

**HUMAN RESOURCES**  
**AS A SOURCE OF COMPETITIVE ADVANTAGE**

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For business it's a tough world that's getting tougher. The reasons are familiar enough: global competition, deregulation, finicky and tough customers, concerned and demanding stockholders, and a dizzying pace of constant change. Rare indeed is the company which has found a comfortable niche in this chaotic world.

So, the search is on for a competitive advantage, preferably one that might prove sustainable over some period of time. Business strategies are being rethought. Core competencies are being identified or, in many cases, built from scratch. Reorganization is rampant. Staid old bureaucracies are being dismantled in favor of more nimble, flexible organizational forms. New technologies and information systems are being created to harness knowledge and tie disparate organizational entities together. And, attention is turning to the human competencies and capacities it takes to bring these transformed enterprises to life.

Enter human resource strategy. Backed by a little theory, a small amount of research, and a lot of old-fashioned trial and error, many variations of such strategies are being frequently prescribed and sometimes

tried in these new business environments. While there have been some real success stories, many unanswered questions remain. The key issues seem clear enough. But, there is considerable work to be done before it will be possible to make solid recommendations about employing human resources as critical success factors in the search for competitive advantage.

#### THE THEORY

There are solid theoretical reasons to believe that competitiveness can be enhanced by more effectively managing human resources. It is, after all, people who identify business opportunities, develop products and services, formulate strategies, make and deliver products and services to the marketplace, and so forth. When these tasks are done well, an organization presumably has a greater probability of success than is the case when they are not done well. How well these tasks are performed, in turn, depends in large part on the policies and programs used to attract, retain, develop, and motivate the numbers and types of employees an organization needs.

This may seem like human resource business as usual,

but such is not the case. The field has traditionally viewed these activities as essentially independent of each other and their contexts and has generally been concerned with operational aspects such as program design and administration. In recent years, however, there has been a steady evolution toward a more strategic perspective (Fombrun, Tichy, and Devanna, 1984; Foulkes, 1986; Kochan, Katz, and McKersie, 1986; Dyer and Holder, 1988; Ulrich and Lake, 1990; Walker, 1992).

As a key tenet this perspective begins with the business rather than with human resource activities. Somewhat oversimplified (for a fuller explanation, see Dyer and Holder, 1988, or Walker, 1992), the key pieces are the business context and human resource strategy (see Figure 1). The basic idea is that changes in the business context, consisting of business strategy, organizational structure, and process technology, alone or in combination, usually give rise to critical human resource issues which must be dealt with if an organization is to succeed. Accordingly, the basic tasks are, first, to analyze the anticipated business context to identify these issues and, second, to fashion an appropriate human resource strategy for dealing with them.

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Figure 1 About Here  
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Human resource strategies lay out both goals and the means for reaching these goals (see Figure 2). Goals derive from identified issues and can be of many types. Three of the more common are shown in the inner circle of Figure 2. Population goals address issues of headcount, staffing ratios, and skill mix; an example would be Kodak's announced intention to reduce its U.S. headcount by 20,000 employees. Contribution goals relate to individual or group behaviors or outcomes. Instilling a strong customer orientatation among a company's employees is one example; others, very common these days, are achieving desired improvements in labor productivity and product or service quality. Morale goals refer to desired levels of employee commitment to the organization or employee satisfaction. McDonald's, for example, seeks to make its stores fun places to work, but would be rather concerned if many of the (primarily) young people it hires were to adopt a long-term commitment to the company.

Figure 2 About Here

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Human resource goals are reached through a combination or bundle of human resource activities of the sort depicted in the middle and outer circles of Figure 2. The exact nature of the package is determined not only by the goals to be achieved, but also by the nature of the external and internal environments decision-makers face (refer again to Figure 1). General Motors, for example, may seek to improve employee productivity and product quality through creative work and reward systems, but can only do so if the desired changes can be negotiated or otherwise worked out with the UAW.

