HUMAN RESOURCE MANAGEMENT PRACTICES, BUSINESS STRATEGIES, AND FIRM PERFORMANCE: A TEST OF STRATEGY IMPLEMENTATION THEORY[1]

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Abstract

A moderated regression analysis was used to relate sixteen top management team HRM practices to firm performance under Differentiation and Cost Leadership strategies. This was done for 115 strategic business units of US Fortune 500 companies to test strategy implementation theory. Both universal and contingency relationships were found with the former appearing to be more pervasive.

There is a new "proactive" approach, which bestows upon HRM the strategic importance heretofore reserved for financial and technological resource decisions, which is sufficiently different from the more traditional approach to HRM to merit a new name: Strategic Human Resource Management (SHRM). This suggestion is consistent with the strategy implementation model developed by Galbraith and Nathanson (1978) that proposed in order for strategy to improve firm performance, it must be matched with appropriate processes and systems – including HRM. Proponents of SHRM argue that HRM does (or should) play an important role in helping a

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company achieve its strategic goals by contributing to strategy implementation and, sometimes, strategy formulation (Devanna et al, 1984; Cook and Ferris, 1986; Schuler and Jackson, 1987). Since strategic success is typically measured in financial terms, the effectiveness of HRM within this "strategic framework" is evaluated not in terms of worker satisfaction, employee relations, equity or other micro factors traditionally emphasized in personnel practice and research, but in terms of how HRM activities contribute to the company's "bottom line" (Milkovich et al, 1983; Misa and Stein, 1983; Frohman, 1984). Accordingly, managers are being encouraged by academics and consultants to unleash HRM as a powerful management tool to help bolster organizational performance.

Despite the enthusiasm about HRM's potential contribution to organizational performance expressed in the academic and popular press, and the centrality of the HRM performance linkage in emerging models of SHRM, there is little clear empirical evidence of a positive relationship between HRM practices and organizational performance or effectiveness (Schlesinger, 1983), and even less research examining the mechanics of this linkage. There is also no research we could find on the relationship of various executive human resource practices to SBU strategy and performance, in spite of the increasing recognition given to the importance of the top management team (TMT) in organizational effectiveness (Hambrick, 1984). Certainly we would expect that the skills and behaviours of the TMT is especially important to the successful implementation of a firm's strategy and to firm performance.

To help redress this deficiency, this broad, exploratory study examines the relationship between important elements of organizations' HRM systems (specifically, the selection, compensation, performance appraisal and training of the TMT), SBU strategy and SBU performance. In a departure from earlier studies focusing exclusively on just one type of HRM-performance relationship (e.g., contingency relationships), this study takes a comprehensive view that considers both simple and complex forms of interaction. Thus, our analysis provides a basis not only for discrimination among 16 different TMT HRM practices according to their apparent effect on SBU performance, but for evaluating the relative dominance of alternative theoretical models of HRM-performance linkages. These different models of the HRM-performance linkage include the (1) "strictly universalistic" relationship where a HRM practice has a general positive or negative relationship with performance, (2) the "strictly contingent" relationship where a practice relates to performance only in a specific strategy setting,

(3) a simultaneous universalistic/contingency relationship where the HRM/performance relationship, while exhibited among firms generally, is stronger in a specific strategy setting, and (4) an "irrelevant" or absent relationship where HRM practice has no apparent impact on performance.

The Study

The purpose of this study was to examine the TMT HRM/performance linkage universally and within specific strategy settings. By evaluating diverse TMT HRM practices according to their apparent relationship with performance, we hope to contribute to a better understanding of HRM's "strategic" properties, and draw conclusions regarding the effectiveness of HRM activities. Two issues are addressed in our research:

- Are certain HRM activities for the TMT universally effective, regardless of organizational context? Is there a set of HRM practices for the TMT that – due to their apparent superior results in improving organizational performance – should be practised by all companies?
- Are there TMT HRM activities that effectively support some strategies, but are less effective or counter-productive when matched with other strategies? Is the effectiveness of such HRM practices dependent on the strategy environment in which they are enacted?

