Strategic Management Journal, Vol. 11, 469–478 (1990)

TOP MANAGEMENT TEAM GROUP FACTORS, CONSENSUS, AND FIRM PERFORMANCE

RICHARD L. PRIEM
College of Business Administration, The University of Texas at Arlington, Arlington, Texas, U.S.A.

The results of recent consensus–performance research have been equivocal. Substantive and methodological issues are examined to suggest reasons for this equivocality. Top management team composition, structure, and decision processes are proposed as antecedents to the consensus–performance relationship. An argument is developed for a curvilinear aggregate consensus–performance relationship, moderated by environmental dynamism. A model and associated propositions are advanced to further descriptive and normative theory.

The rational–normative strategic management literature posits the importance of consensus as an outcome of the strategy formulation process (Andrews, 1971; Ansoff, 1965). Each step of the formal planning process results in top management team (TMT) consensus. Such consensus is implicit in the incremental–political perspective (Allison, 1971; Braybrooke and Lindblom, 1970; Cyert and March, 1963). In this view goals and methods are determined through bargaining and negotiation in a politicized, power-based process, resulting again in TMT consensus. Quinn makes explicit the need for consensus, even in the incremental approach, through his emphasis on 'crystallizing consensus' (1980: 130). Consistent with both the rational–normative and incremental–political literature, recent empirical researchers have uniformly hypothesized a positive relationship between TMT consensus and firm performance.

Dess and Origer (1987) recently summarized consensus–performance research. They cited several studies which focus on the TMT consensus outcome, defined as general agreement in the opinions held by all or most, and its relation to firm performance (Bourgeois, 1980, 1985; Dess, 1987; Dess and Keats, 1987; Grinyer and Norburn, 1975). The results of this research are equivocal. Bourgeois (1980), Dess (1987) and Dess and Keats (1987) found support for the hypothesized positive relationships between TMT consensus variables (consensus on goals, competitive methods, and environmental perceptions) and firm performance. Bourgeois (1985), however, found significant results in the direction *opposite* to that hypothesized; diversity of opinion within the TMT on goals and perceived environmental uncertainty was positively related to firm performance. Similarly, Grinyer and Norburn (1975) found, for the small subset of financially successful firms in their sample, a negative correlation between TMT consensus and firm performance. They concluded that 'The hypothesis that there is, in general, a positive correlation between the extent of agreement between perceptions of executives and financial performance must be unequivocally rejected' (1975: 85).

Dess and Origer's review of consensus–performance literature suggests that the conflicting findings 'are due more to differences in definition, operationalization, and research type than to data anomalies or other differences' (1987: 320). The studies discussed above, however, are all of the same research type and unit of analysis. With minor exceptions (e.g. Grinyer and Norburn, 1975), all define and operationalize

0143–2095/90/060469–10$05.00

Received 19 September 1988
Revised 21 March 1990

consensus in the same manner and incorporate multiple measures of firm performance. The conflicting results of the studies under discussion may partly be attributed to sample differences and methodological differences. However, exploration of additional factors which may be related to the consensus outcome and/or firm performance may help to clarify the relationship between TMT consensus and firm performance.

This paper further develops consensus–performance theory, integrates the conflicting findings of prior research, and suggests propositions to guide future research. First, TMT group-level antecedents to the consensus–performance relationship are suggested and descriptive propositions are developed. An argument is then advanced for a curvilinear aggregate consensus–performance relationship, moderated by environmental dynamism. Finally, the descriptive propositions are reintroduced to produce a normative, contingency model, and implications are suggested for researchers and practitioners.

CONSENSUS–PERFORMANCE ANTECEDENTS: DESCRIPTIVE PROPOSITIONS

Several sets of questions may be posed concerning factors associated with the top management group which, in affecting the consensus outcome, may be antecedent to the consensus–performance relationship. Factors which will be explored include TMT homogeneity, TMT structure and TMT decision processes.

Top management team homogeneity

The first question set involves possible influences of the composition of the TMT group on the consensus outcome. To what degree, for example, might TMT demographic characteristics such as age, education, socioeconomic background, lenngth of time with firm, and length of time in current position influence group consensus on goals, methods, and environmental perceptions? How might the diversity of functional specializations and industry experience within the top management team affect consensus?

