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JAPANESE AND AMERICAN QUALITY CIRCLES: A COMPARISON AND ANALYSIS

by

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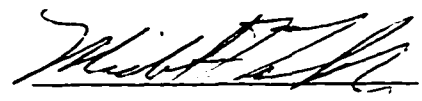

Abstract

This dissertation examines quality circles as they have developed in America and Japan between 1960-1990. Quality circles remain a unique managerial strategy, but as of this writing, the true multidimensional character of the technique has not been explored. So as to offer a more complex exploration of the topic, this study will delineate two environments. These include: (1) Japanese plants in Japan, and (2) American plants in the United States. Both cases are analyzed by examining three "dimensions": (1) the founding of quality circles, (2) the organization of quality circles, and (3) the success of quality circles in each environment. Lastly, each dimension is subjected to examination by virtue of three explanations: (1) structural explanation, (2) cultural explanation, and (3) Neo-Marxist explanation. Each perspective will sensitize the analysis of the quality circle issue by directing attention to certain potentially key explanatory factors. At the same time, comparing these two cases in terms of the three quality circle dimensions allows an assessment of the relative merits of each of these perspectives.

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Chapter I

Introduction

In recent years it has become fashionable to attribute the relative success of Japanese firms over their American counterparts to differences in management styles and techniques (Dailey & Kagerer, 1990). This attribution, which followed in the wake of Japan's remarkable post-World War II economic success, has led to the borrowing by American firms of certain Japanese management techniques. Most notable in this area has been American interest in small groups of workers in Japanese firms that work on quality and production problems in addition to their normal production responsibilities. These groups are commonly known as quality circles.

Current interest by Western nations regarding quality circles derives mainly from the increasing productivity of Japanese firms (Davis, 1977). Between 1970 and 1990, productivity in Japanese industries increased twice as fast as in France, the Federal Republic of Germany and the United

States (Scheuing, 1990). Belgium was the only other country to manage a growth rate in excess of 5 percent. This phenomenal growth in productivity has in recent years led to new perceptions regarding Japanese management.

Before World War II Japanese products were considered inferior to those of the West. The Japanese were often referred to as the "junk merchants of the world" (Beardsley & Dewar, 1977:96). Today the label "made in Japan" generally represents quality and excellence. Thus as Japanese firms gained market share over American producers, American managers began to look at Japanese for ideas on how to regain competitiveness. Many observers claim that part of Japan's increase in the rate of productivity is due to the practice of quality circles. Consequently, many American firms adopted this technique. Rook (1988) estimated that in the mid-1980s over 90 percent of the Fortune 500 companies had introduced quality circles. As a social technology, however, quality circles differ significantly in effectiveness in the United States and Japan. It is the reasons for these differences which warrants further investigation and research.

Research Purpose

This dissertation will examine quality circles as they have developed in America and Japan between 1960-1990. Quality circles as a management strategy remain a unique approach to group-problem solving but as of this writing the true multidimensional character of the technique has not been explored. As Ideal types the Japanese quality control circle and the American quality circle have no doubt received much attention in the literature, and while this attention has been significant, it has failed to consider the quality circle issue from a multifaceted perspective. By examining quality circles in Japan and the United States, this study will attempt to ascertain why quality circles remain a significant and widely publicized production strategy.

So as to offer a more complete exploration of the topic, this study will delineate two environments (or cases). These include: (1) Japanese manufacturing plants in Japan and (2) American manufacturing plants in the United States. Both of these cases will be analyzed by examining three "dimensions": (1) the founding of quality circles, (2) the organization of quality circles and (3) the success of quality circles in each environment.

Lastly, each "dimension" will be subjected to examination by virtue of three explanations or perspectives: (1) Structural explanation, (2) cultural explanation, (3)Neo-Marxist explanation. The structural explanation views quality circles as a human resource mechanism implemented to increase firm productivity and competitiveness. Cultural propositions delineate local characteristics of each nation and the manner in which these characteristics impact the quality circle experience. Lastly, Neo-Marxist assumptions address quality circles as a managerial strategy designed to control a resistant labor force. The experience with quality circles in Japan and the United States will be evaluated in light of these explanations. Each perspective will sensitize the analysis of the quality circle issue by directing attention to certain potentially key explanatory factors. At the same time, comparing these two cases in terms of the three quality circle dimensions should allow an assessment of the relative merits of each of these perspectives.

Quality Defined

Official definitions of quality terminology were standardized in 1978 by the American Standards Institute (ANSI). Quality is defined as "the totality of features and

characteristics of a product or service that bears on its ability to satisfy given needs" (Garvin, 1989). "The ability to satisfy given needs," reflects the value of the product or service to the customer, including economic value as well as safety, reliability and maintainability.

"Successful" quality circles are generally characterized by survival rates, or length of time in existence (Garvin, 1989; Siteler, 1991). Factors affecting circle survival include the circle's ability to: (1) increase cost savings or product quality, (2) increase employee commitment to product quality, (3) increased participation in decision-making. "Failure" of quality circles likewise, suggests that circles have been disbanded by an organization during its early stages (before five years) inferring that the above criteria have not been met (Coates, 1990; Garvin, 1988; Marks, 1991). As Deming (1990) notes, quality is important. Fine quality products lead to customer goodwill and satisfaction that manifest themselves in the form of repeat sales, loyal customers and clients, and testimonials to prospective customers or clients. Likewise, increased product quality is a consequence of a satisfied workforce which is motivated to take a greater interest in product quality and design.

Participation Defined

The extent or range of formalized participation arrangements in an organization can be conceived as lying on a scale. At the low end of the scale there are casual arrangements such as unplanned, sporadic discussion and consultation among managers, technicians and workers. Moving up the scale, the existence of task forces, committees and "quality circles" are evident. Progressing further, autonomous work groups, e.g. departments, largely responsible for their own segment of organizational activities who receive little guidance from management. Still higher are unions, collective bargaining, and labor-management committees. Near the extreme end of the continuum are worker councils and junior boards of directors. Participation thus occurs in all of these forms.

The area of freedom permitted the participants refers to the scope or extent of power, normally reserved exclusively for management, that is made available to rank-and-file workers (Passin, 1978). As the area of freedom expands, the participants acquire influence over important aspects of the production process. A fully expanded area of freedom involves worker participation in significant decisions about major

resources. These decisions, similarly, often reflect large monetary considerations (Passin, 1978). Quality circle effectiveness is influenced significantly by the degree of participation available to circle members. A point of inquiry then, is how and why the participative latitude differs so drastically between Japanese and American organizations. Exploration of such issues must take into account larger explanations and philosophies.

Quality Circles: Description and Assumptions

Quality circles are small groups of production-level employees, usually ranging in size from three to fifteen members, that meet periodically to identify and resolve job related problems. Membership in American quality circles is usually voluntary and the amount of time members spend in quality circle activities may range from an hour per month to a few hours each week. Most Japanese quality circles are institutionalized processes and, as a result, are not truly voluntary (Cole, 1988). Japanese quality circles typically meet twice monthly, on company time, for about one hour per session (Coates, 1990). It should be noted also, that quality circles exist at all levels of the typical Japanese firm. They are most significant, however, on the production floor.

While quality circles were originally designed as a shop floor process focusing on quality control, in the West they have recently become directed at a wider variety of organizational problems, predominantly improvement of employee morale (Cole, 1988). Additionally, American quality circle interventions have also been included in organization-wide quality of working life (QWL) interventions— which often include the use of facilitators and human relations departments which oversee circle activities (Detoro, 1991).

The proper function of quality circle activities is workshop maintenance and improvement through group work. The circles should deal with actual problems at their own worksite, for which they have the proper competence. Quality circles are expected to (a) serve as a training ground so that circle members can learn to take responsibility for the quality of their own work and perform self-inspection, thus maintaining the standards of work; (b) pick up themes for improvement from the daily routine, investigate them, and then propose improvement suggestions that may help in establishing new standards or amending existing standards. In addition to the direct benefits of the improvements, this process makes quality circle members understand the meaning of the standards

and then carefully observe them in their regular job.

In order to achieve these goals effectively, several principles, methods, and tools have been developed. In Japan the most important of these are Deming's statistical quality control techniques and the Quality Circle Story for problem solving and presentation of results. There is a vast literature on these subjects, and new ideas are constantly developed. Most companies prepare their own quality circle manuals and educational material as the activity grows larger. Even so, it is evident after examining many such manuals, that the basic operational formula remains the same, while the concepts and tools are applied to a wide range of new fields outside the traditional area of manufacturing, such as services and information handling.

Delineation of Cases:

The Japanese Case

In reviewing the development of the quality circle idea from the post-World War II period in Japan, it is important to note that American quality control experts were first working with the Occupation authorities in an effort to rebuild the Japanese economy. Immediately after this, William Deming, an electrical engineer at Western Electric lectured on quality

control methods, and to honor his contribution the Deming Prize was established in 1950 as part of an annual nationwide competition in the area of quality control. In 1954 Joseph Juran, also an engineer at Western Electric, began another series of lectures that emphasized the participation of middle and top management in the implementation of quality control systems. The Japanese studied these lectures and put them into practice on a large scale from 1955 to 1960.

Finally, the Japanese were responsive to American managerial theories on job enlargement, job enrichment, and democratic leadership. Their shinto values and desire to motivate employees made them attentive to Douglas McGregor's Theory X and Theory Y, Frederick Herzberg's Job Redesign Theory, Chris Argyris' System 4, Peter Drucker's Management by Objectives (MBO) and many others (Kobayashi & Burke, 1976).

The innovation to include blue-collar participation implied a fundamental difference between the Japanese managers' belief in the perfectibility of man and the opposing ideas of American managers. For example, unlike Japan, where workers are granted the opportunity to redesign their work, in the United States many managers do not permit employees to inspect their work. Cole (1988:142) stated that many U.S.

managers believe that "workers lack the competence to engage in tasks which demand creativity and self control in production matters." Cole relates this attitude to the Taylor School of Scientific Management, which he stated was partially responsible for the separation of the functions of planning, which are performed by engineers, and execution, which is performed by production workers.

The idea behind the quality circle is that, armed with the proper training, the worker can discover previously unrecognized quality problems. However, the Japanese system does not rely on worker initiative in the absence of strong management control of the group program. Also, according to Cole (1988) quality circles have succeeded in Japan partially because most high school students have been introduced to mathematical and statistical skills needed in quality circle analysis.

The Japanese Union of Science and Engineering (JUSE), a nonprofit research and training institute was organized in 1958 to involve foremen in the quality circle idea and to bring foremen together from different companies. JUSE was composed of engineers and science professors and industrial engineers. Its magazine, "Genba to Q.C.," disseminated

information to company foremen with case studies of circles already in operation (Drucker, 1971). The involvement of foremen as representatives of the workers was considered crucial to the success of quality circles. Foremen generally received 30 to 40 hours of training (Garvin, 1989).

Although the exact number of quality circles in Japan is unknown, 87,540 circles were registered with JUSE in 1988, up from 1,000 registered in 1975 (Lillrank, 1989). Most of these were hourly employees in manufacturing. Garvin (1989) estimated that nearly one-fourth of all Japanese hourly employees belong to quality circles. He also stated that there are not many white-collar participants.

The American Case

The Japanese idea of quality circles was imported to the United States in the early 1970s. Quality circles were first attempted in America in 1974 by Lockheed's space and missile unit in Sunnyvale, California (Marks, 1991). Estimates of the number of companies that have implemented quality circles since then puts the numbers in the thousands. The initial diffusion of quality circles in the U.S. was primarily among large corporations, especially in quality conscious industries such as the aerospace and defense industries, and in

industries plagued with productivity problems such as the automotive industry (Marks, 1991). In recent years, the number and diversity of companies adopting quality circles has increased so that they are now operating in service and non-service industries, the public and private sectors, and large and small companies. Although many major corporations advertise that they have quality circle programs, quality circles have usually been introduced only in selected areas and are not diffused throughout the whole organization (Huszco, 1990).

One reason for the widespread adoption of quality circles in American companies is the vigor and competence with which a small number of consulting groups have marketed their ideas and programs in this area. After the successful introduction of quality circles at Lockheed in 1974, three of the Lockheed managers involved left the company and became active as consultants in introducing quality circles to many American firms. As consultants, these three managers developed a wide array of educational and training materials that define the standard contents and processes for most American quality circle programs (Hirsch, 1988). In 1978, the former Lockheed mangers founded the International Association of Quality

Circles (IAQC) to provide an institutionalized forum for discussing and promoting the quality circle idea. Membership in the IAQC is reportedly around 3,000 and includes consultants as well as managers (Hirsch, 1988).

However the Reiker consulting group – headed by one of the former Lockheed managers – made some major modifications in the Japanese style of quality circles in order to adapt it to America. These modifications include, meeting on company time instead of after hours, creating the role of the facilitator to implement and maintain the quality circle, and implementing a quality circle infra-structure within the organization itself (Lazes & Falkenberg, 1991).

In addition to these formal modifications of the Japanese quality circle, the American version has resulted in a relatively greater emphasis on a Quality of Worklife (QWL) orientation which stresses group dynamics, human relations, and interpersonal communications. To the extent that American quality circles are solely directed at bettering human relations and thereby neglecting problem solving methods, disillusionment can occur (Landon & Moulton, 1989). In Japan, statistical quality control and related methods for identifying and solving work-related problems are the

foundation upon which quality circles are built. Any training in group dynamics or human relations are secondary and are provided only as support for the basic problem-solving function of the group. American workers are generally more individualistic and less team-oriented than their Japanese counterparts and may therefore require greater amounts of training in interpersonal relations and group dynamics in order to make quality circles work. The potential problem is that this American twist may result in an overemphasis on the human relations aspects, resulting in de-emphasis of the quality control function of quality circles.

Contemporary Evaluations of Quality Circle Activities

The Japanese Case

The idea that quality circles are the right program for improving productivity in American companies is partly based on self-reported success data which imply that Japanese manufacturers owe their effectiveness to this technique. At the end of August 1990, the numbers of registered circles and participants in Japan reached 313,924 and 2,454,635 respectively (Blair & Whitehead, 1992). Starting on the production lines of manufacturing industries, the quality circle has been spreading to offices, and to nonmanufacturing

industries such as finance, insurance, and trade; but as the circle moves away from the production line, its target tends to become less concrete and its operation less active (Cole 1988).

During a field survey in the Japanese automobile industry conducted by Sands (1991) toward the end of 1989, all five major assemblers and component manufacturers stressed that workshop-level improvements originating from quality circles and suggestion schemes had cumulatively a greater effect on labor productivity than microelectronics-based factory automation technology. Thus, the impact of quality circles appears significant in Japan, and the above perceptions by automobile manufacturers is not surprising if one bears in mind the vast scale of workers participating at these companies. In 1986 for example, Toyota had some 6,800 quality circles and a savings in defect rates of $4 million (Spearman, 1987).

The most dramatic, and most frequently cited, estimate of the gains from Japanese quality circle activities was the Nippon Steel Corporation (Spearman, 1987). Developing approximately 3,680 quality circles in 1986, the company claimed a net savings of 4 billion per year. This was

equivalent to its annual profit. In a survey conducted by the JUSE in 1988, the average gains from the quality circle program at 256 responding establishments were nearly 100 times the average cost (Scheuing, 1990). However it is not at all clear to what extent the reported expenses and gains were strictly attributable to quality circle activities.

Perhaps a critical component which deserves mention in assessing current evaluations of quality circles is that in America quality control focuses on inspection of the product, while the emphasis in the Japanese system is to avoid producing defective products (Miskin, 1991). Thus quality circles in the West are far more specialized and centralized. Consequently, circle control commonly originates in engineering divisions and human relations departments and other staff specialists. In Japan the role of technical specialist remains with the production workers themselves with occasional technical advice from engineers when needed. The implication here is that much savings occurs in Japanese organizations because fewer staff level specialists are needed to inspect production, since that responsibility remains with the worker himself (Marks, 1991). Joseph Juran (1990:37) notes

> The Japanese quality circle movement is astounding. No less significant is the fact that this has been done without preempting the time of managers and engineers, who remain free to devote themselves to inter-departmental and upper level projects. The idea that these Japanese companies have found a way of going through all operations with a fine tooth comb, and without adding to the burdens of managers and engineers is something to ponder.

To suggest that Japanese quality circles are more successful than American versions would be a difficult claim to substantiate. As noted, the above literature consists mainly of self-reported data. Thus, examples of failures will be rare. In Japan, the perceptions of quality circles are favorable and while some evidence could be generated to refute these positive evaluations, a systematic analysis appears highly unlikely at this time.

The American Case

When one examines the adoption of quality circles in the United States over the period 1960-1990, it is difficult to be certain that many of the ideas which define the concept in Japan have been institutionalized in American firms. While successes have been reported, several examples of perceived failures also exist. Some observers have speculated that Western economic and social environments seem unable to sustain group decision-making strategies (Coates, 1990; Cole,

1988). In the 1970s the Swedish technique of self-managed teams had only limited success in the West. In companies like General Electric, where a number of plants adopted some version of self-managed teams, all the teams died out by the 1980s (Pauley, 1990).

Quality circle proponents argue that their technique is viable and represents a permanent change in managerial assumptions and practices in the United States (Blair and Whitehead, 1992). Many American management scholars and practitioners, including executives who refuse to use quality circles in their organizations, view these claims with caution. Siteler (1991) reports that like many American employers, Japanese managers in the United States refuse to utilize quality circles because circles themselves are inconducive to the capabilities of American workers. The contention being that the technique is a poor fit with American management styles (Chan, 1979). Tai K. Oh, a management professor at California State University, says that quality circle programs have failed in more than 60% of the American organizations in which they have been established (Marks, 1991).

At the core of these perceived failures are the very reasons that quality circle programs are so popular in this country: their availability as easy-to-implement packages and the perception by many managers that the technique is a simple way to solve a firm's personnel problems. Oh likens the effects of quality circles to those of aspirin or Valium; they treat symptoms and provide some relief but do not touch the underlying issues of management-employee tensions, lack of respect and under-utilization of workers that cause the problems in the first place (Marks, 1991).

The list of automobile companies that have begun quality circle programs has grown significantly since 1978 (Pauley 1990). By 1989 firms which have utilized quality circles at one time or another include: General Motors, Chrysler, Ford, American Motors, and Volkswagen. Most evidence regarding the impact of quality circles on productivity and morale in America is in the form of self-reported success stories and noted cases. Examples of the latter include Lockheed, where savings of $3 million were documented, and the Norfolk Naval shipyard, where savings of $3.41 million every $1 million invested in a quality circle program were reported over a two year period (Marks, 1991).

More frequently however, the opposite has been the case. Two surveys of General Motors plants with quality circle programs, one with a sample of 41 and the other with a sample of 29, each found that in about 70% of the companies surveyed the quality circle had an embarrassingly low savings to cost ratio of less than one (McAdams, 1988).

Rook (1988) suggests that measuring the success of quality circles in American organizations requires certain considerations. Two major problems that must be confronted when evaluating quality circles are the variations in effects over time for the same criterion and the variations in timing of effects for different criteria. Thus the novelty of the new quality circle program may lead to an initial spurt in morale and performance, which may then gradually return to pre-intervention levels as the program becomes institutionalized. Similarly, once the quality circle has been in place for an extended time, there may be a spurt in cost savings, as the groups work on problems with the largest possible payoffs. Once these problems are solved, the longer run contribution of the circles tend to diminish, even to the point of being cost ineffective (Rook, 1988). As the groups work on problems whose solutions lead to smaller incremental

changes. Thus initial perceptions of success may be short-lived in the long run. This in turn may lead to unprofitable appraisals of circle activity.