Our prior expectations were that our analysis would yield both universal and contingent relationships in our statistical findings. Thus, we predict that some TMT HRM practices will have universal relationships with performance, other TMT HRM practices will have a relationship with performance contingent upon the strategic context, and some TMT HRM practices will have no statistical relationship with performance. For example, having high internal equity in pay among top managers may not be related to firm performance at all under any circumstances, because this practice might impact satisfaction but not performance. It is possible that more frequent performance appraisals might be related to higher individual performance (and ultimately firm performance) in firms generally since it focuses executive attention on performance goals throughout the year. Selecting executives high on creativity might be a competitive advantage to firms under some strategic conditions (namely firms following Differentiation strategies) but might serve as a detriment to

performance in firms in stable environments where innovativeness is relatively unimportant. Given the early stages of SHRM theory development, we felt it premature to generate specific hypotheses for each HRM practice considered in our study. We do predict, however, that while we expect to unearth all four types of relationships in practice, one or more scenarios will dominate. The recent SHRM literature would argue for the dominance of the contingency alternative, but to date there has been no empirical basis to support this view. In addition, the lack of empirical evidence on HRM practices for the TMT make it unwise to develop specific hypotheses on TMT HRM/performance relationships. Thus, we do not predict in advance which of the scenarios will dominate.

This study focused on the top executive teams in strategic business units (SBUs) in Fortune 500 companies. It examined TMT HRM activities in the four major program areas: staffing, training, performance appraisal and compensation. Again, the TMT was the group studied under the assumption that this is the group most central to the successful implementation of a business unit's competitive strategy.

Method

The Sample

The unit of analysis was the strategic business unit (SBU), chosen because the HRM policy decisions under consideration are typically made at this level in the organization (Lorange and Murphy, 1983; Devanna et al, 1984), and because SBU-level analysis – despite its apparent relevance (Dyer, 1984) – has been largely overlooked in SHRM research. Questionnaires were mailed to SBU-General Managers in a randomly selected group of Fortune 500 companies identified through the Directory of Corporate Affiliations. General Managers were solicited for participation rather than HRM managers because they were in the best position to provide information on all critical variables: strategy, performance and HRM policies geared to the executives in the TMT. Subsequent analysis supported this decision: for all the TMT HRM practices included in our study, General Managers were the key decision-makers. Twenty-six percent of the 450 questionnaires mailed out were returned for a total of 115 useable responses.

Measures

Organizational Performance

Given corporations' desire for confidentiality, objective data on the financial performance of individual SBUs is considered by experienced researchers to be virtually impossible to obtain (Lawrence and Lorsch, 1967; Gupta, 1988). Further, published financial data like ROI or Net Profitability commonly used in research on corporate-level issues does not take into account other achievements such as new product developments that are increasingly recognized as important dimensions of organizational performance (Ford and Schellenberg, 1982). In light of these considerations, we developed a multi-dimensional performance measure, based on self-reported ratings. Managers were asked to indicate both (1) the degree of importance that management attaches to, and (2) their perception of their SBU's performance relative to expectations on each of the following 12 dimensions of performance (both financial and non-financial): operating profits, sales growth, market share, profit-to-sales ratio, cash flow from operations, return on investment, new product development, market development, R&D activities, cost reduction programs, personnel development, and political/public affairs. Using the data on importance as criterion weights, a weighted average measure representing overall performance was created for each business unit in the following manner:

$$\text{SBU Performance} = \sum_{i=1}^{12} \frac{(\text{Criteria}_i \text{ Importance} * \text{Criteria}_i \text{ Performance})}{\text{Total Importance}}$$

$$\text{Where Total Importanc} = \sum_{i=12}^{12} \text{Criteria}_i \text{ Importance}$$

The range on the performance measure was 2.4 to 6.5, with a mean of 4.4 and standard deviation of 0.9, indicating that as a group, respondents did not appear to have inflated their reported performance. Previous efforts (Gupta and Taylor, 1989) to test the validity of this same performance scale by comparing self-reported data on financial measures with published data (where available) supports the construct validity of this measure.

