

Determinants of Human Resource Management Priorities and Implications for Industrial Relations

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Increasingly, human resource management (HRM) priorities are being treated as dependent variables. Now in addition to studying HRM priorities and practices as determinants of individual outcomes such as performance or absenteeism, researchers are studying how such conditions as competitive strategies and product life cycles shape HRM priorities. This article describes an empirical test of two major hypotheses regarding how competitive strategies and product life cycles are related to HRM priorities. Briefly, it was hypothesized that human resource management priorities would differ for firms in the growth and maturity stages of the product life cycle and they would differ across firms using the competitive strategies of differentiation and cost-efficiency. Data gathered from 300 firms in a variety of industries provide support for the hypotheses.

Increasingly, human resource management (HRM) priorities and practices are being treated as dependent variables. Whereas in the past researchers focused almost exclusively on how changes in HRM practices affect employee performance or satisfaction, researchers are now beginning to ask how organizational characteristics shape HRM priorities and practices. Examples of organizational characteristics hypothesized to impact HRM priorities and practices include strategy (Collins, 1987; Gupta & Govindarajan, 1984a, 1984b; Hambrick & Mason, 1984; Hambrick & Snow, 1987; Kerr, 1985; Lawler, 1984; Miller, 1986; Miller, Kets de Vries, & Toulouse, 1982; Olian & Rynes, 1984; Snow & Hrebiniak, 1980), product life cycle stage (Kerr, 1982; Kochan & Chalykoff, 1985), technological change, union presence, internal labor markets, and even whether or not an organization has a personnel department (Cohen & Pfeffer, 1986; Fossum, 1987; Osterman, 1984; Pfeffer & Cohen, 1984).

Because HRM practices have such a significant impact on organizational be-

John W. Slocum, Jr., Tom Kochan and Ian C. MacMillan provided valuable comments and suggestions on this project.

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havior and industrial relations, the better our understanding of what affects inter-organizational variance in HRM priorities and practices, the greater will be our understanding of behavior in organizations (Kochan & Chalykoff, 1985). Toward this end, we present a study looking at the relationships between (a) competitive strategy and HRM priorities, and (b) product life cycle stage and HRM priorities.

Definitions

Competitive Strategies and HRM Priorities

Critical to a corporation's growth and prosperity is gaining and retaining competitive advantage (Porter, 1980; 1985). One way to gain a competitive advantage is via strategic initiative. MacMillan (1983) defined *strategic initiative* as the ability of a company or a strategic business unit to capture control of strategic behavior in the industries in which it competes. To the extent one company gains the initiative, competitors are obliged to respond and thereby play a reactive rather than proactive role. MacMillan argued that firms that gain a strategic advantage control their own destiny. To the extent a company gains an advantage difficult for competitors to remove, it stays in control longer and so should be more effective (MacMillan, 1983).

Two major competitive strategies described by Porter (1980, 1985) are cost-efficiency and differentiation. Below, we briefly review the cost-efficiency and differentiation strategies and suggest how they might be translated into HRM priorities and the concomitant implications for industrial relations.

Cost-efficiency Strategy. In choosing the *cost-efficiency strategy*, firms attempt to gain competitive advantage by being the lowest cost producer (Collins, 1987). According to Porter (1980, 1985), the characteristics of the cost-efficiency strategy are tight controls, overhead minimization, and pursuit of economies of scale. The case of Lincoln Electric is an example where HRM priorities' are focused on increasing the efficiency of production, thereby lowering the cost of the electric motors and arc welders.

