The authors present guidelines for developing proactive human resources management systems that tap the organization's full complement of human capabilities while supporting—if not driving—the formulation of new business strategies.

**Designing Strategic Human Resources Systems**

Raymond E. Miles  
Charles C. Snow

Top executives of many U.S. corporations are giving renewed attention and according added status to human resources functions and specialists. This new emphasis, we believe, has two prime sources. First, prompted largely by the Japanese challenge, U.S. managers are focusing on improved human resources management as a means of restoring the competitive position of their companies in an increasingly challenging global marketplace. Second, farsighted managers are recognizing the crucial role of human resources management as the United States moves further into the complex and changing new world of a high-technology, service-based economy.

As part of this renewed emphasis on human resources management, human resources specialists have begun to stake a claim on the strategic planning process, arguing that participation in the “front end” of business planning is essential to meeting the long-run needs of the enterprise. Human resources planners have started to learn the language and techniques of strategic planning, have assumed a more proactive stance in promoting strategic thinking in the human resources area, and have extended the per-
sonnel function well beyond the limits of its traditional activities.

Despite these encouraging signs, however, very few companies are actually practicing strategic human resources management today. To assist the process, this article gives a conceptual framework that links product-market strategies and human resources management systems. The ideas and guidelines offered here come largely from our research on business strategies and from the application of these research findings in Canadian Pacific, a company that has wrestled with and solved several key strategic human resources issues. Essentially, we argue that the human resources management system must be tailored to the demands of business strategy. In multibusiness firms, this may require the human resources department to be polydextrous—able to offer services to a wide variety of strategic business units. In addition, we believe that human resources units should have staff with professional consulting skills, particularly in the area of organization design and development. Last, we speculate about the human resources department of the future and conclude that it will probably be called on to perform many different roles, including that of broker among various specialized groups both within and outside the organization.

In the following sections, we first discuss the historical evolution of business strategies and their associated organization structures and human resources management systems. Next, using examples drawn from three well-known companies, we identify the key human resources implications of some familiar competitive strategies. Third, we describe Canadian Pacific as a company that exhibits most of the elements of a strategic human resources management system. Finally, we present our conclusions.

**Business Strategies**

Beginning in the early 1970s, we have investigated the competitive strategies of several hundred companies in more than a dozen widely different industries. In almost every study, we have encountered impressive and sometimes dramatic competitive strategies and tactics. Over time, however, we became convinced that all of these competitive approaches revolve around a few fundamental business strategies that appear to be present, to a greater or lesser extent, in every industry. Put simply, we have either observed, or have had described to us, three basic types of strategic behavior and supporting organizational characteristics that we have called the Defender, Prospector, and Analyzer. Briefly, these types can be described as follows:

- **Defenders** have narrow and relatively stable product-market domains. Top managers in this type of organization are highly expert in their organization's limited area of operation but tend to search outside of their domains for new product opportunities. As a result of this narrow focus, these organizations seldom need to make major adjustments in their technology, structure, or methods of operation. Instead, they devote primary attention to improving the efficiency of their existing operations. Defender characteristics include a limited product line; single, capital-intensive technology; a functional structure; and skills in production efficiency, process engineering, and cost control.

- **Prospectors** continually search for product and market opportunities and regularly experiment with potential responses to emerging environmental trends. These organizations often are the creators of change and uncertainty to which their competitors must respond. However, because of their strong concern for product and market inno-
Raymond E. Miles is professor of business administration and dean of the School of Business Administration at the University of California, Berkeley. A main theme of his research and writings over the past 15 years is the changing nature of managers’ own theories and philosophies of management. His early work focused on the effects of alternative theories of management on relationships and performance within the superior/subordinate work team. More recently, his work has focused on the ways in which organization strategy and structure are influenced by managers’ theories of management. He has done research in or consulted with a wide variety of public and private organizations. His published works include four books and more than 30 articles. His most recent books are Organizational Strategy, Structure, and Process with Charles C. Snow (McGraw-Hill, 1978) and Organization by Design with Mariann Jelinek and Joseph Litterer (Business Publications Incorporated, 1981).

Analyzers operate in two types of product-market domains—one relatively stable, the other changing. In their stable areas, these organizations operate routinely and efficiently through use of formalized structures and processes. In their more innovative areas, key managers watch their competitors closely for new ideas, and then they rapidly adopt those that appear to be the most promising. Analyzer characteristics include a limited basic product line; search for a small number of related product and/or market opportunities; cost-efficient technology for stable products and project technologies for new products; mixed (frequently matrix) structure; and skills in production efficiency, process engineering, and marketing.