American quality circles therefore while yielding mixed results in the literature are perceived overall to be a less than effective managerial strategy. The great attraction of quality circles, like earlier management experiments, is that they provide organizations with a model program for introducing improvement. A more theoretically based understanding of why and where quality circles work and why they might fail, when substantiated by research data, can help with the principles needed for selecting the best aspects of the quality circle model and adapting them to the situation in their company.

Chapter II

Review of Literature

An adequate review of the literature exploring the various dimensions of the quality circle experience in Japan and the United States must include an in-depth analysis of possible contributing factors. This chapter will review the literature by focusing on three possible explanations for the founding, organization and success of quality circles in a cross-cultural perspective. This discussion will delineate "structural," "cultural," as well as "Neo-Marxist" explanations regarding the quality circle process.

The Structural Perspective

Structural variables are generally defined as factors which limit or constrain the options of a particular system (Moore, 1962). Delineating "competitiveness" as a structural variable argues that productivity or the ability to compete in foreign markets effectively constrains world trade. An

approach focusing on the structural conditions facilitating the development of quality circles thus entails an analysis of variables which influence a firm's ability to remain competitive.

Michael Kilbridge (1983) argues that productivity and competitiveness is often affected by labor turnover and absenteeism. Kilbridge contends further that organizational decision-makers often initiate new human resource strategies (i.e. quality circles) to retain and embellish a consistent population of workers committed to increased quality. Bowey (1981) also links the issue of productivity to labor turnover and ultimately worker alienation. Accordingly, alienated labor becomes indifferent to product quality and production agendas. Bowey argues that management's response to worker powerlessness may take the form of human resource innovations which increase employment stability. Quality circles, autonomous work groups and worker coopts are viewed as optional responses.

Kobayashi (1988) contends that productivity concerns act as an impetus for decentralization strategies in large scale organizations. Strategies which have become synonymous with quality circles. Accordingly decentralization infers pushing quality and production responsibilities down to the lowest levels of the organization. Kobayashi notes that these strategies become necessary when employers are confronted with transitory workers unwilling to perform menial production tasks. The degree of decentralization may directly impact worker reactions to quality circle activities, thereby contributing to the effectiveness of the circle itself.

Clark (1979) argues the significance of education as it affects a nation's ability to remain competitive in world markets. The contention being that a more highly educated labor force may require human resource strategies that provide extensive latitude in their jobs. These initiatives predictably, would enhance worker commitment to increased product quality through enhanced job duties and responsibilities. Clark notes that quality circles are often

a response to these conditions.

Structural considerations then appear to be a significant factor either directly or indirectly, in the development of quality circles. Desires to increase productivity, particularly, have encouraged management styles which are designed to enhance worker involvement and decision-making.

The Cultural Perspective

An analysis of organizational practices in different nations or geographical regions requires a discussion of cultural considerations peculiar to each environment. While numerous definitions of culture exist, most researchers agree that generally, culture consists of beliefs, values and behaviors common to a particular country. (Williams 1988)

National culture's influence on organizational behavior has received much attention in recent years (Beres & Portwood, 1981; Perrow, 1972). The character and form of organizations, it is assumed, vary significantly due to traditional values and local customs. Ouchi (1981:79) characterizes organizations as "open systems" suggesting that organizations

do not exist in a vacuum. Thus firms are dependent on their environments to obtain inputs in order to produce outputs. If managerial practices in Japan and the United States are to be adequately explored, it then becomes necessary to delineate what cultural inputs characterize their environments. This entails identification of religious and social patterns which impact the organizational behaviors of each nation.

In the United States, the Protestant ethic emphasizes self-reliance and the welfare of the individual. In Japan, a combination of Shinto, Confucianism and Buddhism has produced cultural traditions which are unknown to the West, and has created the paternalism that is the basis for Japanese industrialism (Hofstede, 1980).

A significant legacy of Japanese religious customs is that familial relations between parents and children serve as a model for social relations in other settings. Japanese business practices rely extensively on this familial system (Ouchi, 1981). In Japan the hiring of an employee is more like adoption into a family, the relationship is expected to

last for life. Confucianism in particular stresses the loyalty that should exist between subordinate and superior in all social and family relations.

The Japanese emphasis on collectivism is a consequence of religious doctrine which stresses the cohesive nature of clans and the paternalistic care for lesser members which these teachings imply (Ouchi, 1984). Japanese tradition contributed significantly to this "clan" or "group" orientation by virtue of customs which completely abnegated self interest. Individual values were not condoned under the feudal system. The highest virtue lay in serving one's own group or collective.

Tradition has also created highly participative customs which promoted consensus and consultation at all levels of society. An outgrowth of the Samurai period, the Japanese view each individual regardless of his lot in life as a valuable contribution to society (Drucker, 1981). In organizational life these traditions produce extreme loyalty and intense desires to contribute to one's firm.

In the West, the Protestant ethic produces a number of cultural traditions which completely contradict the Japanese experience. American culture specifically places extraordinary importance on the individual personality and self. Freedom of the individual from social and organizational controls thus remains a central aspect of American life (Williams, 1979). Social identity then, emanates from the self rather than from a matrix of relationships in a group as it does in Japan. Work organizations are thus primarily viewed as contexts for the expression of individual goals rather than the pursuance of collective agendas.

An equally significant component of American culture is the emphasis on competitive achievement (Williams, 1979). The importance of personal achievement within the context of strenuous competition is integral to the Western notion of success. As Robin Williams (1979:459) notes, "The success story, and the respect accorded to the self-made man are distinctly American if anything is."

While legitimating competition and individualism, the Protestant ethic also emphasizes the idea of spiritual hierarchy which finds ultimate expression in social and organizational contexts. When applied to the workplace, the value discourages any tolerance of poor performance. As opposed to Japan where consultation and respect are accorded all levels of society, in the United States, one's ability to contribute is commensurate with his or her position in the hierarchy.

Behind the distinctive features of Japanese and American culture lies the historical developments and geographic situations which influence the diffusion of non-indigenous traditions and technologies. The act of borrowing foreign ideas, although a widespread occurrence, is facilitiated by peculiar historical and economic circumstances. While Japan and America both engaged in adaption of nonindigenous practices, each had different motivations for doing so. Japanese isolationism both geographically and economically necessitated drawing on various foreign ideas continuously for

survival (Hopper, 1989). The process of imitation flourished in Japan as a consequence of the post-war occupation which exposed the Japanese to a variety of Western teachings. The United States conversely has been self sufficient during most of its history; borrowing therefore has not been a preoccupation (Hopper, 1989). Cole (1979) argues that the American practice of adaption has occurred predominantly during periods of crisis when traditional technologies no longer provide effective solutions. As Drucker (1971:184) contends, "Imitation shapes collective behavior and subsequently sense making when groups of people consciously or unconsciously strive to be like others they see as successful."

Of particular interest is how borrowed technologies are combined with indigenous traditions. Morgan (1990) contends that indigenous cultural values will inevitably transform the original character of the borrowed technology. What remains elusive is to what degree the technology will eventually be altered. Japanese and American business practices exemplify

many of these issues.

Neo-Marxist Theory of Work Organization

Neo-Marxist perspectives on work organization suggest that numerous management techniques under capitalism have been introduced as a method of controlling workers (Braverman, 1974; Edwards, 1979). The issue of control more specifically leads many Neo-Marxists to view administrative technologies as a device to break worker collective resistance and rebuild solidarity on the basis of management goals.

Neo-Marxist conceptualizations of work essentially build on the theories of Karl Marx. Marx believed the capitalist mode of production where labor is bought and sold in the market denies workers their "species being." Marx defined "species being" as man's ability to exercise his creative abilities in cooperation with his fellow humans (Archibald, 1978). In capitalism therefore workers are alienated from their species being as they are no longer in control of their own labor and are divorced from the conception of the product thereby participating primarily in the execution stages of

production. The separation of conception from execution according to Marx is a consequence of capitalist abilities to control or dominate the labor process.

In capitalism, competition for profits creates conflict between owners and workers. To maximize profits, owners of enterprises need to increase productivity and hold down costs, including wages. To ensure steady output, they need to exercise unilateral control over production. As Marx ([1867] 1967:331) noted, "Order must in one way or another be established." Workers' human needs for creative labor and economic security are denied.

Marx notes that two methods of controlling the labor force have been practiced during the capitalistic era. The first he terms the "formal subordination of labor" which relies on non-technological forms of capitalist domination such as increasing the length of the working day and factory despotism. A shift towards the "real subordination of labor" could only be insured by a development of the productive forces and introducing and using machinery, science and the

expanded scale of production associated with large scale industry. As Marx ([1844]1978:1035) stated, "With the 'real subordination of labor' under capital, a complete revolution takes place in the means of production, in the productivity of the worker and in the relations between workers and capitalists." The "real subordination of labor" is critical as it establishes the necessity for capital constantly to revolutionize the labor process in order to secure increased productivity and profits.

A more contemporary analysis of Marx's theory, developed by Harry Braverman (1974), allows a more in-depth view of the issue of worker control. In Labor and Monopoly Capital, Braverman details the practice of de-skilling by management as well as the development of scientific management as the form of worker control under capitalism.

To Braverman, within the labor process itself the division of labor brought about by scientific management, and in particular Taylorism, epitomizes the separation of conception and execution. It is a means through which skill

and knowledge is transferred from the direct producer and placed into the hands of management. Braverman suggests that the introduction of more advanced forms of machinery both compounds and complements Taylorism in the development of the separation of conception and execution. Thus, the tendencies of the labor process under the principle of managerial control are toward the de-skilling and fragmentation of work on one hand and the creation of an "apparatus" on conception on the other. Following his own logic, Braverman proceeds to show that conception – the planning, coordination, and control of work – is itself a labor process and therefore subject to the same separation of conception from execution.

Richard Edwards (1979) incorporates economics, technology, managerial strategy and strategies of worker resistance into his theory of the labor process. In Contested Terrain Edwards views the work place as a stage upon which conflicts between labor and capital shape bureaucratic structure. The essence of the struggle according to Edwards is control of the shop floor. Edwards contends that the

corporate need for social control explains innovations in organizational technique. Thus Edwards' basic thesis is that changes in industrial organization and workers' resistance have induced changes in the most prevalent forms of worker control.

Analysis of managerial control as delineated by Marx and Braverman provide an initial foundation from which to analyze capitalist control techniques as they allude to traditional struggles between capital and labor. Richard Edward's (1979) notion of labor "resistance" however, lends a more aggressive dimension to Marx's theory of "control." The struggle between capital and labor therefore becomes a dynamic, a cycle perpetuated by worker resistance. Organized labor, therefore, becomes a vehicle of opposition which promotes the struggle for newer and more efficient methods of control.

Theoretical Organization of the Study

Figure #1 presents a graphic representation of the organization and strategy of the remainder of this research. Each of the three explanatory perspectives suggests possible

sources of variation between Japan and the United States in the three dimensions of quality circles on which the author is focusing. Thus there are nine cells in this "perspective by dimension" figure, each of which represents a potential theoretically-derived "explanation" for a particular dimension of quality circles.

The remainder of the study will follow this figure's organization. Each chapter will address a particular dimension (i.e. founding, organization and success). Each dimension will then be described in the context of the two cases (i.e. Japanese and American quality circles). Lastly, the differences in each dimension will be interpreted in the context of the three explanations. The design of the study will therefore enable a multidimensional perspective to the quality circle experience.

The strength of this design, ultimately, then is that it allows exploration of quality circles in both cases from numerous opposing viewpoints. It is believed that this is a critical contribution, as quality circles are by no means a topic which can be explored from a single vantage point. In

this regard, the predictive ability of the study is enhanced considerably.

Figure #1

A Matrix Approach for Quality Circles

Explanations (or Factors)

Dimensions (or events)

	Structural	Cultural	Neo-Marxist
Founding (creation of quality circles)	Denotes commitment enhancing strategies developed by employers to increase productivity and competitiveness of firms	Indigenous culture + Adoption of foreign technologies	conflict of interest/ struggle over control; employers develop new control schemes to subdue worker resistance
Organization (Design or structure of quality circles)	Whether strategies are centralized or decentralized affects employee commitment to quality improvement	Whether strategies are centralized or decentralized reflects indigenous cultural values of the two societies	management practices maintain control by allowing various degrees of participation
Success (Effective or ineffective)	Have strategies designed to increase productivity been successful in improving employee dedication to improved quality	Cultural traditions influence worker reception to quality circles and ultimately circle effectiveness and success	Whether management practices fail or succeed depends on the effectiveness of the control mechanism

Figure 1 summarizes the analytical framework developed on the basis of the literature reviewed thus far. Relationships have been developed which depict the linkages between the three explanations (structural,

cultural, Neo-Marxist) and the three major descriptive dimensions (founding, organization and success) of quality circles which are under examination.

(1) An exploration of how structural factors are thought to vary between Japan and the United States; (A) How these structural factors are expected to relate to the (1) founding, (2) organization and (3) success of quality circles.

(2) An exploration of how cultural factors are thought to differ between Japan and the United States. (A) How these cultural factors are expected to relate to the (1) founding, (2) organization and (3) success of quality circles

(3) An exploration of how Neo-Marxist factors are thought to vary between Japan and the United States; (A) How these Neo-Marxist factors are expected to relate to the (1) founding, (2) organization and (3) success of quality circles.

At the risk of exaggerating the degree of precision that this research expects to attain in the following analysis, several working hypotheses will be presented. Before presenting these, it is important to be clear about the three key dimensions of quality circles that this research seeks to understand. So as to delineate these dimensions more concisely, each one shall be

operationalized in the proceeding chapter. It is hoped that this clarification will lend a more accurate understanding of the terms under consideration.

Chapter III

Purpose and Methodology of Study

The intent of this research is to analyze the distinctions between Japanese and American quality circles. The goal is to ascertain why cross-cultural differences exist regarding the founding, organization and effectiveness of each model. As has been documented, the quality circle issue is complex. This necessitates a methodological device or strategy which is sensitive to the multidimensional aspects of the quality circle experience. Through an in depth analysis of the existing literature, the historical, economic and behavioral implications of the quality circle phenomenon can be attained.

This research will therefore analyze the quality circle issue utilizing three different explanations: (1) the structural, (2) cultural, and (3) Neo-Marxist perspective. It is believed that each of these explanations may lend insight as to the following quality circle "dimensions": (1) founding, (2) organization, and (3) success. To empirically

assess these assumptions, the analysis will evaluate the quality circle experience utilizing examples within the American and Japanese automobile industry.

The comparative-historical method will be utilized so as to enable adequate examination of American and Japanese managerial strategies. Ragin (1988) notes that this method denotes the comparison of macro-social units and is primarily concerned with cross-societal differences and similarities. The historical nature of this research therefore necessitates a methodology which allows qualitative examination of the problem under study. Thus historical-comparative interpretations become necessary if one is to analyze the evolution of quality circles in each nation. Ragin (1988:6) notes that "the comparative researcher is interested in the cases themselves, their different historical experiences in particular."

An essential aspect of developing comparative historical studies is the analysis of cases upon which the researcher will attempt to delineate consistencies and contrasts regarding the topic under consideration. Ragin (1988:8) notes that qualitative research is characterized "as case oriented as opposed to variable oriented and historical as opposed to

causal." Case oriented studies by their nature are sensitive to complexity and historical specificity. They are therefore well suited for addressing empirically defined historical outcomes, and they are often used to generate new conceptual schemes, as well. Ragin (1988:9) argues "Researchers who are oriented toward specific cases do not find it difficult to maintain a meaningful connection to social and political issues because they are more concerned with actual events, with human agency and process."

The case-oriented approach however may have certain difficulties in sustaining attention to complexity across a large number of cases. Furthermore case-oriented research is always susceptible to the claim that findings are specific to the few cases under examination. Likewise when generalizations are made based on these broad comparisons case researchers are often open to charges of allowing their favorite cases to influence their generalizations. Ragin contends that while case-oriented research is limited in this way, it has many positive features which are beneficial to social science research. First, case-oriented methods are holistic – they treat cases as whole entities and not as collections of parts. Thus the relations between the parts of

a whole are understood within the context of the whole. Second, causation is understood conjunctionally. Outcomes are thus analyzed in terms of intersections of conditions, and it is usually assumed that any of several combinations of conditions might produce a certain outcome (Ragin, 1988). These and other features of case-oriented methods make it possible for investigators to interpret cases historically and make statements about the origins of important qualitative changes in specific settings.

This study establishes two cases which examine variations in quality circle activity in a cross-cultural context. These include exploration of quality circles in (1) Japanese manufacturing plants in Japan, and (2) American manufacturing plants in the United States. Examination of quality circles within these two environments will allow an analysis of quality circles as they appear across cases. Similarly, this strategy will highlight the complexity, diversity and uniqueness by interpreting cases historically. Further, analyzing these cases in light of theoretical concepts may enable further verification of the soundness of a particular theory and at the same time, show the theory's usefulness for interpreting specific events.

Utilizing the case method in this particular study will no doubt have numerous positive and negative connotations. Perhaps the most significant drawback to this approach is that generalizability may be greatly hindered. Thus an examination of quality circles in Japan and the United States will yield outcomes which are consequences of cultural and historical events specific to these nations. Therefore inferences to other nations' industrial experiences will be severely limited. This limitation however will be compensated by the study's systematic exploration of industrial history in both Japan and the United States as well as delineation of trends and patterns which contribute to the development of quality circles in each country. The study will therefore be viewed as an historical examination of the Japanese and American experience with quality circles.

Selection of Industry and Cases

This study will focus exclusively on quality circles as they exist in the American and Japanese manufacturing industries. The manufacturing sector was selected for a number of reasons. Perhaps most importantly, in manufacturing quality circles represent the most predominant form of quality control technique (Metz, 1980; Miskin, 1991; Steiner, 1988).

Similarly, manufacturing continues to represent a sizable portion of both the American and Japanese economy (Lillrank, 1989). Metz (1980) argues that the need for quality improvement is much more intense in the manufacturing sector in both countries due to increased international competition. Quality circles thus represent the main technique by which producers have attempted to increase product quality so as to remain competitive in world markets.

Lincoln and McBride (1987) argue the advantage of analyzing manufacturing over service industries by suggesting that quality circles encounter difficulties in service oriented firms. In service industries the most typical improvement themes are connected with delivery of services. There is a human limit to how far it can be improved. Thus, after a certain standard has been reached, improvement in delivery will no longer produce results, the cutting edge of improvement will be development of new service products and improvements in total service delivery systems. Themes of this scope according to Passin (1979) are often beyond the competence of quality circle members.

Lindsey and Boorman (1986) suggest the immense popularity of quality circles in manufacturing infers not only a desire

to promote a competitive edge, but also a need by producers to implement quality improvement techniques that accommodate assembly line processes. Freund and Epstein (1984) note that assembly line manufacturing is very conducive to team techniques to improve quality as it often denotes job rotation which familiarizes workers with a wide variety of production tasks. This knowledge promotes improved decision-making ability for workers at lower levels who typically constitute quality circles.

