active, corporate actions.

To be successful, according to Porter, companies need to select and focus on one of the three preceding courses of action and then rigorously pursue its application. He notes, "Successfully executing each generic strategy involves different resources, strengths, organizational arrangements, and managerial style . . . Rarely is a firm suited for all three."[8] If a company does not pursue a generic strategy or executes the generic strategy ineffectively, eventually the more clearly defined competitors within an industry will end up dominating the industry and the less clearly defined companies will become mired down. The net result of the generic strategy is that companies become focused on their customers or their industry better than companies that are governed by strictly financial objectives or by poorly conceived strategies. Simply put, anyone can prosper in a growing market but only well-defined, clearly focused companies can do well in mature, more competitive markets.

## Strategy in the 1990s

In the 1990s, some companies have taken an even greater internal perspective by emphasizing what has been popularly referred to as quality. Much of the increasing interest in quality has been attributed to the pioneering efforts of individuals such as W. Edwards Deming and Joseph Juran.[9] As a result of the work of Deming, Juran, and others, the quality movement has not only been embraced by individual firms, but also by the United States Government with its conferring of the Malcolm Baldrige Quality Award upon manufacturing, service, and small business organizations that meet its exacting standards. How quality fits into corporate strategy is not especially clear and has caused some confusion because quality is a term that has been used in a variety of ways.

Quality has been used to describe techniques such as quality circles. It has also been used to characterize processes such as statistical process control. Among high-performance organizations, such as Motorola, it has come to mean much more—a philosophy underlying the decisions and actions that compose their corporate strategy. Hence, quality is seen as an operational activity, part of a system, and as something related to the

culture and values of an organization. It is, indeed, all of these things and that is what makes it difficult sometimes to see the link between quality and corporate strategy.

If we examine quality from Porter's framework, the most visible link between quality and strategy is what Porter describes as a "differentiation strategy." Differentiation is concerned with providing those factors that buyers consider to be important—and quality is, after all, related to producing a better product or service for the customer. Xerox, Lands' End, and Motorola are three companies that exemplify the quality perspective. Xerox promises to replace any product for any reason within three years of its purchase; Lands' End has products that are guaranteed, period; Motorola has the goal of Total Customer Satisfaction.

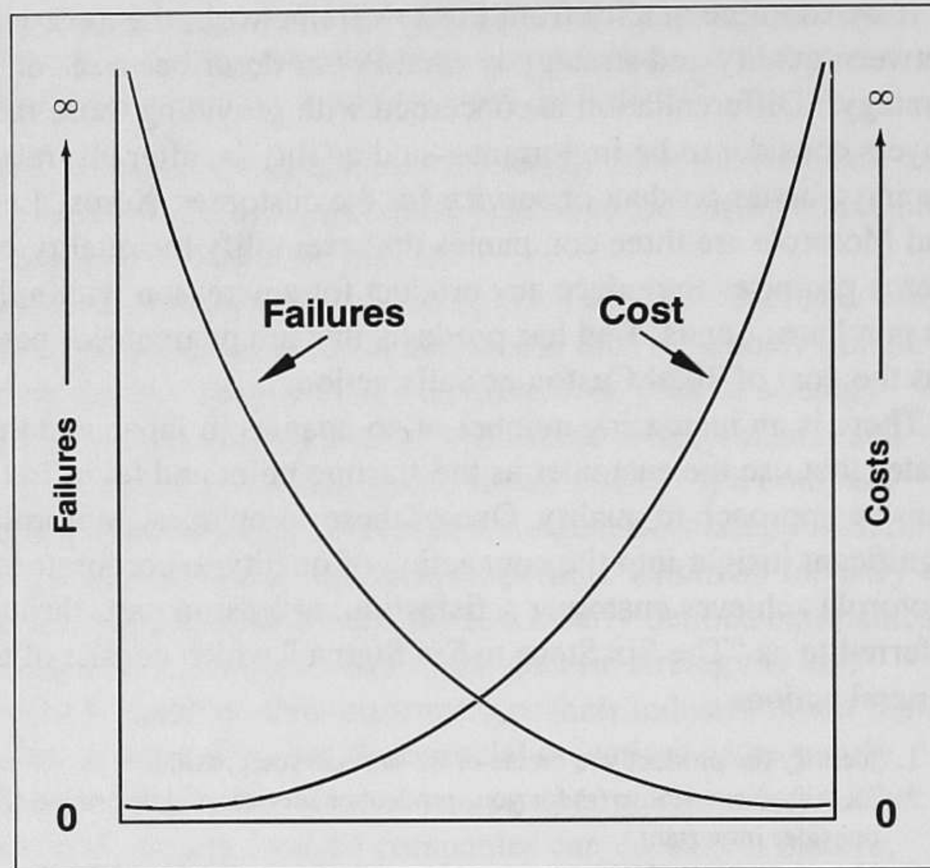
There is an increasing number of companies in Japan and the United States that use the customer as the starting point and focus in their comprehensive approach to quality. One of these companies, Motorola, provides significant insight into the connection of quality to corporate strategy. Motorola achieves customer satisfaction, at least in part, through a process referred to as "The Six Steps to Six Sigma," which consist of the following general actions:

1. Identify the product you create or the service you provide.
2. Identify the customer(s) for your product or service, and determine what they consider important.
3. Identify your needs (to provide product/service so that it satisfies the customer).
4. Define the process for doing the work.
5. Mistake-proof the process and eliminate wasted effort.
6. Ensure continuous improvement by measuring, analyzing, and controlling the improved process.[10]

At the core of Motorola's quality initiative, there is vigorous attention to customer needs and satisfaction followed by painstakingly producing a product or service that fulfills the customer's requests. A fundamental characteristic of Six Steps to Six Sigma is that it is a continuous process. That is, continuous improvement becomes the basis for total quality. As a result, quality becomes: a tangible concept that ensures the delivery of value as customers needs change; and a mechanism to mobilize and maintain the intensity of individual action.