Traditionally, when HRM priorities focus on efficiency of productions, the impact on industrial relations includes lower wages and fringe benefits, restricted employee discretion, increased supervision, fewer employees, larger operations, and increased task specialization (Hall, 1982; Kochan & Katz, 1983; Kochan, McKersie, & Cappelli, 1984; Livernash, 1962; McKersie & Hunter, 1973; Slichter, 1941). These conditions characterize the traditional approach to HRM described by Kochan and Chalykoff (1985). Presumably, these conditions are associated with lower labor costs. They may, however, actually be ineffective in lowering labor costs if they contribute to a decline in employee morale, underutilization of skills, diminished feelings of personal control, and/or increased turnover and alienation (Blauner, 1964). Reflecting this are the efforts of firms such as Coming Glass and Mercury Marine to reduce costs by first improving quality. To attain this, they emphasize employee participation and training. At Lincoln Electric, employee participation is solicited and rewarded. In essence, what these firms are doing is giving priority to HRM practices that will facilitate predictable and correct role behaviors by the employees. Eliciting these role behaviors can minimize costs (Peters, 1987).

Differentiation Strategy. Whereas the cost-efficiency strategy is used to improve the efficiency of production and thus to lower the cost of the product, the *differentiation strategy* is used to differentiate the product or the company from its competitors (Collins, 1987; Davis & Dess, 1985; Miller, 1986; Porter, 1985; Schuler & MacMillan, 1984). For example, although it may not make them more efficient, baseball teams such as the Los Angeles Dodgers and the Baltimore Orioles have traditionally used their farm systems and internal promotion policies to help differentiate them from their competitors in the eyes of their supply sources-young talented baseball players.

Because the imperative in a differentiation strategy is to be the most unique producer, conditions for creativity and innovation are created (Miller, 1986; Peters, 1984). HRM priorities then focus on facilitating innovation. The impact here on industrial relations may include selecting highly skilled individuals, giving employees substantial discretion, using minimal formal controls, investing in human resources, providing sufficient resources for experimentation, allowing and even rewarding occasional failure, and appraising performance for its long-run implications (Drucker, 1985; Orkin, 1984; Schuler, 1986). These conditions characterize the innovative approach to HRM described by Kochan and Chalykoff (1985). Potential consequences for the individual of an **HRM** priority for innovation include enhanced personal control and morale and greater loyalty to self and profession rather than to the employing organization (Drucker, 1985). Nonetheless, benefits may accrue to the firm as well as the employee as evidenced by the success of innovative firms such as Hewlett-Packard, the Raytheon Corporation, 3M, Johnson and Johnson, and PepsiCo (Peters, 1984).

Product Life Cycle Stages and HRM Priorities

As with competitive strategies, the life stages of an organization's product have been characterized as potentially important determinants of its HRM priorities (Fombrun, Tichy, & Devanna, 1984; Hax, 1985; Kochan & Barrocci, 1985; Miller & Camp, 1985). The product life cycle stages having the greatest potential impact appear to be the growth stage and the maturity stage (Piore & Sabel, 1984). Consequently, we chose to focus on these two stages.

Growth Stage. According to Galbraith (1983), Kochan and Barrocci (1985), Kochan et al. (1984), and Milkovich, Dyer, and Mahoney (1983), attracting highly skilled individuals becomes a high priority in the growth stage. This is largely due to the presence of a tight labor market and to product and market uncertainty. Product improvements and modifications are being made and new competitors are entering at a rapid pace. Consequently, firms in the early stages of growth need ideas and suggestions to transform into marketable products the ideas of the founder or the basic technological breakthrough that gave rise to the new business. To generate these ideas, firms in the growth stage encourage employee participation in decision making, quality circles, employee involvement groups and participation teams (Kochan & Chalykoff, 1985). The management of conflict and provision of due process mechanisms are handled through employer-provided grievance procedures, including meetings with managers and ombudsperson services (Balfour, 1984). Human resource planning is given a high priority because the firm is so dependent upon having the right employees at

the right place. Part-time workers and subcontractors may be used to provide job security for full-time workers in case of economic downturns.

