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October 1982

MANAGEMENT PRACTICES IN JAPAN AND THEIR IMPACT ON BUSINESS STRATEGY[1]

Working Paper No. 317

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Productivity--or output per worker--is a key measure of economic health. When productivity increases, the economy grows in real terms and so do standards of living. When it declines, real economic growth slows or stagnates. Productivity is the result of many factors, including investment in capital goods, technological innovation, and workers' motivation.

After a number of years of sluggish productivity growth, the United States now trails most other major industrial nations in terms of the increase in output per worker, although it still enjoys the best overall productivity rate. This state of affairs is increasingly bemoaned by many critics in both academic and business circles. Some reasons suggested to explain the U.S. decline in productivity rankings include excessive government regulation, tax policies that discourage investment, increases in energy costs, uncooperative unions, and various other factors in the business environment.

Some observers, however (e.g., Hayes and Abernathy, 1980), put the blame squarely on American managers. They argue that U.S. firms prefer to service existing markets rather than create new ones, to imitate rather than innovate, to acquire existing companies rather than develop a superior product or process technology, and, perhaps most important, to focus on short-run returns on investment rather than long-term growth and research and development strategy. Too many managers are setting and meeting short-term, market-driven objectives instead of adopting the time horizon required for planning and executing the successful product innovations needed to sustain worldwide competitiveness.

The performance of the American manufacturing sector is often contrasted with the progress achieved by other industrialized countries--particularly Japan. Japan's productivity growth in manufacturing has been nearly three times the U.S. rate over the past two decades: the average annual growth rate between 1960 and 1978 was 7.8 percent. In the last five years alone, the productivity index has increased by more than 40 percent, and most economists forecast similar rates for the 1980s. Such impressive results deserve careful examination.

Students of the Japanese economy generally point out that Japanese investment outlays as a proportion of gross national product are nearly twice as large as those in the United States, and this factor is backed by a high personal savings ratio and the availability of relatively cheap investment funds (Denison and Chung, 1976). Also, a massive infusion of imported technology contributed significantly to the growth of productivity in Japan. Among noneconomic factors, the Japanese political environment seems to support business needs, especially those of advanced industries (Vogel, 1979). In addition, the "unique" psychological and cultural characteristics of the Japanese people are frequently cited as the key reason for Japan's success (e.g., Tsuda, 1979; Yamamura, 1979).

It is well known that absenteeism among employees in most Japanese companies is low, turnover rates are about half the American figures, and commitment to the firm is high (Cole, 1979). At the same time, it is reported that the satisfaction of Japanese workers is low in comparison with other industrialized countries (Odaka, 1975; Azumi and McMillan, 1976). Measures designed to tap workers' diligence show Japanese and American workers to be similar in this respect (Cole, 1979). Therefore, it seems that there is more to the matter of explaining Japanese success in fostering industrial productivity than citing the psychological traits of the Japanese people. Not surprisingly, the fact that many Japanese companies seem to have developed broadly applicable management practices leading to high productivity has received a great deal of attention among Western managers and organizational theorists (e.g., Ouchi, 1981; Pascale and Athos, 1981).

Past attempts to examine management in Japan, however, were very seldom related to more universal management and organizational concepts. Rather, they concentrated on attempting to confirm or disconfirm the existence of supposedly "unique" characteristics of workers and corporations in Japan--such as "permanent" employment, "bottom-up" decision making, and the like--that were analyzed in isolation from other structural and process variables in organizations. The controversy about the factors behind the Japanese management system still continues (for relatively current reviews of the debate, see Cole, 1979; Fruin, 1979; or Urabe, 1979). For example, there appears to be broad agreement that the custom of permanent employment is of relatively recent origin. What remains a point of dispute is whether its widespread acceptance as an employment norm, if not always as an actual practice, is a reaction to dominant market forces or whether it represents an assertion of uniquely Japanese attitudes and values (Crawcour, 1978).

In many ways, the current debate bears a strong resemblance to the "chicken-and-egg" problem. Any particular culture, defined as "patterns of norms and roles embedded in a certain set of values as professed by members of the organization" (Lammars and Hickson, 1979), is a historical phenomenon that is both a factor in and a product of social interactions, including those at the work place. We believe that while some aspects of culture might be important in explaining the occurrence of particular phenomena in organizations, we should always strive to classify and analyze these aspects in universal terms.

Among the principal causes of many researchers' claims about the "unique" character of the Japanese management system are the lack of properly defined terminology that would permit valid cross-cultural comparisons (Pucik, 1979) and the lack of integration of findings from studies of Japanese organizations with organizational theories developed outside Japan. As Cyert and March

(1963) observe: "An organization is unique when we fail to develop a theory which would make it non-unique" (p. 287). In that sense, the forthcoming discussion is an attempt to introduce a model of the Japanese management system based on fairly universal elements suitable for a comparative review. We use the model to highlight the relationships between the human resource management practices observed in Japan and positive work outcomes such as commitment and productivity. We will also discuss the significance of these practices for corporate and business strategies.

The question we address is not how or when the system developed but rather why it is effective. Our review is not intended to be exhaustive, but rather it aims to suggest the feasibility of integrating findings from Japan with more general concepts and theories. We will therefore focus on relationships that may be verified by observations of behavior in non-Japanese settings. We propose that these positive work outcomes emanate from a complex set of behavioral patterns that are not limited to any specific culture. The emphasis is on management practices as a system and on the integration of various techniques to achieve desired results.

THE ORGANIZATIONAL PARADIGM

Throughout our discussion we refer to the management practices in large Japanese corporations. Although similar practices are often also in evidence in small companies, long-term employment in smaller firms, in particular, is vulnerable to drops in economic activity (Cole, 1979). Thus, the ability of an organization to control, perhaps in coalition with others, at least some sources of uncertainty in its environment (by influencing subcontracting or government fiscal policy towards the industry, or by cartel arrangements with competitors) may be an important factor influencing the feasibility of a set of management policies in a period of economic slowdown.

With this limitation in mind, we propose that a basic organizational paradigm in large Japanese organizations is the focus on human resources. In line with Kuhn's (1970) definition of a paradigm as an amalgamation of shared rules and common intuitions, the focus on human resources in Japanese firms reflects an explicit preference for the maximum utilization of available human assets as well as an implicit understanding of how an organization ought to be managed.