SBU strategy

Management theorists have developed many different conceptualizations of strategy over the past 15 years. While some researchers argue that there is no apparent justification for choosing one over another (Dyer, 1984), the clear establishment of the strategic business units as the level of analysis in Porter's typology makes it an appropriate choice for this research and provides the basis for our strategy measure. According to Porter (1985), strategy refers to SBUs' efforts to achieve competitive advantage and strengthen its relative position vis-a-vis other businesses in the industry. He identifies three generic strategies that can be used to compete against other firms in the same market: Differentiation (create something that is perceived in the market as unique), Cost Leadership (use experience, controls, and cost minimization as a basis for price competitiveness), and Focus (aim at a cost or differentiation advantage within a narrow market segment).

Respondents were asked to indicate the percentage of the prior year's sales that were accounted for by products pursuing the following strategies: Differentiation, Cost Leadership, and (since it is theoretically possible that a business can strive to be both unique and cost competitive) simultaneous pursuit of both Differentiation and Cost Leadership strategies. Since Focus strategies are in effect refinements of either Cost leadership or Differentiation strategies, this option was not included in our measure. Using a measure developed by Gupta and Govindarajan (1986), a weighted average based on the percentage of SBU products pursuing the three strategy choices was derived as an aggregate measure of competitive strategy for each SBU:

Strategy = ((% of Differentiation * 1) + (% of Simultaneous Cost Leadership and Differentiation * 0) + (% of Cost Leadership * -1))/100

Thus, competitive strategy is depicted as a continuum with "pure" Cost Leadership on one end, and "pure" Differentiation on the other. The data lends support to this conceptualization: only 1 SBU was typed as pure Cost Leadership, while just 8 could be considered pure Differentiation. As a construct validity check, we also asked the SBU's senior HRM manager to rate the SBU's strategy. The strong correlation between the two sets of responses ($r = .48$, $p<.001$) strengthens the construct validity of the strategy measure.

HRM

Various HRM policies are frequently in place within the same organization, and many of these differences can be explained by the hierarchical position of the employees that are the focus of the programs. For example, performance bonuses based on "piece rate" production may be an appropriate form of compensation for factory workers directly involved in the manufacturing process, but not for managers in line positions. This diversity argues for data-gathering techniques that are tailored to the specific human resources that are the focus of inquiry. Given the importance of senior management's contributions to strategy formulation and implementation, and the relatively low level of emphasis on managers in the body of existing HRM/performance empirical research, we chose to focus on the TMT – the most senior executives of Marketing, Production, and Research and Development within the SBU. The questionnaire gathered data on diverse HRM activities that appear to be germane to the treatment of executives. Data were gathered on 16 items pertaining to decisions in each of the four generic HRM policy areas: staffing, compensation, performance evaluation, and training and development.

Staffing:
Hiring executives from within
Desirability of specific managerial skills
Desirability of innovation characteristics
Executive tenure

Compensation Bonus policy:
Are bonuses paid?
Emphasis on individual incentives
Potential bonus amounts
Subjectivity of bonus calculations
Internal equity of executive pay
Market Competitiveness of executive pay

Performance Appraisal:
Frequency of formal appraisals
Frequency of informal appraisals
Use of objective data personality
Use of subjective data
Utilization of appraisal results
Training
Executive participation in
various training activities

Statistical Analysis

Regression analysis was used to evaluate both universal and contingent HRM/ performance relationships. To examine the linkage of individual HRM activities and performance, 16 separate multiple regressions were run, controlling for competitive strategy (Equation 1). The analysis was then expanded to include an "interaction" term to test for contingency effects (Equation 2).