While other environments may be appropriate for the utilization of quality circles, close examination of these potential cases reveals that the nature of circle procedures is not consistent with operational definitions of quality circles as defined by this research. Examination of Japanese owned subsidiary firms in the West for example, suggests that quality circles are non-existent in these environments as Japanese managers view the technique as inappropriate for the American workforce (Lockhart & Reilly, 1993; Reddin, 1981). Similar analysis of Japanese and American hybrids (or joint venture) organizations noted that although "team" processes are utilized, they are largely restricted to middle and upper managerial ranks. Likewise, the activities these teams

participate in mainly concern marketing and financial issues (Protzman, 1982; Sands, 1991). The above variations, therefore, are not characteristic of actual "quality circle" practices as they exist at the shop floor level. An adequate comparison then demands that two cases be identified in which a similar concept or event is occurring (Ragin, 1988).

It is believed that by identifying two cases, therefore, that all relevant manufacturing environments have been addressed. Quality circles as they exist in each case illustrate all relevant variations in the model itself. Skocpal and Somers (1980) argue that in comparative historical analysis cases should be selected to cover all possibilities, or to represent a range of types or points on a continuum.

Both of the cases explored in this study represent ideal types (i.e. Japanese firms in Japan, American firms in the United States). Ragin (1988) notes that one may utilize a comparative strategy centered on extensive use of ideal types and other theoretical devices to guide the interpretation of empirical cases. Japanese and American quality circles in this regard will represent opposite ends of a continuum, each symbolizing opposing management philosophies. It is believed that these ideal type conceptualizations will lend a more

systematic strategy to the comparative method. This is not to suggest that internal variation between cases in the same environment is not a concern. The influence of a national business culture, largely uniform organizational structures, and the impact of plant size and technology, however, suggest that differences between units will be largely offset by organizational similarities.

By analyzing quality circles in two distinct environments (or cases) it is believed that empirical evidence regarding quality circles can be developed. Empirical/historical accounts can therefore contribute to the validation of the hypothesis under consideration. Further, manufacturing industries in both Japan and the United States provide ample opportunity to offer contrast oriented comparisons of quality circles as they exist in a cross-cultural perspective. Garvin (1989) asserts that an important benefit of analyzing the manufacturing industries in any context is that they provide lucrative examples of quality improvement techniques which have evolved systematically in recent years.

Thus, a review of evidence enables an in-depth examination of each selected case. While substantiation of propositions through case analysis remains critical, Skocpal

and Somers (1980:192) note that "the determined exploration of the unique features of each case leads inevitably toward a kind of descriptive holism." Delineating "contrast-oriented studies," Skocpal and Somers argue that a significant strength to this approach is that it allows lengthy, unified case accounts, with events kept in chronological order. The systematic accumulation of historical data thus enhances the comparative and descriptive abilities of the case method while also enabling detailed verification of initial propositions. Available sources utilized to analyze each case therefore become critical components in the research process.

The goal of this study is therefore to explore the intricacies of quality circles as they exist in Japan and the United States. Analysis of these two cases will be conducted through an extensive review of the existing literature on Japanese and American managerial practices. Comparison of each nation's experience with quality circles necessitates detailed discussion concerning the historical, economic and social elements which have contributed to the rise of quality circles. It is believed that these strategies combined with personal speculation will produce viable documentation concerning cross-cultural management processes.

So as to provide a more formal understanding of the expected relationships inherent in this study, the following terms or concepts have been specifically defined. This operationalization process precedes the formation of nine hypotheses which have been developed to provide a more structured analysis.

Operationalization of Terms

(1) Founding: "Timing" of quality circle initiation or when quality circles "caught on" in the United States and Japan.

(2) Organization: Degree of centralized decision-making in quality circle endeavors. (Or the extent to which production decisions are concentrated in the hands of a narrow managerial sector on the one hand, or shared with workers on the other.)

(3) Success: Effectiveness of quality circles in terms of their duration, or length of time circles are in existence.

Operationalized Hypotheses Stated

Structural hypotheses delineate techniques instigated by management to produce a workforce committed to product quality.

Hypothesis #1

Structural explanations suggest that international competition forces employers to instigate strategies designed to enhance worker commitment to product quality. Quality circles were founded as a technique to retain a consistent and loyal labor force by more fully utilizing human resources.

Hypothesis #2

The structural explanation suggests that quality circles were designed to enhance the competitiveness of firms by increasing worker commitment to quality improvement agendas. The manner in which circles are ultimately organized affects the degree of commitment.

Hypothesis #3

The structural explanation delineates whether quality circles have succeeded or failed in enhancing the competitive ability of firms by effectively influencing worker commitment to product quality.

Cultural hypotheses denote distinctions in indigenous cultural values; social and religious ideologies as well as associated organizational behaviors

Hypothesis #4

The cultural explanation identifies the founding of quality circles as a consequence of the combining of foreign technologies with traditional local customs.

Hypothesis #5

The cultural explanation argues that the organization of quality circles reflect the indigenous cultural values of each nation. Religious, social and economic ideologies therefore influence the degree to which quality circles are hierarchically organized.

Hypothesis #6

The cultural perspective delineates how cultural traditions affect the success of participative managerial strategies (i.e. quality circles). Culture therefore, promotes work behaviors which impact the continued effectiveness of quality circle initiatives.

Neo-Marxist hypothesis denote distinctions in managerial control strategies

Hypothesis #7

Neo-Marxist explanations would suggest that quality circles are initiated where management perceives a need to control or coopt a labor force.

Hypothesis #8

Neo-Marxist explanations would suggest that managerial attempts to control the process of work delineate differences in the organization of quality circles. Whether management recombines conception and execution at the shop floor then determines the type of control which is exhibited over quality circles.

Hypothesis #9

Neo-Marxist explanations suggest that the success of quality circles is a consequence of whether workers resist managerial control strategies. The success of quality circle then is determined by the ability of management control mechanisms to extract worker commitment to circle processes.

These hypotheses will guide the analysis of the research literature on quality circles which follows. While most of this research is descriptive, it can none the less be used as "data" which will allow testing of each of the above hypotheses. Testing of hypotheses will rely on an in-depth analysis of relevant literature, case studies and accounts as they relate to the quality circle issue. Thus a variety of qualitative sources will be utilized to enhance the predictive ability of these hypothesized relationships. In turn, the

relative merits of the various theoretical perspectives can be evaluated in terms of how well they seem to explain variations in the development of quality circles in Japan and the United States.

Chapter IV

The Founding of Quality Circles in the United States and Japan

This chapter will attempt to analyze the motivations for the founding of quality circles in the United States and Japan. The contention being that from the period under investigation, 1960-1990, American and Japanese firms both initiated quality circle programs; it becomes necessary then to determine what motivated employers to develop circles and during what time periods were these strategies instigated. The intention is to discern whether structural, cultural or Neo-Marxist assumptions best explains why quality circles were initiated at particular times in Japan and the United States.

Michael Kilbridge (1983) addresses the issue of quality circle development by analyzing labor trends which ultimately affect worker productivity. Since the early 1960s, the concept of labor turnover has been directly related to productivity studies (James, 1960). Such studies examine "labor turnover" as a study of the "committed labor force" or the study of "leavers" which provides management insight into

the ability of the firm to retain its labor (Stoikov & Raimon, 1969). The larger the committed labor force in a firm, the higher the firm's commitment toward its stable labor force and the greater the future productivity and competitiveness of the firm. According to Kilbridge (1983), the likelihood of adoption of participative management techniques (i.e. quality circles) increases as industries experience transitory labor practices which ultimately impact the productivity of firms.

Kilbridge (1983) and Bowey (1981) link productivity to employee-turnover and absenteeism, the assumption being that high rates of voluntary employee separations denote an uncommitted workforce which is largely indifferent to organizational quality improvement goals. This, in turn, leads employers to search for new approaches to committing their labor forces to the firm. If one examines the data for the 1960s in Japan, significant evidence of high turnover begins to emerge. Koshiro (1983) reports that monthly separation rates for workers in auto-manufacturing in 1960 stood at 5.2% for the United States and 6.3% for Japan; they decreased steadily thereafter in Japan, falling to 3.4% by the late 1970s, but held constant in the United States.

Absenteeism provides another measure said to influence productivity (Kilbridge, 1983). The assumption here is that transitory workers will be less concerned about being absent from work. Employers then must develop new strategies which instigate a committed labor pool. Once again parallels between national experiences and objective data become evident. The absenteeism rates for employees in the auto-manufacturing sector in Japan was at 5.4% in 1961, with the U.S. figures standing at 4.8% (Koshiro, 1983). In Japan these figures had fallen to 3.0% by the early 1980s but remained virtually unchanged in America.

Thus, even making allowances for differences in data sources, the data still suggest that Japan and America would both have an incentive to develop new approaches to enhance employee commitment. Again this conforms to national experience. To pursue this matter, a more detailed understanding of the economic history of Japan and America is necessary.

A Structural Explanation

The Japanese Case

As noted previously, during the pre-war years Japanese products were considered inferior due to poor quality and

inefficient workmanship. To eliminate this reputation, post-war employers introduced quality circles to revitalize the productivity and competitiveness of Japanese firms (Minami, 1973). In the 1960s, management reported that poor productivity of Japanese workers was the consequence of a labor market uncommitted to quality improvement agendas. It became especially difficult for the major manufacturing firms to retain those select employees they desired and management came to believe high turnover and absenteeism were indicators that workers were uncommitted to organizational productivity goals. This situation threatened future corporate growth prospects by restricting the ability of firms to market high quality products abroad.

Rising educational levels also led to an increasing proportion of workers who were reluctant to maintain the least demanding jobs. The educational system was producing more and more high school graduates who had been led to expect white collar jobs commensurate with their educational achievements (Wool, 1988). Instead, an increasing number were being assigned blue-collar jobs. Surveys reported that workers wanted jobs that would allow them to develop their abilities and talents, whereas in the past workers had given priority to

job security (Wool, 1988).

International competition thus constituted a major motivation for Japanese managers to search for solutions to deal with what had become identified as significant problems. Although the quality circle movement had come into being in the late 1950s, circles became increasingly more attractive to firms outside the original early adopters in the materials industry (steel and chemicals in particular). Quality circles then, became a key managerial strategy for making firms more attractive to highly educated potential recruits and reducing the likelihood of turnover and absenteeism (Sengokv, 1985). Firms that had the greatest labor retention problems, such as auto, machinery, and other assembly industries, took the lead in introducing quality circles during this time frame. They were also the industries that were growing most rapidly during this period and absorbing more and more labor. The growth in quality circle registration at JUSE took its first sharp spurs upward during this period, 1966-1969 (Cole, 1979).

In the interwar period, Japanese firms had carried on discussions and study practices among work teams (Cole 1979). They therefore had experience with group processes in their behavioral tradition. This experience made the selection of

quality circles a reasonable solution to their problems.

Koshiro (1983) stresses the seriousness of the competition issue by suggesting that quality circles represented a corporate strategy designed to mobilize all the resources of the firm. The desire to increase the quality of Japanese products, and the tremendous challenge this posed for Japanese firms, was one of management's major themes in the 1960s. Better utilization of its human assets could make significant contributions to improved productivity and quality. Quality circle activities were thus a logical follow-up to the growing interest in the reputation of Japanese products.

The American Case

In the West, loss of market share to foreign competition during the early 1970s created interest in work methods which would more fully utilize human resources. To be sure, most American managers faced problems of labor turnover and absenteeism similar to those in Japan. In the case of automobiles, Steiner (1988) reports that there were several key U.S. managers concerned about the impact of turnover and absenteeism on quality. In the 1973 letter of understanding between the UAW and GM establishment joint QWL efforts, GM

specifically gave reduced employee absenteeism and turnover as the benefits to be achieved by the cooperation. In turn, the consumer was to benefit from increased quality products.

This letter of understanding established the first national joint labor-management committee on QWL in a major corporation. While the initiative came very much from Irving Bluestone, the then vice president of the UAW, the corporation had already been exploring employee involvement issues (Kanter, 1983). Kanter describes the internal momentum building for participative management within GM in the late 1960s. What is striking in comparison to Japan, however, is how long such discussions were confined to the corporate level. Despite a long developmental period, the degree of diffusion to GM plants, was extremely slow during the 1970s.

It was only with the success of the Japanese in competing in American export and domestic markets that a general awareness of quality circle activities began. Suddenly, managers and the media were looking for the key to Japanese success, and participatory work practices based on quality circle activities were identified as part of the package. The following statement, which appeared in a court brief filed with the National Labor Relations Board by the International

Association of Quality Circles (IAQC), the major organizational exponent of quality circles in the United States stated the following:

> Faced with . . . challenge from Japan, American businessmen began to examine the situation and study the phenomenon of Japan's rapid success was largely attributable to its national concern for, and an almost single-minded dedication toward, achieving superior *quality* and high levels of *productivity* in the workplace. Moreover, American businessmen learned that the approach most extensively utilized by the Japanese to achieve these goals had been very successful. Quality Circles—a specific and unique type of formally structured system involving employee participation (Katz, Kochan and Gobeille 1985:93)

This view came to be widely disseminated in the popular management literature during the late 1970s (Imberman, 1989). Management's objective in introducing participatory work practices was to provide for greater commitment of workers to their jobs in ways that would improve quality and productivity. The belief that the Japanese were making better use of their human resources through such practices as quality circle activities was widely shared.

An analysis of structural factors which precipitated the formation of quality circles in the United States and Japan therefore, suggests that desires for increased productivity were a central contributing factor in both nations. Quality

circles were introduced to produce a workforce which was committed to product quality and therefore less likely to engage in transitory work practices. As productivity enhancement techniques, circles were thought to increase the competitive position of firms in domestic and foreign markets.

Conclusions

Recalling the hypothesis derived from the structural explanation relative to the founding of quality circles:

> Structural explanations denote how international competition forces employers to instigate strategies designed to enhance worker commitment to product quality. Quality circles are viewed as a technique to retain a consistent and loyal labor force by more fully utilizing human resources.

If the structural explanation is correct, firms in countries facing heightened competition should have been forced to develop mechanisms designed to increase worker commitment to organizational production goals. The preceding review of the research literature illustrates that both Japan and the United States exhibited excessive absenteeism and turnover which employers viewed as indicative of a workforce indifferent to productivity enhancement.

In Japan during the 1960s, literature indicated that desires to market high quality products abroad forced

employers to instigate quality circles. Thus circles were viewed as critical to the reduction of turnover and absenteeism in Japanese firms as workers became more committed to production agendas. In the West, research argued that American competitiveness began to erode during the early 1970s due to increased competition from foreign manufacturers. While high absenteeism and turnover had long promoted an inexpensive labor market, American management introduced quality circles and Quality of WorkLife programs to stabilize workers and instill commitment to higher quality products.

The available evidence therefore, identifies when quality circles were founded in each nation and under what circumstances. Quality circles began in Japan during the early 1960s and were developed a decade later in the United States. The data does then support the "post hoc" test of the structural hypothesis.

Cultural Explanations: A Cross-Cultural Analysis

Developing a cultural explanation regarding the founding of Japanese and American quality circles demands an examination of each nation's history and local traditions. Thus, cultural values indigenous to each society exert

considerable influence on work-related values and behaviors. It becomes necessary then to identify particular values which have influenced the development or nondevelopment of quality circles in Japan and the United States. Such an analysis will lend insight as to how foreign technologies have been diffused with Japanese and American cultural practices. Further, the delineation of specific time periods when adaptions occurred will contribute to a more thorough understanding of when quality circles developed in each nation.

The many distinctions between Japanese and American management styles can easily be attributed to sharp differences in the respective cultures of each nation. The common thread about which Japanese life has developed is "intimacy," which has evolved from religious and feudalistic traditions which stress "clan" cohesiveness, consultation and extreme loyalness. The reliance on the family unit (or collective) is transferred to business firms, reinforcing compliance of behavior as well as strong communitarian ethics.

Commenting on Japanese traditions and their continuous impact on modern organizations, Abegglan (1958:137) notes:

> At repeated points in the study of the factory, parallels to an essentially feudal system of organization may be seen . . . not, to be sure, a replication of the feudal

loyalties, commitments, rewards and methods of leadership, but a rephrasing of them in the setting of modern industry.

Abegglan finds that the relationship between employees and the firm is based extensively on loyalty and reciprocal obligation. Rohlen (1974) finds support for Abegglan's thesis regarding the persistent influence of cultural values on Japanese business practices. Rohlen reports that cultural values such as (wa) which has its roots in the Buddhist and Confucian emphasis on social harmony are not abstract ideas but provide meaning for the daily behavior of employees and managers. Rohlen suggests that wa defines the quality of organizational norms and behavior standards, "the cooperation, trust, sharing, warmth, morale and hard work of efficient, pleasant and purposeful fellowships" (Rohlen, 1974:47). Rohlen notes also that the way harmony has traditionally been achieved throughout Japanese society – through mobilization of small work groups – continues to be a significant aspect of Japanese organizations. Rohlen notes that business relationships between managers and employees are characterized by a high degree of paternalism and personal dependence.

In strong opposition to the Japanese experience which promotes close social relations, American life has developed

around individualism and independence. Religious doctrine which stressed competition via social and organizational hierarchies promotes desires for personal rewards and recognition. Thus American business practices emanate directly from cultural imperatives which facilitate competition and the inevitable self interest it demands.

Kanter (1983:103) notes:

> The American emphasis on individualism tends to produce people who view their success as self-made. Such views encourage individual creativity and innovation, but also produce destructive competition and lack of cooperation.

Ouchi (1981:186) argues similarly:

> The American tradition encourages valuing individual careers over loyalty to employers . . . For example, in the United States, employees may leave their first job for no apparent reason. Japanese employees who did the same thing would be considered self-centered and disloyal.

The influence of national traditions therefore, has significantly affected the character of Japanese and American organizations. While indigenous values continue to impact business practices in both nations, adaption of foreign concepts and technologies remains a consistent and on-going process. In the case of Japan and America however, differences in the rate of adaption and the motivations for such activities are apparent.

To a large extent, Japan is oriented to the outside world to a degree which Americans find difficult to understand, thus they perceive themselves as relying heavily on export industries to sustain their standard of living (Thompson, 1983). As Protzman (1982) argues, the Japanese widely believe that they are able to secure their national survival only by adding value to imported raw materials and then exporting the product. To the Japanese, therefore, their survival as a nation depends on their ability to search out and absorb ideas from abroad rapidly and efficiently. Protzman (1982:184) notes, "In Japan, if a solution to a problem is not immediately at hand, it is second nature for management to look for solutions outside their national borders." In essence, to succeed in foreign markets, they have learned to be open to different cultures. Thompson (1983) contends that this in large part is a consequence of the "catch-up" mentality that has dominated the thinking of Japanese industry and government over the past one hundred years. Thus, to catch-up, the Japanese had to be prepared to adopt the better ideas developed in the more advanced Western nations. Moreover, as Hopper (1989) suggests, the occupation of Japan by American officials after the war gave the Japanese ample

opportunity to become familiar with Western concepts and technologies.