This paradigm translates into the three principal interrelated Human Resource Management strategies. First, an internal labor market is created to secure a labor force of the desired quality and to induce employees to remain in the firm (Pucik, 1979). Second, a company philosophy that expresses concern for employee needs and emphasizes cooperation and teamwork in a "unique" environment is articulated (Ouchi and Jaeger, 1978). Third, close attention is given both to hiring people who will fit well with the values of the particular company and to integrating employees into the company at all stages of their working life (Rohlen, 1974). The three general strategies are expressed in specific management techniques. Emphasis is placed on continuous development of employee skills; formal promotion is of secondary importance, at least during the initial career stages. Employees are evaluated on a multitude of criteria, often including group performance results, rather than on individual "bottomline" contribution. The work is structured in such a way that it may be carried out by groups operating with a great deal of autonomy. Open communication is encouraged, supported, and rewarded. Information about pending decisions is circulated to all before the decisions are actually made. Active, observable concern for every employee is expressed by supervisory personnel (e.g., Rohlen, 1974; Clark R., 1979) (see Figure 1). These strategies and techniques apply both to blue-collar and white-collar workers. However, the strength of the relationships between the systemic variables and their outcomes may vary, depending not only on the employees' function or on their educational background, but also on various organizational characteristics such as size, level of technology, and patterns of ownership.

STRATEGIES

1. The Organization as an Internal Labor Market

In large Japanese companies it has become the rule that a male employee will be hired just after graduation from high school or university with the expectation that he will be retained for the rest of his working life (e.g., Yoshino, 1968). The policy of lifetime employment is not extended to females, who are generally expected to leave the company and the job market once they are married. The temporary nature of the female work force, as well as the use of part-time workers, gives employers flexibility in adjusting the size of their work force to adapt to current economic conditions while still maintaining employment for regular workers. The widespread use of subcontracting serves a similar purpose. Even during the recession in the mid-1970s, layoffs and terminations of regular workers were exceptional (Rohlen, 1979).

Such a set of employment practices that price and allocate labor according to intraorganizational rules and procedures rather than according to external demand and supply conditions is described in the economic literature as an Internal Labor Market (ILM) (Doeringer and Piore, 1971). ILMs often develop in response to a scarcity of specific skills on the open labor market, and this indeed occurred in Japan as rapid industrialization took place in the 1920s, when the pool of available skilled workers was limited (Taira, 1970; Dore, 1973). Firms had to invest a great deal in training and then, naturally, attempted to discourage turnover by offering premium wages to senior workers.

Young Japanese workers, in the early stages of their careers, are underpaid relative to what they contribute (Cole, 1971). However, they are compensated for this at later stages in their tenure within the firm as annual pay increases based on seniority are still one of the key features of pay scales in the majority of companies in Japan (Marsh and Mannari, 1976). Depending on the company, the wages of the most senior class of workers may surpass the pay of new hires by 200 to 400%. At the same time, this does not preclude the existence of merit differentials within older age groups (Haitani, 1978). The seniority benefits and the lack of alternative employment opportunities at comparable wage levels and comparable working conditions for workers with prior experience make most employees both unwilling and unable to move (Pucik, 1979). In the past, the insufficiency of the public system of social security in Japan also increased the employees' dependence on the company, but this is lately becoming only a secondary factor because of dramatic improvements in public welfare (Hiraishi, 1980).

The maintenance of a stable ILM requires that sufficient training be provided within the firm so that the company does not have to hire from outside to satisfy its need for qualified personnel. Yet when skills are learned on the job they are largely "company-specific;" the employee cannot realize their full value outside the firm and interfirm mobility is again discouraged (Becker, 1964).

The guarantee of job security implicit in an ILM is a marked departure from conventional American managerial assumptions about the need to retain flexibility in the size of the work force so as to respond effectively to cyclical variations in demand. It is also often thought that institutionalized labor security deprives the manager of the ultimate weapon with which to control subordinates' behavior--the threat of firing. However, other more subtle forms of control are still available in an ILM, such as placement in a dead-end position or one of low centrality. Moreover, job security has advantages for the organization. One, for example, is the reduction of employee hostility toward the introduction of labor-saving technology or organizational changes (Vogel, 1979). Employees know that they may be transferred to new jobs, but do not fear losing their jobs altogether. Another advantage, suggested by Hall (1976) and Salancik (1977), is that long tenure is positively associated with commitment to the organization.

The link between commitment and behavioral outcomes is, however, complex. Porter, Steers, Mowday, and Boulian (1974) assert that high commitment reduces turnover. High commitment in conjunction with binding choice also leads to high satisfaction, according to Salancik and Peffer (1978). The results of four studies connecting labor market structure and commitment (Blauner, 1964; Marsh and Mannari, 1977; Ouchi and Jaeger, 1978; Cole, 1979) confirm these predictions in general. Analyses across age-groups, years of tenure, education, and position in the hierarchy consistently reveal significant differences in the concomitant variance of commitment and turnover for employees who work in an ILM setting and those who do not. Nevertheless, the proper interpretation of available data is complicated by the fact that commitment is a multifaceted variable that can be characterized by acceptance of the organization's goals and values, willingness to exert effort on behalf of the organization, and desire to maintain membership in the organization (Steers, 1977). It is plausible that all these facets do not always pull in the same direction.

For that reason, high commitment per se may have only a tenuous impact on performance. Additional measures may be necessary to transform this commitment into a productive effort.

2. Articulated and Unique Company Philosophy

A philosophy that is both articulated and enacted may facilitate the transformation of commitment into productivity, as it presents a clear picture of the organization's goals, norms, and values. Familiarity with the goals of an organization provides direction for individuals' actions, sets constraints on their behavior, and enhances their motivation (Scott, 1966). In fact, the strategy of disseminating an articulated company philosophy has been adopted by a number of American companies as well. As Peters (1978) points out, the biographies of many industrial leaders stress their quest to give operational force and meaning to their goals.

The personnel departments of large Japanese firms, as well as many chief executives, are actively engaged in promoting their company's philosophy of work and management (Rohlen, 1974). These philosophies frequently describe the firm as a family, unique and distinct from any other firm. This "family" is a social group into which selection is carefully controlled, but which, as in a real family, one is not supposed to leave, even if one becomes dissatisfied with this or that aspect of "family" life. The cultivation of a sense of "uniqueness" may provide an ideological justification for the limited possibilities for interfirm mobility.

At the same time, the articulation of concepts, such as the idea of "the family" embedded in a company philosophy, may change over time in order to fit the shifting values of a broader social environment. For example, loyalty to the company, once heavily emphasized, has taken a second place to stress on individual responsibility to fellow co-workers for doing one's best towards the common goal based on a common fate (e.g., Rohlen, 1974; Clark, 1979).

Among the norms of company life, "wa" (harmony) is still the single most popular component in company philosophies. The concept of "wa" expresses a "quality of relationship, particularly within working groups and it refers to the cooperation, trust, sharing, warmth, morale, and hard work of efficient, pleasant and purposeful fellowship. Teamwork comes to mind as a suitable approximation" (Rohlen, 1974, p. 74). "Wa" is the watchword for developing the group consciousness of the employees and enhancing cooperation within the work group. The ideal is to integrate two objectives: pursuit of profits and perpetuation of the company as a primary social group. The employees are asked to devote substantial effort to the company well-being and in return the company is expected to avoid layoffs and to contribute generously to employees' welfare. In particular, without reasonable employment security, the fostering of team spirit and cooperation would be a nearly impossible task.