Maturity Stage. As the products of firms move into the maturity stage, attracting highly skilled individuals is no longer as high a priority. Firms in the mature stage have an extensive internal labor market and extensive training and development programs. Firms in this stage may pay high wages to retain skilled talent. Economic downturns are handled by employee layoffs. Conflict resolutions and due process under collective bargaining are the grievance procedures with third party arbitration (Kochan & Chalykoff, 1985). The environment (customer demand and competitors) becomes more stable and predictable (but as competitive) in comparison with the growth stage. Employee participation may be solicited here, not to design or develop new products for new markets, but rather to improve quality or reduce costs. This participation is facilitated by more reliable and prescribed behavior; therefore emphasis is placed on human resource improvement. Because the environment is a bit more predictable, the emphasis on planning may diminish.

Hypotheses

What the preceding discussion suggests is that HRM priorities differ at different stages in the product life cycle and that different HRM priorities are associated with different competitive strategies. On the basis of this discussion, we formulated and tested two major hypotheses. The first hypothesis focuses on the relationship between life cycle stage and human resource management priorities. The second hypothesis focuses on the relationship between competitive strategy and human resource management priorities.

Hypothesis 1. HRM priorities *will* differ for firms in different stages of the product life cycle. Specifically, firms with products in the growth stage are hypothesized to place higher priority on human resource management innovation and planning, in comparison to firms with products in the mature stage.

In the growth stage of firms, new products and services are potentially effective ways by which to create and capture larger market share. Marketing and manufacturing processes and procedures are not entirely solidified, leaving room for changes and improvements in the products or services being offered. Consequently, it is advantageous for a firm in the growth stage to facilitate new product and new service development. Giving priority to innovative human resource management aids in this thrust. Because firms in the mature stage are not stimulating new product and new service development, giving priority to innovative human resource management is unnecessary.

Firms in the growth stage should also give higher priority to human resource planning (Miles & Snow, 1978). Firms here tend to find themselves in more uncertain market conditions. Competition may introduce new products or services, making a response mandatory by other firms in the industry. Being able to plan for the deployment of human resources in new areas and to plan for workforce flexibility and adaptability are thus really critical in the growth stage firms. Or-

ganizations with growth products find themselves needing to anticipate future uncertain market conditions. Consequently, they should place a higher priority on human resource planning (Miles & Snow, 1978).

Hypothesis 2. HRM priorities will differ for firms with different competitive strategies. Specifically, firms pursuing a differentiation strategy are hypothesized to place a higher priority on human resource management innovation than firms pursuing a cost-efficiency strategy.

As described by Porter (1985), Miller (1986) and Collins (1987), differentiation implies creating and developing new products or services that will set a firm apart from others in the industry. Thus to facilitate a differentiation strategy, firms need to foster innovation (Drucker, 1985; Schuler, 1986). In contrast, firms pursuing a cost-efficiency strategy will continue to offer the same products or services as others in the industry. Reducing costs, becoming more cost-efficient, and thus being able to lower prices are the ways a firm sets itself apart from the competition (Miller, 1986).

Regardless of the type of strategy, as firms begin strategizing, they begin to emphasize planning. Thus, firms with either strategy are likely to place a high priority on human resource planning. Similarly, as firms begin to strategize, they begin to focus and seek ways to become more effective and to get the most from employees, both in terms of quantity and quality. Although the specific issues will vary depending upon the type of strategy, all firms with clear strategies are likely to give priority to human resource improvement.

Method

Sample

Data to test the hypotheses were gathered by means of a survey questionnaire completed by 300 human resource managers in organizations (response rate = 22%). In cases where the organization had several relatively independent divisions (50%), the survey questions were answered for only one of the divisions. Thus, the data gathered describe single business units. The human resource managers who responded were the highest ranking human resource person in the business unit or division.

Represented in our sample are many types of firms, including manufacturers of consumer products (21%), manufacturers of industrial/commercial products (34%), services providers (32%), and retail and wholesale distributors (13%). The primary markets served by these firms ranged in scope from regional (31%), to national (49%) and international (20%). The founding dates of these firms ranged from 1776 to 1985 (median = 1950; SD = 13.5 yr.). The number of full-time employees in the business units studied ranged from 5 to 40,000 (median = 415; SD = 4429.6). Finally, 60% of the firms had no union representation. Among the 40% of firms with some union presence, there was great variation in both number of unions represented (1 to 56) and number of employees who were union members (2 to 20,000).