The situation in the United States is very different from that of Japan. Until recently, Americans appeared confident of their own managerial abilities and technology, and not very attuned to learning from abroad. Hirsch (1988) argues that even in the land of hard technology, American companies maintained little interest in Japan relative to the size of the Japanese interest in the United States. Hirsch (1988:178) states, "Indeed, even with all that has happened between 1970 and 1990, it can be said without the slightest fear of contradiction that American monitoring of global development in technology has been, and continues to be woefully inadequate." Yet increasingly, Western firms operate in an environment where new developments in management and technology are occurring outside American borders. Thus, not heavily dependent on imports and exports for economic survival, American management became increasingly complacent regarding the need to innovate or change existing policies. The consequence of this is that quality circle activities were not a serious part of American management's agenda of solutions until the early 1970s.

Selective borrowing by the Japanese is largely illustrated by the adaption of American management techniques, in particular the teachings of Herzburg, McGregor, Maslow and Argyris. Most significant however, were the ideas of William Deming concerning quality control. While working in Japan in 1950, Deming instructed some of Japan's leading industrialists and engineers in the use of statistics for discovering the source of defects, improving quality, and reducing costs. Statistical quality control (SQC), he had predicted, could dramatically increase Japan's national exports. The Japanese adapted Deming's teachings in the early 1960s, diffusing SQC with their own group behaviors, ultimately developing the quality circle.

The adaption process in American firms conversely is largely due to the enthusiasm by which a number of consultants organized under the International Association of Quality Circles (IAQC) borrowed the concept from Japan during the early 1970s (Hirsch, 1988; McAdams, 1988; Metz, 1980; Monson, 1990). Consultants however, modified circles, directing their focus towards morale enhancement of employees as opposed to quality improvement. Many attribute this to the actions of the Reiker consultant group who visited Japan in 1974 to

explore the quality circle phenomenon (Metz, 1980). The challenge then, was how to restructure circle practices so as to accommodate an individualized workforce accustomed to competition and centralized authority. Accordingly, quality circles were repackaged by consultants and presented to firms as generic amiable solutions to American productivity concerns.

Conclusions

The cultural hypothesis regarding the founding of quality circles in the United States and Japan was stated as follows:

> The cultural explanation identifies the founding of quality circles as a consequence of combining foreign technologies with the context of traditional local customs.

If the cultural explanation is valid, quality circles in both Japan and the United States were introduced at particular time periods as a consequence of the adoption of foreign managerial technologies. Literature supports the notion that while indigenous cultural variables influenced the assumptions of quality circles in both nations, the adaption of particular managerial concepts lends critical insight as to when quality circles actually emerged in Japan and the West.

Research noted that in Japan cultural traditions had historically endorsed groupism as the predominant form of organization within Japanese society. The notion of the quality circle however was not developed until the 1960s when the Japanese integrated the teachings of Western experts (regarding statistical quality control) with their own cultural imperatives concerning group decision-making. In the West, literature argued that American culture's emphasis on individualized competition and hierarchial struggle promoted work behaviors which were inconducive to collectivist decision-making as practiced in Japan. During the 1970s Western consultants attempted to integrate American work practices with the Japanese quality circle concept. "Borrowing" by both nations then, allows the identification of specific time periods when quality circles were initiated. The post hoc "test" of the cultural hypothesis does indeed offer support for the cultural explanation.

A Neo-Marxist Explanation

Neo-Marxist explanations regarding the process of work generally evolve around issues of resistance and control. Thus, the inherent conflict of interest between management and labor in capitalist economics creates an environment in which

each party struggles to dominate the work process. The conflict which is inherent to capitalism according to Richard Edwards (1979) produces a continuous cycle as newer forms of capitalist domination produce newer forms of worker resistance. This discussion will attempt to determine whether Neo-Marxism provides an explanation as to when quality circles were introduced in Japan and the United States.

Because quality circles originated in Japan, it is necessary to provide a historical exploration of Japanese labor market conditions during the post-war period. Thus delineating how desires for control of the labor process led Japanese managers to capitalize on existing group behaviors.

The Japanese Case

Immediately following the collapse of the Japanese empire in 1945, American occupational forces established Western democratic principles in Japan. Legislation enacted allowed workers to form unions, defend their rights, improve working conditions and raise their economic status (Fukutake, 1982). During the post-war era, a number of radical worker federations were formed. The Sanbetsu (Confederation of Industrial Unions) was perhaps the most notable. Ichiyo and Scalapio (1978:249) note:

> A unique characteristic of this early post-war upsurge was workers' production control based on spontaneous shop committees or groups. These committees coalesced on a regional level and finally on a national level in the formation of Sanbetsu.

Production control was thus used as a tactic to settle disputes. Workers took over control of plants, dictating the pace and timing of work. Sanbetsu also organized a number of industrial strikes in 1947. These tactics however, were ultimately prevented by General Douglas MacArthur, Supreme Commander of Allied Power (SCAP). Fukutake (1982:83) remarks that "an experiment in democracy gave way to plans for turning Japan into an anti-Communist bastion." SCAP policy then helped management regain its strength.

By 1948 Sanbetsu was weakened further by the "red purge." The Korean War in 1950 saw the peak of the purging of communist workers and union leaders. Sohyo (General Council of Trade Unions of Japan), a more moderate union, emerged as the dominant labor federation in that same year. SCAP however, continued to instigate policies which were hostile to unionism. American occupational forces effectively banned freedom of speech and assembly, outlawed strikes, and put heavy industry, communications, and the transportation system under direct control of the American military (Fukutake, 1982).

With the demise of Sanbetsu, Japanese unionism took its "enterprise" form. Collective bargaining took place between the union of a specific firm and its management. In 1955 eight enterprise unions formed a committee, with Sohyo as coordinator. The agenda of Sohyo however, concentrated primarily their strength to procure economic benefits for workers (Ichiyo, 1981).

With the unions concentrating on economic issues, management regained ultimate control over the labor process. Thus, the nature of the work process in Japan articulated the intentions of employers—which informed its design and development—with no resistance by labor. It was this freedom that allowed management to combine traditional and modern practices to create a more effective system of control (Protzman, 1982). Japanese companies therefore made enormous investments in new technology. Likewise, Scientific Management was imported and adapted to the Japanese situation. These two innovations contributed further to the erosion of worker control on the shop floor. In the early years of post-war unionism, the Sanbetsu and Sohyo labor federations had controlled production by the use of the work gang, small groups of skilled craftsmen who enjoyed a great deal of

autonomy. Under the leadership of the foreman, they collectively controlled the production process. Scientific management, promoted by American occupational forces in the early 1950s and SCAP's illegalization of militant union tactics, effectively destroyed this work-rooted collectivism that had characterized early post-war production (Cole, 1979).

While Scientific Management spread quickly throughout Japanese industry, especially auto-manufacturing, Japanese management deliberately altered many of its basic premises. While management took over particular management functions, (cost control, inventory control, marketing management) line personnel maintained control over the intricacies of production. Thus Scientific Management in Japan did not produce unskilled production workers. Workers were required to have a level of literacy to improve production techniques, detect product defects and alter product design. These skills were not bound to a specific trade and could be made applicable to any part of the production process. Workers therefore, became multi-functional operators, transferrable to any work situation (Ichiyo, 1981). Further, while Scientific Management promoted individualized work effort, Japanese management restricted recognition of production by locating

authority and responsibility at the group level. Consequently, when management was confronted with the key question of whether to define responsibility and functions to the individual or group level, they chose the latter.

No doubt, Japanese managers knew that groups can be very powerful. The pre-war organization of labor at the shop floor had taught them an important lesson about the integrative effect of the work team. They knew far more about groups and group process and how to make the most effective use of them for mobilizing workers, than they knew about scientific management techniques. However, while collectivization of responsibility allowed for intensification of labor or flexibility at the shop floor, it failed to transform the managerial-created formal work group into a cohesive, primary team. The utilization of technology on the shop floor also significantly intensified this dilemma.

Scientific Management had deskilled, separated and isolated previously collective operations while further destroying primary ties between small groups of workers. This demonstrated potentiality of the primary work group led Japanese management in the early 1960s to attempt to stimulate development of primary relationships through

institutionalization of the quality control circles. Quality control circles as a mechanism of collective decision-making and problem-solving then, provided workers doing routine work with opportunities to get more involved in their own job and to interact and get involved with their co-worker's job. The contention being that a formal work group becomes an informal or primary work group.

> . . . as soon as its members begin to make collective decisions in their own interest and to carry them out. Whether the resulting activity fulfills or denies the wishes of management is not a factor in the formal/ informal distinction (Grzyb, 1981:107).

Therefore, the self-activity of workers within the quality circle context was carefully planned and operated within predesignated boundaries by management in order to ensure that the formation of primary work groups will parallel the existing formal work group in terms of leadership and membership. In this way, employers ensured that activities of emerging primary work groups only served the interests of management.

In summary then, this historical exploration of Japanese labor market conditions revealed that militant unions in Japan were successfully eliminated in the post-war period. Policies initiated by American occupational forces and the importation

of Scientific management destroyed unionized control over the labor process. In the absence of a strong labor movement therefore, the nature of the labor process in Japan articulated the intentions and choices of management. It was essentially this freedom that allowed employers to combine traditional and modern practices of management during the early 1960s in order to create a more effective system of control, quality control circles being a significant example.

The American Case

Unlike the Japanese experience, managerial attempts to reorganize the labor process has remained a critical aspect of American industrial relations. The continuing struggle over the limitations of standardized work has maintained the legitimacy of organized labor as an institutionalized consequence of bureaucratic work organization. Contrary to Japan, where labor was subservient to managerial interests, American managerial attempts to promote worker domination have met with consistent opposition. Consequently, the effects of Taylorism both theoretically and institutionally have remained largely unchanged at the shop floor and continue to be a central issue in the collective bargaining process. So as to maintain the benefits of this system and defuse opposition,

numerous managerial techniques designed to blur Taylorist philosophies have been implemented. The struggle for control in the West therefore, is not concluded, but continues as newer strategies are initiated which attempt to maintain control over the work process.

Richard Edwards (1979) details the history of managerial control in the West as beginning in the nineteenth century when managers controlled their small factories through direct, face to face, personal domination. The increasing size of industries made this system impractical, but simple control still exists today in many small shops and offices. Historically, Edwards notes that during the 1880s and 1890s, with the growth in size of firms, the repressive nature of the employer and employee relationship was revealed, and worker resistance multiplied. Edwards (1979) suggests that strikes in this period were in part a reaction to the arbitrary exercise of power by managers and foremen.

The period between 1900 and 1920 was a time of transition, when managers were experimenting with many different ways of exercising control over production. Company union welfarism and Scientific Management (or Taylorism) were just some of the more significant of these experiments. None

proved to be effective. Edwards argues that Taylorism became a critical aspect of technical control. This new, successful control system transferred manipulation from personal relations to an impersonal structure of work. Technical control was built into the design of machinery, epitomized by the assembly line. Thus the imperative of machinery made ones work faster in order to keep pace with the assembly line. As technical control became more predominant, so did industrial unionism. Worker militancy and strikes led to unionization in the 1930s and the creation of collective bargaining models. Thus managers began looking for other systems of control.

Bureaucratic control dominates the large corporate and government work place of today. Supervision, evaluation, and discipline take place in an impersonal, formal setting of rules and procedures. Job titles and descriptions, evaluation procedures, and reward scales are formalized. Power is institutionalized and follows from the formal structure of the organization, rather than from the personal power of the supervisor or the imperative of technology. Edwards notes further that control is centralized and retained by those who establish the rules and procedures – the capitalist and top management. Edwards believes that the elaborate incentives of

the bureaucratic firm shape behavior in modern organizations. Edwards (1979:148) contends:

> . . . it is this indirect path to the intensification of work, through the mechanism of rewarding behavior relevant to the control system, rather than simply to the work itself, that imposes the new behavior requirements on workers.

Resistance to bureaucratic control in the form of strikes, boycotts and lockouts during the 1950s and 1960s was considerable. The alienating effects of job specialization instigated significant unionized opposition, thus necessitating a more contemporary domination strategy.

In the early 1970s extensive discussion of the need to humanize work began in the United States (Thompson, 1987). Such topics as quality circles, work teams and democratic work strategies became increasingly popular in management circles. Although the terms are often used interchangeably, the job humanization movement focused primarily on increasing employee involvement in decision-making.

Whatever the forms, the programs and proposals designed to humanize work have one common denominator: they all involve attempts to reduce employer-employee conflict by increasing workers' participation in workplace decisions, thus making more effective use of workers' potential. In the early

1970s these work humanization techniques were included under the auspice of QWL. Quality circles, total quality management and democratic work strategies all represented viable managerial control mechanisms designed to produce a more compliant labor force (Cole, 1979). While only a slight variation from traditional bureaucratic management, employers never-the-less believed QWL would be significantly more effective in decreasing worker resistance to authority (Schein, 1981).

Cole (1979) argues that the American experience with quality circles and QWL programs in general reflect increased desires by American firms to re-establish managerial control over production. Grenier (1988:96) comments:

> Ever since the 1970's when unionized resistance to bureaucratic control became significant, managerial ideologies have concentrated on the development of a control strategy grounded in the liberal concept of worker participation. This workplace humanism emphasized the uniqueness of the individual, the legitimacy of managerial prerogatives, and the importance of worker contributions to the stable operation of the enterprise while carefully avoiding discussions of power-sharing or worker control of production or investment decisions.

The development of quality circles in the West during the early 1970s then was motivated by managerial concerns regarding resistance to traditional work designs. Circles were thus viewed as a means by which worker resistance could

be effectively reduced through introduction of managerial techniques which, unlike Taylorism, recognized the potential benefits of worker psychology.

Conclusions

The Neo-Marxist hypothesis concerning the founding of quality circles in Japan and America stated:

> Neo-Marxist explanations would suggest that quality circles are initiated where management perceives a need to control or coopt a labor force.

If the Neo-Marxist explanation is accurate then firms experiencing worker resistance to managerial control would have the most incentive to introduce worker participation programs i.e. quality circles. Research indicates however, that while resistance was a critical determinant in America, the Japanese situation appeared quite different.

In Japan, quality circles were initiated during the 1960s as a means of manipulating a compliant but alienated labor force. Employers viewed statistical quality control as a means by which primary group relationships could be oriented toward managerial priorities. In the West, literature argued that quality circles were introduced during the 1970s as a response to labor's continued opposition to bureaucratic control. Managerial desires for control were thus common

motivations in both nations. The post hoc "test" of the hypothesis then offers support for the Neo-Marxist explanation.

Summary

This chapter has attempted to identify which hypothesis, (1) structural, (2) cultural, (3) Neo-Marxist, best explains the founding of quality circles in Japan and the United States. Available evidence indicated that all three hypotheses contribute viable insights as to when quality circles were introduced in Japan and the United States.

In Japan desires to penetrate foreign markets with high quality products during the 1960s was indeed a formidable factor which prompted Japanese managers to introduce quality circle strategies. Circles thus committed a highly educated work force to production jobs. Circles facilitated work force commitment at a time when high turnover and absenteeism rates suggested that Japanese workers were indifferent towards routine production jobs. Economic competitiveness therefore acted as a powerful incentive for Japanese management to actively develop quality circles in manufacturing industries.

Japanese culture historically has oriented individuals towards group based behaviors. A consequence of Confucian

religious teachings, collectivism in Japan has deep roots which precede the nation's feudalistic period. Similarly, paternalism and interpersonal cooperation have long characterized Japanese relationships. Culture therefore, does promote certain behaviors which are characteristic of Japanese quality circles. These fundamental traditions however, do not account for the calculated, scientific problem-solving strategies which denote contemporary quality control circles in Japan. Quality control is thus a direct result of adapting Western managerial techniques. The development of quality circles began in the early 1960s when the Japanese formally acknowledged the statistical quality control techniques of Western experts. The Japanese quality control circle successfully combined the statistical quality improvement strategies espoused by Deming with the indigenous practice of collectivist decision-making. Quality circles in Japan then, were hybrid representations comprised of Japanese and American components.

Neo-Marxists argue that Japanese management succeeded in diffusing the militant tactics of organized labor in the early post-war years. The successful elimination of union activities however, produced work groups which were alienated

from production goals. Employers therefore revitalized the work team by instigating intimate primary relationships between team members. To instigate cohesive primary teams, management utilized statistical quality control techniques which redirected worker association towards quality improvement agendas. Quality control circles were thus introduced in the 1960s as a means of reorienting the concerns of production workers towards the goals of management, an elaborate control mechanism which exploited the beneficial aspects of the work-team.

In America, structural explanations provide significant insight regarding the timing of quality circles. Erosion of American markets in the early 1970s forced Western employers to reevaluate labor market conditions. While management had long enjoyed the benefits of high turnover in American firms which promoted inexpensive labor, employers recognized that worker separations were inconducive to employee commitment. Quality circles were introduced to provide increased worker satisfaction to a discontented workforce which lacked commitment to production goals. Thus, while quality circles appeared almost a decade later in the West, the motivations in both countries appear similar.

Cultural explanations provide evidence as to when quality circles were actually imported to the United States. The act of "borrowing" was critical to the widespread diffusion of quality circles in America during the early 1970s. However, while consultants actively imported the quality circle technique, it became apparent that circles would have to be altered to accommodate American cultural traditions. Individualism, competition and hierarchial work behaviors inhibited complete adaption of the Japanese quality circle model. Western consultants then engaged in selective "borrowing" so as to import a managerial strategy which would maintain a group structure while accommodating centralized work behaviors.

Neo-Marxist explanations argued that struggles over control of the work process was a formidable concern for American managers during the mid 1970s. Increased worker resistance to traditional bureaucratic strategies was therefore a significant motivation for the implementation of quality circles.

The explanations provided by structural, cultural and Neo-Marxist hypotheses taken cumulatively then, furnish evidence as to when quality circles were founded in both Japan

and the United States. Data provided suggest that quality circles in Japan were introduced during the early 1960s in response to productivity concerns, cultural histories and desires for control. In the United States circles were introduced during the mid 1970s as a consequence of productivity concerns, cultural traditions and desires to eliminate worker resistance. Available research thus provides consistent findings across the two cases.

Chapter V

The Organization of Quality Circles in the United States and Japan

A Structural Explanation

The most obvious distinction between Japanese and American quality circles is their implicit "structure" or "organization." The term "organization" defines various components that affect the degree of participation which the hierarchy permits (i.e. centralized vs. decentralized decision making) (Owens, 1988). The extent to which participation is influenced by desires to increase productivity and competitiveness then becomes a point of inquiry if American and Japanese quality circles are to be adequately explored. The objective of this chapter therefore, is to determine which theoretical perspective, (1) structural, (2) cultural, (3) Neo-Marxist, most effectively explains the organizational differences between Japanese and American quality circles.

A Structural Explanation

The Japanese Case

The desire to increase the competitiveness of firms during the 1960s exerted numerous influences on the organization of Japanese organizations (Cole, 1988). The need to improve the quality of Japanese products by enhancing worker productivity during the post-war years thus necessitated discussions regarding participative strategies designed to enhance worker commitment to quality improvement agendas.

In Japan the key word used to describe these innovations as they began to be applied was "decentralization of responsibility" (Hudson, 1993:103). By decentralization, the Japanese do not generally mean delegation of authority to offices down the hierarchical structure. Rather, decentralization means the taking of responsibility for objectives by large numbers of individuals. The term does not suggest a voluntaristic process in which workers organize to obtain greater participation for themselves or choose to democratize the workplace. The head of the personnel division at Toyota summarizes the Japanese approach as follows:

> "We believe that an individual job and the way it is performed must be activities into which are woven the original ideas of workers, not to be thought of as simply a fixed job which superiors order one to perform. The individual jobs must be carefully thought out with this aim in mind" (Cole, 1979:124).