The understanding of shared meanings and beliefs expressed in the company philosophy binds the individual to the collectivity (Pfeffer, 1979) and at the same time stimulates the emergence of goals that are shared within an organization. This goal congruence provides one of the principal defenses against opportunistic behavior on the part of those members who, endowed with special skills, might be inclined to bargain for special rewards (Ouchi, 1980). Accordingly, managing the myths and symbols that form the basis of a company philosophy may be regarded as an elegant informational device that provides a form of control at once all-pervasive and effective, as it presents a basic theory of how the firm should be managed that a manager can use for guidance in any situation.

3. Intensive Socialization

The benefits of an articulated company philosophy are lost, however, if the philosophy is not properly communicated to employees or is not visibly supported in management's behavior. Therefore, ensuring that employees have understood the philosophy and have seen it in action is one of the primary functions of the company's socialization effort.

The development of cohesiveness within the firm, based on the acceptance of common goals and values, is a major focus of personnel policies in Japanese firms throughout the whole working life of an employee. In the initial screening process, young graduates are not favored solely because of their compliance with low salaries or solely because of structural features of the internal labor market in the firm. "Virgin work forces are preferred for the reason that they can be readily assimilated into each company's unique environment as a community" (Hazama, 1979, p. 148). The basic criteria for hiring are moderate views and a harmonious personality. Ability on the job is obviously also a requirement, but at the same time applicants may be elimiated during the selection process if they arouse suspicion that they cannot get along with people, possess radical views, or come from an unfavorable home environment (Rohlen, 1974). It is only natural that when employees are expected to remain in the firm for most of their working lives, even top executives become intimately involved in the interviewing and assessment of new hires. To encourage recruits into the company, employees' referrals are often actively solicited.

The socialization process begins with the initial training program which is geared toward familiarizing new employees with the company. During the course of the program, which sometimes lasts as long as six months, the recruits learn about the business philosophy of the company and experience work on the factory floor as well as in the sales offices, regardless of their final vocational specialization. They are expected to assume the identity of a "company man," and their specialization therefore becomes of secondary importance. Both careful screening and introductory training are designed to develop the homogeneity of the people in the firm.

In addition to this initial socialization, a "resocialization" (Katz, 1979) takes place each time the employee enters a new position, as he has to familiarize himself with a new set of people and tasks. Employees are transferred for two main reasons. First, they are assigned to new positions to learn additional skills in on-the-job training programs. Second, for white-collar employees transfers are part of a long-range experience-building program through which the organization grooms its future managers. Periodic, lateral, interdepartmental transfers are common (Yoshino, 1968). As employees rotate semilaterally from job to job, they become increasingly socialized into the organization, immersed in the company's philosophy and culture, as well as bound to a set of shared goals. It should be noted that such transfers are the prerogative of management, and unions are usually not involved.

Research by Edstrom and Galbraith (1977) shows that an organization may actively use this effect of socialization. They examined a multinational firm in which the subunit decision-making environment varies enormously, while some degree of coordination and uniformity is essential. The company makes use of managerial transfers, rotating seasoned managers around the firm. A well-socialized manager, who has held positions in various functions and locations within the company, has a feel for the needs of the organization and for the appropriate course of action in a variety of situations. We suggest that a similar process is taking place in many Japanese corporations.

The congruence of individual and organizational needs and goals facilitates the motivation of employees both to remain organizational members and to be productive (Lawler, 1973). In addition, the stringency of entry requirements means that employees tend to rationalize the effort that they exerted to gain entry to the organization by feeling a high degree of commitment to the organization and satisfaction with their membership in it (Aronson and Mills, 1959; Salancik, 1977).

As employees remain in the organization over an extended period of time they tend to adopt the existing positive values, attitudes, and performance levels of their co-workers. This is partly a function of conformity to group pressures and norms in order to avoid social rejection as a deviant organization member (Asch, 1951; Schachter, 1951); it also reflects the behavior modelling and learning that occur as the very young employee enters into and continues to develop within the organization (Bandura, 1969).

TECHNIQUES

The basic management orientation and Human Resource Management strategies are closely interrelated with management techniques used in Japanese firms. The whole system is composed of a set of interdependent employment practices in which the presence of one technique complements, as well as influences, the effectiveness of others. Some are more important for managing supervisory personnel, some are geared toward lower-level employees, yet no single technique stands out in isolation from others. Therefore, our model should not be interpreted from a strictly causal perspective, as one component reinforces the other and vice versa.

It is plausible, however, that the retention of particular management techniques over time may reduce variations in the catalogue of available organizational strategies (Weick, 1979). Doeringer and Piore (1971) argue, for example, that the ILM is an "irreversible" arrangement. Their proposition seems to be largely justified, in view of the difficulties experienced by many Japanese employers when they attempted to reduce their labor force during the last depression (e.g., Rohlen, 1979). There is no acceptable cause for dismissals short of imminent bankruptcy.

1. Open Communication

If we had to stress one technique, however, it would be management's commitment to developing a climate of trust in the corporation, through sharing information across departmental boundaries. The emphasis on team spirit embodied in corporate philosophies and the network of contacts that employees develop during their long socialization in the organization encourage the extensive face-to-face communication reported in several studies involving Japanese companies (e.g., Pascale, 1978). Frequent and open communication is also an inherent part of the Japanese work setting. Work spaces are crowded with individuals at different levels of the hierarchy. Subordinates can do little that the supervisor is not aware of and vice-versa. Even high-ranking office managers seldom have separate private offices. Partitions, cubicles, and small side rooms are used to set off special areas for conferences with visitors or for small discussions within the staff. In factory situations, the foreman is constantly on the floor discussing problems, helping with pieces of work, talking to outsiders, and instructing the inexperienced. Even senior plant managers spend as much time as possible on the shop floor.

Open communication is not limited to vertical exchanges. Periodic job rotation is instrumental in building extensive informal lateral communication networks across departmental boundaries. Without these networks, the transfer of much job-related information would be impossible. They are not included in written operational procedures, and thus are invisible to a relative newcomer; yet at the same time their use is implicitly authorized by the formal control system as a legitimate tool to get things done (Pucik, 1979).