Equation 1:
Performance = a_1 HRM + a_2 Strategy

Equation 2:
Performance = b_1 HRM + b_2 Strategy + b_3 (HRM*Strategy)

A statistically significant regression coefficient for the interaction term (b3) indicates that there is a significant improvement in the amount of variance in performance explained by adding the moderator or interaction variable, indicating that the relationship between a specific HRM practice and performance is significantly different among the Cost Leadership and Differentiation companies in our sample. Solution of the partial derivative of Equation 2 (d Performance/d HRM practice = b1 + b3 Strategy) allows us to conclude where along the strategy spectrum HRM has a positive effect on performance, a negative effect and no effect.

TABLE 1
RESULTS OF REGRESSION ANALYSIS
IMPACT OF HRM PRACTICES ON SBU PERFORMANCE'

(Test for Universal Relationships)

		REGRESSION COEFFICIENTS[b]			
Eq.#	Independent HRM Variable (X)	Strategy	HRM (X)	R^2	F-Value[c,d]
	Staffing				
1	Hiring Executives From Within	.173+	.019	.031	1.76
2	Desirability of Managerial Skills	.179+	.090+	.055	3.26+
3	Desirability of Innovative Chars.	.174+	.192*	.067	4.03*
4	Executives' Tenure	.200*	.169*	.076	3.03+
	Compensation				
5	Are Executives Paid a Bonus?	.167+	.114	.043	2.52
6	Emphasis on Individual Incentives	.187*	.116	.043	2.54
7	Potential Bonus Amount	.167+	.034	.031	1.81
8	Subjectivity of Bonus Calculations	.172+	.053	.033	1.91
9	Internal Equity of Executives' Pay	.188*	-.166+	.059	3.52+
10	Competitiveness of Compensation	.180*	.260**	.098	6.08**
	Performance Appraisal				
11	Frequency of Formal Appraisals	.168+	.059	.033	1.95
12	Frequency of Informal Appraisals	.157+	.149+	.051	3.03+
13	Use of Objective Criteria	.149+	.177*	.061	3.63*
14	Use of Subjective Criteria	.143+	.336**	.142	9.30***
15	Utilization of Evaluation Results	.122	.311***	.124	7.96***
	Training				
16	Executive Participation in Training	.182*	.146	.051	3.06+

[a] The regression results were run as follows:

$$P = a + bS + cX$$

where P = Performance, S = Strategy, and X = HRM practice under consideration.

[b] Variables were standardized prior to regression.

[c] + = p <.10 * = p <.05 ** = p<.01 *** = p <.001

[d] F-Values calculated on the basis of 112 firms, with 2 degrees of freedom used.

TABLE 2
RESULTS OF MODERATED REGRESSION ANALYSIS
STRATEGY A MODERATOR OF THE HRM/PERFORMANCE RELATIONSHIP

(Test for Contingency Relationships)

Eq.#	Interaction Variable (X)	REGRESSION COEFFICIENT [b]	Standard Error	R^{2c}	F-Value
	Staffing				
17	Strategy* Hiring Executives From Within	-.047	(.085)	.001	.246
18	Strategy* Desirability of Managerial Skills	.079	(. 100)	.007	.711
19	Strategy* Desirability- of Innovative Chars.	.095	(1.00)	.008	1.03
20	Strategy* Executives' Tenure	-.033	(.095)	.018	1.21
	Compensation				
21	Strategy* Are Executives Paid a Bonus?	.019	(.082)	.001	.042
22	Strategy* Emphasis on Individual Incentives	-.029	(.104)	.000	.098
23	Strategy* Potential Bonus Amount	.016	(.101)	.001	.017
24	Strategy* Subjectivity of Bonus Calculations	.084	(.095)	.007	.753
25	Strategy* Internal Equity of Executives' Salaries	-.057	(.109)	.003	.370
26	Strategy* Competitiveness of Compensation	.020	(.010)	.000	.046
	Performance Appraisal				
27	Strategy* Frequency of Formal Appraisals	-.026	(.113)	.000	.975
28	Strategy* Frequency of Informal Appraisals	-.091	(.087)	.009	.974
29	Strategy* Use of Objective Criteria	.201*	(.087)	.040	4.75
30	Strategy* Use of Subjective Criteria	.116	(.107)	.012	1.77
31	Strategy* Utilization of Evaluation Results	.15 1+	(.094)	.021	2.78
	Training				
32	Strategy * Executive Training Participation	-.153+	(.100)	.023	2.80

[a]The regression equations were run as follows:

$$P=a+bS+cX+dSX$$

where P = Performance, S = Strategy, X = HRM variable under consideration, and SX = Interaction between S and X.