Knowledge industry observers typically find it relatively easy to characterize the basic strategic orientations of key firms in an industry as Defender, Prospector, or Analyzer. We have also used the typology with top-level executives in sessions designed to formulate or review business strategy. In our experience, successful firms display a consistent strategy supported by complementary organization structures and management processes. We have designated as Reactors those firms in which strategy-environment inconsistency exists, or in which strategy, structure, and process are poorly aligned. There is some evidence that, except in highly regulated industries, Reactors perform less well than the other three types.

Historical Developments

Why are these three competitive strategies found in so many industries? And why are they apparently so robust? Alfred D. Chandler Jr.’s description of U.S. business history, we believe, provides a basis for the answers to these questions. Writing about the period from approximately 1850 to 1960, Chandler chronicled major developments in business
Charles C. Snow is associate professor of organizational behavior in the College of Business Administration at The Pennsylvania State University. He holds a Ph.D. from the University of California, Berkeley, and did postdoctoral research at Stanford University. He has written many articles on strategic management and organization design. He is the director of Penn State's Management of Managers Program and is a frequent lecturer in other executive development programs both in the United States and abroad.

strategy, organization structure, and management process. Owner-managed companies were predominant during the 1800s. These organizations were often limited to a single-product line and a structure in which all major decisions were made directly by the owner-manager. The chief executive attempted to monitor all activities, and the staff served merely as an extension of the top executive's will. (We have referred to these organizations as using an "agency" structure to reflect the basic relationship between owner-managers and their key subordinates, who acted as agents of the owner-managers in solving problems without the clearly defined functional specialization found in today's organizations. See Exhibit 1 for the evolution of strategic forms.) Such organizations could move quickly and forcefully in limited areas, constrained primarily by the expertise and energy of their chief executives. Size and complexity were, of course, the natural enemies of organizations built around a single strategic decision maker, particularly one whose entrepreneurial instincts might lead away from ongoing operating problems.

Organizations that moved beyond the agency form usually did so by developing or attracting professional managers who tried to rationalize the allocation of resources accumulated by owner-managers. Rationalization took the form of dividing the organization's task so that they could be managed by career administrators with specialized skills. The end point of these efforts was the functional organization structure: separate departments of production, sales, finance and accounting, and so forth, all of which were controlled centrally through a master operating plan and budget. The functional organization, which appeared around the turn of the century, usually produced a limited line of related products with a common production technology. Growth occurred chiefly through vertical integration (primarily by acquiring suppliers to guarantee inputs for a stable production process) and market penetration. The structure of functional organizations proved to be a cost-efficient and profitable means of providing standardized products on a high-volume basis to a limited number of growing markets.

However, as Chandler pointed out, the rigid, vertically integrated structure did not allow easy movement into new market or product areas. By dividing activities along functional lines, such organizations fostered specialists rather than generalists. Only at the top of the management hierarchy was there reason or the wherewithal to evaluate the system as a whole or the information and expertise to coordinate its parts. Moreover, members of top management tended to ap-
approach problems from the viewpoint of their previous functional specialty.

Even successful functional companies eventually found their growth constrained as their traditional markets became saturated. They had the financial resources and technologies to expand their product lines, but each succeeding product or market innovation became increasingly difficult to administer within the confines of the specialized functional structure. It was against this backdrop—the desire to diversify thwarted by administrative complexity—that the search for yet another organizational form began.

Chandler described the almost simultaneous evolution of divisional structures in four pioneering firms during the 1920s and 1930s: General Motors, Du Pont, Standard Oil of New Jersey, and Sears, Roebuck. In each of these firms, a financial or operating crisis served to speed up tentative plans for reorganization that were already under way. That is, diversification efforts had led each firm into situations in which overburdened top managers had lost control over funds, inventories, key entrepreneurial decisions, and so forth. The move to place a series of general managers in charge of self-contained product or regional divisions, which could then be evaluated on the basis of profit performance, was viewed as essential if control were to be maintained and expansion continued. Each division could be directed toward a particular market, could design and produce its own product or service, and could make the operating decisions necessary to coordinate its own functionally structured components. In a sense, each division faced the same set of problems that the larger parent organization had failed to solve, but now the magnitude of these problems was reduced to more manageable proportions.