The communication structure of large Japanese corporations is very similar to what Burns and Stalker (1961) labelled an "organic," as opposed to a "mechanistic," organization. The organic firm is open to information from the environment, and the direction of internal communication is more lateral than vertical, forming a "network" rather than a hierarchical structure. For managerial personnel in Japan, communication skills, especially communication downward and across departmental boundaries, are included as a major item in periodic performance appraisals. In fact, the ability to manage lateral communication networks is perhaps the most important one for a manager's effective performance (Pucik, 1981a). The emphasis given in the traditional literature on vertical relationships in Japanese organizations (e.g., Nakane, 1970) obscures the importance to a successful career of horizontal ties among peers.

The Japanese emphasis on developing a climate of open communication in the firm is parallel to similar approaches advocated by many Organization Development specialists in the West, especially for matrix-type organizations (e.g., Beer, 1980). Not surprisingly, Davis and Lawrence (1976) described Japanese managers as feeling most at home with the matrix concept and the communication patterns and behavioral styles associated with it.

Extensive communication is also an important component of the total control system. It supports a high degree of information-processing capability within the organization which permits the firm to take on tasks of great complexity without resorting to complicated and inflexible formal rules and structure (Thompson, 1967). As argued by Lawrence and Lorsch (1967), the need for communication across interdepartmental boundaries increases exponentially with the complexity of the environment. In that sense, by increasing the information-processing capacity, the communication component of Japanese human resource management techniques fits well with the needs of complex organizations facing high task uncertainty.

2. Job Rotation, Slow Promotion and Internal Training

Under conditions of lifetime employment, the hierarchical structure of organizations makes vacancies in higher positions emerge sequentially as each cohort moves a step closer to retirement. Promotion is thus unlikely to be rapid unless an organization is expanding dramatically. This limited upward mobility is another element that encourages lateral job rotation in Japanese organizations. Although formal promotion is slow, early informal identification of the "elite" is not unusual (Rohlen, 1974) and carefully planned lateral job transfers thereafter may add substantial flexibility to job reward and recognition (Ono, 1976). Not all jobs at the same hierarchical level are equal in their centrality or importance to the organization's activity (Schein, 1971). By assigning individuals to jobs that are at the same level but vary in their centrality, the organization can *de facto* discriminate in terms of both promotion and demotion among individuals who, within the formal system, share the same status, same salary, and same privileges (Rohlen, 1974). This informal recognition system has the effect of providing or withholding opportunities to learn skills required for future formal promotions.

Each transfer also increases the employee's chances of finding a niche in the organization for which he is especially well-suited. A good fit between the ability of the employee and the requirement of his job encourages the expenditure of effort (Nadler and Lawler, 1977). Furthermore, as indicated earlier, job rotation facilitates the development of informal communication networks which help in coordinating the flow of work across functional areas and in the speedy resolution of problems (Tushman, 1977; Roberts and O'Reilly, 1979). Finally, job rotation "unfreezes" an individual from being unresponsive to the demands of a particular job (Katz, 1980). On the negative side, too frequent rotation will create confusion both in the minds of employees and within the whole structure of the organization. Thus, carefully balanced timing and regularity of job rotation are necessary to generate the positive effects suggested above.

We have pointed out that job rotation is closely linked to the promotion system and mediates some of its restrictions on upward mobility. Another feature which increases flexibility is the emergence of a dual promotion system in many Japanese companies (Haitani, 1978). Promotion in "status" is based on the results of past evaluations and seniority within the firm, while promotion in "position" is based on evaluation results and the availability of vacancies in the level above. Therefore, even if immediate upper-level positions are blocked by a cohort of seniors, promotion in "status" will provide an employee with more respect and money. Delegation of authority is also frequent, so a position of responsibility can be assigned to an outstanding employee who does not fulfill the seniority requirements for promotion in "status" (Tsurumi, 1977).

Moreover, although one may argue that deferred promotion may be a source of frustration to highly promising employees, several positive influences ought to be noted as well. First, no particular individual is discriminated against; promotion rules are the same for all "relevant others" and thus are perceived as fair or "equitable" (Adams, 1965). Second, deferral may have positive motivational consequences. The public identification of "losers"--who, compared to "winners," are in the majority in any hierarchical organization--is delayed. This implies prolonged competition as the losers--still hoping to beat the odds--struggle to do well.

Besides its relevance for promotion, the in-house training typical of an internal labor market also facilitates job rotation. Because this training usually occurs on the job, it is, in most cases, highly economical; it does not require great administrative expenses and the employee learns skills that are largely relevant only to the production process (Williamson, 1975). The exception occurs, of course, when the skills are not available in the firm to begin with. Then learning on the job becomes more of a "trial-and-error" effort which at times might be rather costly to the organization.

The emphasis on job rotation creates an environment in which an employee becomes a "generalist," rather than a "specialist" in any functional area. Even these general skills, however, are for the most part still unique to the firm (Hazama, 1979). However, the specificity of a particular skill is not limited to its task content. It also includes familiarity with an appropriate "information map" that indicates where to obtain necessary job-related information, how to process it, and to whom it should be forwarded. Job manuals in Japanese companies are seldom well developed (Tsurumi, 1977), and many jobs cannot be performed by a relative newcomer who lacks knowledge about the relevant information exchange norms (Pucik, 1979).

3. Competitive Appraisal System

Employee evaluations in Japanese firms are usually conducted on an annual or semiannual basis. Although "bottom-line" performance results are the usual basis for evaluation of teams (Hazama, 1979), various desirable personality traits and behaviors, such as creativity, emotional maturity, and cooperation with others are also included. Especially for white-collar workers, personality and behavior, rather than output, are the key criteria (Ouchi and Jaeger, 1978), yet the difference is often merely symbolic. Output measures may be easily "translated" into attributes such as leadership skills, technical competence, relations with others, and judgment. In this way, the employee is not made to feel that the "bottom line," which may sometimes be beyond his control, is the key dimension of evaluation. Occasional mistakes, particularly for lower-level employees, are considered part of the learning process (Tsurumi, 1977).

At the same time, evaluations do clearly discriminate among employees, as each employee is compared to other members of an appropriate group (similar in age and status), and the competition is keen, especially among the white-collar group. Year after year, all managers at a given level are ranked according to their performance and future potential. This is done by the personnel department on the basis of raw scores submitted by line superiors. To assure objectivity, the scores from at least two superiors are required for each manager, but the scores seldom differ substantially.

A future- rather than a past-oriented evaluation system serves, however, as a powerful check on divisive competitiveness. What is rewarded is credibility and the ability to get things done in cooperation with others. Thus, the focal point of competition is building cooperative networks with the same people who are rivals for future promotions (Pucik, 1981a).

Although competition is primarily horizontal, and a competent manager does not have to fear being overtaken by a "rising star" among his subordinates, no position can be taken for granted. It is not unusual for some stars from the younger cohorts to start catching up with some of their poorly performing seniors, although it still takes 12 to 15 years after entry for this to happen.