Measures

Respondents completed an extensive questionnaire that included questions about the basic characteristics of the firms (industry, market, age, size, structure, unionization) and items designed to assess (a) life cycle stage, (b) competitive strategy being pursued and (c) human resource management priorities.

Life Cycle Stage. Business units were classified into life cycle stages based upon responses to the question, "Indicate the percentage of ... sales that come from products at each of the following stages of the product life cycles." Four stages were defined (introduction, growth, maturity, decline). Business units were classified as being in the growth stage if they were above the median (18%) for percent sales from products in the growth stage *and* below the median (60%) for percent sales from products in the mature stage. Conversely, business units were classified as mature if they were below the median for percent sales from growth products *and* above the median for percent sales from mature products. This results in our having 69 growth firms and 179 mature firms.

Competitive Strategy. Competitive strategy was measured using items developed by Dess and Davis (1984) based upon Porter (1980, 1985). The importance of 21 competitive methods was rated using a scale of *not used* (1) to *major importance* (4). Factor analysis revealed seven factors (principal components analysis; orthogonal rotation). Two factors emerged that reflect the strategies of cost-efficiency and differentiation. The first factor explained 17.3% of the variance. A scale named *cost-efficiency* was created by summing across four items that defined this factor (Cronbach's alpha = .67). The second factor explained 12.2% of the variance. A scale named *differentiation* was created by summing across five items defining this second factor (Cronbach's alpha = .72). The cost-efficiency items were as follows: (a) maximizing operating efficiency; (b) maintaining high product quality control; (c) having stable procurement of raw materials; (d) innovating in manufacturing processes. The differentiation items were: (a) having strong brand identification; (b) using innovative marketing; (c) controlling distribution channels; (d) advertising effectively; (e) forecasting market growth.

Human resource management priorities. Human resource management priorities were measured using scales developed by the authors for this study. Based upon an extensive review of the HRM literature; 22 items were written to describe a variety of HRM concerns. Respondents rated the importance of each concern to their business unit using a scale of *not at all* (1) to *extremely* (4). Factor analysis (principal component: oblique rotation) of the 22 items yielded four interpretable factors, three of which corresponded to the HRM priorities hypothesized to vary with product life cycle stages and competitive strategies. A *human resource improvement* factor explained 9.1% of the variance (eigenvalue = 4.3) and had an internal reliability of .74. The defining items included: (a) being able to attract people to work for the firm/division; (b) motivating current employees to develop and assume greater responsibilities; (c) responding to current employees' work needs so we are able to retain them. (d) implementing a policy of promotion from within; (e) having objective data available to use in making employment decisions. A *human resource planning* factor explained 6.3% of the variance (eigenvalue = 3.2) and had an internal reliability of .75. The defining

items included: (a) anticipating the HRM needs of the firm/division 2 years in the future; (b) being able to document the effects of HRM practices in dollars on the bottom line; (c) anticipating the HRM needs of the firm/division 5 years in the future. Finally, a *human resource innovation* factor explained 5.5% of the variance (eigenvalue = 2.7) and had an internal reliability of .67. The items included: (a) being able to attract people to work for the firm/division; (b) being an industry innovator in the use of HRM practices; (c) keeping abreast of competitors' uses of HRM practices.

In creating these measures of HRM priorities, we decided not to drop items loading heavily (.40 or higher) on two factors because there is no theoretical reason to assume the HRM priorities of interest are independent of each other (see Ford, MacCallum, & Tait, 1986). The average correlation among these factors was .17, suggesting minor overlap in priorities.