[b]The regression coefficient reported is for the interaction term: Variables.

[c]R^2 indicates the increase in R^2 due to the interaction term SX into the equation.

+ = p<.10 * = p<.05

Results and Discussion

Testing for Universal and Contingency Relationships

The results of regression analysis testing for universal HRM/performance relationships are summarized in Table 1, and the results from the regressions testing for contingency relationships are provided in Table 2. Of the 16 HRM practices evaluated, we found 8 strictly universal relationships (at the p=. 10 level or above), 2 strictly contingent relationships, and 1 simultaneous universal/contingent relationship. The remaining 5 had no significant relationship with performance and were thus considered irrelevant.

In the staffing area, 4 selection characteristics were considered, 3 of which were found to have statistically significant relationships with performance. Regressions testing for main effects found that an emphasis on diverse managerial skills ($p<.10$), innovative personality characteristics ($p<.05$) and executive tenure ($p<.10$) when hiring executives were all positively associated with SBU performance. The source of executive recruits – i.e., whether they were hired from inside or outside the firm – was not linked to SBU performance. The second set of regressions including an interactive term yielded no significant results; thus, none of the staffing variables included in our study were found to have a contingency relationship with performance.

The compensation area yielded our most disappointing results. Of the 6 compensation variables considered, only two universal relationships were identified: SBU performance was positively associated with providing executive compensation packages that were market competitive ($p<.01$) and negatively associated with internal salary equity within the top management team ($p<.10$). Thus, the importance of external equity exceeded that of internal equity in this study. None of the four bonus characteristics were found to be significantly associated with SBU performance. Regressions testing for contingency relationships produced no significant results.

In contrast, the findings in the performance evaluation area yielded our most significant findings. Of the 5 appraisal variables studied, 4 were found to be positively associated with performance: greater utilization of objective criteria ($p<.05$), greater use of subjective indicators ($p<.01$), greater use of appraisal results ($p<.001$), and more frequent informal appraisals ($p<.10$). Further analysis revealed two contingency relationships (see Table 2): the interaction between strategy and the use of objective performance criteria ($p<.05$) and the utilization of performance appraisal results as inputs into diverse HRM decision-making ($p<.01$) were significantly associated with SBU performance. Comparing the results of the regressions testing for main effects

(Equations 13 and 15) with equations testing for interactive effects (Equations 29 and 31), we conclude that the utilization of appraisal results variable has both a universal and contingency relationship with SBU performance, while the objective data variable has a strictly contingent relationship.

The final variable we considered was executive training. Although we originally gathered data on participation in diverse training activities (formal and informal, in-house and out-of-house, specialized (functional) and general management, mentoring and seminars), there was such a high degree of correlation among the variables that we combined them into a single training participation variable. Regression analysis did not uncover a significant universal effect of training on SBU performance. The second regression supported a contingency relationship, however ($p<.10$); with the sign of the interaction term indicating that training was positively associated with performance on the Low Cost end of the strategy spectrum, and negatively associated with performance on the Differentiation end.

Interpretation of the Results

The statistical analysis supports our general proposition: that there are four types of relationships between HRM practices and SBU performance. Furthermore, one alternative (the universal scenario) emerged as the dominant scenario in our study. Our interpretation of each of our individual findings is provided below.