At the corporate level, officers could devote their time to decisions about capital expenditures, relationships with competitors and constituencies, movement into new markets, and so forth. In addition, top management could use the profits of the operating divisions to maintain corporate staff specialists who, unencumbered by day-to-day demands, could guide the firm's efforts to extend the state of the art in its product or service area. Thus, for example, research and development could occur both at the division level (focused on specific products and markets) and at the corporate level (focused on more basic, industry-advancing problems).

By the 1950s it was clear that the development of the divisional structure provided not only a means of managing the organization's current diversification, but also a clearly understandable mechanism for further growth. New product or service divisions could be formed easily, subject only to the availability of capital from the corporate office and limited in number only by the then-distant danger of overloading the total system. But during the 1960s and 1970s, many companies were being drawn or pushed out of their existing structures by simultaneous market demands for efficiency (the strength of the functional structure) and responsiveness (the strength of the divisional structure). Functionally structured firms seeking to improve their capacity for product development (or their ability to respond to government contracts for prototypes) appended project structures to their basic form. Conversely, divisionalized firms sought to match the cost efficiency of their single-product competitors by centralizing some operating units (for example, manufacturing) and allowing them to serve several divisions. In aerospace, the need to allocate human resources to both standardized and customized product groups pulled firms in opposing directions. The result of these pressures, com-
Exhibit 1

**EVOLUTION OF ORGANIZATION FORMS**

<table>
<thead>
<tr>
<th>Product- market strategy</th>
<th>1800</th>
<th>1850</th>
<th>1900</th>
<th>1950</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization structure</strong></td>
<td>Single product</td>
<td>Limited standardized product line</td>
<td>Diversified product line</td>
<td>Standard and innovative products</td>
<td>Stable and changing markets</td>
</tr>
<tr>
<td><strong>Governance process</strong></td>
<td>Agency</td>
<td>Functional</td>
<td>Divisional</td>
<td>Mixed (for example, Matrix)</td>
<td>Control by person, plan, and/or market performance</td>
</tr>
</tbody>
</table>

Combining with diversification opportunities, was the development of today's "mixed" organization forms, the most visible being the matrix structure.

**Strategies New and Old**

Chandler's historical discussion of strategy and structure suggests that today's organizations are essentially products of their ancestors. Note, for example, that those organizations we have called Defenders have limited product or service lines, functional structures, and centralized planning and control systems focused heavily on cost efficiency—much the same form exhibited by large, mature U.S. companies before the 1920s. Similarly, Prospectors correspond in many ways to the divisionalized organization that emerged in the 1920s and 1930s and proliferated in the 1950s. That is, Prospectors seek to develop broad, diversified product lines, and they tend to structure these product groups into decentralized operating divisions.

Analyzers appear to have more or less deliberately adopted a form combining elements of both the functional and divisional structures. Small Analyzers are alert to diversification opportunities but tend to limit their expansion activities to those that can be handled by the present production technology and organization structure (typically functional). Larger Analyzers create semiautonomous divisions to handle major diversification efforts but tend to do so only when those products and markets are viewed as relatively stable and manageable. Typically, large Analyzers use matrix structures to handle market and product innovations until these can be incorporated into the established production system.

Perhaps it should come as no surprise that today's business strategies represent variations and improvements on previous strategies. Although the language may be new—low-cost producer (Defender), product differentiator (Prospector), focused operation or nichemanship (Analyzer)—the over-
all strategic orientations are essentially the same. Therefore, it seems logical that these three basic strategies would be both lasting and widespread in U.S. industry. Furthermore, the organizational arrangements needed to support these strategies have a lengthy history, from the early agency and functional structures to today's divisional and matrix structures. Thus, until new organization forms are invented and refined, managers are likely to rely on structures and processes in which they have experience and confidence.

Unfortunately, as many companies are realizing today, a major barrier to the development and implementation of new strategies and structures is designing the appropriate human resources management system.

The Human Resources Function

Historically, personnel departments did not exist in agency organizations. Owner-managers hired, fired, trained, developed, and rewarded their own assistants (agents) and, in the larger organizations of this type, first-line supervisors had virtually complete control over their own work crews. Personnel departments first arose in functional organizations, and they performed a fairly broad set of services. These services grew out of a tradition of improved work methods associated with Scientific Management, the rise of trade unionism during the later 1800s and early 1900s, and the presence in some companies of so-called social or welfare secretaries (managers concerned with such employee matters as housing, medical care, educational facilities, recreational activities, and so forth). The establishment of a labor department at the National Cash Register Company in 1902 is generally recognized as the first formal personnel department. By 1917, there were ten employment managers' associations throughout the United States with over one thousand member companies. Although the services performed in these early personnel departments varied somewhat across companies, they typically included recruiting, selection, recordkeeping, training, time-and-motion studies, welfare, and union relations. Historically, top management expected these personnel activities to maintain employee morale and cooperation. However, the concept of personnel contributing to the acquisition and development of valued human skills began to emerge in the post-World War I period.