The ranking within the cohort is generally not disclosed to the employees, but it can be partially inferred from small salary differentials and job assignments (Rohlen, 1974). At least in theory, the slow promotion system should allow for careful judgments even on such subjective criteria as the personality traits of honesty and seriousness (Ouchi and Jaeger, 1978). However, the authors' observations suggest that ranking within the cohort is usually established rather early in one's career and is generally not very flexible thereafter (Pucik, 1981b). A similar opinion about American firms was advanced by Hall (1976).

Although there is a danger, especially during the early career stages, that evaluation might be too subjective and impressionistic, the evaluation system in a Japanese company has several facets that may enhance organizational effectiveness. Most simply, because evaluations are based on the observations made by managers during their frequent, regular interactions with subordinates, the costs of such an evaluation system are relatively low (Williamson, 1975). The evaluation system, in conjunction with the ILM arrangements, has another interesting effect. Employees are not formally separated according to their ability until later in their tenure. Therefore, ambitious workers who seek immediate recognition must engage in activities that will get them noticed. Bottom-line performance is not an adequate criterion, since it is not the only focus of managerial evaluation. This situation encourages easily observable behavior, such as volunteer overtime, that appears to demonstrate willingness to exert substantial effort on behalf of the organization. The evaluation process becomes to a large degree "self-selective" (Akerlof, 1976; Miyazaki, 1977). Such self-selection is particularly necessary in the Japanese system, where the focus of management attention is less on grooming "stars" and more on encouraging the average employee.

When behavior, rather than "bottom-line" performance, is the focus of evaluation, means as well as ends may be assessed. This very likely leads to a better match between the direction of employee efforts and company objectives, and a long-term perspective is encouraged (Levinson, 1976). In addition, aversion to risk is minimized and creativity facilitated, both by the assumption of permanent tenure and by tolerance of honest mistakes in the evaluation process. This combination of security and incentives for challenging assignments creates what Pelz (1967) characterized as a "creative" challenge, an environment which nurtures innovations.

As group performance is also a focus of evaluation, peer pressure on an individual to contribute sufficiently to group performance becomes an important mechanism of performance control. Long tenure, friendship ties, and informal communication networks enable both superiors and peers to have a very clear sense of the employee's performance and potential relative to others. Moreover, basing evaluation and rewards on work group performance, so that all group members share the consequences of their efforts, tends to increase productivity as well as the level of mutual aid and tutoring (Wodarski, Hamblin, Buckholdt, and Ferritor, 1973).

4. The Emphasis on Work Groups

Not only evaluation but many other company policies revolve around groups. Tasks are assigned to groups rather than to individuals (Rohlen, 1974). Group cohesion is stimulated by the delegation of responsibility to work groups as well as by other job design features such as job rotation and group-based performance feedback. Acknowledging that the impact of groups is enormous--both directly, in terms of the enforcement of norms, and indirectly, in terms of their effect on the beliefs and values of the members (Hackman, 1976)--the organization devotes far greater attention to structural factors that enhance group motivation and cooperation than to the motivation of individuals.

Work group autonomy is enhanced by avoiding the use of experts to solve operational problems for specific groups. This would be regarded as outside interference and the result would be to undermine morale and leadership (Rohlen, 1974). One widely used group-based technique is Quality Control (QC) circles (Cole, 1979). A QC circle has as its major function the uncovering and solving of a particular workshop's problem. However, fostering motivation by direct participation in the design of the work process is also a major consideration in the introduction of QC circles and similar activities to the factory floor. In principle, participation is voluntary, but in practice, refusal to participate is unusual. The team operates autonomously with an emphasis on self-improvement activities that will help the achievement of group goals.

Nevertheless, in most work settings, work-group autonomy has clearly defined limits, as the company carefully coordinates team activities, controlling the training and evaluation of members, the size of the team, the scope and timing of job rotation, and sometimes the speed and amount of production (Cole, 1979). Yet within these limits, teamwork is not only an explicit part of a company's articulated philosophy, but actually forms the basic fabric of the work process. Job rotation is encouraged not only to develop each employee's skills, but also to avoid production losses for the group when one or more workers are absent because of illness or other unforeseeable circumstances. As noted above, having group performance as a focus of evaluation facilitates cooperation as members work toward the same goals. These elements of job design are similar to those proposed in work group job-enrichment programs in the U.S. (e.g., Hackman, 1977).

The group can also assist in developing job-relevant knowledge by direct instruction, by providing feedback about behavior, and by serving as "models" of correct or appropriate behavior (Hackman, 1976). In addition, being in close proximity to others increases psychological arousal and can enhance performance, particularly on routine tasks (Zajonc, 1965). From another perspective, peers in work groups can make assessments of an individual's performance on the basis of information that only they possess (Kane and Lawler, 1968) and hence can exert powerful control over an individual's career path. In recognition of this, an individual may attempt to be as productive as possible.

The structuring of tasks around groups serves a dual function: it not only enhances performance, but it also controls stimuli which are directly satisfying, such as acceptance, esteem, and sense of identity (McClelland, 1961). Satisfaction with group membership tends to be self-reinforcing, in that expecting to have to interact with another individual may increase one's liking for that other person (Darley and Berscheid, 1967), as does actual proximity with another individual and increased information about him (Berscheid and Walster, 1969). The translation of organizational membership into membership in a small group seems in general to be characterized by higher job satisfaction, lower absenteeism, lower turnover rates, and fewer labor disputes (Porter and Lawler, 1964). Finally, it has been found that jobs which are integrated with the work activities tend to be associated with more commitment to the organization (Salancik, 1977), since they involve demands from salient others.

5. Consultative Decision Making

The extensive face-to-face communication observed in Japanese companies is often confused with participative decision making. However, data from Pascale's (1978) study indicate that the extent of face-to-face communication bears no relationship to employees' perceptions of their level of participation in decision making. The usual procedure is that a formal proposal will be initiated by a middle manager, but often under the direction of top management (Hattari, 1978). Some observers of the Japanese decision-making process argue, contrary to the popular belief expressed in numerous papers (e.g., Yoshino, 1968; Drucker, 1975), that this process is not "bottom-up"; it is rather a top-down or interactive consultative process, especially when long-term planning and strategy are concerned (Kono, 1980).

The middle manager will usually engage in informal discussion and consultation about the decisions with his subordinates, peers, and supervisors. When all are familiar with the proposal, a request for a decision is made formally at an appropriate level; and, because of the earlier discussions, it is almost inevitably ratified, often in a ceremonial group meeting or through the "ringi" procedure. All this does not imply unanimous approval of the proposed decision, but it does imply consent to its implementation.

