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RESEARCH NOTES AND COMMUNICATIONS

TOP MANAGEMENT TEAM STRATEGIC CONSENSUS, DEMOGRAPHIC HOMOGENEITY AND FIRM PERFORMANCE: A REPORT OF RESOUNDING NONFINDINGS

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In this study, we hypothesized that relationships among top managers' goals consensus, means consensus, demographic homogeneity and firm performance would be positive and stronger in a stable industry environment than in a dynamic one. Utilizing a more rigorous methodology, the significant findings of earlier studies could not be replicated. Although the questions remain interesting and important ones, we believe pursuing this line of inquiry further will yield results inconsistent at best and fruitless at worst. Therefore, we urge future researchers to cautiously tread the perilous methodologic minefield that led to our nonfindings.

Bourgeois (1980) and Dess (1987) have noted that much of the normative literature in strategic management suggests that top management consensus in decision making is a crucial determinant of organizational performance. Porter (1980) contended that the ability to implement one of three generic, business-level strategies is compromised if the organization and its leaders are not in agreement on and committed to a unitary purpose. Although Quinn (1980) described the strategy formulation processes in the organizations he had examined as anything but rational and analytical, his work strongly implies that consensus building among an organization's top managers around strategic directions is crucial for organizational success.

The purpose of this research was to examine the posited but untested moderating effects of industry dynamism on the relationship between top management team (TMT) consensus and firm-level performance. Because the relevant literatures pointed in very similar directions, we also sought to determine if top management's demographic similarity could further explain differences in performance.

STRATEGIC CONSENSUS AND PERFORMANCE

In his review of the extant empirical literature, Dess (1987: 261) found considerable disagreement on the TMT strategic consensus–performance relationship. Essentially, Dess concluded that neither the strength nor direction of relationships examined had been determined with any consistency (e.g., Grinyer and Norburn, 1977–78; Bourgeois, 1980, 1985). One explanation lies in the inconsistent treatment of industry environments in these studies, which had either cross-sectional or single industry samples.

Key words: top management teams; strategic consensus

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Priem (1988) proposed a resolution when he argued for curvilinear relationships, where either too much or too little consensus is dysfunctional. He hypothesized that the performance-optimizing point of TMT consensus would be contingent on the external environment, higher in stable environments and lower in dynamic ones. Priem (1989) initiated tests of these propositions in an ostensibly stable industry (i.e., paint and allied products) and found moderate support utilizing correlational analyses. A synthesis of the normative, qualitative and quantitative literatures on this topic leads to the following:

Hypothesis 1: Overall, there will be a positive *relationship between strategic consensus and performance.*

Hypothesis 1': However, the positive *relationships will be* stronger *in a* stable *industry than a* dynamic *one.*

DEMOGRAPHIC HOMOGENEITY AND PERFORMANCE

Hambrick and Mason (1984) and Dess and Origer (1987) argued that differences in TMT's backgrounds may be associated with *less* strategic consensus and subsequently *poorer* performance, due in part to decreased communication and increased conflict. However, Dess and Origer (1987) proposed that a firm's industry environment will moderate that entire relationship.

Dess (1987) and Murray (1989) contended that firms competing in a dynamic industry may actually benefit from *less* demographic homogeneity and *less* strategic consensus. A diversity of opinions as to potential competitive moves and their likelihood for success would be more representative of an unstable and complex external environment.

Bantel and Jackson (1989) concluded that, when solving complex, non-routine problems, groups are more effective when composed of individuals having a variety of skills, knowledge, abilities and perspectives. Further, Schneider (1983) argued that organizational survival in turbulent environments may be aided by attracting, selecting and retaining demographically diverse managers who will later make important strategic decisions. TMTs composed of homogeneous and like-minded individuals may lead to slow reaction times and loss of competitive advantage if new environmental realities are not correctly perceived and reflected in strategic plans. Thus, an integration of previous work in this area points to the following:

Hypothesis 2: Overall, there will be a positive *relationship between demographic homogeneity and performance.*

Hypothesis 2': However, the positive *relationship will be* stronger *in a* stable *industry than a* dynamic *one.*