One of the great managerial achievements of functional organizations was the application of specialization, standardization, and synchronization to a variety of tasks. To maximize the benefits of these efficiency concepts, it was necessary to attract, select, and hold the "right" kinds of employees and to train them for their predefined jobs. Personnel thus came to perceive its basic role as that of acquiring, training, and maintaining the various specialists needed by functional organizations. In this sense, the personnel function was well suited to the strategic objective of the functional organization, which was to produce a limited line of products or services in as efficient a way as possible.

The modern personnel department appeared with the rapid spread of divisionalized organizations in the 1950s. These departments retained expertise in job analysis, selection, training, and other activities developed by their predecessors. In addition, they became more professional and sophisticated by hiring highly qualified human resources specialists at the corporate level while decentralizing basic maintenance activities to the operating divisions. In this way, more elaborate pay and incentive packages, and to
some extent human resources philosophies, could be developed and standardized across divisions. Other activities, such as management development programs, staffing planning, and job rotation, could be tailored to suit the needs of a particular division (or group of divisions). Finally, corporate specialists in leadership training, employee relations, assessment centers, and other areas could serve as in-company consultants to the various divisions.

Thus, the personnel departments in many divisionalized companies became recognized for their developmental and consulting roles as well as their acquisition, training, and maintenance roles. The primary focus of personnel activities began to shift from the employee to the middle manager, from the short to the intermediate term, and from employee skills training to managerial education and development. All of these activities helped to support the divisionalized organization's basic strategy, which involved having enough qualified executives to manage the various businesses generated by diversification.

With the proliferation of mixed-form organizations (project and matrix-like structures) during the 1960s, and their demands for the efficient lateral allocation of scarce technical specialists, personnel (now called human resources) departments were often asked to perform three new tasks: (1) assisting in locating competent project managers and starting their teams, (2) aiding in the internal career progression of members moving between two or more project groups, and (3) helping to select managers as heads of strategic business units. The mechanics of these newer structures now called for human resources units to accentuate planning and allocation roles in addition to their previously defined roles. Clearly, these structures represent the most vivid instances of the importance of linking these two vital processes: strategic planning and human resources planning.

HUMAN RESOURCES SERVICES, ROLES, AND STRATEGIES IN THREE COMPANIES

The basic services provided by human resources units are well known and common to most organizations. These specialized services can be classified according to the organization forms and human resources roles discussed earlier (see Exhibit 2 for a partial but representative list of human resources services). Although most organizations need the services listed in Exhibit 2, the priorities assigned to each and the manner in which they are performed may, and in many instances should, vary in accordance with the organization's strategy.

To illustrate the basic business strategies a human resources unit might be asked to support, let us, as suggested previously, take a brief look at three companies that are very different in terms of strategy, organization structure, and management process, but at the same time are leaders in their respective industries.

Lincoln Electric

Lincoln Electric is a classic Defender. Lincoln has carved out a niche in the electrical products industry (the manufacture of electric arc-welding generators, welding equipment, and supplies) and has "defended" it for over 70 years through continuous efforts to improve production processes and product quality, cut costs, lower prices, and provide outstanding customer service. Lincoln is best known for its incentive system that pays off for high-quantity, high-quality output with total wages and bonuses for employees that regularly average over twice the national average for comparable work classifications.