Contrary to some popular misconceptions, however, increasing quality does not necessarily lead to increasing costs. Exhibit 1 depicts the common perception of the relationship between cost and quality. This wisdom can be described as: "The old school taught improving quality cost money! It was prudent to ship some defects, it saved money!"[11] This was the inevitable trade-off each company felt it had to make between high quality and low cost. Over the past decade, Motorola discovered that the preceding bit of common business wisdom was, in fact, not very wise at all. What Motorola

**Exhibit 1. Common Business Wisdom on the Quality-Cost Relationship**



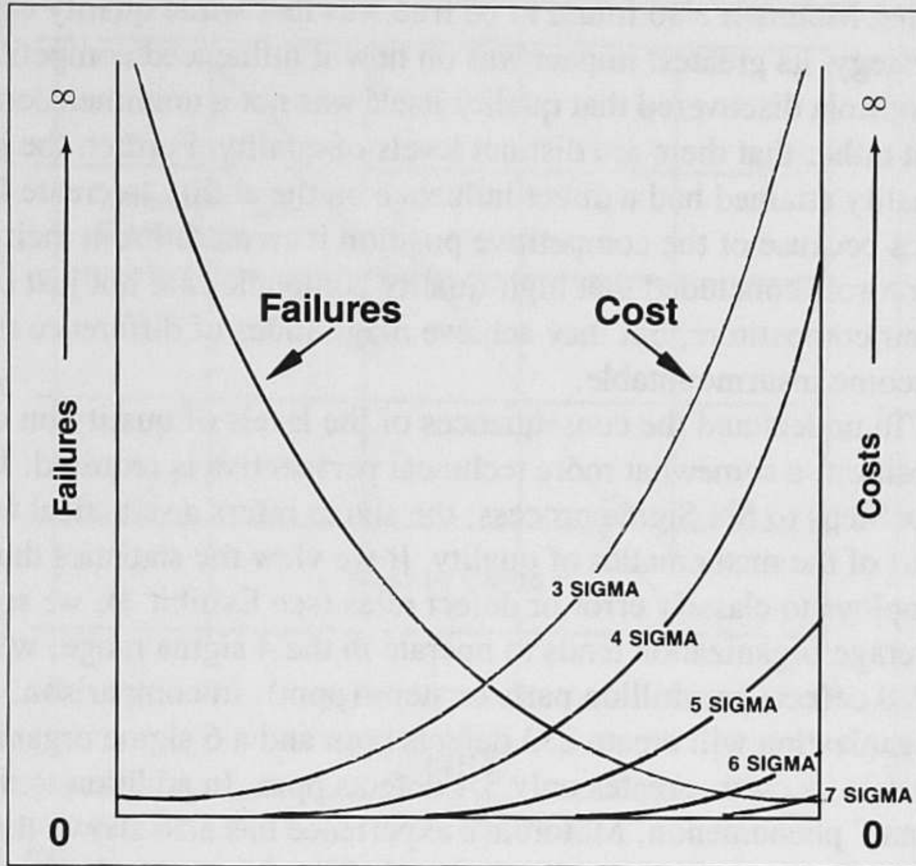

*Source:* Motorola, Inc.

found instead to be true was that "improving sigma capability in both product and process results in a product which is virtually latent defect-free, and it results in the lowest manufacturing cost."[12] Common business wisdom had not only been inaccurate, but it had led Motorola's businesses in exactly the opposite direction from where they should have been going.

The relationship of cost to quality is, in fact, a family of relationships (as illustrated in Exhibit 2), rather than the single relationship previously assumed. What Exhibit 2 shows is that the more quality increases the more costs go down. As one commentator observed, "That's because good quality reduces the so-called hidden plant: people, floor space, and equipment used for nothing but finding and fixing things that should have been done right the first time. This typically represents 25% to 35% of total production costs."[13]

While some costs are fairly visible, other costs, such as the lost customer, are usually more obscure or ill-defined within many organizations. As Robert Cole aptly points out, "traditional calculations dramatically underestimated the cost of poor quality. Typically, such calculations ignored the customers who were lost or who had never bought the product. Loss of

**Exhibit 2. Actual Quality-Cost Relationship**




*Source:* Motorola, Inc.

reputation among customers and the effects of negative word-of-mouth publicity were never considered, partly because they were difficult to quantify. There is every reason to believe that these effects are substantial."[14] Thus, even though the relationship between quality and competitiveness is readily apparent, it is not always obvious when it becomes obscured by the blinders of common business wisdom.

Consequently, the not-so-well-publicized fact is that well-organized quality initiatives are not just cost effective but are also the most cost-effective strategies for an organization. The following commentary recounts how the quality-cost connection was indelibly etched in the mind of George Fisher, current CEO of Motorola:

> [The quality-cost] lesson hit home for Fisher in 1982, when he directed a pivotal push to crack the Japanese telecom market, then rigorously protected. His team developed a pager that met the exacting demands of Nippon Telegraph & Telephone Corp. It was produced to quality standards at least five times better than Motorola's U.S. pager. But it turned out to be more profitable."[15]

Motorola's experience in Japan, as it turned out, was not a unique circumstance but an event that would be relived over and over again.