A key concept in the strategic perspective is "fit". Internal fit refers to the degree of coherency or synergy among the various human resource activities that make up the strategy. External fit refers to the degree of consistency between a human resource strategy on the one hand and the business context on the other. The basic propositions around which the strategic perspective is framed can be stated as follows: (1) human resource

strategies that exhibit internal fit are more effective than those that do not in terms of meeting human resource goals and (2) human resource strategies that exhibit both internal and external fit are more effective than those that do not in contributing to organizational effectiveness or competitiveness.

#### SOME EVIDENCE

The strategic perspective of human resource management is beginning to attract interest among researchers from various disciplines. Generally, the studies are of three major types.

One addresses the issue of internal fit -- often in the interest of developing typologies of human resource strategies -- and, occasionally, tests for covariation between the typologies uncovered and one or more aspects of the business context, usually business strategy. Case studies, for example, have unearthed several examples of human resource strategies with enough internal consistency to yield a plausible typology (see Dyer and Holder, 1988). Some surveys have, too (e.g., Arthur, 1992), although more extensive surveys (e.g., Lawler, Mohrman, and Ledford,

1992; Osterman, in press) suggest that internally consistent models may not be very widely diffused either within or across organizations.

There is some evidence supporting covariation (e.g., Arthur, 1992; Snell and Dean, 1992), although the strength of the relationships are weak and inconsistent enough to eschew a theory of determinism in favor of a role for the concept of strategic choice (Kochan, et al, 1986). And at any rate, while these studies are intriguing, they are only tangentially related to the central propositions of the strategic perspective since they basically treat human resource strategy as a dependent rather than an independent variable.

More to the point are studies which have found fairly consistent relationships between bundles of human resource activities and one or more measures of human resource or organizational outcomes (e.g., Ichniowski, 1991; Huselid, 1993). Even more to the point is a very recent study by Ichniowski, Shaw, and Pressushi (1993) which involves longitudinal data from several steel mills and which finds that "systems of complementary HRM practices" produce significantly greater productivity and quality effects than



do any particular human resource practice considered alone.

A third approach approach to research more directly addresses the issue of external fit. But, alas, the studies are few and the results thus far are inconclusive. Data from a sample of steel minimills found that mills with external fit (those that had cost-driven business strategies matched with cost reducing human resource strategies or differentiation business strategies matched with commitment maximizing human resource strategies) outperformed mills that lacked external fit in terms of productivity and quality. But, several mills could not be conveniently classified in terms of either their business or human resource strategies so the sample size for this particular analysis was too small to yield statistically significant results (Arthur, 1990). The well-known MIT auto industry studies, which use large international samples of assembly plants, have found that so-called lean production systems consistently out-perform traditional mass production systems in terms of productivity and quality even though both are characterized by a high degree of external fit (e.g., MacDuffie and Krafcik, 1992).

So, predictably, more research is needed. Especially

important are studies which directly test the central propositions of the strategic perspective. Also important are studies involving additional industries and employee groups. Most of the evidence so far comes from heavy industries -- primarily, autos and steel -- and involves only blue-collar workers. Third, it would be helpful to expand the range of dependent variables beyond productivity and quality.

These recommendations are particularly salient given the significant shifts in strategic contexts and employment patterns which are taking place in the U.S. economy.

#### THE EVOLVING BUSINESS CONTEXT

Business contexts are in a constant state of flux. The challenge, of course, is to make certain that new formulations of human resource strategies are both relevant to and properly tested in the prevailing and emerging contexts. While it is impossible to capture the full panoply of current and anticipated developments, a few generalizations can be made.