### Exhibit 2

**EVOLUTION OF HUMAN RESOURCES MANAGEMENT SYSTEMS**

<table>
<thead>
<tr>
<th>Role of human resources management system</th>
<th>Agency process</th>
<th>Functional</th>
<th>Divisional</th>
<th>Mixed Forms (for example, Matrix)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal process</td>
<td>Acquisition/training/maintenance</td>
<td>Development/consulting</td>
<td>Planning/allocation</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>Building human resources</td>
<td>Acquiring human resources</td>
<td>Allocating resources</td>
<td></td>
</tr>
<tr>
<td>Human resources strategy</td>
<td>Informal process</td>
<td>Recruitment and selection</td>
<td>Recruitment and selection</td>
<td></td>
</tr>
<tr>
<td>Human resources services</td>
<td>Recruitment and selection</td>
<td>Training</td>
<td>Training</td>
<td></td>
</tr>
<tr>
<td>Emphasis in functional form</td>
<td>Performance appraisal</td>
<td>Performance appraisal</td>
<td>Performance appraisal</td>
<td></td>
</tr>
<tr>
<td>Emphasis in divisional form</td>
<td>Wage and salary administration</td>
<td>Wage and salary administration</td>
<td>Wage and salary administration</td>
<td></td>
</tr>
<tr>
<td>Emphasis in matrix form</td>
<td>Performance-based rewards</td>
<td>Performance-based rewards</td>
<td>Performance-based rewards</td>
<td></td>
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<tr>
<td></td>
<td>Manpower planning and development</td>
<td>Manpower planning and development</td>
<td>Manpower planning and development</td>
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<tr>
<td></td>
<td>Job rotation</td>
<td>Job rotation</td>
<td>Job rotation</td>
<td></td>
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<tr>
<td></td>
<td>Planned interdivisional transfers</td>
<td>Planned interdivisional transfers</td>
<td>Planned interdivisional transfers</td>
<td></td>
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<tr>
<td></td>
<td>Career planning</td>
<td>Career planning</td>
<td></td>
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<tr>
<td></td>
<td>Assessment centers</td>
<td>Assessment centers</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Organization development</td>
<td>Organization development</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Job enrichment</td>
<td>Job enrichment</td>
<td></td>
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<tr>
<td></td>
<td>Team building</td>
<td>Team building</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Lateral skills allocation</td>
<td>Lateral skills allocation</td>
<td></td>
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</tbody>
</table>

**NOTE:** Particular practices have appeared in a variety of organizations and spread quickly among forms. This table reflects our view of the principal new HRM demands of both new organizational forms and the periods in which they emerged.

Less well publicized is the complete fit of Lincoln’s human resources management system with the company’s strategy. Because Lincoln has created a secure market share with moderate, steady growth, it relies heavily on internally developed human resources. Employees are carefully selected, placed, and trained, and they are expected to be with the company for much, if not all, of their careers—tied to the organization by guaranteed employment and rewards clearly linked to performance. The reward/performance relationship is not left to chance; the entire work system is designed to give individual employees (or small teams) responsibility for both pace and quality of output, as well as responsibil-
ity for tools and supplies. While some Lincoln leadership attitudes and behaviors are carryovers from an earlier era, job and workflow design are closely in line with modern job-enrichment practices emphasizing responsibility, self-direction, and self-control.

Similarly, at the management level, Lincoln tends to "grow its own." Most managers, engineers, and sales representatives spent time on the shop floor and learned the product and manufacturing process from first-hand involvement. The administrative/technical organization is as lean and hardworking as the production system, and long-term personal development is rewarded by slow but relatively certain internal promotion.

The appropriate role for the human resources department at Lincoln is implied in the organization's description. Selection, placement, appraisal, and long-term training assistance are key services. In addition, the human resources department must constantly maintain the fit between job design and the incentive system. Lincoln is a tightly integrated company that requires predictable, planned human resources inputs and then only regular maintenance. The overall human resources strategy at Lincoln and other Defender companies can therefore be characterized as building human resources. (A similar categorization, "skills building," is employed by Canadian Pacific.)

**Hewlett-Packard**

The second well-known company is Hewlett-Packard (HP). HP began with the notion that high returns were possible from moving products as rapidly as possible from basic design to the market. It is a company well suited to the rapid expansion of a growing industry—a true Prospector—with small, changing product divisions as its basic organizational building blocks (the company today has over 60,000 employees in more than 60 divisions or units). A new product idea or offshoot is evolved, a self-contained division created, and a market pursued as long as HP has a distinctive design or technological advantage. When products reach the stage where successful competition turns primarily on cost, HP may move out of the arena and turn its attention to a new design or an entirely new product.

In organizations characterized by rapid growth and constant resource redeployment, particularly of management and technical personnel, human resources units take on a very different set of activities and priorities than at Lincoln. At HP, the principal reward is that of promotion to broadened responsibility and, given the structure, there are many positions of major responsibility at or near the top of the 60 plus divisions. Human resources units at both the division and the corporate level have the constant task of starting new groups, and finding and deploying managerial and technical resources. Talent is quickly sought, both inside and outside the organization, and while the organization is concerned if valued managers leave, it is expected that some will if they find their developmental expectations stalled or blocked.