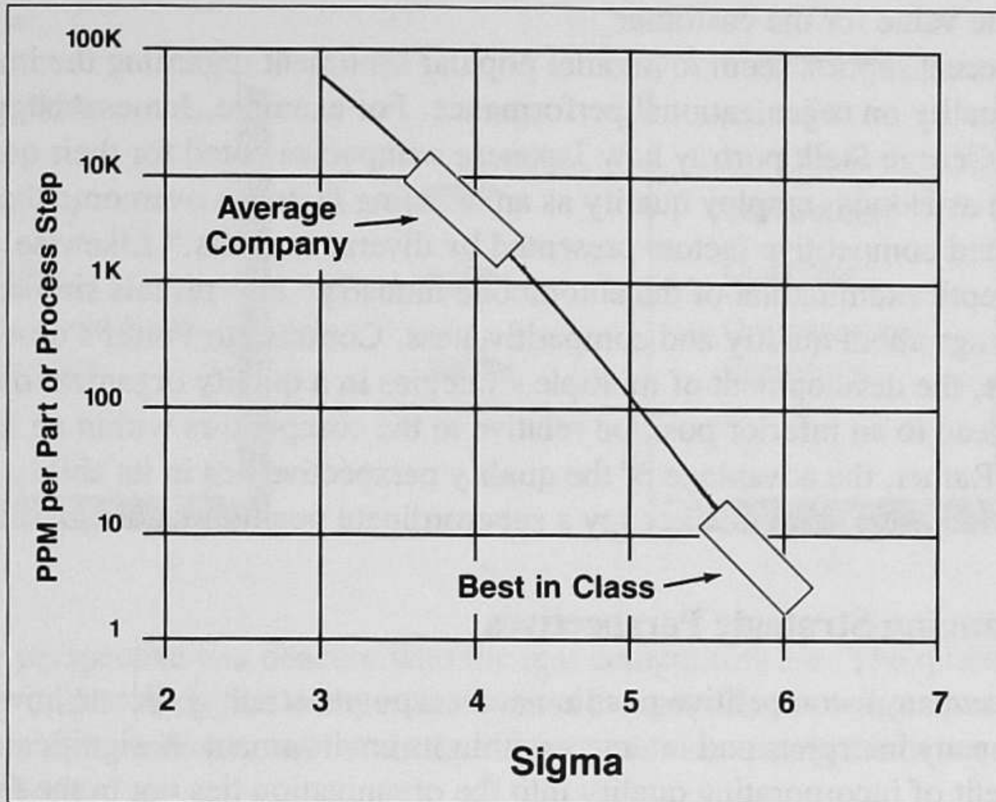
## Quality and Competitive Position

What Motorola also found to be true was that while quality can affect strategy, its greatest impact was on how it influenced competitive position. Motorola discovered that quality itself was not a unidimensional concept, but rather that there are distinct levels of quality. Further, the level of quality attained had a direct influence on the ability to create future strategies because of the competitive position it created. From their analysis, Motorola concluded that high-quality companies are not just better than their competitors, but they achieve magnitudes of difference that can become insurmountable.

To understand the consequences of the levels of quality on competitive position, a somewhat more technical perspective is required. In Motorola's Six Steps to Six Sigma process, the sigma refers a statistical term which is part of the mathematics of quality. If we view the statistics that Motorola employs to classify error or defect rates (see Exhibit 3), we see that an average organization tends to operate in the 4 sigma range, which creates 6210 defects per million parts or steps (ppm). In comparison, a 5 sigma organization will create 233 defects ppm and a 6 sigma organization, the best in its class, creates only 3.4 defects ppm. In addition to the "hidden plant" phenomenon, Motorola's experience has also shown that a "4 sigma manufacturer will spend in excess of 10% of the sales dollar on internal and external repair. A 6 sigma manufacturer will spend less than 1%. A 4 sigma supplier cannot directly compete with a 6 sigma supplier and survive."[16] From Motorola's perspective, producing higher quality was not an option, but rather a mandate. Furthermore, simply doing better would not be enough to remain competitive in the long-run. If the highest levels of quality were not achieved, their direction and fate would ultimately be determined by their quality-oriented competitors, who in this case were primarily the Japanese.

From a simple observation of Motorola's analysis, it becomes obvious that high quality not only puts a company on a much different competitive plane than its competitors, but it also makes a wider variety of strategic options available to the company. That is, attaining high levels of quality creates the potential to pursue not only a differentiation strategy, but also a low cost leadership strategy within a market. Thus, the competition may find that even rigorous adherence to a single generic strategy, as suggested by Porter, may not be enough to stay competitive with a quality company. While some companies in competitive industries tend to point to lower wages, unfavorable exchange rates, and other competitive factors, many have also found that the simple answer is no answer at all. The real magic formula of Japanese dominance lies in understanding the role quality plays in their corporate strategy.

**Exhibit 3. Levels of Quality**




*Source:* Motorola, Inc.

Porter has said that only in rare instances can a company successfully pursue more than one strategy, which appears to run counter to these assertions. Is Porter wrong? No, but his observations relate only a portion of the total story. The generic strategies, as Porter observed, represent the positions of focused organizations. When this focus is blurred, performance inevitably deteriorates. As Porter notes, "Becoming stuck in the middle also afflicts successful firms, who compromise their generic strategy for the sake of growth or prestige . . . The temptation to blur a generic strategy, and therefore become stuck in the middle, is particularly great for a focuser once it has dominated its target markets."[17] What Porter is saying is that his generic strategies require a continuing high degree of focus and discipline.

Motorola, and other quality companies, have told the rest of the story. That is, when quality companies pursue multiple strategies, they are not blurring their strategic perspective but rather are fully utilizing existing advantages they have created as a result of an even higher level of focus at the overall corporate level. The quality perspective does not consider the business portfolio—market attractiveness and company strength—as an either or situation. Rather the quality initiative has unified the two different

perspectives of the business portfolio into a single dimension, which can be termed the "value dimension" since it is concerned with the operations that create value for the customer.

Recent reports seem to parallel popular sentiment regarding the impact of quality on organizational performance. For example, James Abegglen and George Stalk portray how Japanese companies noted for their quality, such as Honda, employ quality as an enabling factor to overcome the multi-faceted competitive factors presented by diverse markets.[18] Likewise, an in-depth examination of the automobile industry[19] also reveals similar findings about quality and competitiveness. Contrary to Porter's observations, the development of multiple strategies in a quality organization does not lead to an inferior position relative to the competitors within an industry. Rather, the advantage of the quality perspective lies in its ability to provide the potential to occupy a superordinate position within an industry.