This kind of decision making is not "participative" in the Western sense of the word, which includes the idea of negotiations and bargaining between a manager and his subordinates. In the Japanese context, the negotiations are primarily lateral, between the departments concerned with the decision.

Within the work group, the emphasis is on inclusion of all group members in the process of decision making, rather than on a consensus about the alternatives. However, the manager will usually not state his position "until others who will be affected have had sufficient time to offer their views, feel that they have been fairly heard, and are willing to support the decision even though they may not feel that it is the best one" (Rohlen, 1974, p. 308).

Those outside the core of the decision-making group merely express their acknowledgment of the proposed course of action. They do not participate; they do not feel ownership of the decision. On the other hand, early communication of the proposed changes helps to reduce uncertainty in the organization (Thompson, 1967). In addition, prior information on upcoming decisions provides employees with an opportunity to rationalize and accept the outcomes (Janis and Mann, 1977).

Another interpretation is suggested in Weick's (1969) critique of participative decision making. He argues that classic participation may result in compromise and destruction of the polarized responses that aid organizational adaptation to a changing environment. Weick proposes that a decision-making procedure that permits alternative expressions of polarized responses would be more suitable for adaptation. This is close to the Japanese style of decision making where the opposing party is willing to go along, expecting his point to carry the day the next time around (Hattari, 1978). On the negative side, the flexibility of organizational responses in many Japanese organizations is constrained by the relatively slow speed of an inclusive decision-making process.

It is frequently asserted that one consequence of the decision-making process in Japan is the difficulty of assigning responsibility for eventual mistakes (Yoshino, 1968; Tsuji, 1968). However, Clark (1979) calls this assertion "misleading," citing the large number of Japanese firms managed by a strong and powerful chief executive. It follows from this fact that the avoidance of individual responsibility is far from being an inherent psychological trait of Japanese people, as is often claimed (e.g., Yoshino, 1968).

Our own observations suggest that patterns of responsibility may be substantially different for lower- and upper-level employees. While occasional mistakes may be accepted as an unavoidable part of the learning process for lower-level employees, senior managers are often required to accept sole responsibility for faulty decisions to which many others expressed their consent (Tsurumi, 1977). In this respect, careful distinction between "actual" and "symbolic" responsibility is always observed (Clark, 1979). Although the locus of responsibility may appear ambiguous to outsiders, this merely reflects its shifts that result from the differentiation between formal status and de facto authority discussed earlier. In that sense the decision-making system appears to be very flexible, as it allows responsibility to be diffused in accordance with the needs of the moment, rather than being tied to the formal structure of the organization. At the same time, the opportunity for deliberate manipulation of responsibility is also present and should not be discounted.

6. Concern for the Employee

Informal communication not only helps to facilitate decision making, but it also forms a channel through which management can express concern for the well-being of employees. Managers invest a great deal of time in talking to employees about everyday matters (Cole, 1971), and the quality of their relationships with subordinates is also an important part of their evaluation. They thus develop a feeling for their employees' personal needs and problems, as well as for their performance. Obviously this intimate knowledge of each employee is facilitated by the employees' long tenure, but managers do consciously and explicitly attempt to get to know their employees and place a premium on having time to talk.

The company deepends its involvement with employees' lives by sponsoring various cultural, athletic, and other recreational activities. The schedule of company social affairs is usually heavy. These activities are ostensibly voluntary, but virtually all members participate. Rohlen (1974) describes an annual calendar of office events: it typically includes two overnight trips, monthly Saturday afternoon recreation, and an average of six office parties, all at company expense. A great deal of drinking goes on at these events and much good fellowship is expressed. Discussion in an informal atmosphere is also characteristic of the evening social activities of the work team, which are often subsidized by the manager's budget.

Finally, the company allocates substantial financial resources to pay for benefits that are given all employees, such as a family allowance and commuting and other job-related allowances. Furthermore, there are various welfare systems that "penetrate every crack of workers' lives" (Hazama, 1979, p. 43). These range from company housing, dormitories, and housing loans through company nurseries and scholarships for employees' children, to credit extension, saving, and insurance. Thus, employees perceive their own welfare and the financial welfare of their company as being identical (Tsurumi, 1977). Data presented by Steers (1977) indicate that the employees' level of commitment is strongly related, among other things, to feelings of personal importance to the organization, which are based upon actions of that organization over time, and to the extent to which the organization is seen as dependable in carrying out its commitments to employees.

The reciprocal relationship between the employee and the organization is especially crucial. The system that we have described is based on the understanding that in return for the employee's contribution towards the company's growth and well-being, the profitable firm will provide him with a stable and secure work environment and protect his welfare even during a period of economic slowdown. However, there is nothing uniquely Japanese in this exchange. On the contrary, the following observation about employees' behavior in Japanese firms may well be made about employees in any American organization: "The behavior for the company which may appear to others as self sacrificing is not a sacrificing for the benefits of others at all, it is for the benefit of his own self" (Hazama, 1979, p. 115).

DISCUSSION

We have proposed an alternative model of the Japanese management system that rests fully on elements and relationships observable in other cultures. Our position is empirically supported by several recent studies that indicate the existence of similar operational patterns in Western companies (e.g., Tsurumi, 1977; Ouchi and Jaeger, 1978; Ouchi, 1981; Pascale and Athos, 1981), as well as by the relative ease with which the "imported" management techniques are introduced in Japanese subsidiaries abroad (Johnson and Ouchi, 1974; Takamiya, 1980). Several of the companies in the former category are among the largest of American corporations, with records of innovation, growth and high employee morale.

There are indeed many cultural differences between people in Japan and those in Western countries. However, this should not distract our attention from the fact that people in every country also have a lot in common. In the work place, they value decent treatment, security, and an opportunity for emotional fulfillment. It goes to the credit of Japanese managers that they have developed organizational systems which, even though they are far from perfect, respond to these needs to a great extent.

The strategies and techniques we have reviewed constitute a remarkably well-integrated system. The management practices are highly congruent with the way tasks are structured, with the goals of individual members, and with the climate of the organization. Such a "fit" is expected to result in a high degree of organizational effectiveness or productivity (Nadler and Tushman, 1977).

The relationship among the organizational paradigm, strategies, and techniques employed by management in many Japanese organizations is fairly complex. It is not a causal chain of policies leading to desired outcomes, but rather an integrated system that combines economic incentives and social control to achieve goal congruence on individual, group, and organization levels. It is also a reciprocal relationship: the employee's contribution to the organization is matched by the organization's providing him with economic security and creating conditions for fulfillment of his emotional needs.

An additional point ought to be made in order to illustrate the generality of the model presented above. Neither wage administration based on seniority nor enterprise unionism is included as a significant systemic variable, although these, together with permanent employment, are usually ranked as the three major characteristics of Japanese employment practices (e.g., Yoshino, 1968; Haitani, 1978). However, contrary to conventional appraisals, we believe that the significance of these phenomena is much overestimated because of their high visibility.