In such a setting, human resources units perform an essentially entrepreneurial role, helping to identify and quickly develop (through rapid movement and alternative assignments) crucial human resources. At HP, key human resources are brought from the outside and invested in myriad units and divisions, as well as developed internally. Thus the overall human resources strategy at Hewlett-Packard and other Prospector companies can be characterized as acquiring human resources.

As the Lincoln and Hewlett-Packard examples suggest, human resources units carry out a similar set of services but with
major differences in strategy and priority. At Lincoln, the human resources department can and should plan carefully for fairly predictable replacement and growth needs. Selection, training, and appraisal techniques can be improved over time with readily available performance criteria. Because growth is likely to occur predictably through market penetration and through selected development of international markets, human resources personnel can work closely with business strategists in determining human resources needs and deployment. At HP, on the other hand, long-range planning is made difficult by rapid transfer and replacement requirements. Technicians and managers must be appraised, but elaborate techniques must often give way to judgment. Frequently, managers must prove their capabilities on the job. Moreover, at HP, human resources units are much more concerned with organization design and development than at Lincoln (where the basic structure remains stable for long periods) and relatively less concerned with long-range programs for refining standard human resources techniques.

Texas Instruments
Texas Instruments (TI) also operates in the electronics industry, covering some of the same product territory as HP. It, too, has a number of operating divisions, though not as many proportionately as HP, and it also views itself as a leader in product design and development. However, TI believes that it can compete not only in the early phase of product development when the emphasis is on uniqueness, but downstream as well when the competitive race goes to the most efficient mass producer. TI prides itself on its ability to shift organization structure and management processes to match the phases of product life cycles; thus it largely plays the role of an Analyzer. New products are carried through the design and early marketing phases in division or project structures, just as at HP. However, their development is much more closely planned, and the process of allocating resources to such developments is closely monitored. Moreover, from the beginning of a new product, its potential for being synergistically produced and marketed is constantly evaluated. As soon as a new product is firmly entrenched, its course is well charted. Prototype structures and processes give way to more formal organizational and managerial systems emphasizing efficient production.

At TI, management claims as its distinctive competence the ability to plan for and allocate key human resources not only across products but across different types of production processes. For mature products and production processes, human resources units play the training and maintenance role...
appropriate to a Defender (for example, applying accurate placement and appraisal devices); for innovative developments, these units play a more developmental role (for example, designing flexible and enriching team structures and processes). Generally, the fundamental strategy is to assist management in the coordination of people and management processes at the interface of the two types of business activity. Thus, allocating human resources characterizes the approach of Analyzer companies that frequently have to “buy” as well as “make” key human resources.

STRATEGIC HUMAN RESOURCES MANAGEMENT SYSTEMS

The experiences of Lincoln Electric, Hewlett-Packard, Texas Instruments, and other successful companies suggest that a strategic human resources management system can be constructed using the following design principles:

1. Top managers of the human resources department should possess at least conceptual familiarity with all of the services needed to acquire, develop, allocate, and maintain managers and employees. In practice, however, the human resources units of a given firm will most likely emphasize some services more than others (as illustrated by the three examples above).

2. The human resources department should have a comprehensive understanding of the language and practice of strategic planning. Further, appropriate human resources representatives must continually participate in the planning process to assess the probable demand for their units’ services and to help line executives trace the human resources implications of their strategic decisions.

3. The human resources department should pursue appropriate strategies of its own to match the organization’s business strategies. In some companies, this will require human resources units to be prepared strategically to build (Defender), acquire (Prospector), and allocate (Analyzer) human resources.

4. The human resources department should act as a professional consultant to line units. In addition to their expertise in strictly personnel matters, human resources specialists should be knowledgeable about organization structure, management processes (communications, controls, rewards, and so forth), and organizational change and development.

In one company with which we have been associated, Canadian Pacific (CP), the corporate human resources group has laid the foundation for a sophisticated link between strategic and human resources planning. CP, a very large conglomerate with majority positions in rail and air transportation, recognized that its many subsidiaries operate in a variety of strategic modes, the bulk of which could be broadly characterized as Defenders and Prospectors. Working with these two polar strategy types in mind, the CP group developed the major components of a tailored human resources management system.

The fit developed by CP between business strategy and the human resources management system is illustrated in Exhibit 3. (Note that CP uses Type A to refer to the Defender strategy, Type B to refer to the Prospector strategy, and Type AB to refer to the Analyzer strategy.)