Results

As described by our hypothesis, several scholars have recently suggested that HRM priorities vary systematically as a function of product life cycle stage and/or the competitive strategic thrust of the organization. Discriminant analyses were conducted to test whether the data supported these assertions. Results for the first hypothesis are shown in Table 1. The product life cycle of a business was significantly related to HRM priorities (Wilks' Lambda = .96, $X^2 = 6.2$, $p < .05$). Specifically, human resource innovation was given higher priority in growth companies than in mature companies ($M = 8.1$ vs. $M = 7.4$). Also, firms in the growth stage placed higher priority on human resource planning than firms in the mature stage ($M = 7.4$ vs. $M = 6.7$). There were no significant differences between firms regarding the priority given human resource improvement. The canonical correlation for this analysis indicates that the percent of variance between HRM priorities that can be explained by product life cycle is modest ($R = .19$).

Results for the second hypothesis are reported in Table 2. HRM priorities were significantly associated with business strategy (Wilks' Lambda = .88, $X^2 = 12.1$, $p < .01$). As predicted, human resource innovation was given significantly higher priority for firms pursuing a differentiation ($M = 8.5$) strategy rather than a cost-efficiency strategy ($M = 7.2$). There were no significant differences regarding the priorities given to human resource planning. Contrary to our predic-

Table 1

HRM Priorities for Businesses in the Growth and Mature Product Life Cycle Stages

HRM Priority	Group Means		Univariate F-ratio	Discriminant Function Coefficient
	Growth Stage	Mature Stage		
Improving	15.3	15.1	.3	-.4
Planning	7.4	6.7	4.1*	.6
Innovating	8.1	7.4	4.2*	.8

$p < .05$

tions, there was a significant difference in the priority given to human resource management improvement. Firms pursuing a differentiation strategy indicated a higher priority for human resource improvement than did those firms pursuing a cost-efficiency strategy ($M = 15.6$ vs. $M = 14.3$). The canonical correlation for this analysis indicates that the association between strategies and HRM priorities was moderately strong ($R = .33$).

Discussion and Conclusion

This study provides support for and offers an extension of the strategic choice framework for industrial relations articulated by Kochan et al. (1984). A significant implication for industrial relations is that conditions of employment, the treatment of employees, and characteristics of the internal labor market may be different for firms that are pursuing different competitive strategies or have products in different life cycle stages.

The past few years have witnessed a rapid proliferation of alternative human resource management priorities and practices (Kochan & Cappelli, 1983; Beer & Spector, 1984). In part, this has resulted from attempts by firms to try anything to make their employees more productive and from the recognition that different practices are needed in different types of businesses (Dyer, 1984; Miles & Snow, 1984a). As stated by Reginald H. Jones, former chairman and CEO of General Electric Company: .

When we classified ... (our) ... businesses, and when we realized that they were going to have quite different missions, we also realized we had to have quite different people running them (Fombrun, 1982, p. 46).

Consequently, firms have started to select HRM practices on the basis of what they need from employees (Miles & Snow, 1984b), particularly as they are related to various product life cycle stages (Kochan & Chalykoff, 1985). In doing so, firms are significantly altering the conditions of employment.

As firms begin to think in terms of competitive advantage, and about using HRM practices to gain a competitive advantage, employees will face ever-changing employment relationships. A significant implication that follows is that employees of a single firm will be exposed to different sets of HRM practices during the course of employment. Consequently, workers will be asked to exhibit differ-

Table 2

HRM Priorities for Businesses Pursuing
Differentiation and Cost-Efficiency Strategies

HRM Priority	Group Means		Univariate F-ratio	Discriminant Function Coefficient
	Diff. Strategy	Cost Strategy		
Improving	15.6	14.3	8.9**	.7
Planning	7.4	6.8	2.1	.1
Innovating	8.5	7.2	10.9"	.5