Tsurmi (1981) argues that the Japanese practice of decentralized decision making essentially suggests that decisions may be made more efficiently by those directly involved in and affected by the decisions.

Tsurmi (1981:218) notes:

> Decentralization implies that control is often most efficiently exercised by those directly involved in the work process, rather than by someone removed from the actual point of operation. Moreover, the Japanese approach does not suggest that the manager allow participation only in routine decisions. Instead it implies that the more important the decision, the greater is the 'obligation' to encourage ideas and suggestions from employees.

Lillrank (1989) contends that decentralization does not suggest that the manager allow his subordinates to exercise self-direction and self control only when carrying out relatively unimportant assignments. In fact Lillrank (1989:58) notes:

> It suggests that the area over which subordinates exercise self direction and control should be continually broadened in keeping with their growing experience and ability.

The Japanese version of participation (or decentralized decision-making) then, recognizes no definable set of managerial prerogatives. "It does not accept the classical division between those who think and command and those who obey and perform" (Drucker, 1981:72). Instead, it appears to argue that the solution to any given problem may arise from a variety of sources and that to think of management as sufficient in and of itself to make all decisions is misleading. To the Japanese therefore, management's basic obligation is not to management itself, but to the accomplishment of departmental and organizational objectives. As Drucker (1981:73) contends, "The criterion of success is not the extent to which orders are carried out, but the results attained."

Contrasting the Japanese practice of decentralization with traditional Western notions of participative decision-making, Steiner (1988) notes that the American manager would increase participation just enough to improve morale and satisfaction with little concern for making full use of employee abilities. Steiner argues that this borders on pseudo participation and may be interpreted by subordinates as just another manipulative technique. The Japanese practice of

decentralizing responsibility conversely, suggests that the manager is obligated to develop a continually expanding degree of responsibility, self-direction and self-control in his employees. Decentralization then contends that with subordinates broadened abilities and expanded information, a deeper loyalty to managerial priorities can be attained.

The Japanese approach then provides significant opportunity for the enhancement of worker commitment to quality improvement goals. The increased participation that quality circles in Japan produce by virtue of decentralization provides an explanation as to why Japan's productivity and competitive position has been enhanced during recent years.

The American Case

Unlike Japan, American industry remained competitive in world markets until the early 1970s when competition from abroad threatened American market share. Increased competition then forced Western employers to reevaluate traditional assumptions regarding the value of human resources. As Bendix (1956:294) notes:

> The failure to treat workers as human beings came to be regarded as the cause of low morale, poor craftmanship, unresponsiveness, and confusion.

Of particular interest however, is how productivity dilemmas eventually forced American management to embrace participative techniques which they had previously viewed as inconsequential. Garvin (1989) argues that Western employers remained indifferent and sometimes hostile to the contributions of human relations scholars such as Likert, Maslow and McGregor. Garvin contends:

> Participatory management and Deming-style quality control were only small academic ideas during the early post-war years and had nothing tangible to offer companies that could sell anything to a world hungry for American products . . . it was only during the early 1970s when American firms lost their competitive advantage that those ideas were considered seriously by American management.

Since the 1970s worker participation in the West has come to embrace the managerial assumptions of "human relations theory" (Drucker, 1981). The ultimate goal of the model being for the manager to create a "sense of satisfaction" among subordinates by showing interest in the employee's personal success and welfare, a typical objective of American quality circles (Steiner, 1988). The human relations model according to Passin (1978:137) "does not bring out the fact that participation may be useful for its own sake." Thus the possibility that subordinates will bring to light points which

the manager may have overlooked, if considered at all, tends to be minimally emphasized. Instead, the manager "is urged to adopt participative leadership policies as the least-cost method of obtaining cooperation and getting his decisions accepted" (Davis, 1977:245).

As Luthans (1988:187) argues:

> In many ways the human relations interpretation of employee participation represents only a slight departure from traditional autocratic models of management. The method of achieving results is different, and employees are viewed in more humanistic terms, but the basic role of the manager and his subordinates remains the same. The ultimate goal sought in both the autocratic and human relations model is compliance with bureaucratic authority.

In essence then the manager is under no basic obligation to seek out and develop talent or to encourage and allow participation. Viewing participation in this fashion, the manager often disregards it, allowing only as much participation, self direction, and self control as is required to obtain cooperation and reduce resistance to formal authority. Likewise participation is often hindered by suggestions that many employees are either unwilling or unable to contribute creatively, or to accept any real measure of responsibility (Hackman & Oldman, 1976). Hall and Schneider (1973) found that people's needs for challenge and personal

growth become reduced by long periods of deprivation. Katz (1980) similarly identifies this devaluation as an adaptive strategy that immobile employees use to adjust to the realities of routine task situations, suggesting that such workers might be motivated by more clearly defined jobs than jobs high with autonomy.

"Decentralization" as an approach to increased productivity then, never fully arrived in the West. The concept of fewer layers of management and more line responsibility created apprehension among managers and workers alike. As Steiner (1988) notes:

> When American firms attempted to develop decentralized strategies, these approaches took on a peculiarly American quality. Increases in participation were extremely limited and centered largely around improving job satisfaction and ultimately productivity. This was quite different from the Japanese practice of giving workers responsibility for improving product quality.

In sum then, participation represents a variable created to increase worker productivity and commitment, however, it can be extended or withheld so as to accommodate the expectations of management. In Japan, managerial techniques such as quality circles (and decentralized decision-making) have had considerable impact, ultimately instilling a high degree of employee commitment to quality improvement. In the

West the limited participation quality circles allowed has fostered minimal commitment to increased product quality (Kanter, 1982). Thus Western interpretations of participation appear impotent as a productivity enhancement mechanism.

Conclusions

The hypothesis derived from the structural explanation relative to the organization of quality circles stated:

> The structural explanation suggests that quality circles were designed to enhance the competitiveness of firms by increasing worker commitment to quality improvement agendas. The manner in which circles are ultimately organized affects the degree of commitment.

If the structural explanation is accurate, the degree of commitment to quality improvement should be a consequence of how much participation quality circles allow at the shop floor. The relevant literature supports this proposition. In Japan, quality circles promote quality improvement by decentralizing responsibility to the production floor. Circles, then, allow Japanese workers to take responsibility for production tasks and implement necessary improvements. Commitment to higher quality products is thus facilitated by worker involvement strategies which elicit employee self-direction and control in quality improvement agendas.

In the West quality circles were developed to elicit commitment to quality improvement by instigating limited opportunities for participation within American firms. Essentially an outgrowth of the human relations model, increases in participation are thought to enhance job satisfaction and ultimately productivity. Western interpretations of participation then, view the technique as a way to make employees "feel" a useful part of the overall effort, the ultimate goal to build a compliant workforce. Research also contended that the level of participation in American circles is so minimal that employees may view their input as insignificant. While interpretations may vary, evidence ultimately suggested that quality circles in the West have failed to produce adequate worker involvement strategies. This post hoc "test" of the above hypothesis does offer support for the explanation.

A Cultural Explanation

This discussion will explore the notion of worker participation as a consequence of cultural contingencies. The social, economic and religious traditions of America and Japan will be contrasted so that an understanding can be gained regarding what cultural criteria influence participative

decision making within quality circle endeavors.

As an initial starting point, it may be necessary to support the notion that degree of participation is in part, a cultural variable. This rationale would suggest that all behavior, group or individual, is predicated upon some sort of cultural conditioning (Skinner). Expectancy theory, like that of operant conditioning, states that people will move towards goals that promise to be reinforced by rewards equivalent to the value of the desired behavior (Thompson, 1983). Consistency in reinforcement produces "learning" i.e. identification with the value. Thus culture can be viewed in terms as "the collective mental programming of the people in an environment . . . it encompasses a number of individuals who are conditioned by the same education and life experience (Hofstede, 1980:162). Thus, the propensity toward or against participation has a basis in proscribed cultural imperatives.

The Japanese Case

The cultural basis for participation within Japanese work organizations relies on a number of religious and social practices which define the island nation's pre-war history. As noted, Japanese culture has been influenced over time by Confucianism, which contributed basic assumptions about life

and ultimately resulted in the development of a philosophical tradition which valued order and harmony within society. Confucian doctrine also emphasized the collective aspects of the social order (Cole, 1979). This point is extremely important in understanding the root philosophical foundation of Japanese management. Confucianism as Smith (1983:168) argues "rests ultimately on a rejection of Western individualism. Its tradition stresses a living human society, rather than salvation of the individual in life after death, and a natural order as represented by people living in a human community, rather than by individuals living in a state of nature." These unique social patterns are consequences of Japan's early experiments with feudalism.

During the feudal period in Japan, the Samurai warrior class were viewed as inherently superior; however, they had to perpetually justify this preferential status by being loyal to their feudal leaders, executing their duties, and caring for those subordinate to them. With the abolition of the feudal order in 1868 by the Meiji Restoration these values were transferred to the managerial class in industrializing Japan. Those Japanese who led the industrialization process had a self image of a highly professionalized occupational group.

Pascal and Athos (1981:189) argue, "They transferred their loyalty, which had previously been directed toward feudal lords, to the corporations to which they attached themselves for their entire lives." Critical was the view that every Samurai, no matter how poor he might be in worldly goods, was to be accorded respect and dignity. This in itself provided the basis for mass participation at all levels of Japanese society. Japan therefore accepted and identified with the basic principles of feudalism where participation is not only allowed but encouraged. In work, this participation is not seen as threatening by those in top positions due to this cultural imperative.

Several important principles emerge from these traditions which are integral to the quality circle approach. First, participation at lower levels is automatically sought, and no one can be bypassed. Second, each participating department is involved in a project from its inception; therefore, those "closest to the action," who will ultimately be responsible for the project's implementation, have an opportunity to provide initial input. Third, *all* relevant elements within an organization, even those not directly participating, are informed of an anticipated action from the beginning.

Finally, the approach puts into practice the theory of positive and active staff and personnel development, in that people at all levels must get involved in a project and thus gain experience in a collective setting (Drucker, 1975). Robert Jackall (1988) alludes to the Japanese practice of consultation, but argues that an essential aspect of the Japanese system is politics, or the ability of subordinates to impress superiors. According to Jackall, this is essential to upward mobility to large Japanese firms.

Having structured a decision-making system which maximized involvement and participation, Japanese society developed a work ethic to complement it. Much of the current American commentary on Japan focuses on the propensity of Japanese to work hard and long hours. The basis for this assumption is that since all participants are involved in any project from its inception, each individual's status and reputation rests, in part, upon the successful completion of the project. This may be viewed as a management system wherein the goals are defined by all in advance, and all participating personnel have a direct and ongoing stake in a successful project completion. Thus, there is a natural propensity for all to be totally committed to success, and

increased effort is a logical result.

Identification with the early cultural traditions of the Samurai mentality coupled with Confucian values thus promoted a participative environment which extended to all levels of Japanese society. Japanese managerial practices are indicative of these inclusionary practices as they encourage all employees to contribute to organizational goals. Quality circles reflect these cultural tendencies through reliance on decentralized decision-making practices which succeed in utilizing the skills and talents of those at the production floor. It also accounts for the propensity to find value in participative, group efforts (Cole, 1979).

The American Case

It has long been argued that the dominant ideal upon which the American culture is based is the Protestant Ethic (Bendix, 1956). It was in fact some Puritan colonists, escaping persecution in Europe, who founded many of the New England colonies. The insecurity felt by Protestants during the reformation was translated into religious and secular codes of behavior that were severely strict, and thereby provided a sense of security for its membership. The emphasis on structure vis-à-vis hierarchical positions of grace

legitimized competition as a means of defining individuality and identity within the system.

The prime directive of the Protestant sects was the notion of duty. Work was seen not as a means to an end but rather as an end in itself. As Morgan (1990) argues, the Protestants interpreted worldly success in the social and economic hierarchy as a sign of future success in terms of the eternal hierarchy. This concept strengthened a social and organizational structure based upon vertical differentiation by associating the "worldly bureaucracy with heavenly states of grace" (Morgan, 1990:163). It is not difficult to assess the impact of such an ethic upon the possibilities for participation within organizational life. The Protestant Ethic and the bureaucratic system has become an imperative value of American organizational life. As Strauss (1972) contends, top management not only shares in but is also controlled by these values. But top management can afford to identify with the ethic because they have attained their individuality and the associated state of grace vis-à-vis their corporate success. But because of pyramidal structure of bureaucracies, very few attain these goals. The great majority are not destined to "succeed" yet are expected to

acquiesce to and identify with those same values (Strauss, 1972:68)

The competitive, individualistic orientation in American culture is also a central element of Scientific Management, dominant during the first half of the twentieth century. Its influence is still great, and no one managerial philosophy is so opposite to what the Japanese believe. Thus, Taylorism was predicated on the view that workers were unintelligent and unable to perform complex tasks. Implicit was the idea that any initiative on the part of the worker was a dangerous threat to efficiency.

Commenting on quality circles in the West, Kelley and Worthley (1981) observe that circles in America continue to reflect Taylorian principles. Thus while circles are composed of line personnel, control of circle initiatives remains the province of management. As Siteler (1991:68) contends:

> The idea of Deming's approach was to make powerful statistical quality control techniques available to every employee at every level and to make quality part of everyone's job. The American approach has been to set up a separate program under the control of non-line personnel, such as staff people from the human resource department.

The Protestant Ethic combined with the ideological assumptions of Scientific Management no doubt has had

significant implications for quality circle activities in the United States. Most important, is Western allegiance to hierarchies based the acquisition of power. Separation of line and staff-a central component of American organization, therefore continues to characterize Western management.

The organization of Japanese and American quality circles appears an inevitable consequence of religious and social ideologies. Thus, the degree of participation quality circles allow reflects cultural values which promote differing assumptions regarding worker competence. Decentralized decision-making as practiced in Japanese quality circles reflects the participative nature of Japanese culture. The Western reliance on hierarchical ordering likewise, is conducive to religious teachings which legitimate the grading or ranking of society.

Conclusions

The cultural hypothesis regarding the organization of quality circles argued that:

> The organization of quality circles reflects the indigenous cultural values of each nation. Religious, social and economic ideologies therefore, influence the degree to which quality circles are hierarchically organized.

If the cultural explanation is correct the degree of participation in quality circles is ultimately a reflection of the indigenous traditions of each nation. Evidence indicated that the degree of participation in decision-making is indeed a consequence of cultural factors.

Research argued that Confucian religious doctrine in Japan promoted a high level of participation within society. When applied to organizations the Confucian doctrine legitimates consultation and decision-making at every level of the firm. Quality circles reflect these cultural traditions by allowing members significant autonomy in production decisions. This practice, literature argued, accounts for the Japanese interpretation of decentralized decision-making. Thus while management retains ultimate control of circle endeavors, circle members view their participation as a responsibility and a sign of loyalty to the organization as a whole.

In the West, literature alluded to the cultural ideologies of Calvinism and Scientific Management as influencing organizational practices which endorsed exclusive reliance on centralized authority. Extensive worker participation in quality circles then threatens Western

traditions which promote competitive struggle and the stratification of authority. Accordingly, participation in American firms is dispersed as a reward for successful compliance with hierarchical arrangements. Cultural imperatives then, are critical to the organizational behaviors of each nation. The above evidence therefore supports the post hoc "test" of the above stated cultural hypothesis.

A Neo-Marxist Explanation

While organizational differences do exist between American and Japanese quality circles, Neo-Marxist explanations require a critical analysis of how these differences contribute to managerial control. This necessitates a discussion of quality circles which explores the manner in which structural components assure behaviors which are conducive to managerial prerogatives. The question being whether control mechanisms explain differing degrees of participation in Japanese and American quality circles.

The Japanese Case

The brief historical analysis of the Japanese labor process in Chapter IV revealed that at the shop floor, the decollectivization and recollectivization of labor

characterized managerial attempts to maintain control over the work process. Thus after World War II technological and social rationalization destroyed the workers' shop floor organization, which had its roots in the craft system of production during Japan's pre-war period. This allowed managerial recollectivization through the imposition of quality control circles.

The basis for control within Japanese quality circles lies in the nature of the work process itself. The most significant aspect of this control mechanism is the introduction of statistical quality control techniques (SQC) which allow management to organize formally their own work groups characterized by primary relationships and extreme worker cohesion. As research shows, it is the self activity of workers that serves as the basis of primary or holistic relationships (Grzyb, 1981).

The idea of statistical quality control which forms the analytical tools utilized in quality circles, was introduced in Japan by Dr. William Deming during the early post-war years. In an effort to acquaint all employees throughout the organization with SQC techniques, the Japanese taught statistical control to workers and gave them authority to

suggest changes in production areas. In this way:

> . . . quality control shifted from being the prerogative of the minority of engineers with limited shop experience ('outsiders') to being the responsibility of each employee (Levine, 1979:78).

The responsibilization of workers, wedded with the small group concept is what makes the Japanese control system so innovative.

It should be emphasized here that the quality circle drive does not imply a reversal of the degradation of work. Although conception and execution are recombined on the shop floor, it is not the same process that is associated with skilled workers who autonomously controlled the content and course of their work and who could decide to increase production as much as they could decide to decrease it. The responsibilities of the workers in the context of quality circles define an area within which workers are given limited and proscribed opportunity to exercise initiative and "independent" judgment. This is what Friedman calls reasonable autonomy. Workers are made responsible "for acting in a way consistent with managerial goals" and are to be autonomous "mainly in deciding if they are acting responsibly" (Friedman, 1977:132). The marginal realization of the need

for domination over one's labor then becomes the basis of workers' consent to managerial control.

Robert Cole's extensive study of quality circles at Toyota Auto Body is insightful. Cole states that the control over circle operations, the training of subordinates and the operationalization of proposals received from superiors are all responsibilities of production workers. Cole notes also that at Toyota, the number of units to be produced, the speed of production and the size of the circles are also decided by circle members themselves. Circles alone then can decide on the assignment of functions and the work pace of the team (Cole, 1979). Cole argues however, that while these responsibilities are largely decentralized to the shop floor, participation in circles is viewed as an obligation by circle members. Successful participation in quality circle activities is tied to a worker's personal evaluation conducted by foremen. Therefore, if one does not participate, one should expect negative evaluations. Thus, in spite of their collective structure, quality circles are organized to promote commitment to managerial priorities by virtue of personal obligations and evaluations. A survey conducted at Nissan in 1975 found that quality circle activities increased workers'

mental and physical burdens (Marsh & Mannari, 1976).

In Japan therefore, quality circles represent a work strategy which successfully orients shop-floor activities towards the priorities of management. Decentralized decision making enables employers to maintain control over the process of work by recombining conception and execution at the production level. Pressures for workers to take responsibility for production however is intense and relies on personal evaluations which reflect employee willingness to contribute to the organization.