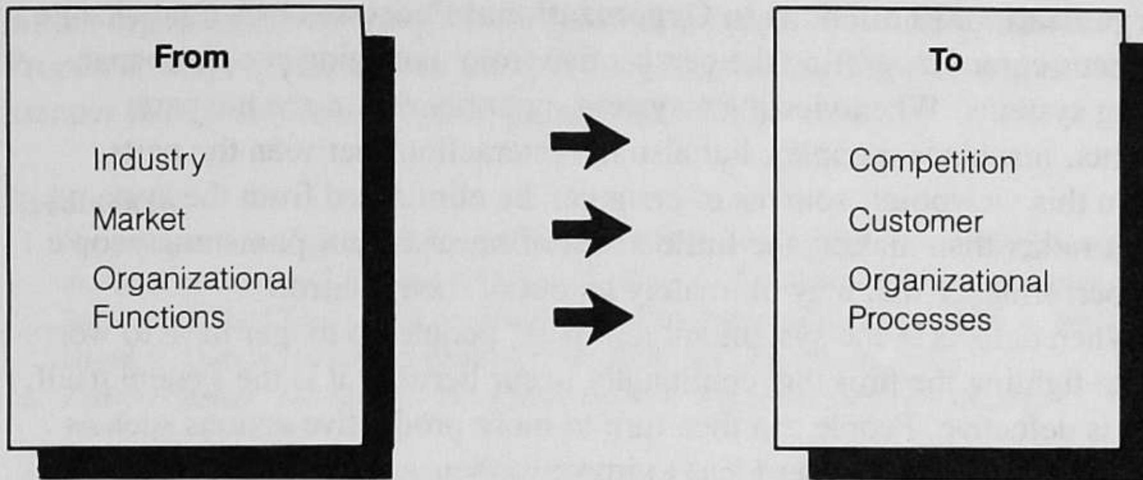
## Changing Strategic Perspectives

A company's competitive position and corporate strategy dictate how the company interprets and interacts within its environment. A significant benefit of incorporating quality into the organization lies not in the fact that it provides more or better strategic alternatives, but rather that it provides keener managerial perceptions of the environment itself. A quality focus shifts the managerial perspective from a macro to a micro viewpoint. The shift in perspective is important because from a macro standpoint a company essentially cannot control events, it can only predict what might happen. However, when the environment is viewed from a micro perspective, a company can exert significantly more control over its own destiny almost regardless of industry.

One of the ways quality has changed perceptions of the environment is that it has accelerated several trends that had already been in progress. Several of the more prominent trends are shown in Exhibit 4.

**Industry to Competition**—Rather than concentrating on the industry, the focus of a quality-oriented company is on examining its competitors. Recognizing the importance of the competition, the quality company not only wants to know *what* products and services their competitors are providing, but also *how* they are providing the products and services. Jack Shewmaker, former president, vice-chairman, and chief financial officer at Wal-Mart, provides an illustration of just how one can get more from less: "I visited many competitors' stores with Sam Walton. I particularly remember one visit because the competitor's store was a disaster. But Sam didn't acknowledge the store's shortcomings. All he saw was one small, but good, display in a far corner. He said to me, 'Jack, how come we're not doing that?'"[19] The change in focus from industry to competition is important because an

**Exhibit 4. Changing Views of the Environment**




industry perspective can obscure who the real competitors are. The quality company understands that competition comes in many forms, is not always within the same industry, and at times may not even be among the better organizations.

Reverse engineering, benchmarking, and reducing cycle time all help an organization to increase levels of performance, however, value and quality can only come from within the organization. Once a company is the best, it also understands the necessity of continually striving to surpass itself. The company itself becomes its own toughest competitor, but it does so with a wary eye on the environment.

**Market to Customer**—While growth can be a result of external events such as demographics or technology, there are also other fruitful avenues of growth. It is not that market characteristics are unimportant to quality companies, but there is the recognition that markets are made up of individual customers. It is the recognition that there are general needs, but each individual customer also has unique needs. Thus while quality companies pursue and sometimes even create markets, satisfying individual needs allows an organization to reach its fullest potential for creating value.

Changing from a market to a customer focus also brings about the awareness that a product or a service by itself is a simple, static view of the operating environment. Quality companies tend to view themselves as part of a larger value chain that starts with a customer and moves back through the company to the supplier. The supplier, at the beginning of the value chain, is important for several reasons. The supplier can: be the source of higher quality input; influence time, human, and financial resources used in creating products or services; and be a partner with the company in satisfying needs the customer perhaps does not yet realize exist. The quality

perspective moves an organization through the whole value chain to understand how and why the product or service is being utilized.

**Organizational Functions to Organizational Processes—**A final change in focus comes in shifting the perspective from managing people to managing systems. When viewing a system, not only do we see the parts (plants, machines, people), but also the interactions between the parts. From this viewpoint, sources of error can be eliminated from the system itself rather than making the futile effort of rewarding or punishing people for performance that may ultimately be out of their control.

When defects in the system are removed, people no longer have to worry about fighting the fires that continually occur because it is the system itself that is defective. People can then turn to more productive actions such as producing more and better ideas to improve their system. Bill Smith, Vice President of the Land Mobile Products Sector at Motorola, relates that "the fewer the defects there are, the easier it is to detect the defects that do occur."

## Final Comment

High levels of quality are not necessarily synonymous with being successful or even making good strategy. The quality perspective provides the basis for strategic advantages. The quality company elects how and when to utilize the advantage. Furthermore, if an industry is in decline or there is a poor economy, just being high quality may not be enough to maintain competitiveness or even profitability. In addition, good quality does not make up for a lack of understanding of the dynamics of one's industry. The forces that define an industry can, as Porter notes, change over time. As forces change, they define a new industry.[21] Unless these changes are understood, performance relative to competition can decrease.

Just as there are different levels of quality, there are also different levels of quality management. One can produce defect free products or services, but it is not the same as total quality management. Actions associated with total quality involve:

- distinguishing potential future development projects;
- paying strict attention to processes;
- prioritizing and focusing attention on problems; and
- focusing attention on the corporate system.[22]

Total quality involves the whole organization from the top to the bottom. It does not emphasize one function of an organization over another since the functions are simply different aspects of a unified process.

The relationship of quality to strategic management is straightforward. However, directly equating high quality with competitive success would be

misleading. What makes quality the touchstone of competitive strategy is that it creates choices and opportunities not available to an organization's competitors. Quality provides a different perspective and the *potential* to put an organization on a higher competitive plane than its competitors. From a strategic perspective, the company determines whether and in what manner the quality advantage it has created will be used.