First, the exclusivity of the Japanese wage system is exaggerated. The high positive correlation between salary level and age or tenure is a well-established fact confirmed in a number of studies and from several cultural settings (e.g., Koike, 1978). In particular, it is argued that the salaries in an ILM are highly correlated with seniority (Doeringer and Piore, 1971; Mace, 1979). The difference in wages between the employees with the highest and lowest seniority is probably bigger in Japan than in other industrialized countries, primarily as a consequence of wage arrangements made early in the postwar period (Dore, 1973). Yet were this difference to be modified, no great impact on the overall effectiveness of the management system would be felt, as the seniority-based wage system is not the only barrier to interfirm mobility in Japanese firms. The wage differentiation between large and smaller companies is probably as important, along with the simple fact that a firm with an internal labor market has no incentive to hire a mid-career recruit at anything other than entry-level wages, as most of his skills are not transferable. Only under special circumstances, when an employee's skills are marketable, can he realize their full value even under the present seniority system.

Second, with respect to the enterprise union system, evidence shows that successful application of the outlined management practices is possible even in union-organized plants in countries like Britain, known for her craft-based militant unionism (Takamiya, 1980). In our interpretation, what is important is the favorable climate of labor-management relations. This can be achieved by many different organizational arrangements, and the existence of enterprise unions may be an effect, rather than a cause, of the mutually beneficial reciprocal relationship between the employee and his company.

There are, however, other contingencies that may limit the applicability of the proposed techniques. As we have indicated, the practices described and the resulting efficiency can be observed primarily in large Japanese manufacturing corporations. In the service industries, even among large firms, and in parts of the public sector, the effectiveness of the system is markedly lower. This brings up an important question, namely, to what extent is the system's effectiveness facilitated by such factors as the dominant technology of the firm, or patterns of control and ownership?

The system also implicitly assumes the near equality of the rights of employees, management, and owners. The institutional arrangements in some countries may in fact operate against such equality. Moreover, general economic conditions are obviously an important additional intervening variable. During recessions, the system's stability in many Japanese firms relies to some degree on a reduction in a "buffer" labor force, be it women, reemployed retirees, or subcontractors. This pattern may be difficult to replicate in other countries, but as the evidence shows, that does not preclude the emergence of the ILM structure (Doeringer and Piore, 1971). In addition, cuts in overtime, freezes on hiring, reduction of bonuses, and temporary transfers are other effective and often used measures that protect the basic job security while keeping labor costs flexible (Rohlen, 1979).

We have also pointed out several areas where implementation of some of the techniques may invite unwanted consequences. The most critical are probably the quality of evaluations, the speed of decision making, the rigidity of promotion, and the effectiveness of on-the-job training programs. However, contrary to many, we do not consider fixed labor costs a critical issue. It is true that many firms in Japan currently suffer from the increasingly high costs of an aging labor force, but this problem will ease considerably when the size of the work force is adjusted to the requirements of slower economic growth. Further automation of production processes will also help to lessen the impact of aging.

IMPLICATIONS FOR BUSINESS STRATEGY

So far we have focused primarily on the relationship between Japanese human resource management practices and employee commitment and productivity. However, several important organizational characteristics, directly tied to the area of business strategy, are also heavily influenced by the management style described in detail above. Therefore, an assessment of how Japanese management practices influence strategy formulation and implementation would provide a fitting conclusion to our discussion.

Competitive Spirit. First of all, the long-term socialization of employees, in combination with the articulated "distinct" company philosophy, is conducive to the development of an organizational culture which emphasizes competition. The world outside the firm is perceived in terms of foes and friends, markets to be captured or defended. The purpose of the organization is to survive as a group, a task possible only through besting its current and potential rivals, both in Japan and overseas.

Japanese managers are brought up in an atmosphere of competitive rivalry that gradually permeates every action and decision they make. The activities of the firm are continuously scrutinized with respect to its impact on its major competitors (Ohmae, 1982). Intensive defensive and offensive scouting is built into all external operations and gathered intelligence, accompanied by summaries pointing out its consequences for future market battles, is distributed widely throughout the organization (Tsurumi, 1977).

Contrary to the popular image of "Japan, Inc.," where the government and private industry support each other in an oligopolistic collusion, competition in Japan is very keen. Often, the foreign market strategies of Japanese firms are products of the competitive circumstances at home. For example, the heavy emphasis on exporting by relative newcomers in their respective fields, such as Sony in consumer electronics and Honda in automobiles, was made imperative largely by the difficulties encountered in competition with the established domestic producers. At the same time, ignorance of the competitive nature of the Japanese market has so far prevented most foreign firms from recognizing conflicting interests among their Japanese counterparts, and building successful alliances for the penetration of markets in Japan.

Long-term perspective. It is not, as often thought, superior planning that enables the Japanese to execute consistent business strategies. Rather, it is the absence of short-term incentives that may otherwise distract managers from the pursuit of long-term corporate objectives. Although bonuses are usually tied to current performance, the fact that one cannot escape the consequences of one's decisions, as most employees are expected to remain in the organization for most of their working lives, tends to minimize the danger that an employee will take advantage of the current circumstances at the expense of future goals.

In addition, the reliance on the future well-being of the company to provide for individual welfare, coupled with the future-oriented appraisal system, makes it easier to incorporate long-term strategic objectives into the management of everyday operations, with a minimum of formality and complexity. There is no need for "sophisticated" reporting systems which attempt to use complex formulas to direct executives and managers in a proper direction. In this respect, "perseverance" and "commitment" are equal to "harmony" and "team spirit" in the arsenal of desired, and rewarded, corporate values.

The impact of a long-term strategic perspective is clearly visible in the way the Japanese on the one hand, and many Western firms on the other, view joint ventures and other kinds of technological and marketing tie-ups.

The Japanese perceive such relationships as a temporary arrangement that will rectify some of their competitive weakness and that should, in the long run, lead to their dominance in the partnership; the foreign firms are generally content with short-term gains from such endeavors, without considering the long-term competitive consequences. This perceptual difference does not mean that a long-term mutually advantageous relationship with Japanese partners is impossible. It can be done, but only as long as a long-term competitive parity is maintained.

Emphasis on Market Share. It has been asserted that the Japanese firms' desire to maintain stable employment, combined with a heavy dependence on debt financing, increases the "real" fixed costs of production. It follows that in times of business retrenchments, it is more advantageous to slash prices and keep output high than to follow the strategy typical of Western firms and attempt to protect margins by trimming output and consequently employment.