The American Case

When one compares Japanese and American approaches to quality circles, a fundamental difference in control mechanisms becomes clear. The differences are largely due to the stratification of authority which is central to Western organizations. Critical are American management's desires to retain control of the work process by consistently denying lower level employees significant decision-making capabilities. Separation of conception from execution therefore, produces a managerial strategy which is hierarchical and discriminatory. Bureaucracy thus, promotes a very constrained view of production problems, which severely

limits employee participation in quality circles. As Edwards (1979:145) notes, bureaucratic control has been "aimed at routinization of all functions of management." Edwards (1979:126) evaluates the nature of bureaucratic control arguing:

> Bureaucracy advanced with the application of written rules to guide supervisors, the use of central personnel departments to erode foremen's power, the introduction of machines that undermined craft autonomy and its organization of work, and the construction of job ladders and compartmentalized buildings . . . building bureaucracy transferred the reins of power from subordinates to superiors. Mechanizing and specializing jobs restricted the discretion of those on the bottom and expanded the power of those on the top . . . These processes separated planning from doing.

Of particular interest is the manner in which bureaucratic hierarchy is diffused within quality circle programs. In American firms control of quality circle activities essentially lies with the human relations department. A facilitator from human relations acts in conjunction with the quality control specialists (or engineers) to determine what problems or issues the circles are to pursue (Klacker, 1992). When appropriate topics have been selected, the facilitator contacts each production department regarding circle responsibilities and issues. The facilitator then interacts with circle leaders in each unit

specifying what subjects circle members are to undertake. Any proposals that circles generate consequently must be processed back up the hierarchy for approval. If circle proposals are accepted, the facilitator receives recognition, not the circle members themselves (Katzel, 1990).

What emerges from this elaborate process is a bureaucratic apparatus which contradicts most every aspect of quality circle functioning as practiced in Japan. Perhaps most importantly, as Pauley (1990) argues, the existence of a quality control department which designs and inspects production, directly opposes the Japanese notion that this function is to remain with the production worker himself. Western practices therefore promote the notion that those closest to production are incapable of improving it. Further, since assignment of quality circle issues emanate from engineers and human relations personnel, managerial insecurities will necessitate that circles participate in only inconsequential production matters. Lastly, Shea (1986) contends that the failure to familiarize circle members with statistical quality control ensures that the highly technical aspects of product improvement remain with middle management specialists. This also relegates circle activities to less

technical and unimportant production concerns.

Whitehill and Takezawa (1988) suggest that union resistance to increased worker participation strategies has essentially forced managers to retain bureaucratic decision-making in quality circle programs. Sheer (1991) concurs, noting that union strength is based on maintaining the view that programs espousing worker participation merely represent managerial attempts to coerce workers away from organized labor. Quality circles consequently are portrayed to workers as artificial forums that espouse increased worker participation but in actuality are only another type of managerial control technique. Unionized resistance to participation therefore imposes limited worker involvement in quality circle activities.

Quality circles in the West then, appear to represent managerial strategies which maintain the virtues of centralized power. Control is enforced by organizational practices which assure separation of conception and execution. Resistance to circle participation by both labor and management further justifies bureaucratic control, as management perceives participation as threatening hierarchical authority, while labor viewed participation as a threat to union legitimacy.

Conclusions

The Neo-Marxist hypothesis regarding the organization of quality circles states:

> ...that managerial attempts to control the process of work delineate differences in the organization of quality circles. Whether management recombines conception and execution at the shop floor then, determines the type of control which is exhibited over quality circles.

If the Neo-Marxist explanation is correct, the differences in the organization of quality circles is a consequence of distinctive managerial control mechanisms. Evidence supported the assumption that quality circles in Japan and the United States exhibit distinctive decision-making processes which determine whether circles are centralized or decentralized entities.

In Japan, research indicated that managerial control relies extensively on the decentralization of responsibility. The recombining of conception and execution produces intense obligations for workers to participate in quality circles. Utilization of statistical quality control techniques, literature noted, while producing considerable latitude in decision making, also demands initiative from circle members to achieve quality improvement objectives. Research contended

then, that Japanese quality circles represent a managerial control strategy which relies on significant worker participation.

In the West research argued that bureaucratic control maintains separation of conception and execution which severely constrains worker contribution to quality circles. By restricting employee knowledge of the work process, information and authority, is successfully relegated to middle and upper managerial employees. Thus unlike the Japanese quality circle where control emanates from increased participation, in the United States, one might argue, control is facilitated by strategies which assure minimal decision-making at the shop floor. The above evidence thus supports the post hoc "test" of the Neo-Marxist hypothesis.

Summary

This chapter analyzed the organization of Japanese and American quality circles. The degree to which organizational decision-making is decentralized remains a distinguishing characteristic of each model. Research provided equal support for all three explanations. Thus structural, cultural, Neo-Marxist propositions each explain differences in the degree of

worker participation in Japanese and American quality circles.

In Japan, increased competition in world markets during the 1960s led Japanese employers to introduce quality circles as a means of generating employee commitment to quality improvement agendas. Decentralized decision-making was a critical aspect of the Japanese quality circle as it gave an educated workforce opportunities to take responsibility for quality improvement matters. The quality circle then produced significant participation opportunities which were successful in producing worker loyalty to quality improvement objectives.

While heightened competition impacted Japanese organizational strategies, cultural traditions also necessitated certain formal arrangements within Japanese firms. Cultural explanations suggest that the organization of Japanese quality circles was a consequence of Japan's indigenous traditions which instigated distinctive assumptions regarding worker participation. The degree of decentralization then was viewed as a consequence of Japan's social, religious and historical experiences. Evidence supported this assertion. Literature delineating Japanese culture identified the blending of Confucian ethics with

feudalistic traditions as legitimating extensive worker participation in Japanese quality circles.

Neo-Marxist explanations argued that the absence of a militant labor movement in Japan effectively destroyed the cohesive mechanism which characterized worker organization in the prewar period. While unionized resistance was successfully eliminated, Japanese employers, faced with worker alienation, elicited a method whereby the priorities of work groups at the shop floor could be reorganized so as to reflect the prerogatives of management. Statistical quality control provided a basis for association while successfully orienting work-teams towards quality improvement. Decentralized decision-making facilitated managerial control by making participation in circles an obligation which ultimately reflects employee initiative and dedication to production agendas. Recombining conception and execution at the shop floor therefore appears to legitimate a complex form of managerial domination.

Structural explanations regarding the organization of quality circles in the West argued that while developed as a productivity enhancement technique, circles failed to create

worker commitment to increased quality production. Literature argued that participation in American quality circles may be insufficient in creating worker dedication to organizational goals. While limited participation remains a characteristic of Western organizations, research debated whether workers actually desired increased involvement. Further, it was proposed that American workers may consciously avoid participation as they have been systematically conditioned to expect less of it. While inconclusive, these considerations lend insight as to why participation in American quality circles fail to enhance commitment to productivity and ultimately firm competitiveness.

Cultural explanations allude to the manner in which Western cultural traditions affected the organization of quality circle programs in American organizations. It was generally concluded that Western values which espouse individualized competition and hierarchical discrimination inhibit meaningful participation in American quality circle endeavors. Evidence argued that limited worker participation was in essence, a consequence of American cultural assumptions which promote separation of conception and execution in work.

The failure of American participative efforts to generate commitment to quality improvement then, appears a direct reflection of cultural suppositions regarding human resources.

Neo-Marxist perspectives regarding the organization of quality circles in the West identified how managerial control was enforced in American quality circles. Literature argued that the separation of conception and execution facilitates worker unfamiliarity with the production process. Centralized decision-making thus actively manipulates employees by denying meaningful participation in quality circles. Labor's indifference to worker participation similarly, has been based on fears that workers would deflect from union ranks if increased participation was realized. Struggles to maintain bureaucratic control by both management and labor then undermine quality circle initiatives, while workers themselves become unimportant intermediaries.

The data provided in this chapter lend equal support for the structural, cultural and Neo-Marxist hypotheses delineated earlier. Thus distinctions in the organization of quality circles in the United States and Japan can be understood by virtue of (1) competitive position, (2) cultural traditions

and (3) desires for control. Evaluating each explanation independently, it might be argued that while structural developments affected each nation's willingness to experiment with worker participation, variations in the degree of participation seems heavily dependant on indigenous cultural traditions. Similarly these local customs influenced significantly the mechanisms employers developed in order to enforce control.

Chapter VI

The Success of Quality Circles in the United States and Japan

The success of quality circle experiments in both the United States and Japan have remained a significant issue in the popular management literature (Marsh and Mannari 1976). This discussion will contribute to the dialogue by determining whether structural, cultural or Neo-Marxist explanations best explain quality circle effectiveness. While successes are evident in both nations, conclusions are generally based on self-reported data. Quality circle effectiveness therefore, is not subject to objective determination, but instead appears to rely on the subjective evaluations of individual firms.

Research on American quality circle programs in particular, continue to yield inconsistent outcomes regarding the actual success of circle activities. Thus, a number of firms document circle processes as extremely successful while others characterize them as direct failures (Marks, Mirvis , Hackett & Grady, 1986). In Japan, similarly, cited successes are difficult to substantiate as the institutionalized

presence of quality circles in most large Japanese firms makes comparisons between participating and nonparticipating organizations difficult (Levine & Kawada, 1980). A point commonly argued, is that while quality circles are an inherent aspect of Japanese organizations, it is unlikely that circles would remain in operation if they were not effective in increasing product quality (Katz, Kochan & Gobeille, 1985). Hirota and Veda (1975) contend that the Japanese are not hesitant to disregard business practices that are deemed unnecessary or outmoded. According to this point of view then, quality circles in Japan illustrate the consistent ability of circles to improve product quality and increase cost savings. Discrepancies in self-responded data however have led some researchers to conclude that quality circle success stories in both Japan and the United States are probably over-reported. Although failures have been noted, these are most likely only a small percentage of the total failures (Kregoski & Scott, 1982; Marrow, 1972; Siteler 1991). Problems arise as it becomes difficult to ascertain how many successes actually exist and what factors account for their persistence.

A Definition of Success

Quality circles, theoretically are considered a type of participatory management program since circles involve workers in decision-making processes from which they are typically excluded. Although quality circles are a popular form of worker participation, many workgroups meeting as circles eventually disband (Drago, 1988). Circle survival rates are useful as they offer an objective quantifiable measure of success. Similarly, if members of an organization perceive circles as effective, that perception may enhance workers' and managers' commitment to the program and therefore increase circle longevity. Rooks (1988) contends that quality circle survival rates are influenced significantly by the ability of the circle to: (1) increase cost savings, (2) increase worker commitment to quality improvement goals, (3) increase participation in decision making. Thus, while the degree to which workers participate in decision-making will differ among programs, if survival rates are associated with generally positive program outcomes, then previous research implies that participative management will increase survival rates (Keefe & Katz, 1992).

A Structural Explanation

The Japanese Case

Evaluating the success of Japanese and American quality circles from a structural perspective necessitates an examination of the effect of these strategies on firm productivity and competitiveness. The duration or length of time quality circles have been in existence in Japanese and Western firms will delineate whether participation in circles actually increases worker commitment to quality improvement. Of critical importance is whether discrepancies in the degree of worker participation between the United States and Japan affects worker commitment to increased quality products.

After World War II the Japanese economy was essentially destroyed. Determined to learn from their conquerors, the Japanese created what William Ouchi (1981:53) describes as the "American Boom" by importing a whole series of American management techniques. The Japanese economy began to grow significantly after 1950. Between 1950 and 1975 fixed capital formation averaged well over 30% of the GNP; for the United States the comparable investment shares stood at 17% (Martin & Florida, 1993). Increasingly therefore, the Japanese became a power to be reckoned with as they entered one American

market after another. Peter Drucker (1981) argues that "The Japanese seem to have an ability to compete in almost any industry they choose" (Drucker, 1981:68).

At this time, when the Japanese were experiencing such great success and showing an ability to survive, the Americans found themselves in more difficult circumstances. Between 1947 and 1972 productivity of American workers—a measure of how many goods and services are produced in each hour of paid working time—grew at an average annual rate of 3.1%. This growth increased the nation's standard of living substantially. During the next 16 years, however, productivity growth would fall to 1.6% per year—half the previous rate. In 1989 worker productivity rose a mere 3% (Martin & Florida, 1993).

As observers reflect on the changing competitive position of Japan and the United States, a number of explanations have been advanced. In particular, discussions focus on the Japanese ability to utilize the talents of organizational members. Japanese employers, as this research has demonstrated, appear strongly committed to developing the skills of their employees, recognizing that employees have an important contribution to make to organizational goals. Ouchi

(1981) argues that fundamentally, Japanese management stresses the perfectibility of human nature. It assumes that workers have the capacity to absorb training and the motivation to use it constructively.

Japan's competitive advantage relies to great extent on the quality circle process, as circles through the practice of decentralized decision-making allow workers significant responsibility in their jobs (Lee & Schwendimen, 1982; Miskin, 1991). The practice of Statistical Quality Control (SQC) techniques specifically enhance worker abilities to diagnose quality problems. Koshiro (1983) contends that decentralization strategies have contributed to lower absenteeism and turnover rates in Japanese firms. Citing employment data for the 1960s and 70s, Koshiro contends that separation rates declined significantly during this time due to the initiation of quality circles. The commitment to quality that circles ultimately promote however, owes much to the distinctive characteristics of the Japanese workforce. Cummings (1980) argues that the high educational abilities of Japanese workers act to enhance employers' willingness to invest in training at the production level.

Cummings (1991) asserts that the high level of Japanese basic education in mathematics and science enabled successful diffusion of Deming's statistical quality control techniques to the shop floor. Cummings notes further that in Japanese production manuals delineating quality control methods workers are asked to consult their elementary school textbooks in mathematics. Hudson (1993) contends that the intellectual capabilities of Japanese workers also facilitates job training and multiskilling strategies in large Japanese firms. Japanese education therefore appears a critical factor in the development and success of the Japanese quality circle.

While basic primary education provides a foundation for the implementation of quality control techniques for Japanese workers, education is a perpetual aspect of organizational life in Japan (Cummings, 1980). According to an often repeated catch-phrase, quality control starts with education and ends with education. Thus, as Cummings (1980:412) argues, "the total investment in quality control education has been enormous, with major consequences for the quality of Japanese products." Education in the form of training and development are evident at every level of the Japanese organization. Cole (1979) states that the diffusion of quality control techniques

in Japanese firms are instigated by top management which provides training programs for middle managers and workers. Subsequently, all levels down to the shop-floor receive continuous training.

While effective quality control is significantly enhanced by the high educational abilities of Japanese workers, the commitment to efficiency is a consequence of both social and economic considerations. Tsurumi (1981) notes that product waste takes the form of both the product being produced and the human resources entering the production process. The Japanese are concerned about both. Tsurumi argues that Japan is a small country with very limited resources. A significant element is the attitude of the people regarding inefficiency. Thus, the Japanese goal is to improve the quality of a product constantly, both by design and by process, thereby reducing waste in production.

The Japanese attitude toward the waste of human resources is also significant. The Japanese work ethic as Ouchi (1984:108) notes, "is strong and generally derives from company loyalty. This work ethic permeates much of the organizational fabric of which the employee is a part."

What emerges then, is a dedication to quality improvement which finds its roots in social tradition as well as economic necessity. The ability of Japanese products to continually dominate foreign markets as Ouchi (1984:108) contends, "reflects the Japanese intolerance towards inefficiency which to the foreign observer, may appear compulsive." Quality circles and their apparent contribution to Japanese productivity mirror this continuous desire to upgrade employee skills as well as products produced.

The Japanese auto industry provides practical insights regarding the increased efficiency quality circles provide. Spearman (1987) states that Nissan adopted circles in the 1960s as a method to enrich manufacturing jobs and prevent labor problems, such as turnover and absenteeism. The commitment to product quality which circles produced has consistently allowed Nissan a competitive edge in foreign auto markets. Cole (1979) describes Toyota Auto Body's quality circle strategy. Cole notes that the company introduced circles in 1964 as a way to train new employees in the company to maintain quality standards. Cole argues this compulsion towards quality has continued to enable Toyota to capture a large portion of the American auto market. Further, according

to 1987 census data, an average Japanese auto worker produces 50 cars per year, compared to 25 cars for an average American worker (Okamota, 1989).

While the institutionalized presence of Japanese quality circles belies objective conclusions regarding circle duration, it is important to note that survival rates of Japanese circles are significant (Sands, 1991; Sato, 1987). A 1986 JUSE survey of the Japanese automobile industry revealed that 63% of circles had been in existence for 20 years or longer, 23% had durations of 16 years or more and 14% had a longevity of more than 10 years (Sato, 1987). Survey data from 1989 likewise indicates that quality circles at Toyota and Honda individually produce savings of about 7 billion per year. A survey conducted at two Nissan plants in 1989 revealed a savings rate of 5 billion per year, a figure which more than covers the start-up costs of administrating the program (Sands, 1991).

The perceived success of Japanese quality circles no doubt, alludes to a variety of issues, perhaps the most important being the creation of human resource strategies which continually expand the areas over which employees exercise self direction and self control as they develop

greater insight and ability. Decentralized decision-making successfully generates employee commitment to the firm as well as worker dedication to quality improvement. Thus, circles enable Japanese firms to continually upgrade firm competitiveness via enhancement of employees' own abilities.

The American Case

History shows that productivity gains have been a key factor in American economic growth. Between 1947 and 1973, productivity grew at a rate of 3.1% per-year in the United States. However, between 1974 and 1990 the growth rate slowed to only 1.6% per-year (Martin & Florida, 1993). As of 1990, American productivity growth was the lowest among all major industrial nations. The leader was Japan with a growth rate of 8.5% per-year (Martin & Florida, 1993). To many observers, this confirms suspicions that the United States is becoming increasingly noncompetitive in international markets (Detoro, 1991; Garvin, 1989).

Quality circles became a response to America's declining competitive position during the 1970s. It was generally acknowledged during this time, that low quality products were primarily a consequence of high labor turnover and absenteeism in American industry. Quality circles were viewed as a

mechanism through which increased worker participation would create a committed labor force dedicated to quality improvement objectives. As a commitment enhancing device however, quality circles in the West appear to have contributed little to increased product quality (Marks, Mirvis, Hackett & Grady, 1986).

Observing this inconsistency, researchers have argued that participation in American quality circles may be insufficient to bring about desired gains in commitment and ultimately productivity (Lowin, 1988). Critical to the American version of quality circles, is the reliance on "participation" which is quite different from the Japanese practice of "decentralization." While the former implies making employees "feel" a useful part of the organization by eliciting their opinions, the latter infers giving employees responsibility in bringing about needed production improvements. Participation according to the American view is initiated to increase job satisfaction and eventually productivity. Although participation contributes to higher employee satisfaction and health than does directive decision-making (French & Caplan, 1975), research has provided little support for the participation-productivity assumption

(Frohman, Sashkin & Kavanough, 1976; Lock & Schweiger, 1979). According to Lock and Schweiger (1979:118),

> much of the research that appears to support the participation-performance assumption is so contaminated by other factors – such as goal setting interventions – that one cannot reach specific conclusions about the effects of participation alone.

Low productivity in American firms therefore, may be a consequence of these ambiguous behavioral relationships. Newell (1989) however, notes that despite a lack of evidence regarding participation, satisfaction and productivity, the approach continues to be commonly accepted in managerial circles. While disagreement persists, a number of scholars have argued that continued adherence to participative management in the West is a consequence of historical ideologies regarding work and workers.