METHODS

Variables

Strategic consensus

Consensus on organizational goals (13 scale items) and consensus on means (23 scale items) were determined using a synthesis of the items utilized in earlier studies (e.g., Bourgeois, 1980; Dess and Davis, 1984; Govindarajan, 1988, 1989). The consensus variables were measured in a manner similar to that of Bourgeois (1980, 1985), Dess (1987) and Priem (1989). Each TMT's strategic consensus was measured as the sum of the dispersion scores (standard deviations) for *each* Goals and Means questionnaire item. Consistent with Dess (1987), each firm's aggregate dispersion scores were subtracted from positive constants, so that consensus rather than dissensus yielded the higher overall scores. Because TMT members were *not* asked to indicate the conent of their business's objectives and strategies, low strategic consensus reflected differing TMT views as to *preferable* rather than *actual* objectives and strategies, similar to Shanley and Correa's (1992) 'internal' agreement dimension.

Demographic homogeneity

An aggregate measure of demographic homogeneity was developed. Drawing upon Bantel and Jackson (1989), Blau's index of heterogeneity ($1-\Sigma pi^2$) was

used as the basis for this measure, where p is proportion of TMT members in a category and i is the number of different categories represented on the team. Demographic homogeneity was the sum of a TMT's heterogeneity index scores across 12 demographic variables (e.g., gender, education), subtracted from a positive constant.

Performance

Published financial data were available for only five of the 65 firms in the sample; most were privately held or subsidiaries. Therefore, the subjective, self-report performance measures (three items) utilized by Dess and Robinson (1984) and Dess (1987) were the default option for this study.

In the absence of outside, objective measures of performance to verify each TMT's subjective assessment, an index of item-by-item agreement developed by Tinsley and Weiss (1975) was adapted for use as an indicator of aggregate TMT performance agreement. The index was calculated as:

$$IA = \Sigma\ [(N'-NP)/(N-NP)]/\text{Total TMT comparisons}$$

where N' = the number of agreements between raters;
N = the number of items rated; and,
P = the probability of a chance agreement.

Overall, the Tinsley and Weiss index yielded a score indicating TMT agreement, across the sample, on *greater than* one of three, but *less than* two of three performance assessments.

Sample

Industry selection

The machine tools (354- SIC) and electronic components (367- SIC) industries were classified as stable and dynamic, respectively, by analyzing data on sales and net profits in a manner similar to Keats and Hitt (1988), surveying a panel of academics, and comparing the overlap of 'polar' cases.

Organization selection

Of the nearly 4000 firms listed (Standard and Poor's Register) between the two industries, approximately 30 percent met the following criteria:

1. When multiple 4-digit codes were listed for a firm, at least 60 percent of them fell within either 3-digit SIC classification.
2. The firm was located domestically.
3. The firm was single business or a subsidiary/division.
4. At least four top executives were listed, including the CEO/GM.

The research samples (300 in each industry), from the nearly 1200 firms described above, were then randomly selected.

Top management teams

Murray (1989) examined heterogeneity in both 'inclusive' and 'exclusive' TMTs. The 'inclusive' TMT was larger and was composed of all listed firm executives. However, in order to identify the 'exclusive' or 'active TMT subset' for this study, the CEO/GM of a business unit was contacted by mail (initial and follow-up), provided with a brief description of this research, and requested to identify key decision makers, from the archival list of firm executives mentioned above. Dess (1987) and Bantel and Jackson (1989) utilized similar techniques in their studies.

Data collection

Survey questionnaires and cover letters (initial and follow-up) were sent to responding CEOs/GMs and their designated executives. Of the 600 CEOs/GMs contacted in the initial mailings, 112 agreed to their firm's participation in the study—a rate of 18.67 percent. However, at least three surveys without missing data were required to include a firm in the final sample. After the final cut, the machine tools industry was represented by 39 firms and electronic components by 26.

Analytic techniques

In the present study, moderated hierarchical regression analyses were utilized. Not only were the strength and direction of the relationships among independent and dependent variables of interest, but also the moderating effects of industry dynamism.