In staffing area, three types of selection criteria were associated with superior performance. The personal characteristics measure ($p<.05$), which incorporates 8 diverse personality attributes generally recognized as relevant to managerial performance (e.g., creativity, tolerance for ambiguity, initiative, willingness to take risks), suggests that while previous research has concluded that managers with certain personality characteristics are better suited to implement specific strategies (Gupta and Govindarajan, 1984; Szilagyi and Schweiger, 1984), there is a "core" of managerial characteristics that appears beneficial to the organization, regardless of its strategy pursuits. Likewise, the managerial skills measure ($p<.10$) which addresses the importance attached by General Managers to whether SBU executive demonstrate leadership, problem-solving, and communication skills, suggests that often mentioned general management skills are related to performance. The third selection variable associated with performance was executives' tenure ($p<.10$), indicating that top performing companies had senior management teams which were typically comprised

of individuals with more company experience than lower-performing companies. It is not surprising that managers' experience with an organization's procedures, goals, and personnel, as well as the opportunity to build networks which can enhance information processing capabilities, would be associated with superior performance. These findings suggest that staffing the top management team with aggressive, creative individuals capable of dealing with uncertainty, with strong traditional management skills and organizational experience reaps performance benefits for the firm. Hiring, promotion and transfer policies that identify and recruit these individuals for executive positions would, from a performance perspective, be deemed effective. We found no contingency relationships in the staffing area; thus, none of the selection criteria we considered was more or less important in one strategy environment versus another.

In the compensation area we found two universal relationships. Top performing firms exhibited a "market leadership" compensation strategy ($p<.01$) by paying their executives more than their counterparts within the industry. While this analysis does not provide a basis for conclusions regarding the directionality of the salary-performance linkage, our findings are consistent with the proposition that paying above-market salaries has obvious implications for managerial competence (Carroll, 1988). Higher salaries may facilitate recruitment of exceptional managers and/or serve as a motivator for creativity, prudent risk-taking behaviour, hard work, etc. On the other hand, top performing firms may be more generous when compensating executives – regardless of their individual achievements. With regard to the negative relationship between the internal equity variable ($p<.10$) (managers' salaries as compared with each other) and performance, compensation strategies based on equity and those based on market competitiveness are often depicted in the literature as contradictory, and our findings would lend support to this conceptualization. Compensation practices among the top performers in our sample were apparently driven by marketplace, not internal equity, considerations. No significant contingency results were found in the compensation area. (Ironically, the bulk of the prescriptive SHRM literature focuses almost exclusively on compensation and staffing activities, the two areas where we found no contingency relationships.)

In the performance appraisal area, we uncovered relationships that fit into all four types of relationships discussed earlier: universal, contingent, contingent and universal, and irrelevance. The greater use of performance criteria (both objective and subjective) suggests a relatively thorough approach to executives' performance appraisal that goes beyond what is easily measured, to focus on multiple, diverse

criteria. Adopting a multidimensional approach facilitates monitoring of strategic behaviours and reward for their attainment; it also implies high-level attention to individual executives' performance. Greater use of informal appraisals ($p<.001$) by top performers also implies an emphasis on the level of executive performance; which could service as an incentive to encourage sustained manager performance. Furthermore, frequent contact between the TMT and the General Manager that forms the basis for informal appraisals may generate performance benefits stemming from improved communication such as superior identification of problems. Finally, top performing companies seem to more frequently use the results of executives' appraisals ($p<.001$) as input into diverse HRM activities, including determining merit increases and bonuses, for recommending job development activities, and making staffing decisions. These findings together suggest that top performing companies take managerial evaluation seriously and make greater use of the results. This could also be expected to make TMT managers more sensitive to what types of performance the firm wants emphasized.

The logic underlying the first universal/contingency finding – that performance in Differentiation firms is more highly related to the use of objective performance criteria when evaluating executives than in Cost Leadership firms – is not immediately obvious.

The goal of Differentiation strategies – to provide products or services perceived by consumers as "unique" – would appear to be less amenable to objective measurement than Cost Leadership strategy goals which focus on minimizing production costs. We expected the choice of performance criteria used to evaluate managerial performance to reflect this orientation, with Cost Leadership firms making greater use of objective data than Differentiation firms. Our contrary findings may reflect the relative complexity and uncertainty of Differentiation environments, which could impose a greater need for diverse evaluation criteria (including objective data) to address multiple dimensions of performance.