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# Quality, Participation, and Competitiveness

Robert E. Cole    Paul Bacdayan    B. Joseph White

***Despite years of preaching from academics and repeated assertions of the benefits associated with participatory work practices, managers have been slow to embrace and incorporate these practices into everyday work routines in American corporations.[1] Why this is the case? Once we identify*** the obstacles, we can examine the role that a modern quality improvement focus plays in eliminating these obstacles.[2]

There are many different forms of employee participation.[3] By participation, we mean employee involvement in decision making that has three characteristics:

- It is *relatively formal*. It is part of official role behavior.
- It is *direct*. It involves individuals instead of, or in addition to, elected representatives.
- It is *relatively local and moderately open regarding decision-making access*. Workers have a strong input into most operational decisions directly affecting their work and will be delegated authority for some aspects of that work.

Though we will use the term "participation" (or "employee involvement"), work arrangements with such characteristics go by many names, such as "participative decision making" and "empowerment." Each has some distinctive nuance, but for our purposes they will be treated as the same.

The central puzzle is: "Why don't managers fully embrace participation?" Despite extensive exposure to ideas about participation and its

We are indebted to David Levine for his thoughtful comments. He is not responsible for our use of those comments.

alleged benefits, surveys of American firms show rather superficial participation: participatory techniques, while used in many companies, rarely affect large numbers of employees in any single company.[4] Comprehensive reviews of the effects of participatory practices often reveal modest short-run improvements with "a positive, often small effect on productivity, sometimes a zero or statistically insignificant effect, and almost never a negative effect."[5] These are modest claims indeed. Historical accounts suggest a long but on-again-off-again pattern of experimentation with participation. Thus, Tom Bailey's recent overview of employee participation in the United States concludes:

> There are many positive, even enthusiastic reports of the benefits of work reform and employee participation practices and to some extent these examples are supported by systematic research that also shows positive effects. Nevertheless, the diffusion of these practices has been slow and frustrating, and many efforts do not last.[6]

A variety of possible explanations may account for these outcomes. David Levine argues that the external environment of the firm is hostile to participation in the United States and it leads the market to discourage participation as well as related practices (e.g., encouraging employment security), "suggesting the need for public policies to overcome the current penalties suffered by initial adopters."[7] While these arguments may well be valid, they interact with internal inhibitors. Our own analysis of these internal factors attributes the low level of acceptance to the low level of managerial support—and that, in turn, to managers' perceptions of a weak connection between participation and improved productivity (or other desirable organization-level outcomes). Furthermore, an understanding of the internal factors leading managers not to support participation also can shed light on why workers don't give stronger support to participatory initiatives.

By examining the integration of participatory work practices with the modern quality paradigm, we highlight theoretically important and previously ignored relationships. These relationships promote desirable organization-level results, thereby heightening managerial support.

## Strengths and Weaknesses of the Participation Tradition

Table 1 provides an overview of the strengths and weaknesses of the participation tradition in terms of its contributions to individuals and groups on the one hand and to overall organizational objectives on the other. The extensive literature on participation treats its strengths (which are primarily at the individual and small group level) in great depth and can be summarized as follows:

- ***Motivational***—The participation theme highlights the important relationship between human motivation and organizational outcomes. Its premise is that participation yields its best results when it is based on a voluntary

**Table 1. Strengths and Weakensses of the Participative Tradition by Level of Analysis**

| Level of Analysis | Strengths | Weaknesses |
|---|---|---|
| Individual/ Small Group | • focus on motivation<br>• opportunity for goal agreement<br>• emphasis on interpersonal process<br>• human capital development<br>• integrating interdependent tasks | • lack of employee rewards<br>• motivational emphasis diverts attention from process improvement |
| Department/ Managers | • release for higher level activities | • absence of managerial rewards<br>• absence of role for lower managers |
| System/ Organization/ Society | • potential competitive advantage<br>• democratization | • flabbiness<br>• absence of strategic context for group activities |

act. The enactment of participation is said to lead to self-realization and human dignity.

- ***Opportunity for Goal Agreement***—Participation provides a way of aligning individual and organizational objectives.
- ***Emphasis on Inter-Personal Processes***—Participation provides a heavy emphasis on human process skills like communications, teamwork, and conflict resolution, skills that improve the quality of decision making and enhance employee "buy-in."
- ***Human Capital Development***—Participation stresses the importance of building individual and team competency through training. It thus encourages the development of human capital.
- ***Integrating Interdependent Tasks***—Participation through team activity provides a strategy for integrating work involving highly interdependent tasks.
- ***Release for Higher-Level Activities***—Participation releases managerial and technical personnel from firefighting activities by making lower-level employees responsible for maintaining and improving their work processes.
- ***Potential Competitive Advantage***—Participation has the potential to unleash a great force through allowing all employees to make substantial contributions to improving work performance.

- ***Democratization***—Notions of self-governance and self-determination underlie approaches to participation. Some individuals, particularly scholars and labor activists, see participation as a strong democratizing force that finally brings the benefits of political democracy to the workplace.

By contrast, the weaknesses of the participation tradition are primarily at the organization level. They are less commonly discussed, but they are critical because they diminish managerial and worker support for participation. The weaknesses can be summarized as follows:

- *Lack of Employee Rewards*—Employee rewards, including non-monetary enhancements such as employment security, are seldom specified. Without such assurances, individuals often will withhold commitment because they see participatory initiatives which lead to productivity gains threatening their economic security by lowering the demand for labor.
- *Myopic Emphasis on Motivation*—The overwhelming stress on the motivational benefits of participation tends to crowd out other necessary conditions for organizational success such as the improvement of operational processes. The simplistic idea that "if we could just get people motivated everything would turn out all right" is an implicit assumption of much American academic literature (perhaps a function of the domination of this literature by psychologists), not to speak of many American managers.
- *Absence of Managerial Rewards*—Managerial rewards (including power and status) for supporting participative work practices are seldom well-defined. Lower-level supervisors, and middle managers in particular, often see participatory initiatives as a threat to their traditional roles and prerogatives; they see little personal benefit in supporting them. Managerial promotion criteria typically have not been tied to success in introducing and leading participatory activities.
- *Absence of Role for Lower-Level Managers*—Looking at both the scholarly literature and practitioner experience, there is a lack of clarity about the operational requirements (integrating groups and participation into the existing managerial structure). As a consequence, participatory initiatives experience high resistance from supervisors and middle managers because their role is unclear.
- *"Flabbiness"*—Participation advocates are typically unclear about the nature of participative activities as they relate to actual work operations; the emphasis is on the process of participation per se, not the elements of a systematic work improvement methodology. It is often unclear just what one is supposed to be participating in. Consequently, firms tend not to sustain participatory efforts since managers do not see participation as tied to important organizational objectives. Participation comes to be seen as an end in itself.[8] Workers also perceive the irrelevance and

similarly withhold their support. Under these conditions, the agenda of issues in which people can participate tends to dry up.