Joseph Juran (1990) has long argued that American management's reluctance to grant workers meaningful participation is grounded in the teachings of Frederick Taylor. The perceived incompetence of labor was a crucial component of Taylor's philosophy. Taylor viewed lack of education as hindering worker literacy needed to plan work methods, establish standards of a day's work and make critical decisions regarding production issues. Juran (1967:104) notes:

> These premises may have been quite valid in Taylor's day, but they have since become increasingly obsolete. Today's workers are well educated, including education in technology. Despite this obsolescence of Taylor's premises, we retain the Taylor system, with all the detriments inherent in use of a system which is based on obsolete ideas. The most obvious and serious of these detriments is the underemployment of the intelligence and creative capacity of millions of human beings.

While Juran's contention that the level of worker education has increased significantly during the past several decades is verifiable, Americans in general still do not possess the same level of skill in basic scholastic areas as their Japanese counterparts (Cummings, 1991).

While worker commitment to increased quality continues to be influenced by assumptions regarding human resources, an equally perplexing dilemma impacting productivity in the West is the issue of "quality" itself. Tsurumi (1981) argues that the United States has for years looked at quality control with the view that there must be an acceptable number of "good" units in a "batch." This is to say that there will be an acceptable or tolerable level of defects. With this in mind, additional units are produced for a given order to insure that enough "good" units will be available after inspection. Tsurumi contends that this attitude further diminishes worker

commitment to quality as it has created an undeniable feeling among workers that a certain level of defectives is acceptable. The Japanese on the other hand, strive for a level of perfection which is not natural to American producers.

The inability of quality circle to affect productivity in American firms then, is a consequence of lower quality expectations as well as participation strategies which fail to generate dedication to quality improvement goals. Koshiro (1983) reports similarly, that as a labor retention strategy, circles had minimal impact on separation rates from 1970-1981, lending further support to the contention that as a commitment enhancing technique, quality circles in America appear ineffectual. Research on quality circles substantiate these outcomes.

Cumulatively, literature argues that while the relationship between participation and job satisfaction has been identified, the impact of participation on productivity is minimal (Lawler, 1986; Ledford & Mohrman, 1988). Participation has also been found to have little effect on cost-savings or quality improvement. Therefore if circles do exhibit positive effects in these areas, the impact dissipates

after two to three years (Lawler & Mohrman, 1985). Circles therefore, appear to have a maximum duration of three to four years which largely reflects their inability to meet substantially the above criteria.

Conclusions

Recalling the structural hypothesis regarding the success of quality circles:

> The structural explanation delineates whether quality circles have succeeded or failed in enhancing the competitive ability of firms by effectively influencing worker commitment to increased product quality.

If the structural explanation is correct, the success of quality circles depends extensively on whether circles have been effective in increasing the productivity and competitiveness of firms. Data regarding the productivity of Japanese and American organizations during the 1970s and 1980s documented the apparent success of Japanese production techniques, likewise delineating the failure of American efforts. Literature speculated that discrepancies in productivity were related to the human resource strategies utilized by each nation.

In Japan, research revealed that the increased competitive position of Japanese industry was due to labor retention techniques which successfully generated employee commitment to quality control programs. The quality circle being the prime example. Circles, literature argued, reduced absenteeism and turnover in Japanese firms by enabling employees to exercise increased initiative and responsibility through decentralized decision-making practices. The diffusion of statistical quality control techniques was enhanced significantly by the educational abilities of Japanese workers and the aggressiveness by which the Japanese approach product quality issues. Taken cumulatively these components instigate behaviors which continue to generate increased cost-savings and enhanced employee dedication to quality endeavors. And while it is difficult to comment on quality circle duration, owing to their institutionalized presence, Japanese circles appear to enjoy longer survival rates than their American counterparts.

In the West, research created a more pessimistic view of quality circles as a production enhancement technique. Literature identified the inability of American firms to remain competitive in foreign and domestic markets. As a

labor retention strategy therefore, quality circles by virtue of their limited participation, failed to generate worker commitment to the quality improvement objectives set by management. Literature found little support for the notion that participation increases productivity. In sum, the available research identified American quality circles as enjoying short duration, reduced worker commitment and little change in cost-savings due to circle endeavors. The research thus supports the post hoc "test" of the structural hypothesis.

Cultural Explanations: A Cross-Cultural Analysis

On the basis of the evidence presented thus far, one could state with some certainty that Japanese quality circles and Japanese management in general appear to encourage a number of economic, social and behavioral contributions which are uncharacteristic of the American model. An attempt will be made within this discussion to analyze the perceived success of Japanese and American management by virtue of cultural factors. So as to offer a more concise dialogue, a cross-cultural explanation will be pursued which presents an exploration of the leading research, thereby clarifying the state of knowledge regarding American and Japanese cultural tendencies.

A significant contrast between Japanese and American organizations is a fundamental difference in the way workers typically make sense of and react to work experiences. Several researchers (e.g. Dachler & Wilpert, 1978; Hofstede, 1980) have noted that most Japanese organization members espouse collectivism, an orientation in which group interests sometimes take precedence over personal interests. As collectivists, the majority of Japanese workers attribute the success or failure of performance to group efforts and abilities. Consequently, they resist personal rewards for exceptional performance (Ouchi, 1981) and form close-knit, long-term relationships with peers and immediate supervisors (Dore, 1973). Additionally, Japanese collectivists are quite likely to adopt values, such as the recently publicized value placed on product quality, that may make their jobs more difficult, yet contribute to the success of the organization (Ouchi, 1981).

Conversely, most American organizational members espouse individualism (e.g. Hofstede, 1980), an orientation that considers self-interest and attributes performance to personal efforts and abilities. The majority of American workers desire personal rewards for a job well done (e.g. Latham &

Wexley, 1981), and usually form only transitory, work oriented relationships with all but a few coworkers. Workers will likely pursue group interests and shared benefits only when they contribute to personal well-being—that is, when personal and group interests are consistent.

Differences between collectivism and individualism suggest an important reason why Japanese quality circle effectiveness has not been duplicated in the U.S. The positive orientation toward group work that exists among Japanese collectivists casts quality circles in a favorable light. Long term relationships among coworkers, together with a positive orientation toward group interests and values that benefit the organization, contribute to the continued viability of Japanese quality circles (Long & Seo, 1977). As collectivists, Japanese quality circle members do not oppose bearing personal sacrifice to ensure group well-being. Therefore, quality circles support and are supported by the work related orientation of Japanese workers.

One cannot say the same about most workers in the United States, however, American workers' positive orientation toward individualized effort can undermine the group oriented nature of quality circle work, particularly in situations in which

overlapping personal and group interests have not developed through the participative discovery of commonly held personal desires (Moch & Wagner, 1982). In such situations, each American workers' pursuit of personal interests can be a major detriment to quality circle success. The absence of all but a few long-term relationships among many American coworkers further erodes the basis of Japanese style quality circle success (Takezawa & Whitehill, 1981). Ouchi (1981) argues that to the extent that American organizational members possess individualistic orientations, they consider the self sacrifice sometimes required to sustain quality circle productivity a burden to be avoided. In sum, while Japanese collectivism supports quality circle viability, American individualism may not.

The assumption supporting quality circles in both America and Japan that grouping workers together enhances their ability to identify and resolve problems has also received significant attention in the literature. In Japan this assumption appears valid, in the U.S. evidence appears mixed. As Siteler (1991:74) has observed, in Japan "quality circles are a social technology created by an extremely collectivist culture. It is highly unreasonable, therefore, to assume that

this technique can be diffused into a nation with highly individualistic orientations." In a recent large-scale survey of workers' attitudes in Japan and the United States, Kalleberg and Lincoln (1989) report that Japanese employees are significantly more inclined to favor working in groups than their American counterparts. While the data lend themselves to a variety of possible interpretations, they do substantiate the claims that the Japanese are a very group oriented people.

Examination of research on group and individual decision making on American workers appears to support this supposition. Hare (1976) notes that in most cases individuals can solve problems better than groups can. Only when tasks can be divided into independent, individualized jobs do groups demonstrate greater effectiveness. Hare also reported that groups exhibit more efficiency on manual tasks than individuals, but not on intellectual tasks. Furthermore, he noted that while groups typically perform better than the average member, they seldom perform better than the best member. He argued, therefore, that many cases of apparent superiority of the group over individuals in America result from the presence of one superior individual. Since

likely to be found in most groups if abilities are normally distributed (Hill, 1982), Hare's research suggests that many groups will likely consist of medium to low-ability members whose group performance is weak on conjunctive or intellectual tasks.

The assumption that groups cross-culturally outperform individuals receives further contradiction from Steiner's (1988) proposal that member effort tends to decline with increasing group size, presumably because of reduced feelings of personal responsibility. Early research in a variety of settings appeared to support this notion (e.g. Darley & Latane, 1989; Shaw, 1985). Further research focusing on "social loafing" (e.g. Latane 1989; Latane, Williams & Harkins, 1988) has generally supported Steiner's model, indicating that members who believe that personal performance cannot be accurately measured tend to reduce their levels of performance. Aggregate performance is likely to suffer in direct proportion to the number of members in a group—and the accompanying difficulty of checking others' performance (e.g. Olson, 1987).

While one cannot unconditionally accept the assumption that American quality circles perform worse than their individual members, research would suggest that as compared to Japan, individual decision-making may be more advantageous for American organizations. Evidence therefore indicates that Western individualism promotes a number of behaviors which are contrary to the Japanese quality circle model. Substantiation of the claim that Japanese experiments are more successful than American endeavors is difficult as the actual impact of these cultural imperatives is difficult to define. Utilizing conjecture however, one might speculate that collectivist traditions produce an undeniable commitment to group endeavors. This commitment is apparent by the way the Japanese have adopted quality as a cultural value. Their simultaneous dedication to the group and to its goals contribute significantly to the extended duration of quality circles, ultimately impacting their success. Based on the available evidence one might also speculate that American efforts to adopt group goals and processes are hindered by individual motivations. The concept of quality therefore is not a pervasive value embraced by American quality circle members. Consequently, desires to increase productivity and

circle duration are not collective aspirations. It could be said with some accuracy then, that the non-success of Western quality circles is as much cultural as economic.

Conclusions

The cultural hypothesis regarding the success of quality circles stated that:

> Cultural traditions affect the success of participative managerial strategies (i.e. quality circles). Culture, therefore, promotes work behaviors which impact significantly the continued effectiveness of quality circle strategies.

If the cultural hypothesis is correct, the success of quality circles is a consequence of indigenous cultural traditions which promote particular work behaviors. The literature reviewed supported this contention, suggesting that various cultural factors contribute to the success of Japanese quality circles and the failure of Western efforts.

The research on Japan indicated that quality circles mirror particular cultural tendencies which provide a foundation for collectivist, cooperative decision-making strategies. Literature argued that Japanese collectivism promotes an orientation which effectively allows group interests to take precedence over individual agendas. Evidence further argued that the Japanese practice of grouping

workers together enhances their ability to foster long term relationships and generate a unified commitment to production goals. This cohesiveness then, generates intense energy towards quality improvement and increased cost savings. Circle duration, while difficult to evaluate, is also significant, presumably because member desires to contribute to group agendas are considerable. In the West, literature supported the contention that American culture effectively inhibits collaboration and cooperation in work related tasks. Individualistic traditions therefore effectively hinder enthusiasm and commitment towards group goals. Quality circles then, research contended, are threatened by employee desires for personal rewards and recognition. The inability of circle members to adapt a universal dedication to quality improvement thus perpetuates minimal increases in product quality and cost-savings.

A Neo-Marxist Explanation

The evidence presented thus far appear to substantiate the notion that Eastern managerial systems are significantly more effective than their Western counterparts. This perceived superiority has been assessed by virtue of structural and cultural explanations. While these

perspectives lend insight as to the success of the quality circles, they fail to delineate the political dimensions of contemporary management strategies. This analysis will explore quality circle success by virtue of Neo-Marxist explanations delineating issues of worker domination and control.

The Japanese Case

As one evaluates Japanese management, an analysis of the control system may provide significant explanation as to its success. Grzyb (1981) argues that statistical quality control acts as a significant reinforcement mechanism perpetuating managerial control and employee commitment to quality circle activities. The collection of statistical data regarding quality defects accordingly, produces tangible evidence of quality circle participation. Continuous feedback regarding production data from management contributes to the perception by workers that the success of the organization as a whole depends on the dedication of its members.

Iwata (1984) suggests that the success which Japanese quality circles have had regarding increased product quality cannot be totally explained by extensive reinforcement and feedback mechanisms. The implication being that the intense

obligation to participate in circles reflects desires by management to continually exploit human resources thereby increasing product quality. Authority and coercion accordingly, then are critical aspects of managerial control strategies in large Japanese firms.

A survey conducted at one Nissan plant in 1985, found that 30% of the respondents said that they were participating in quality circles because they had no alternative (Kendall, 1990). A Nissan executive, discussing the results, simply stated that "Judging from the fact that quality circles meet during work hours and are an established part of the production process, most such activity is reported to be quite a burden" (Lincoln & Kalleberg, 1985:29). This response illustrates the tendency among Japanese executives to downplay the significant role of authority as a method of insuring worker control. Iwata (1982:87) notes that Japanese managers purposefully avoid the issue of authority as "it smells of feudalism and evokes images of submissive industrial ants working under collective despotism." Other Japanese scholars go to great lengths in their effort to define Japanese authority as something especially democratic (Lee & Schwendimen, 1982).

Hopper (1989) argues that authority in Japanese firms emanates from the very order of things, which makes opposition and rebellion inconceivable. The term used in the Nissan survey, "shikata naku yatteiro," echoes this sentiment. It means, literally, "there is no other way," or "can't help it" (Hopper, 1989:208). This phrase is often heard in Japan, and it represents a submission to the inevitable. However, as Hopper notes, this submission happens without any loss of personal pride or dignity, as if everyone, workers and managers alike, must endure it; it is a pattern that makes the Japanese quite different from Americans.

A major contention here is that the extreme effectiveness of Japanese quality circles is based on workers' willingness to endorse this coercive participation. Okamata illustrates this point, arguing that at Nissan, the emphasis is not on participation per se, but rather on achieving the consent of workers for policies which management wants to pursue, as well as on guiding workers in the direction in which management would like to see them move (Okamata, 1989) This is apparent in the rhetoric the company uses; the term Sanka (participation) is not used, rather the focus is on Nattokusei (consent) and Kobetsu-shido (individual guidance). Okamata

(1989) argues that this translates into a carefully controlled participation in which management takes the lead informally or formally in initiating policies that workers are then guided to accept and pursue. Circles then, promote a continuous process of discussion, communication and consultation which is evident at all levels of the organization. The operation of quality circles in general clearly corresponds to this description. In a similar vein, when asked if quality circle programs at Nissan were aimed more at the increase of responsibility of each individual employee rather than at employee participation in management, a company official stated:

> Yes, this is correct. We believe that the heavier duties (more important jobs) will enhance employees' motivation to see their jobs as a challenge. We believe that taking jobs with heavier duties is related to employees' participation. . . .the quality circle necessarily results in participatory management because they heighten job quality (Okamata, 1981:206).

Quality circles occur, then, in a context of unquestioned management authority, though the maintenance of this authority is something the managers work very hard to uphold. Simons and Mares (1983) contend that while managerial control over quality circle activities is significant, in some respects it cannot be categorized as strictly self-serving. The belief by

Japanese managers that they can build increasing responsibility into employees' jobs suggests the considerable trust and confidence that Japanese managers have in their employees. Above all, Simons and Mares argue, they do not appear to be concerned that quality circles will acquire the power to keep their own area of work under their own control, free from outside interference. Crozier (1964) describes such an outcome in a French firm; it is a situation where the power of (maintenance) workers is insured by their exclusive knowledge of the work and process.

Judith Vogt (1991) views Japanese managerial control as relying on worker training and career enlargement programs which promote a high level of employee commitment and morale. Vogt argues that although Japanese management does exert significant control in retaining managerial decision-making, their extreme confidence in human resources makes employee resistance virtually nonexistent. Takezawa and Whitehill (1981) also allude to a reciprocal exchange between management and workers where each supports the other's goals, as a critical aspect of Japanese quality circle success. Thus managerial domination in Japan does not involve the constant degradation of worker skill as it does in the West, but

the consistent upgrading of employee abilities in the hopes that new contributions to quality improvement will result.

The extended duration of Japanese quality circles and their ultimate success is therefore the consequence of a highly complex system of managerial domination. Crucial to the control process is the forced participation in quality circles. The nonvoluntary nature of circles therefore, makes participation an obligation, one which is critical if workers are to be evaluated as aggressive and dedicated to organizational goals. The use of statistical quality control techniques enhance this managerial domination strategy. SQC then produces an extensive feedback and reinforcement mechanism which upgrades employee morale and enhances their abilities to identify quality defects. Managerial control in Japan then may be characterized as a two-tier process whereby quality circles are forced obligations offset by strategies which consistently encourage employee input. Commitment to this control structure is therefore secured, employee morale is enhanced and cost-savings substantially increased.

The American Case

The perceived failure of American quality circles has generated much debate regarding the effectiveness of

traditional bureaucratic processes which are indicative of Western managerial control strategies. A common view is that the extensive limitations imposed on workers by virtue of job specialization have continually hindered the effectiveness of participative management strategies (Vedbeck & Nelson, 1989). Quality circles which are designed to elicit worker knowledge regarding product quality improvement imply a fundamental reversal of Western organizational procedure. In essence a transfer of control from middle managers and engineers to production level employees would be a necessity. Ideas such as these threaten the legitimacy of centralized decision-making in American firms.

The basis of such controversies lies in the traditional views of work and workers which characterize the American labor experience. Struggles regarding control of the work process in the West led to the creation of numerous hierarchical approaches, each of which were based on negative assumptions regarding worker capabilities (Edwards, 1979).

A major consequence of bureaucratic control which inhibits successful quality circle functioning, is the stratification of authority and information which constrains worker knowledge of the overall production process (Zald,

1970). Unlike the Japanese situation where workers through SQC possess significant engineering and technical skills, American workers have limited knowledge of the more complex aspects of their jobs due to hierarchical constraints. Their ability to engage in dialogue concerning quality improvement is thus severely constrained. Huszco (1990) argues that the practice of skill renunciation which has characterized American industry for most of its history has created a technologically illiterate proletariate. Kiesler (1991) argues, similarly, that the lack of investment in upgrading skills on the shop-floor makes effective worker participation highly unlikely. He attributes this worker debilitation to managerial attempts to maintain a nonskilled labor force which is inexpensive and incapable of involvement in the work process. Given these circumstances, it appears that quality circle activities or any similar strategy designed to enhance worker knowledge of production must in itself be quite limited.

In the American auto industry it is not uncommon to hear engineers talk about the need to design equipment that is "idiot proof" (Nelson & Campbell, 1982). This essentially means that it must be designed to minimize any possible

interference from production workers who must operate it daily. Renshaw (1987) contends that at Toyota Auto Body in Japan, managers subscribe to a different set of assumptions and attempt to upgrade the level of worker competence through education. This permits workers to participate more fully in the design of the production process. In Japan therefore, management has been able to upgrade labor quality rather than seeking to simplify skill requirements whenever possible. Similarly, because labor quality is high, the Japanese have fewer incentives to seek out technological solutions which lower skill requirements (Lee & Schwendimen, 1982).