Table 1. Descriptive statistics and zero-order correlations

	Variables	Mean	S.D.	1	2	3	4	5	6
1	GoalsCon	40.48	3.92	1.00	0.71**	0.15	0.36**	0.38**	0.29*
2	MeansCon	31.80	5.82		1.00	0.05	0.26*	0.37**	0.21
3	DemoHom	4.67	0.93			1.00	0.06	0.06	0.28*
4	GoalsCon × Industry	24.74	20.55				1.00	0.98**	0.95**
5	MeansCon × Industry	19.64	16.68					1.00	0.93**
6	DemoHom × Industry	2.82	2.44						1.00

**$p < 0.01$; *$p < 0.05$; $n = 65$

Table 2. Results of regression analyses

Independent variables	Perf 1 (Net profit)	Perf 2 (R.O.A.)	Perf 3 (Overall perf.)
Main effects[a]			
F	1.632	0.667	1.453
Sign. of F	0.191	0.576	0.236
R^2	0.074	0.032	0.067
Interaction effects[b]			
F	0.802	0.355	0.949
Sign. of F	0.572	0.904	0.468
R^2	0.077	0.035	0.089

[a]Goals consensus; means consensus; demographic homogeneity.
[b]Goals consensus × industry; means consensus × industry; demographic homogeneity × industry.

RESULTS

Positive relationships were hypothesized to exist between TMT consensus on goals and means, demographic homogeneity and firm performance. Further, it was argued that these relationships would be stronger in a stable industry than in a dynamic one. The moderated hierarchical regression technique described above *failed* to provide support for these hypotheses, as evidenced in Table 2.

The regression analyses yielded resoundingly consistent results. The F statistics calculated for the regression of the three dependent variables on three main effect and three interaction variables was nonsignificant in each case. In addition, an 'R-squared gain' statistic, calculated when the interaction terms were included in each of the three equations, never came close to 1.0, with an approximate critical value of 2.0. And, plots of regression residuals lent no credence to the possibility of model misspecification.

DISCUSSION

The results of this study are not particularly surprising, in view of the inconsistent findings Dess (1987) discovered in his review of the consensus-performance literature. Utilizing a larger sample of firms, polarized along the stable/dynamic dimension, we could not replicate earlier significant findings.

The complete nonsignificance of the regression results suggests strongly that the dependent variables were inadequately measured, leaving the true relationships between independent variables and firm performance as yet unknown (Wittink, 1988). While the 'subjective' dependent variables may have captured some broad sense of firm

performance, the crucial trade-offs faced in this research were among accessible financial data, firms with *focused* industry activities and a degree of random selection.

Although the results of this study call into question the findings of a long line of research by respected scholars, top management will undoubtedly continue to be a topic of interest to both academics and practicing managers. Ultimately, the responsibility for crucial strategic decisions rests with them. It is apparent that the literature from which the research hypotheses of this study were developed shared the perspective of Hambrick (1987, 1989), when arguing that assembling a capable top management team is a crucial aspect of strategic management; the proper blend of backgrounds, experience, values and personalities should help to ensure effective strategy formulation and implementation.

Thus, we urge future researchers to carefully consider their measures and methods if pursuing this line of inquiry. For example, why seek inherently 'noisy' global measures of consensus? If a firm's goals and strategies are indeed idiosyncratic, it is inconsistent to assess the degree of TMT agreement from lists of *universal* variables. A measure of intragroup agreement is certainly necessary and possible; but, we may have asked for responses to implausible survey items and assumed that the consensus construct is unidimensional (Shanley and Correa, 1992). Furthermore, to gather consensus and performance data simultaneously ignores the time lag between planning and execution. Current performance is the result of strategic decisions made months, even years, ago. Priem (1990) argues that whether consensus leads *or* lags performance has yet to be determined. A longitudinal study tapping appropriate and quantifiable performance measures *before* and *after* examining the extent of firm-specific consensus would have the potential to make a much greater contribution. And, by virtue of the above limitations, large sample tests may be both impractical and inappropriate.

Therefore, we believe studying the relationships between TMT consensus, TMT homogeneity and firm performance by the present means of inquiry will yield results inconsistent at best and fruitless at worst. Moreover, whatever assumptions we may hold regarding these relationships also need to be reconsidered, in view of the questionable empirical results to date. Confirmation or disconfirmation of the theoretic premises of this paper await further study; but, the current methods should be cast aside.