- *Absence of Strategic Context for Group Activities*—This is the final and critical factor. The workteam is portrayed as "context-less," that is, not embedded in the work flow and not tied to a customer. Given the lack of linkage to the work process, managerial support for participation fades because participation is seen as a peripheral activity, not linked to strategic objectives. In this context, participation comes to be seen more as a philosophy, a parallel work process (conducted apart from the main business activities of the enterprise), and as an end in itself rather than as a means to the end of increasing organizational effectiveness.

This list of weaknesses focuses heavily on what we believe are the major organizational forces driving change or inhibiting it. As can be seen in Table 1, the potential advantages identified as strengths of the participative tradition are canceled out at the organization level by the participatory tradition's flabbiness and the absence of strategic context for group activities. While the weaknesses are the sort of reasons that managers might give for not starting or for abandoning participation, and therefore merit attention, they are unfortunately not the reasons that researchers in the participatory tradition typically have addressed.

The majority of these weaknesses focus on manager's support for participation. Our intent in emphasizing this support is not to deny the need for employee cooperation and support (or union support, where relevant) in implementing participatory work practices. Rather, our intent is to assert that in most cases it is management, and only management, which can initiate such activities and command resources to consistently support them. Moreover, it is managers who are in a position to provide the resources that can secure worker commitment through providing such things as job security, recognition, and wages. But without benefits to managers and the organization as a whole, managerial support for participation is unlikely to be forthcoming, and if it is forthcoming, it is unlikely to be sustained.

## A Brief Historical and Comparative Note

We can contrast Japan on the one hand with America and Europe on the other in terms of the historical relationship of participation to quality. Whereas the two traditions developed separately in America and Europe, they emerged after World War II as integrated practices in Japan. Known as total quality control (TQC), this approach stresses quality improvement through the efforts of all employees and all departments. This approach is distinctive and original in philosophy and scope.

The Japanese integration of quality and participation provides important organization-level benefits which, when coupled with individual- and

group-level benefits, foster managerial support for participation. By the same token, the historic separation of the two traditions in America and Europe has weakened managerial support for participation and has stunted the development of both the quality and the participation movements. While the reasons for these different historical trajectories lie beyond the scope of this article, it relates to the unique development of Taylorism in the United States, driven in part by a large relatively uneducated immigrant labor force in the early 20th century. While Taylorism spread to both Europe and Japan, in Japan the participatory theme received an early hearing.[9]

## Key Characteristics of the Modern Quality Paradigm

Table 2 lists the key characteristics of the modern quality approach as developed by the Japanese. Following is a brief overview of these characteristics:

- ***The "Market-In" Principle***—"Market-in" is a major focus in Japanese quality improvement activities. It means bringing customer needs into every possible part of the organization, thereby heightening uncertainty. These activities include informing production workers or front-line service employees of warranty claims relevant to their work, informing a broad range of employees how customers use products and services, and educating as many as employees as possible on customer-desired product and service features. The market-in approach contrasts sharply with the reliance on specialized organization experts to process information about the environment and solve specific problems.
- ***Quality as an Umbrella Theme***—Quality provides an overall theme for change in the organization, one that is more intrinsically appealing and less threatening than competing themes such as cost reduction or productivity improvement. It is hard to find anyone who is against quality, but cost reduction and productivity improvement often evoke fears of displacement. Quality by contrast is positive, unifying, and constructive.
- ***Quality's Relationship to Costs and Productivity***—Japanese manufacturers (by which we especially mean large- and medium-sized firms) saw improved quality as flowing from the elimination of waste and rework in every business process; this definition contrasts with the traditional American view of improved quality through adding more product attributes and/or additional inspectors, thereby leading to added cost.
- ***All-Employee, All-Department Involvement***—The Japanese extended the concept of quality improvement to include business processes beyond the shop floor (e.g., purchasing and design), thus broadening the scope of participation to include all employees and departments. In the typical manufacturing firm, employee involvement means that all employees, individually and in teams, are trained to engage in designing and redesigning their own work processes.

### Table 2. Characteristics of the Modern Quality Movement as It Evolved in Japan

- "Market-In" approach provides strong external customer orientation and uses internal customer chain as connection to final user
- Quality as an umbrella theme for organizing work
- Improved quality seen as strategy to strong competitive strategy
- All-employee, all-department involvement a pivotal strategy for improving quality of every business process
- Upstream prevention activities key to quality improvement
- Well-defined problem-solving methodology and training activities tied to continuous quality improvement
- Integration into control system of goals, plans and actions for continuous quality improvement
- Focus on cross-functional cooperation and information sharing

- ***Upstream Prevention***—The Japanese also recognized that upstream prevention activities, particularly in the design phase, were the primary place where large-scale quality breakthroughs could take place. While to some extent this devalued the contributions of lower-level employees, it also made it clear that traditional efforts to blame lower-level personnel for poor quality were misplaced.
- ***Problem-Solving Methodology***—Japanese firms developed a simple yet powerful problem-solving methodology that was usable by workers with high school and even junior high school educations. This methodology is based on application of Shewhart's Plan, Do, Check, Act cycle (PDCA) and is used to improve the employees' own work processes. The methodology is backed up with training in a variety of problem-solving tools, including the Pareto and cause-and-effect diagrams. The solution to many problems was no longer the domain of the industrial engineering department. Simplified statistical tools became widely used among workers in all departments.
- ***Integration with Control System***—The deployment of quality improvement efforts is carefully cascaded down through the organization, starting from a long-term plan, moving to the annual plan and then having each level (from managers down through worker quality circles) formulate quality improvement objectives that tie into these plans. Progress toward these plans is checked regularly through personal audits by top executives. By integrating quality into the control system in this way, middle managers and workers are made central to the execution of quality improvement and implicitly told that what they are doing is important. As Prof. Kano shows in the lead article in this issue, this

policy management approach contrasts sharply with the traditional operation of MBO in the United States.