The Canadian Pacific example is of interest not because this company’s approach is unique or complete, but because it is relatively advanced. Other organizations and scholars are only discussing the fit between strategy and human resources management. It is important to emphasize, however, that far more is involved than merely selecting or placing managers in terms of some presumed
strategy-personality fit (for example, finding “growers,” “caretakers,” and “undertakers” to head different strategic business units)—a topic of widespread interest at the moment. It is, in fact, the total human resources management system that determines fit, rather than a single manager.

From this perspective, CP believes that it should take specific actions to maintain the strategic orientation of its human resources management approaches. First, the corporate human resources group should continually evaluate personnel policies and programs to determine which should be centralized and applied uniformly across strategic business units and which should be de-
<table>
<thead>
<tr>
<th><strong>Human Resources Management System</strong></th>
<th><strong>Type A (Defender)</strong></th>
<th><strong>Type B (Prospector)</strong></th>
<th><strong>Type AB (Analyzer)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic strategy</strong></td>
<td>Building human resources</td>
<td>Acquiring human resources</td>
<td>Allocating human resources</td>
</tr>
<tr>
<td><strong>Recruitment, selection, and placement</strong></td>
<td>Emphasis: “make” Little recruiting above entry level Selection based on weeding out undesirable employees</td>
<td>Emphasis: “buy” Sophisticated recruiting at all levels Selection may involve pre-employment psychological testing</td>
<td>Emphasis: “make” and “buy” Mixed recruiting and selection approaches</td>
</tr>
<tr>
<td><strong>Staff planning</strong></td>
<td>Formal, extensive Skill building Extensive training programs</td>
<td>Informal, limited Skill identification and acquisition Limited training programs</td>
<td>Formal, extensive Skill building and acquisition Extensive training programs Limited outside recruitment</td>
</tr>
<tr>
<td><strong>Performance appraisal</strong></td>
<td>Process-oriented procedure (for example, based on critical incidents or production targets) Identification of training needs Individual/group performance evaluations Time-series comparisons (for example, previous years’ performance)</td>
<td>Results-oriented procedure (for example, management by objectives or profit targets) Identification of staffing needs Division/corporate performance evaluations Cross-sectional comparisons (for example, other companies during same period)</td>
<td>Mostly process-oriented procedure Identification of training and staffing needs Individual/group/division performance evaluations Mostly time-series, some cross-sectional comparisons</td>
</tr>
<tr>
<td><strong>Compensation</strong></td>
<td>Oriented toward position in organization hierarchy Internal consistency Total compensation heavily oriented toward cash and driven by superior/subordinate differentials</td>
<td>Oriented toward performance External competitiveness Total compensation heavily oriented toward incentives and driven by recruitment needs</td>
<td>Mostly oriented toward hierarchy, some performance considerations Internal consistency and external competitiveness Cash and incentive compensation</td>
</tr>
</tbody>
</table>

*Source: Adapted from Canadian Pacific Ltd., © 1980.*
centralized to the various operating units. Centralized programs tend to be only those that involve economies of scale (for example, group insurance and pensions) or compliance with legislative requirements (for example, employee rights).

Second, the corporate human resources group should develop its ability to provide assistance to operating divisions to ensure that (1) these units have human resources programs that fit their business strategies, (2) there is sufficient consistency across certain divisions to permit interdivisional transfer of managerial talent, and (3) the units comply with legal human resources requirements.

Finally, it is CP's belief that the corporate human resources department should be organized, and should view itself, as a management consulting firm competing for divisional business with major outside consulting firms. In addition, the group maintains a network of academic and other consultants who can be called upon to provide specialized advice and technical assistance.

CONCLUSIONS

Despite the forward-looking efforts of Canadian Pacific and other companies, the development of human resources management systems has tended to lag behind developments in strategy and structure. This can be explained, in part, by the fact that in most organizations the demand for human resources services derives from strategic considerations. Human resources departments, therefore, have added new services only after the need has become obviously apparent, and in some areas this has produced lags of several years. In addition, human resources departments themselves have traditionally been technique-oriented—simply adding specialists and methods that permit these units to do a better job of what they are already doing. It has been rare for human resources departments to act (or be allowed to act) strategically. Seldom are they allowed to participate proactively in the planning process by conceptualizing and helping to design organizations that tap the full complement of human capabilities while supporting—if not driving—the formulation of new business strategies.