Thus the continuous substitution of capital for labor in American firms not only increases the simplicity of the task, but limits the discretion of the worker considerably. Richard Edwards (1979) alludes to the consequences of bureaucratic control by suggesting that low wage unskilled labor has an increasing tendency to resist continued managerial exploitation. This resistance in the West is illustrated by strikes, boycotts and worker sabotage. Edwards argues that all of these strategies are utilized by workers to regain control over the pace and timing of work which bureaucratic hierarchies now dictate. Labor scholars have also criticized

QWL and quality circle programs, suggesting that they represent new managerial attempts to pacify resistance by promoting the illusion of worker participation.

Mike Parker and Jane Slaughter (1988) offer a more precise analysis of this issue, specifically examining quality circles as they affect labor relations. Parker and Slaughter suggest that when worker participation, quality circles or Japanese management programs have been instituted in the United States, they have too often been dubbed the "team concept" (Parker & Slaughter, 1988:73). Accordingly the team concept often involves union agreement to a reduction in the number of job classifications, workers learning several jobs, teams and worker suggestions for a more productive operation. These modifications suggest a humanized work place. However, Parker and Slaughter contend that in most of these plants, workers have less job protection; learning new jobs does not enhance their skills or increase the interest of the work so much as it makes them easily substitutable; teams and suggestion systems make workers the instruments of their own undoing: speed-up, peer pressure, job reduction, interplant competition and an emaculated union.

Mike Parker (1985) suggests that quality circles, group dynamics and human relations techniques represent a calculated attack on unions by managers and consultants who have finally learned how to combine the subtle powers of small-group dynamics with antiunionism. Thus, Parker's argument is simple: where unions exist, QWL programs will weaken them and where unions do not exist, QWL will be used to maintain the status quo.

Donald Wells (1987) contends that QWL programs (i.e. quality circles) are "an attempt at redefining what it means to manage—and what it means to submit" (Wells, 1987:8), in that they increase the control mangers have over workers by shaping the values that workers have toward their jobs and dividing the work force. Wells notes further that employee participation programs rarely give workers any influence over the fundamental organization decisions that shape their working lives, such as plant closings, and that these programs thus raise expectations for influence that cannot be met. Such programs, according the Wells, may marginalize workers by creating the appearance but not the substance of influence.

As a managerial strategy in the West, it would appear that quality circles remain highly suspect among workers and

unions alike. The predominant view of participative management as this discussion has indicated, is that such strategies offer no significant opportunities for meaningful worker involvement, thereby representing yet another control technique designed to diminish employee resistance. Viewed from this perspective, it is not surprising that the success of quality circles in America remain questionable. Critical to this perceived failure are Western assumptions regarding worker competence. Equally as important is the way these suppositions ultimately produce employee control strategies which constrain and manipulate the labor process. The limited duration of circles in the United States and their inability to produce increased cost savings then, are indicative of management's failure to instill dedication and commitment to participative work approaches.

Conclusions

The Neo-Marxist hypothesis regarding the success of quality circles stated:

> that the success of quality circles is a consequence of whether workers resist managerial control strategies. The success of quality circles then is determined by the ability of management control mechanisms to extract worker commitment to circle processes.

If the Neo-Marxist hypothesis is correct, the success of quality circles is a consequence of the ability or inability

of managerial control mechanisms to foster worker commitment to production goals. The literature argued, indeed, that the duration of quality circles in Japan and the United States is largely dependent on the success of domination strategies in subverting worker resistance.

The research indicated that, while Japanese quality circles are institutionalized processes, the extended duration, increased costs savings and employee commitment generated by circles themselves is due to managerial control strategies which while exploitive, generate dedication to production goals and priorities. The research illustrated that Japanese management's desire to upgrade worker skills through training and education augments forced participation, producing a highly complex domination technique which redirects worker initiative towards managerial objectives.

In the West, research suggested that American management styles have consistently fostered antagonism as workers are deprived of the opportunity to control the pace and timing of work. Quality circles represent contemporary strategies which are short-lived and produce limited results in American firms as centralized authority inhibits worker abilities to contribute meaningfully to quality circle forums. Critical in

the West is the resistance that circles produce from organized labor, which views circles as yet another managerial technique which offers no increased involvement or employee participation. Quality circles thus perpetuate the view that workers are incompetent and undeserving of enhanced decision-making. These perceptions and practices, literature argued, promote low worker commitment, low cost savings and limited quality circle duration. The available evidence thus supports the post hoc "test" of the above stated Neo-Marxist hypothesis.

Summary

This chapter has attempted to explain the success of Japanese and American quality circles utilizing structural, cultural and Neo-Marxist interpretations. Evidence indicated that the success of circles in both nations is explained equally by all three explanations. While it was generally acknowledged that documentation of the success of each model is difficult to substantiate as it relies on self-reported data, the literature indicates that the effectiveness of Japanese quality circles is quite superior to the American version. The "success" of quality circles was generally measured by circle duration, which is influenced by the

circle's ability to: (1) increase cost savings, (2) increase employee commitment to quality, and (3) increase participation in decision-making. While discrepancies are possible, the evidence reviewed generally suggests that long duration of quality circles (over five years) implies that all of the above criteria have been satisfied. The issue then becomes what theoretical perspective best explains quality circle survival in both the United States and Japan.

Evaluating structural explanations regarding the success of quality circles, literature argued that in Japan the effects of circles on labor turnover and absenteeism were significant. A highly educated labor force contributed to the diffusion of statistical quality control techniques which provided the foundation for decentralized decision-making. Decentralization effectively tapped employees' creativity in solving production problems while also enhancing commitment to quality improvement objectives. The consistent ability of Japanese managers to promote worker creativity regarding the production process produced a quality revolution which enabled Japanese firms to effectively penetrate numerous foreign markets. Likewise, cost savings, employee commitment and quality circle duration have increased as a result of this competitive process.

In the West, like Japan, circles were created to enhance productivity by increasing the commitment of production workers to quality improvement agendas. Stabilizing turnover and absenteeism rates in American industry was therefore a serious objective. The American technique however choose to accomplish this goal by modestly increasing worker participation in decision-making which failed to eliminate transitory work behaviors and create dedication to quality improvement objectives. The reluctance of American management to provide meaningful participation to employees has its roots in ideologies which question severely worker competence and abilities. Quality circles as a result generate little commitment, low cost-savings and are characterized by short duration.

Cultural explanations essentially attempted to analyze quality circle "success" by delineating cultural traditions in each nation which impact organizational behaviors and practices. Literature consistently argued that the indigenous cultural values of each nation largely determine whether group-based decision-making apparatuses will produce desired outcomes. Western individualism and Eastern collectivism remain critical variables which ultimately influence the

effectiveness of particular managerial strategies. Collectivism, in particular, appears to promote unified consensus regarding organizational objectives. Western individualism conversely, produces initiatives which are self-serving, actions which are inconducive to group problem solving techniques. The effectiveness of the Japanese and American model therefore directs attention to the unique characteristics of each nation's local traditions.

The Neo-Marxist explanation regarding quality circle success argues that the Japanese management style, while exerting significant control over employees, has succeeded in redirecting worker creativity and initiative towards managerial production agendas. Quality circles then represent a complex domination strategy which increases employee skills and autonomy while subverting worker discretion. This practice produces a form of management control which is obligatory and forced, but also self-fulfilling. Quality circles in Japan are largely based on this reciprocation. Increased product quality and employee commitment are thus logical outcomes.

In the United States, a very different situation is evident. Managerial control in the West relies exclusively on

hierarchical stratification and offers rewards for compliance. Bureaucratic structures based on the separation of conception and execution effectively strip workers of skills and abilities at the shop-floor so as to constrain knowledge of the work process. Quality circles as contemporary bureaucratic strategies therefore provide little opportunity for the enhancement of employee commitment to organizational priorities. Constrained opportunities for participation, have also caused significant resistance to American quality circles by organized labor. Implicit is the suspicion that circles are implemented to pacify worker resistance by promoting the illusion of worker involvement. Quality circles in the West then, generate little commitment to quality improvement and enjoy limited duration.

Chapter VII

Conclusions

The goal of this research has been to examine the quality circle movement as it has developed in the United States and Japan. To accomplish this, the author utilized three different explanations to explain variation between the experiences in each of the two countries along three important dimensions of quality circle development. The "matrix method" implied by this analytic strategy has both provided a better understanding of the key factors underlying quality circle development and permitted an evaluation of the relative exploratory power of the three initial explanations.

This analytic strategy produced a matrix with nine cells which allowed a clear representation of each explanation and their relevance to the three fundamental dimensions of the quality circle experience. Ultimately, nine hypotheses were derived, one for each cell within the matrix. Each hypothesis was subjected to a kind of "post hoc" test by thoroughly evaluating the existing research literature on the quality

circle experience in the two countries. Conceptual/ theoretical work, quantitative studies, and case analysis were all used to shed light on the hypothesis. An effort will be made in this concluding discussion to summarize the findings of this research.

Exploration of the founding of quality circles in the United States and Japan suggested that structural, cultural and Neo-Marxist hypotheses each contributed viable insights regarding the timing of quality circle experiments in both nations.

Structural hypothesis pertaining to the founding of quality circles stated that:

> International competition forces employers to instigate strategies designed to enhance worker commitment to product quality. Quality circles were founded as a technique to retain a consistent and loyal labor force by more fully utilize human resources.

The research literature indicated that increased competition in both domestic and foreign markets acted as an impetus for the development of quality circles in both Japan and the United States. In Japan desires to increase the quality of Japanese products forced employers to introduce retainment mechanisms designed to counteract high turnover and absenteeism rates. Quality circles were therefore initiated

in the 1960s to retain employees and facilitate commitment to quality improvement agendas. In the West evidence argued erosion of American competitiveness in the 1970s was viewed by management as a consequence of worker indifference which, like Japan, produced high absenteeism and turnover rates in American industries. Quality circles were initiated to retain workers and foster commitment to quality improvement concerns.

The cultural hypothesis relating to the <u>founding</u> of quality circles identified:

> The founding of quality circles as a consequence of combining foreign technologies with traditional local customs.

The literature reviewed indicated that while Japanese culture has traditionally advocated group behaviors, the ability of the Japanese to integrate "groupism" with the teachings of American management scholars during the 1960s significantly determined when circles were introduced in Japan. In the West, evidence suggested that individualized competition in work environments inhibited quality circle development during this same time period. Competitive work behaviors guided American industry until the early 1970s when consultants actively attempted to blend the Japanese notion of the quality circle with the individualized work habits of

American employees. Thus, "borrowing" by both Japan and the West during particular time periods identifies when quality circles were initiated.

Neo-Marxist hypothesis regarding the founding of quality circles stated:

> That quality circles were utilized where management perceived a need to control or coopt a labor force.

The literature review supported the notion that in the early 1960s Japanese employers were confronted with a compliant but alienated labor force. Taylorized production had destroyed the cohesion of traditional unionized craftsmen which had existed in pre-war times. Statistical quality control was utilized as a means to reconstruct primary associations between workers at the shop-floor. Further, these associations were forced and strongly reflected the production agendas set by management. In the West evidence suggested that unionized opposition to bureaucratic control during the mid 1970s forced American employers to experiment with quality circles. The limited participation and reliance on hierarchy in the West had long been a source of conflict in American industry. Labor's opposition to these strategies was a prominent motivation for the adoption of quality circles as

employers believed circles would accommodate worker desires for increased involvement thereby diffusing organized resistance.

Exploration of the organization of quality circles in the United States and Japan suggested that structural, cultural and Neo-Marxist hypotheses contributed equally to an understanding of why discrepancies in worker participation continue to characterize Japanese and American quality circles.

Structural hypothesis pertaining to the organization of quality circles stated:

> That quality circles were designed to enhance the competitiveness of firms by increasing worker commitment to quality improvement agendas. The manner in which circles are ultimately organized affects the degree of commitment.

The research literature indicated convincingly that, in Japan, employers provided a peculiar participative mechanism designed to retain a highly educated labor force. To enhance worker commitment to increased product quality and firm productivity, Japanese employers introduced decentralized decision-making which continually expands the self-direction and control of employees. The philosophy underlying Japanese quality circles is that worker capabilities represent untapped

resources which need to be cultivated. In the West, literature suggested that employers extended limited participation to workers, attempting to enhance job satisfaction and ultimately productivity. Basic to this approach is the idea that people share common needs – to belong, to be liked, to be respected. Therefore, the manager's basic task is to make each worker believe that he is a useful part of the organization. Evidence argued however that these participation schemes have failed to increase commitment as employees often view their involvement in quality circles as insignificant and nonproductive. The structural hypothesis was therefore substantiated by the available evidence.

The cultural hypothesis concerning the organization of quality circles stated

> That the organization of quality circles reflects the indigenous cultural values of each nation. Religious, social and economic ideologies therefore, influence the degree to which quality circles are hierarchically organized.

Evidence argued indeed, that Japanese religious and social traditions promoted a view of participation which remains specific to Japanese culture. Japan's feudalistic orientations combined with Confucian doctrine legitimates

consultation and cooperation at every level of society. In work, participation is expected as employees utilize creativity to solve organizational problems. The Japanese commitment to quality circles and decentralized decision-making in particular illustrate these cultural behaviors.

In the West, literature contended that Calvinist ideologies and Scientific Management perpetuated hierarchical competition. In work, these tendencies distribute power and authority according to rank which denies decision-making to shop-floor employees. The hierarchical structure of American circles then is a consequence of local traditions which facilitate stratification regarding employee involvement and participation. Quality circles reflect these cultural preferences, thus retaining highly centralized decision-making techniques.

Neo-Marxist hypothesis regarding the organization of quality circles argue:

> That managerial attempts to control the process of work delineate differences in the organization of quality circles. Whether management recombines conception and execution at the shop-floor then, determines the type of control which is exhibited over quality circles.

The research review indicated that Japanese employers had successfully recombined conception and execution at the production level. Participation in quality circles however, is an obligation, an indication of worker initiative and dedication to organizational production agendas. In essence then, control is realized through an intricate mechanism which forcibly extracts worker creativity through elaborate decentralized decision-making strategies. In America, research indicates that bureaucratic control successfully relegates decision-making to upper organizational levels. Conception and execution then remain separate tasks which perpetuate worker unfamiliarity with critical production issues.

Exploration of the success of quality circles in the United States and Japan argued that structural, cultural and Neo-Marxist hypotheses each offer useful explanations regarding why circles in Japan and America are organized differently.

Structural hypothesis pertaining to the success of quality circles delineates:

> Whether quality circles have succeeded or failed in enhancing the competitive ability of firms by effectively influencing worker commitment to product quality.

Research indicated that quality circles in Japan were introduced to increase the productivity and competitiveness of Japanese firms. The practice of decentralizing responsibility to the lowest levels of the organization created commitment to quality improvement agendas by giving an educated workforce extreme latitude in their perspective jobs. The productivity of Japanese firms increased significantly as circles challenged worker creativity in identifying and solving quality problems. Similarly, literature contended that circles significantly reduced labor absenteeism and turnover rates in Japanese firms as workers were receptive to the benefits of increased participation. The duration of Japanese quality circles therefore is not only a consequence of their institutionalized presence, but circle effectiveness in increasing employee commitment and cost savings. In the West, literature reported that while quality circles were introduced to increase employee commitment to quality improvement, productivity in American firms continued to decline. As a labor retention technique, circles also failed to impact turnover and absenteeism rates in Western firms. Research argued likewise that managerial perceptions of workers as lacking competence repressed strategies which would increase

worker involvement in decision-making. Quality circles in America therefore had little effect on employee commitment, exhibited minimal cost-savings and enjoyed limited survival rates.

The cultural hypothesis pertaining to the success of quality circles stated that:

> Cultural traditions affect the success of participative managerial strategies (i.e. quality circles). Culture, therefore, promotes work behaviors which impact the continued effectiveness of quality circle strategies.

Research reviewed indicated indeed, that culture significantly impacts the success of quality circle programs. In Japan, tendencies which emphasize collectivist approaches to problem solving appear to contribute considerably to quality circle success. The interdependence and cohesion which Japanese collectivism promotes creates an intense commitment by circle members to production and quality improvement agendas. This commitment is reflected by the increased cost-savings Japanese circles produce, not to mention the significant duration that circles enjoy. In the West evidence suggested that individualistic competition severely diminishes quality circle effectiveness as it encourages employee desires for personal rewards and

recognition. The inability of Americans to subordinate individual desires to the group and ultimately the organization makes commitment to quality circle goals difficult to achieve. The lack of cohesive dedication to quality improvement then, diminishes cost-savings and severely impacts the duration of quality circles in the West.

The Neo-Marxist hypothesis regarding the success of quality circles argued:

> That the success of quality circles is a consequence of whether workers resist managerial control strategies. The success of quality circles then, is determined by the ability of management control mechanisms to extract worker commitment to circle processes.

In Japan, the literature review showed that managerial domination produced rigid obligations to participate in quality circles. This forced participation however is offset by control mechanisms which while exploitive, generate commitment to managerial priorities. The consistent desire to upgrade worker skills through statistical quality control and extensive educational processes is thus viewed by workers as an indication of management's willingness to pursue employee involvement techniques. Thus, investment in human resources consistently undermines active resistance by workers to quality circle practices. Circles promote extensive

commitment to quality improvement which generates significant cost-savings and increases the duration of circles. In America, research indicated that the short duration of quality circle activities is a consequence of worker resistance to contemporary managerial control mechanisms. Hierarchical discrimination in American organizations, research suggested, inhibits worker abilities to contribute to quality circle forums. The short duration of quality circles in the West then, reflects a lack of employee commitment to limited decision-making opportunities. This in itself leads to low cost-savings and minimal increases in quality improvement. The available evidence thus lends substantial support for the Neo-Marxist hypothesis.

One important goal of this research was to weigh the relative explanatory value of each prominent explanation used to explain the nature of quality circles. Structural, cultural, and Neo-Marxist explanations have been promoted as the key paradigm for analyzing quality circles. However, this research indicates that each of these explanations contributes to an understanding of the founding organization and success of quality circles.

No doubt, the quality circle issue remains prominent in the management and organization literature. While this research has attempted to identify the critical stages of circle development, further analysis may be required. A most perplexing and unanswered question regarding quality circles is the connection between Japanese quality circles and organizational theory. The furthest this relationship is taken is a few notions about how the Japanese systems are different from the Taylorist ideas of scientific management. While some influence from the American human relations movement can be traced, these are vague and often imprecise. Thus one might wonder why academics in organizational sociology and business administration have not paid more attention to this aspect of the quality circle phenomenon.

A similar oversight in the literature concerns the institutionalization of quality circles in both the United States and Japan. Thus far a persuasive history of the institutional spread of quality circle programs in both nations appears nonexistent. Noting the successful acceptance of circles in Japan, one might ask why institutional actors in the West failed to totally diffuse the concept in America.

This research has yielded a number of insights regarding quality circles as they exist in the United States and Japan. The main contention being that quality circles are only as effective as management allows them to be. Thus increases in quality, employee commitment and participation are only possible if workers are provided the necessary tools, techniques and individual respect to actively contribute to the products they themselves produce. In Japan, these factors have promoted a highly effective and diligent production system, in the West results remain questionable.

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