In today's competitive marketplace, where products quickly become obsolete and international competitors frequently devise new ways to lower costs while remaining innovative, success in Differentiation strategies may require more production and financial finesse than has traditionally been recognized in the strategy literature. The flip side of this contingency relationship – that greater use of objective data is negatively associated with firms exhibiting a Low Cost orientation – is more difficult to interpret. To shed more light on the nature of this relationship, we went a step further

and solved the partial derivative of equation 38 to find that the Objective data/ Performance relationship takes the following form: it is positive for strategy values of -.76 to 1.0 and negative over the range -.77 to -1.0. Thus, the use of objective data only has a negative relationship to performance for SBUs that are almost exclusively following Low Cost strategies. As we approach the "pure Low Cost" end of the strategy spectrum, we are considering SBUs with fewer products, less change and complexity. In this relatively stable environment, it may be appropriate to focus executives' performance appraisal on only a few critical indicators. If the dimensions of organizational success are more narrowly focused in firms that are almost exclusively following Low Cost strategies, incorporating multiple measures of managerial effectiveness – some of which are unnecessary – may direct executives' attention to behaviours and activities that are not relevant to SBU performance. Thus, objective performance data may still be valued in Low Cost firms; however, less data may be required and/or be optimal in these environments. Clearly, additional research is needed to further evaluate the linkage between objective performance criteria, strategy and performance before normative prescriptions can be provided.

The second universal contingency finding – that high utilization of performance appraisal results is positively related to performance, but the relationship is more positive among Differentiation firms – is consistent with some research indicating that effort is more important to organizational success in non-bureaucratic organizations than in bureaucratic organizations (Gillen & Carroll, 1985). Furthermore, linking performance appraisal with other HRM subsystems (compensation, staffing, training) implies a mutually supportive, integrative approach to HRM which is generally considered to be effective.

The final area we considered was executive training. It was our expectation that since training participation implies that managers are frequently upgrading their management skills, that the firm has adopted a long-term outlook and is committed to managerial excellence, that training should have a universally positive effect on the quality of management. This was not found to be the case. Instead, we uncovered a contingent relationship, where the effect of training on performance was positive for Low Cost SBUs and negative for Differentiation SBUs (Solution of the partial derivative indicates that the training/performance relationship is only negative for SBUs who derive 73% or more of their sales from products pursuing Differentiation strategies). These findings may suggest that the relative stability of product lines in Cost Leadership firms may provide an environment where managers can apply the

skills acquired through training over a long period of time. Also, it could be argued that the goals of Cost Leadership strategies might be more effectively addressed by training while the creativity and flexibility needed under the Differentiation strategy may be less amenable to training. Finally, training programs may be more easily implemented in stable Cost Leadership environments than in more rapidly changing Differentiation firms.

Conclusions

This study evaluated the effect of sixteen different HRM practices germane to the treatment of the members of the TMT on firm performance. Half of these practices were found to be positively associated with performance universally, while only two HRM practices demonstrated a positive relationship with performance contingent upon the strategy setting. One practice had a simultaneous universal/contingency relationship with performance, and the remaining five variables demonstrated no relationship with performance. Based on this study, it would appear that one of the main propositions of SHRM theory – that HRM practices should have an effect on firm performance – has validity. Of course this study in no way establishes causality, but it is interesting to note the association of HRM practices with organizational (as opposed to individual) performance measures. Future research is needed to further explore the mechanics of the HRM/performance linkage, and could provide the basis for normative recommendations on "best HRM practices." It is further interesting to note that despite the enthusiasm about contingency HRM/performance relationships in the academic press, this study found very little evidence of this form of relationships. The pattern that emerged from this study is that a number of HRM practices appear to be effective from a performance perspective, regardless of the strategic environment in which they are enacted.

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[1]Some of the data from this study was reported in an earlier paper: Martell, K. & Carroll, S. (in press), "Which executive human resource management practices for the top management team are associated with higher firm performance?" *Human Resource Management Journal.*