Top Management’s Role

On the basis of the current state of practice, two bold short-term actions are required to increase the value of human resources departments to the organizations they serve. First, top management must believe that human resources departments and their leaders are competent in all aspects of the human resources function. It is not uncommon today for top executives to complain about and/or short-circuit their human resources departments, yet be unwilling to take the necessary actions to upgrade these units. Top managers’ perceptions need to change, followed quickly by appropriate funding and staffing of the human resources department.

Second, and even more important, human resources departments themselves must not only possess the requisite knowledge and skill to perform the full range of services commonly expected from human resources groups (see Exhibit 2), they need to enhance substantially their capability to diagnose, design, and help implement management systems that complement different business strategies. Historically, top management relied on its own insights (or those of outside consultants) to design structures and processes to support strategies, and has not looked to the human resources department for major inputs in solving these design
problems. Increasingly, however, human resources departments are being viewed as the logical repositories of a growing body of knowledge and skill in the area of designing and changing organizational systems. If human resources is to take its rightful place alongside such other functions as marketing, finance, and production as a full partner in the strategic planning process, top management must be able to turn to the human resources department with questions about organization design, just as it would turn to the engineering group with a technical question concerning mechanical design.

New Organizational Forms

Interestingly, even if human resources groups, with the full support of top management, succeed in transforming themselves into full-service professional designers and consultants, developments in strategy and structure are currently underway that might once again leave human resources strategies lagging behind business strategies. Our speculation is that future organization forms will be characterized by far less vertical integration than in today's organizations, and that they will also be less tightly coupled across the system. To take advantage of rapidly emerging technologies for producing and distributing new high-technology products and services, organizations of the future will make much heavier use of such devices as franchising and subcontracting. With mechanisms such as these in mind, one can easily imagine companies in which one group of experts designs products or services, other groups apply their engineering and production skills, a third group offers specialized staff services, and a fourth set of experts acts as a broker for all these groups.

For a current example of such a loosely coupled system, one need not look further than the prestige "designer" products that are conceived and designed by one group, produced by another, marketed by a third, and all brought together by various agents performing a brokerage function. Further, this type of organizational arrangement becomes even more dramatic as it crosses national boundaries with product designs originating in one country, "franchised" manufacturing operations carried out in a second nation, and so on. Finally, increasingly one can see similar mechanisms being used to loosen the couplings of units up and down the organization hierarchy. Self-managing work teams, for instance, will soon be capable of operating as subcontractors inside firms, and various staff groups already offer their services on fee-for-service basis.

What is the role of the human resources department in these futuristic systems? Of course, it will continue to perform all of the services traditionally needed to acquire, develop, and allocate human talent. Moreover, it will act as an in-company consultant to top management on issues of organization design and development. But, perhaps most importantly, the state-of-the-art human resources department will be able to perform the role of broker—putting managers, work teams, and independent organizations in touch with each other and with appropriate outside agencies to obtain needed advice and technical assistance. Such human resources departments will be more fully equipped than most of today's management consulting firms, and they will offer their services on the open market as well as to their parent organizations.

As we have noted earlier, it is our view that new organizational forms create new roles for and usually result in enhanced status for human resources management (HRM). It is easy to speculate that chief executives in truly outstanding organizations rec-
ognize earlier than their competitors the new responsibilities and rewards appropriate for HRM. We suspect, for example, that the central position accorded the personnel department at Sears in the 1940s was a major factor in their domestic success. Ultimately, key HRM practices tend to become part of the "required technology" among a group of competing organizations.

Thus, just as we are confident of the direction future organization forms will take, we have little doubt that human resources practices as diverse and sophisticated as those described here will be commonplace. The central question facing most companies today is how to reduce, if not eliminate, the lag between the emergence of new strategies and structures and their appropriate human resources management systems. In our view, human resources executives would be more helpful as leaders than followers in this process.

SELECTED BIBLIOGRAPHY

James Walker called for a better link between strategic business planning and human resources planning in an article that appeared in Human Resource Planning, Spring 1978. Other articles have answered this call; these include Mary Anne Devanna, Charles Fombrun, and Noel Tichy's "Human Resources Management: A Strategic Perspective" (Organizational Dynamics, Winter 1981); Eddie C. Smith's "Strategic Business Planning and Human Resources: Parts I and II" (Personnel Journal, August/September 1982); and "Wanted: A Manager to Fit Each Strategy" (Business Week, February 25, 1980).


A concise history of the evolution of the personnel function can be found in John B. Miner and Mary Green Miner's Personnel and Industrial Relations, 2nd edition (Macmillan 1973). To our knowledge, none of the current personnel textbooks reflects a strategic human resources perspective.

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