REFERENCES

Bantel, K. and S. Jackson (1989). 'Top management and innovations in banking: Does the composition of the top team make a difference?', *Strategic Management Journal*, Summer Special Issue, **10**, pp. 107–124.

Bourgeois, L. J. (1980) 'Performance and consensus', *Strategic Management Journal*, **1**(3), pp. 227–248.

Bourgeois, L. J. (1985). 'Strategic goals, perceived uncertainty and economic performance in volatile environments', *Academy of Management Journal*, **28**, pp. 548–573.

Dess, G. G. (1987). 'Consensus on strategy formulation and organizational performance: Competitors in a fragmented industry', *Strategic Management Journal*, **8**, pp. 259–277.

Dess, G. G. and P. S. Davis (1984). 'Porter's (1980) generic strategies as determinants of strategic group membership and organizational performance', *Academy of Management Journal*, **27**(3), pp. 467–488.

Dess, G. G. and N. K. Origer (1987). 'Environment, structure and consensus in strategy formulation', *Academy of Management Review*, **12**(2), pp. 313–330.

Dess, G. G. and R. B. Robinson, Jr. (1984). 'Measuring organizational performance in the absence of objective measures', *Straetgic Management Journal* **5**(3), pp. 265–274.

Govindarajan, V. (1988). 'A contingency approach to strategy implementation at the business-unit level: Integrating administrative mechanisms with strategy', *Academy of Management Journal*, **31**(4), pp. 828–853.

Govindarajan, V. (1989). 'Implementing corporate strategies at the business unit level: Implications of matching managers to strategies', *Strategic Management Journal*, **10**(3), pp. 251–269.

Grinyer, P. and D. Norburn (1977–78). 'Planning for existing markets: An empirical study', *International Studies in Management and Organization*, **7**, Winter, pp. 99–122.

Hambrick, D. C. (1987). 'The top management team: Key to strategic success', *California Management Review*, **30**(1), pp. 88–108.

Hambrick, D. C. (1989). 'Guest Editor's Introduction: Putting top managers back in the strategy picture', *Strategic Management Journal*, Summer Special Issue, **10**, pp. 5–16.

Hambrick, D. C. and P. A. Mason (1984). 'Upper echelons: The organization as a reflection of its top managers', *Academy of Management Review*, **9**, pp. 193–206.

Keats, B. W. and M. A. Hitt (1988).'A causal model of links among environmental dimensions, macro organizational characteristics and performance',

Academy of Management Journal, **31**(3), pp. 570–598.

Murray, A. (1989). 'Top management group heterogeneity and firm performance', *Strategic Management Journal*, Summer Special issue, **10**, pp. 125–141.

Porter, M. E. (1980). *Competitive Strategy*. Free Press, New York.

Priem, R. (1988). 'Consensus moderators and the consensus-performance linkage: Descriptive and normative propositions', paper presented at the Academy of Management Meetings, Anaheim, CA.

Priem, R. (1989). 'Top management team demographic homogeneity, consensus and firm performance in stable environments', paper presented at the Academy of Management Meetings, Washington, DC.

Priem, R. (1990). 'Top management team group factors, consensus and firm performance', *Strategic Management Journal*, **11**(6), pp. 469–478.

Quinn, J. B. (1980). *Strategies for Change: Logical Incrementalism*. Irwin, Homewood, IL.

Schneider, B. (1983). 'An interactionist perspective on organizational effectiveness'. In K. Cameron and D. Whetton (eds.), *Organizational Effectiveness: A Comparison of Multiple Models*. Academic Press, New York, pp. 27–54.

Shanley, M. T. and M. E. Correa (1992) 'Agreement between top management teams and expectations for post acquisition performance', *Strategic Management Journal*, **13**(4), pp. 245–266.

Tinsley, N. M. and H. I. Weiss (1975). 'Interrater reliability and agreement of subjective judgements', *Journal of Counselling Psychology*, **22**, pp. 358–376.

Wittink, D. R. (1988) *The Application of Regression Analysis*. Allyn & Bacon, Boston, MA.