However, it was pointed out recently that the high debt/equity ratio in Japan relative to other industrialized countries is more a reflection of different accounting practices and definitions, and if market values of debt and equities are used for calculations the difference is much smaller than commonly thought (Kuroda and Oritani, 1980). In the same manner, there is evidence to demonstrate that while employment holds steady during recessions, in Japan, actual labor costs show more flexibility than those in the U.S. (Shimada, 1980). It seems, therefore, that the rationale for the market-share orientation of Japanese business strategies must be sought elsewhere.

In this respect, a market-share orientation fits well into the system of Japanese management practices, as it provides an objective measure of competitive standing, independent of current investment and R & D strategies or changes in depreciation and tax rules, that is clear and understandable to anyone in the organization. At the same time, it has been shown that market share over the long run is a good predictor of corporate performance expressed in more traditional financial terms (Buzzell, Gale, and Sultan, 1973).

For most Japanese firms driven by their competitive orientation, market share is ultimately a worldwide concept. To retreat from a market territory or a product segment under a challenge from a Japanese competitor will therefore do nothing more than buy time before the remaining markets also fall under siege. Just as self-defeating is the attempt to piggyback onto Japanese manufacturing prowess and use them as OEM suppliers for domestically well-established brands. Sooner or later they will go alone, with only crumbs left for their former partner. Again, maintaining competitive parity is the only way to secure a fruitful long-term arrangement.

Internal Growth. The value system of Japanese managers and executives places a premium on maintaining the corporation as a semipermanent group of individuals tied together with lasting bonds. For that reason, divestitures, mergers, and acquisitions, especially involving unrelated firms, are unusual in Japan, and hostile takeovers are for all practical purposes next to impossible (Clark, 1979).

This might be somewhat detrimental to the efficiency of resource allocation in the economy, but once it is clearly established that the only way to grow is from internal competitive strength, the strategic implications are clear: there is no shortcut, no other way, than concentrating on making a product which fits customers' needs and is cheaper and of better quality than the competitor's product.

Under such conditions, it is natural that production becomes a major strategic concern resulting in an emphasis on continuous product and process innovation, on upgrading quality, and on lowering costs (Wheelwright, 1981). The production area is viewed as a key to corporate survival in the long run, and is staffed by high-quality managers with good chances of advancing eventually to top executive positions.

Usually top management is also closely involved with production, as they and their staff are free from having to spend time planning takeover strategies or putting together defenses against them. Given the limits on executive time, the acquisition route to growth, in contrast to the Japanese strategy, may entail rather substantial opportunity costs.

In addition, the focus on internal growth permits the organization to pursue strategic changes incrementally, so they can be more easily absorbed by the organization. The "logical incrementalism" advocated by Quinn (1980) is a concept familiar in practice to managers in many Japanese firms. Moreover, internal growth allows the organization to satisfy the career aspirations of many employees creating vacancies in new areas of business to be staffed from within.

Aggressive Innovation. It was pointed out earlier that the nature of the competitive appraisal system in Japanese firms, and the rapid reception and dissemination of new ideas possible in an "organic" form, should encourage innovation. This notion is contrary to the stereotypic image of the Japanese as poor innovators constrained in exploration of new frontiers by a group desire to maintain consensus and harmony (Lohr, 1982). In this respect, the evidence is clear: the Japanese do innovate and probably as fast as, if not faster than, most businesses in other countries (Moritani, 1981).

One reason for the discrepancy between the stereotype and the reality is the misunderstanding of innovation processes in the organization. It is not only the bright idea that counts, but the process of bringing the product based on the new idea to market. In the competitive game, the origin of the idea is often secondary. After all, neither computers, jet engines, nor scanners were invented in the U.S. It is in the implementation process that the Japanese have an advantage, with their carefully built, world-wide monitoring systems on the outside, and the high level of interface, coordination, and teamwork on the inside, involving everyone concerned with development, design, and manufacturing.

Secondly, it is widely believed that a lack of venture capital in Japan limits incentives for innovation, as it is very difficult for R & D personnel to leave their employers and strike out on their own, a pattern common in the U.S. (Business Week, 1981). However, a closer look reveals that this difference may also be an advantage for the Japanese.

With their stable research teams shielded from the temptation of windfall profits as independent entrepreneurs, Japanese companies are well poised to capitalize quickly on newly acquired knowledge. Rather than working in the secrecy of the family garage, the Japanese engineer is working on a new invention in the corporate laboratory, in regular communication with those responsible for its future commercial adaptation. Then, once an innovative idea is proven to be potentially promising, the organization can move very quickly to the adoption phase, as everyone concerned is already familiar with the new product's characteristics.

The close cooperation and communication between the research engineers on one side and production and market personnel on the other that is built into the Japanese management system greatly facilitates the commercialization of new innovations, and assures the integration of research and development with other critical corporate functions. A steady feedback of market information to the research personnel makes it more likely that research and development will result in products that meet market needs. Participation of production engineers in the development process increases the likelihood that the newly designed product can be built efficiently with available production technologies or new technologies that will be available shortly. Thus, rather than remaining an exclusive domain of R & D professionals, the innovation process is diffused widely throughout the organization, enlarging the strategic alternatives available to the firm, especially in the high technology arena.

Conclusions

In many countries it is possible to observe firms as committed as the Japanese to growth through a superior product and process innovation. Well-run U.S. firms use management practices quite similar to those we have pointed out as typical for the Japanese. What makes the Japanese special, but by no means unique, is their concentrated effort to develop systemic solutions to managerial problems--to match cultural, organizational, and strategic imperatives in an integrated management system.

During the 1980s the Japanese will be facing new challenges. Their economic growth is sluggish compared to the past, and unemployment levels are creeping up, while savings rates critical to new investment are falling. Rising protectionism abroad will make it difficult to continue stimulating the economy by exports. The changing age structure of the labor force may result in an explosion of welfare expenditures in the near future, further straining the deficit-ridden public finance (Drucker, 1982).

However, in our opinion, the built-in competitive drive on the corporate level will strengthen Japan's ability to tackle these problems. Some setbacks might occur, but by and large the Japanese will remain the principal challengers of Western firms in world markets. There is no shortcut other than to meet this challenge. Concession bargaining, marketing gimmicks, and shuffling of assets through acquisitions will do no more than provide a bit of breathing space. In the long run, the only feasible response is to do better what the Japanese are doing well already--developing management systems that motivate employees at all levels to pursue growth-oriented, innovation-focused competitive strategies.

Footnotes

[1]The paper greatly benefitted from the helpful comments on the earlier version that appeared in the Academy of Management Review by Mitsuyo Hanada, Hiroshi Hazama, Kazuo Koike, William H. Newman, William Ouchi, Thomas Roehl, Susumu Takamiya, Michael Tushman, and others.

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