Production driven business strategies emphasizing high

volume, low cost, and perhaps quality continue to give way to customer-driven strategies which additionally focus on speed, flexibility and adaptability to customer needs, and/or product and service innovations. Disappearing as well are pyramidal organizational structures with functional silos and sharp divisions of labor. These are giving way to flatter, more networked structures focused on a narrow set of what are coming to be called core competencies (with much of the more peripheral work being outsourced). In manufacturing, mass production technologies featuring long production runs and ample buffers of raw materials and goods in progress are yielding to more flexible, highly computerized systems with just-in-time inventories supported by sophisticated information systems which provide direct linkages to key suppliers and major customers. In services, new technologies make it possible for highly decentralized operations to function close to their customers with a level of consistency previously impossible. In the process entire industries -- for example, mass retailing -- are being transformed.

As these developments become better understood they give rise to new paradigms of business contexts. In manufacturing, for example, there is lean and flexible

production (MacDuffie and Krafcik, 1992). In the increasingly dominant service sector, which now accounts for over three-quarters of the jobs in the U.S., there are several. In his path-breaking book, Intelligent Enterprise, James Bryan Quinn (1992), drawing on the work of Henry Mintzberg and others, delineates three basic paradigms: mass service such as Walmart, the airlines, and commercial banks; professional bureaucracies such as hospitals, consulting firms, and universities; and adhocracies such as software houses, construction firms, and investment banks. Each type has a prototypical approach to business strategy, structure, and especially technology applications, with numerous variations around the basic themes.

Success in these new manufacturing and service environments depends in large measure on the intelligent management of human resources (Quinn calls this "leveraging intellect"). Knowledge is the organizations' stock in trade, and much of the critical knowledge walks out the door every night and, it is hoped, back in the next day. Prototypical employees are no longer sweating proletariats on an assembly line, but rather harried clerks struggling to please enigmatic customers on a sales floor and frenetic

technical and professional employees (the new technocrats) watching over electronic panels in air-conditioned control rooms or agonizing over clients' intractable problems in private conference rooms.

These patterns are becoming more discernible. Human resource strategists are struggling to keep pace.

#### TOWARD NEW HUMAN RESOURCE STRATEGIES

Most of the current work in human resource strategy focuses on the enhancement of employee contribution or performance. And most of this work has philosophical roots in the recurring notion of employee involvement (or, more recently, empowerment). Two streams of thought can be teased from the clutter of experimentation and exhortation, although these are clearly cleaner in concept than in practice (Appelbaum and Batt, 1993). In fact, the two are generally quite similar on most dimensions of human resource strategy; their main differences pertain to work design (Lawler, et al, 1992).

#### THE MODELS

The first approach, associated with lean production in the auto industry and with the total quality movement (symbolized by the criteria of the Malcolm Baldrige National Quality Award), is basically a top-down system. Jobs tend to be standardized or, perhaps, moderately enriched. Employee involvement occurs through parallel suggestion systems and/or what is called job involvement; that is, through extra-organizational quality circles or quality improvement teams on the one hand and/or employee control over improvements in work methods and techniques (but not larger issues) on the other (Lawler, 1988). In this approach, status and power clearly reside with management; only rather constrained and limited authority to make recommendations or to take action is delegated to lower-level employees. Management, therefore, is asked to make only modest adjustments in the traditional top-down style, although this can lead to the somewhat anomolous situation of, in effect, attempting to mandate participation (Appelbaum and Batt, 1993).

The second approach to work design -- the high involvement model -- traces its intellectual roots back to the sixties (McGregor, 1960; Likert, 1967), but receives its major boost from more recent models developed by Walton (1985) and Lawler (1986, 1988, 1992), among others. Here,

employees rather than managers design the work -- that is, the approach is more bottom-up in orientation -- using principles of job enrichment and, quite commonly, employing semi-autonomous or even autonomous (i.e., self-managing) work teams. Within broad guidelines, these teams decide on work goals, priorities, job assignments, quality controls, and, in advanced cases, such personnel matters as hiring, training, and discipline. Additionally, cross-functional, cross-level teams or committees (sometimes including labor union leaders as, for example, at Saturn) are employed to provide input into or even to decide on broader organizational issues such as customer and supplier relations, overall productivity and quality goals, comprehensive work processes (e.g., reengineering), human resource policies, and purchases of capital equipment.