** $p < .01$

- Ford, J.K., MacCallum, R.C., & Tait, M. (1986). The application of explanatory factor analysis in applied psychology: A critical review and analysis. *Personnel Psychology*, 39, 291-314.
- Fossum, J. A. (1987). Labor relations: Research and practice in transition. *Journal of Management*, 13, 281-300.
- Galbraith, J.R. (1983). Strategy and organization planning. *Human Resource Management*, 22, 63-77.
- Gupta, A.K., & Govindarajan, V (1984a). Build, hold, harvest: Converting strategic intentions into reality. *Journal of Business Strategy*, 4, 34-47.
- Gupta, A. K., & Govindarajan, V (1984b). Business unit strategy, managerial characteristics, and business unit effectiveness at strategy implementation. *Academy of Management Journal*, 9, 25-41.
- Hambrick, D.C., & Mason, P .A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9, 193-206.
- Hambrick, D.C., & Snow, C.C. (1987). Strategic reward systems. In C.C. Snow (Ed.), *Strategy organization design and human resource management* (pp. 68-96). Greenwich, CT: JAI Press.
- Hall, WK. (1982, Winter). Survival strategies in a hostile environment. *The McKinsey Quarterly*, pp. 2-24.
- Hax, A.C. (1985). *A methodology for the development of a human resource strategy*. Unpublished manuscript, Massachusetts Institute of Technology, Cambridge.
- Kerr, J.L. (1985). Diversification strategies and managerial rewards; An empirical study. *Academy of Management Journal*, 28, 155-179.
- Kochan, T A., & Barocci, T A. (1985). *Human resource management and industrial relations*. Boston: Little Brown.
- Kochan, TA., & Chalykoff, J. (1985, March). *Human resource management and business life cycles: Some preliminary propositions*. Paper presented at the Conference on Human Resources and Industrial Relations in High Technology Firms. Los Angeles.
- Kochan, TA., & Katz, H.C. (1983). Collective bargaining, work organization and worker participation: A return to plant-level bargaining. *Labor Law Journal*, 34, 324-329.
- Kochan, T A., McKersie, R.B., & Capelli, P (1984). Strategic choice and industrial relations theory. *Industrial Relations*, 23, 16-39.
- Lawler, E.E., III. (1984). The strategic design of reward systems. In R.S. Schuler & S.A. Youngblood (Eds.), *Readings in personnel and human resource management* (2nd ed., pp. 253-269). St. Paul, MN: West Publishing.
- Livernash, R.E. (1962). The general problem of work rules. In *Proceedings of the Industrial Relations Association* (pp. 1-10). Madison, WI: IRRA.
- MacMillan, I.C. (1983). Seizing competitive initiative. *Journal of Business Strategy*, 3, 43-57.
- McKersie, R.B., & Hunter, L.C. (1973). *Pay productivity and collective bargaining*. London: MacMillan.
- Miles, R.E., & Snow, C. C. (1978). *Organizational strategy, structure and process*. New York: McGraw-Hill.
- Miles, R.E., & Snow, C.C. (1984a, Summer). Designing strategy human resources systems. *Organizational Dynamics*, pp. 36-52.
- Miles, R.E., & Snow, C.C. (1984b). Fit, failure, and the hall of fame. *California Management Review*, 26, 10-28.
- Milkovich, G., Dyer, L., & Mahoney, T (1983). The state of practice and research in human resource planning. In S. Carroll & R.S. Schuler (Eds.), *Human resource management in the 1980s* (pp. 2-I - 2-28). Washington, DC: Bureau of National Affairs.
- Miller, A., & Camp, B. (1984). Exploring determinants of success in corporate ventures. *Journal of Business Venturing*, 1, 87-195.
- Miller, D. (1986). Configurations of strategy and structure: Towards a synthesis. *Strategic Management Journal*, 7, 233-249.
- Miller, D., Kets de Vries, M.F.R., & Toulouse, J.M. (1982). Top executives locus of control and its relationship to strategy-making, structure, and environment. *Academy of Management Journal*, 25, 237-253.
- Olian, J.D., & Rynes, S.L. (1984). Organizational staffing: Integrating practice with strategy. *Industrial Relations*, 23, 170-183.