- ***Cross-Functional Cooperation and Information Sharing***—Information about customer needs and expectations is critical to successful quality improvement because this information drives important processes such as goal setting, problem identification and problem solving. Japanese firms are less inclined to assign customer research to one highly specialized group and they tend to widely deploy the resultant information to as many organizational actors and departments as possible. Consider the example of Quality Function Deployment (QFD). QFD is a system for translating consumer requirements into appropriate company requirements at each stage from research and development through the intermediate stages to marketing/sales and distribution. From our point of view, however, QFD is important and successful because it involves a matrix of specified activities that brings members of different departments together regularly to solve problems. Through these discussions, customer needs and competitor information are widely shared throughout the organization. Key targets for quality, cost, and delivery (QCD) are typically set by cross-functional groups.

In sum, large Japanese firms—through wide sharing of customer information and the empowerment of decentralized work teams to act on that information—have implemented a system of broad-based, task-focused participation that yields quality gains.

## Individual and Group Level Benefits of Quality-Participation Integration

At the same time, the Japanese have realized important individual and group-level benefits from the integration of quality with participation which we can frame as improved *information processing* and improved *motivation*. These individual and group-level outcomes contribute indirectly to the organization-level outcomes of managerial support for participation.

First, from an information processing standpoint, comprehensive and grass-roots participation in problem solving allows firms to move the "distribution of intelligence" downward in the organization. Participation brings to bear increased information and capability in local problem solving without involving costly middle managers who often contribute to information distortion. As a consequence, participation can improve information processing and decision making, thereby increasing organizational effectiveness.[10]

Second, from an employee motivation standpoint, the market-in approach makes sense for two reasons. First, the process activities for meeting market requirements are based on the sound behavioral principle that those involved in work processes will more enthusiastically implement changes

that they themselves have designed. In addition, quality—the act of satisfying the customer and therefore the market—provides a powerful motivational theme around which to build employee involvement and commitment.

## Organization-Level Benefits of Quality-Participation Integration

The organization-level interpretation of the benefits of merging quality with participation is the cornerstone of our answer to our original question about why managers haven't supported participation. Managers at all levels (and, to a lesser extent, workers) have lacked motivation to support extensive employee participation, particularly in the redesign of the routines that guide work. As we suggested earlier, the lack of organization-level benefits partly explains the low managerial support.

Just how does the Japanese approach of merging quality improvement with participation decrease the fear of changing routines and increase managerial support for participatory work practices? The answer requires a closer look at the synergy between participation and the "market-in" principle.

The idea that organizations might try to bring the market into the organization, and thus heighten uncertainty for many employees, runs counter to most social science (especially business strategy) thinking about organizations. Such thinking stresses uncertainty reduction as the normal criterion for organizational decision making. Buffers, which include inventories and specialized units to pre-process information from the environment, shield the bulk of organizational members from the direct forces of the environment.

The buffering approach to dealing with uncertainty probably captured a good deal of how Western firms have operated in the post-World War II period (and how many still do). Beyond the United States, buffering has been a common theme in the Swedish and German approach to group activity. Here, the strategy has been to buffer individual tasks from upstream and downstream pressures (with commensurate and expensive increases of in-process inventory). The idea was to avoid shutdowns when blockages occurred and/or to obtain a humane pace of work that gave workers more control and autonomy over their work environment. While the short-term benefits to workers and managers are clear, the long-term benefits to management and organization-level objectives are less obvious. Recognition of these problems is increasingly leading to the redesign of major Northern European companies. The model in Sweden for example is no longer Volvo with its buffered semi-autonomous work groups but Asea Brown Boveri (ABB) with its Project T50, which stresses decentralization, customer satisfaction, a learning organization, and reduced cycle time.[11]

In contrast to the traditional Western managerial approach to uncertainty, the modern Japanese manufacturer seeks to heighten the pressure for change that the environment exerts on all parts of the organization. The just-in-time system represents the most visible symbol of bringing market

pressures into the firm, but the scope and depth of the market-in principle goes far beyond JIT. The "pull system" driving JIT initiates production as a reaction to present demand. But market-in provides far more comprehensive coverage of market characteristics, including anticipation of future demand and of multi-dimensional aspects of customer needs and expectations. Similarly, it widely distributes throughout the firm knowledge about other dynamic aspects of the firm's environment such as raw materials, suppliers, labor markets, regulatory environment, and so on.

The heightening of uncertainty associated with this approach is linked directly to a motivational strategy of involving all employees in the change process. The amount of business information on performance and environment that Japanese manufacturing firms distribute to employees, including those at the lowest levels, is staggeringly high compared to what occurs at most American firms. American managers often restrict sharing even elementary information on a unit's performance and environment.

Moreover, Japanese firms provide the necessary training to insure that employees understand the information being provided. Finally, Japanese managers empower employees to act on such information. By providing this framework in which employees are part of the improvement process, fear of changing existing routines is reduced. "Fearlessness" becomes an extraordinary asset as organizational environments become more uncertain in industry after industry. If the firm can better align itself with its environment and therefore better cope with rapidly changing circumstances, higher-level managers will be more inclined to support participation. One of the authors saw a dramatic visual representation of these themes at the Mazda Hiroshima transmission plant in 1988. A large banner hanging over the assembly line read: "Fear Established Concepts" (Kyōfu Kisei Gainen).

The Japanese focus on the customer and "market-in" ties work improvement efforts directly into internal and external customer satisfaction in a way that clearly benefits the company. But what about the workers? The reduced buffers certainly can contribute to more stressful work conditions. Janice Klein reports that when buffers were removed between and within work teams, American workers complained about their loss of team identity and individual freedom.[12]

The reduced buffers and the resultant tightened linkages, however, also have benefits for both workers and the firm. On the positive side, from the company's viewpoint, these practices make error more readily visible and subject to accountability. From the workers' side, customer satisfaction themes provide challenges to which they can relate, thereby reducing the seemingly arbitrary nature of managerial decision making. The emphasis on customer satisfaction tightens perceived connections among quality, job security and employee motivation. In short, employees can see a connection between their own job security and company goals like customer satisfaction

and increased market share. These connections also provide an avenue for union cooperation in quality improvement initiatives.