While work design is central, contribution-focused human resource strategies contain other important components including supervision, rewards, training, and employment stability.

Both approaches, for example, decree that supervision should be more facilitative than directive. In the high involvement version, where this issue is particularly

critical, it is usually facilitated by flattening organizational structures thereby expanding supervisory spans of support (ne control) to the point where a directive style is virtually impossible to maintain.

Some models of total quality management (e.g., Deming, 1986) caution against the use of contingent rewards, but in practice both the limited and high involvement models tend to move in the direction of including pay increases, bonuses or awards based on performance, especially work group and/or organizational performance (Lawler, et al, 1992). The high involvement model also advocates and sometimes uses skill-based pay to encourage employees to learn a variety of tasks, thus enhancing their versatility as team members.

Both the limited and high involvement models also require significant investments in training since involvement and facilitation are often missing from the behavioral repertoires of employees and supervisors. This almost always includes significantly more technical training (in, for example, statistical process control). Where teams are used, training in so-called "softer"



subjects such as group problem-solving and decision-making and interpersonal skills is usually also necessary.

Broader teams or committees may also receive training (or even basic education) in business economics, finance, organizational behavior, and change management.

Finally, both models expressly stress the importance of employment stability (although, as we shall see, this can be the achilles heel of these approaches). Unless layoffs and terminations are eliminated, or at least minimized, the argument goes, trust is destroyed, extensive investments in relationship building and training are lost, and, most important, employees will refrain from making maximum contributions for fear of working themselves or their peers out of their jobs.

#### THE TASK AHEAD

This brief review of extant models suggests several avenues for further work.

- \* Despite a plethora of practices and

literature (again, see Appelbaum and Batt, 1993 for a review), much of the more comprehensive and internally consistent work has coalesced around a couple of basic models. And these are more similar than different in philosophy, concept, and design. Surely, a wider range of possibilities needs to be explored (Dyer and Holder, 1988).

- \* Existing models are strong on internal fit, in theory if not always in practice, but give only a passing nod to the issue of external fit. Advocates make the basic assumption that their models of choice are the "one best way" to manage in today's business contexts. This is an assumption much in need of questioning, and testing.
  
- \* A good deal of the organizational action in recent years has focused on what was earlier called population. Corporations in the U.S., in the

process of delayering and downsizing, for example, have cut their populations by millions of employees at all levels. For this reason, and others, a number of companies (e.g., IBM) have as a major goal the restoration of employee morale. Yet, existing models of human resource strategy overwhelmingly focus on employee contribution or performance. Clearly, there is a need for a broader view.

- \* Many models -- e.g., lean production -- are explicitly designed to apply to blue-collar employees in manufacturing environments. Others -- e.g., Lawler's high involvement model -- are less explicit as to target group, but are clearly biased toward lower-level employees. With manufacturing employment in secular decline and professional and technical employment in ascendancy (Quinn, 1992; Drucker, 1993), additional models may well be required. Does it make sense, for example, to speak of empowering

employees who, by virtue of their knowledge of and access to key technologies, are in a position to totally sabotage major operations in their organizations -- often by simply walking out the door?

#### NAGGING PROBLEMS AND DOUBTS:

#### AN ILLUSTRATION

By way of conclusion, a brief exposition is used to illustrate the full dimensions of the aforementioned tasks which lie ahead.

Recently, the Center for Advanced Human Resource Studies at Cornell University conducted a modified Delphi study designed to ascertain key features of the workplace in the year 2000. Fifty-seven panelists, representing business, consulting firms, labor unions, and academia, provided comprehensive information through three rounds of data collection. Responses were anchored in a specific firm representing (in retrospect) a cross between Quinn's (1992) mass service firms and professional bureaucracies. The questions covered the full range of human resource strategy -- population, contribution, and morale; most

asked for comparisons between data supplied for 1991 and respondents predictions (not preferences) for the year 2000 and for separate responses across four key employee groups: executives, managers, professional and technical employees, and support staff. Here, for illustrative purposes, the focus is on professional and technical employees -- the new technocrats. (And only selected results are presented for this group; for the whole story, see Dyer and Blancero, 1992).