Let us look now at the impact of market-in on management. Market-in increases managers' willingness to support participation in at least three ways. First, it increases participation's perceived utility to managers. The quality improvement methodology involves cascading customer satisfaction and other improvement goals down through the organization, assuring managers and executives that participation is controlled and directed towards important organizational outcomes (thereby also reducing management's fear of changing routines). Because market-in imposes customer requirements on the organization, it underscores the strategic importance of participation for the firm's prosperity and survival. Market-in also speeds response times and helps pinpoint quality problems, thereby reducing throughput time for business processes and insuring prompt delivery for internal and external customers. Managers are only too happy to reap the benefits associated with these activities.

A second way market-in promotes managerial support is by decreasing internal factionalism and increasing cohesion by focusing organizational activity on customer demands and competitor threats.

Third, market-in can enhance managerial commitment to participation through the creation of a common language of customer needs as well as methods and techniques designed to satisfy those needs. Given a common language, all employees regardless of status and department are better able to communicate with one another, and it becomes more credible for everyone to believe that all employees have valuable contributions to make. In the most fundamental sense, it is a common language that creates and sustains the existence of effective social groups and organizations.

The belief that all employees have a valuable contribution to make is important because the market-in approach depends on management's decentralization of decision making and problem-solving activities. Without an ability to make rapid on-the-spot decisions by those involved in the work process, market-in would be an organizational nightmare. There is no time for moving decisions up to higher-level superiors.

Notwithstanding the synergy between market-in and participation, there is no doubt that the focus on using the market as a driver, if not managed in a balanced fashion, can lead to excessive pressure on workers in the name of satisfying customers. Indeed, just this theme has emerged in Japan in recent years, particularly in the auto industry where long working hours have been associated with an excessive emphasis on meeting customer needs. In a rare example of joint positions, both the normally acquiescent Japan Autoworkers Union and the Chairman of the Japan Automobile Dealers Association, Kenichiro Ueno, recently attributed the current economic problems of the Japanese domestic auto industry to the "excessive desire by manufacturers to maximize customer satisfaction." In particular,

an overabundance of model and option variation greatly complicated the work process and created stressful work conditions.

## Bringing It All Together

Let us return now to the weaknesses of the Western participation tradition (noted in Table 1), to show how a blending of participation with quality improvement addresses those weaknesses. The responses to the items below overcome the weaknesses at the system/organization level referred to in Table 1. In addition to providing employee rewards (described above), the blending secures managerial support providing an organizational context and focus for participation.

- *Addressing Flabbiness*—Recall that employees are typically unclear about the nature of participative activities as they relate to the work process, and they lack a systematic work improvement methodology. Linking participation to quality addresses all of these issues. The modern quality movement stresses continual quality improvement through better-designed work processes, and it has a well-defined problem-solving methodology. Participation is tied to the achievement of a publicly identified organizational objective: quality. This umbrella theme has intrinsic appeal to employees. At the same time, it has content and concreteness as opposed to the vagueness of the term "participation."
- *Addressing Absence of Strategic Context for Group Activities*—The second major problem with the participation tradition is that the work team is portrayed as context-less; the team is not embedded in the work flow and not linked to a customer. The linkage of participation with quality through a market-in approach insures a strong internal and external customer focus. It is possible to flowchart every work process and identify the process's immediate and/or ultimate customer. By giving the work team the responsibility for job design, the teams become an integral part of the work flow.

In sum, what the Japanese have shown us is that, taken separately, quality and participation are weak concepts with limited potential to transform the firm. But wedded, they are powerful in concept and consequences.

## Conclusion

It is our contention that powerful interactive properties exist between a modern approach to quality and participation. This interaction arises because using quality as an umbrella theme for broad-based participation provides a plausible route to improving organizational performance. The connection of participation with organizational performance through quality

can attract managerial support for participation, whereas participation alone attracts little support. To pursue participation without quality has proved ineffective, a recipe for failure in today's competitive markets. The most notable example in the U.S. were the failure of many quality circle programs in the early 1980s. These failures resulted from the lack of strong management support, which in turn derived from the flabbiness of the conventional participation concept and the absence of a linkage to the achievement of core business objectives. The linkage of participation with quality not only solves this problem, but the linking of the two can also operate as a significant motivating force for workers. Workers can benefit directly in terms of expanded responsibilities and skills and indirectly in union situations through negotiations to secure their fair share of organizational success.

Japanese and leading Western companies such as Motorola have demonstrated that participation, when framed as an avenue to the highly ranked corporate objectives of quality and waste reduction, becomes a credible organizational approach. This is not to say that we must precisely follow the Japanese formula nor that the particular Japanese way of combining quality with participation is without its problems. To the contrary, customer satisfaction, taken to an extreme, can be coercive and counterproductive. Indeed, in response to such problems some leaders in the Japanese quality movement recently have added to their traditional calls for customer satisfaction (CS), the new slogan CS + ES. That is to say, customer satisfaction must be combined with employee satisfaction. Such adjustments remind us that we should learn from the mistakes of the Japanese as well as their successes.

Finally, preliminary data analysis supports the view that the quality movement has become the major driving force for the participative movement in the United States. In their analysis of the 1987 national survey conducted by GAO, Lawler and associates found that quality accounted for the biggest reason that respondents (72%) gave for adopting employee involvement.[13] Moreover in analyzing this finding, Levine and Kruse discovered that those companies reporting that improving quality was their reason for initiating employee involvement had more success with employee involvement practices than those giving other reasons.[14] Quality was the most consistent correlate of organizational success as measured by increased productivity, worker satisfaction, customer service, competitiveness, employee quality of worklife, profitability and lower turnover and absenteeism. In short, initial data analysis supports our interpretation that linking employee participation initiatives to the quality initiative can yield strong positive results for the firm. We enhance managerial and worker acceptance by using quality to refocus participatory initiatives towards more organizational-level outcomes. In so doing, we increase the probability of bottom-line results for the firm. This, in turn, further increases managerial and worker acceptance thereby creating a "virtuous cycle."

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