#### THE HUMAN RESOURCE STRATEGY

Patterns in the panelists' answers constitute a descriptive (again, not prescriptive) human resource strategy for, in this case, the professional and technical employees of this particular service firm in the year 2000. The results are presented in terms of the three dimensions previously discussed: contribution first, followed by population and morale.

##### Contribution

The panelists pictured an organization struggling simultaneously to optimize several critical dimensions of

performance: productivity, quality, speed (i.e., cycle time) and innovation. The firm's standards, or expectations, were depicted as being very high on all four dimensions.

Professional and technical employees (unlike the other employee groups) would do most of their work in teams. About half of the teams would be permanent, while the rest would be ad hoc. Most would be multi-functional, multi-level, and semi-autonomous (with a few being self-directed). Notwithstanding the team set-up, decision-making around strategy and policy, performance goals, and work task allocation would remain primarily the province of executives and managers. Professional and technical employees would be somewhat involved in setting unit or team performance goals and allocating work tasks among team members, but would be very deeply involved only when it came to day-to-day problem-solving at the workplace. Managers would also dominate most personnel decisions -- hiring, setting individual performance goals, assessing performance, and the like -- with significant involvement by professional and technical employees only with respect to training.

Managers, in their supervisory roles would be more supportive than directive or controlling. They would, as noted, have primary responsibility for appraising the performance of professional and technical employees, with some input being provided by peers, presumably reflecting the tendency to work in teams. Unlike Quinn (1992), the panelists foresaw little direct evaluation of these employees by such "outsiders" as customers and suppliers. Performance feedback would be pervasive; the new technocrats would know exactly where they stood with respect to judgments about their performance, promotability, and long-term career potential.

Pay would be split into a fixed (i.e., salaries with annual increases that fold into the base) and variable (i.e., "at risk" bonuses that must be regularly re-earned). Base salary would depend on job level, with periodic increases being determined on the basis of work group performance, individual contributions to work group performance, and skill acquisition. On average, 18 percent of total earnings would be "at risk" (compared with 10 percent in 1991), with the actual amount of the bonus being based on work group performance and individual contributions to work group performance.

Total organizational expenditures for training would run about 3.5 percent of payroll (compared with 1.4 percent in 1991). Just over one-fourth of the dollars would be spent on professional and technical employees; an increase of 20 percent over 1991. On a per capita basis, however, far fewer training dollars would be spent on these employees than on either executives or managers. Most professional and technical training would take place on the job, although there would also be liberal use of formal classroom training, special assignments within the company, and educational leaves.

The firm would offer only limited employment stability, as we shall see.

In sum, the panelists foresaw that the new technocrats would labor in a work system more closely approximating the limited involvement than the high involvement model. Managerial decision-making authority, except at the immediate work site, would remain essentially intact. Consistent with additional tenets of the involvement model, contribution would be encouraged through supportive supervision and performance based pay and facilitated by increased (although less than proportionate) expenditures



for training and development. Inconsistent with a fundamental tenet of this model, however, is the projected lack of employment stability.

### Population

Professional and technical employees would constitute the fastest growing and, indeed, dominant employee group. Their share of total employment was projected to increase from 33 percent in 1991 to 43 percent in 2000; this is a 68 percent increase, more than double the 29 percent increase in total employment. (Managers were the big losers -- their share of total employment was expected to decline from 30 percent to 22 percent during the decade).

Only about two-thirds of this rapidly growing group, however, would be regular full-time employees. The rest, would be so-called contingent employees (Belous, 1989), about one-half of whom would work part-time, while the remaining would be temporary or contract employees working either part- or full-time.

Promotional opportunities among the core (i.e., regular full-time) professional and technical employees

were expected to decrease by 17 percent between 1991 and 2000. This reflects the increasing reliance on contingent employees, as well as a sharp reduction in the number of hierarchical levels in the organization and a general drift away from a policy of promotion from within (43 percent of all vacancies in the professional and technical ranks in 2000 would be filled from outside the company).

About 60 percent of the core professional and technical employees were expected to spend the bulk of their careers with the company. This is down 21 percent from 1991. Voluntary attrition would take its toll, but, in addition, the panelists projected a greater reliance on outplacement assistance and severance and early retirement packages to weed out those employees who had become marginal performers or whose skills no longer matched the company's need.

With respect to population, then, the picture that emerges is consistent with what has come to be called strategic or flexible staffing (Walker, 1992). Overall headcount would be tightly controlled, with additions being made in a focused way -- that is, by adding mostly professional and technical employees who primarily do

value-added work of direct relevance to the firm's customers. Many of these additions would be contingent rather than core employees. Further, fewer of the core employees would have a long-term attachment to the company, partly because they would be voluntarily seeking greener pastures and partly because the company would be systematically purging those whose contributions or skills no longer fit.

### Morale

The panelists apparently sensed that the foregoing policies and practices would likely alter the company's implied contract (Rousseau, 1989) with its professional and technical employees. They were not moved to the point of projecting unionization among these employees, however. Instead, they offered up a potpourri of employee relations activities and techniques. Most professional and technical employees would work flexible hours and about one-seventh would work at home most of the time. There would be significant managerial communications with employees, various "voice" mechanisms (for employees to use in expressing their opinions and concerns up the hierarchy), child-care and elder-care subsidies and referrals, paid

parental leaves, wellness and fitness programs, an employee assistance programs, and a due process (grievance) procedure.

## THE RESULTS

How would it all add up? To what extent did the panelists expect that the challenge of working in teams on significant workplace issues with supportive supervision, rewards commensurate with contribution, and extensive training, and a bagful of supportive employee relations activities might offset, or be offset by, tough performance standards, potentially potent peer pressure, "at risk" employment and pay, a bagful of supportive employee relations activities, and the presence of a small army of contingent employees?

Clues are provided by the panelists projections regarding the following motivational and performance results (all ratings were on a 5-point scale, with 5 being high): sense of challenge (3.7), sense of empowerment (3.6), commitment to work (3.7), motivation (3.7), and overall performance (3.9). Additional information comes from their expectations regarding morale: level of stress

(3.7), sense of employment security (2.7), loyalty to the company (3.0) and satisfaction with work (3.9), with co-workers (3.8), with supervision (3.6), with pay (3.3), and with career (3.1).

In brief, the panelists seemed to sense a fundamental quandary: the need to enhance the contribution of employees on the one hand coupled with a need to control costs, especially labor costs, on the other. To control costs they focused primarily on population, opting for flexibility; in part by keeping open the option of churning the cadre of core employees and in part by employing a sizable group of contingent employees. Secondarily, they built in down-side flexibility in wage outlays by adopting a modest variable compensation scheme.

To elicit required levels of contribution from this population of potentially short-term and basically insecure employees, the panelists leaned toward teams and employee involvement (as opposed to, say, Taylorism) and two forms of performance-based pay. But, they stopped short, for whatever reasons, of endorsing either a high involvement system or a full-blown inducement strategy (Dyer and Holder, 1988). Further, they followed this path apparently

at least implicitly aware of the fact that their middle-of-the-road approach to contribution, coupled with a plethora of employee relations activities, would be inadequate to offset the debilitating effects of the intense focus on cost control on the population side.

#### CONCLUSION

This is not to condemn the panelists. Rather, it is to highlight the need for theorists, researchers, and practitioners to develop a fuller range of human resource strategies, taking into account the need to manage population and morale, as well as contribution, and the significant swing toward service-oriented businesses increasingly populated by potentially powerful professional and technical employees. In the end, the panelists simply demonstrated, in their own way, the magnitude of the challenges we face.