Theoretical support for TMT composition as an influence on the consensus outcome is provided by Hambrick and Mason (1984). They propose that TMT demographics influence both strategic choice and performance outcomes. While simple descriptive statistics may be used to reflect demographic characteristics, both Blau (1977) and Pfeffer (1983) suggest that the frequency distribution of the characteristic across the population, reflecting demographic homogeneity/heterogeneity, may hold the greatest promise for organizational research. Hambrick and Mason relate their 'upper echelons' perspective to group homogeneity/heterogeneity, stating that 'If the concept of demography can be applied to a total organization, it can also be applied to the organization's dominant coalition' (1984: 202). Smith and White (1987) have empirically supported the premise that CEO career specializations are linked to firm strategies, while Wagner, Pfeffer, and O'Reilly (1984) developed measures of 'demographic distance' for the vice-president level and above in 30 firms and found that larger demographic distances are associated with higher levels of turnover. Michel and Hambrick (1988) used archival data from 133 *Fortune* 500 firms and found that TMT characteristics are related to both diversification posture (using the classification scheme of Rumelt, 1974) and firm profitability. Interestingly, all of the significant demographic variables relating to profitability were what Michel and Hambrick termed 'social cohesion' variables, which reflect the homogeneity/heterogeneity of the TMT. These studies provide support for the contention that the distribution of both demographic characteristics and functional specializations within a TMT influences actions and, hence, consensus as an outcome. The implication that TMT homogeneity is positively associated with the level of consensus receives additional support from the large body of empirical literature in social psychology addressing issues of group consensus, conformity, and cohesiveness (see, for example, Davis, 1969 and Shaw, 1976, for brief summaries), leading to the proposition that:

> *P1: TMT homogeneity is positively related to the level of consensus within the TMT.*

Top management team structure

Another set of questions arises when considering group structure factors. Do certain structures encourage consensus, while others stimulate

diversity of opinion? How might the degrees of role formalization and hierarchical differentiation of roles, and limitations on intra-group communication paths within the TMT, influence the likelihood of consensus outcomes?

Group structure is the second proposed consensus–performance antecedent. Tightness of group structure, operationalized by increasing hierarchical differentiation and limiting communication paths, has been shown through laboratory studies to be positively correlated with perceived environmental uncertainty (Huber, O'Connell, and Cummings, 1975). Bourgeois suggests that as a firm becomes less accurate in perceiving the environment 'its managers tend to agree more and more about their misperceptions and about their goals' (1985: 568). Fredrickson (1986) argues that the organization's dominant structure has multiple influences on the strategy process and strategic action. Stogdill (1959) relates group structure, involving role formalization and its associated constraints, to individual freedom of action. He theorizes that less-structured groups allow more individual freedom of action, while groups with maximum structure severely constrain such freedom of action. Stogdill's theory suggests that highly structured groups, by reducing individual freedom of action, will encourage TMT consensus. This leads to the proposition that:

> *P2: TMT group structure (i.e. role formalization, hierarchical differentiation) is positively related to the level of consensus within the TMT.*

Top management team processes

The processes used by top management teams in making strategic decisions must also be considered. Given the 'novelty, complexity and open-endedness' (Mintzberg, Raisinghani, and Theoret, 1976: 250) of strategic problems, do differing decision-making processes result in differing levels of consensus? Even more problematic, might the level of the consensus outcome be influenced by the length of time a TMT has been using a specific process for making strategic decisions?

Consensus can be a *process* of decision-making as well as an outcome. The consensus process simply involves encouraging participants to express their opinions fully during group decision-making. Two more structured decision processes, dialectical inquiry and devil's advocacy, are frequently cited in the strategic decision-making literature as decision aids for solving complex strategic problems (Cosier, 1982; Mitroff, 1982; Schwenk, 1982, 1989; Cosier and Schwenk, 1990; Schwenk and Cosier, 1980). Both of these techniques seek to facilitate the adoption of the best solution by optimizing the level of cognitive conflict during group discussion.

Schweiger, Sandberg, and Ragan's (1986) laboratory study examined the processes of dialectical inquiry, devil's advocacy, and consensus. Schweiger *et al.* (1986) found that dialectical inquiry and devil's advocacy both produce higher-quality assumptions and recommendations than consensus. Consensus, however, results in greater satisfaction and acceptance of the group decision. Tjosvold and Field's (1985) laboratory study produced similar results. Additional work by Schweiger and Sandberg (1989) indicates that groups using the dialectical inquiry and devil's advocacy processes make better use of the capabilities of individual group members than do groups using the consensus process. Note that in each process the result is general agreement—our definition of the consensus outcome. The question is to what degree the consensus process results in a different level of the consensus outcome than do the more 'combative' processes of dialectical inquiry and devil's advocacy.

Fisher (1980) clarifies the important distinction between the consensus process and the consensus outcome. His four-phase decision–emergence model (orientation, conflict, emergence, reinforcement) leads to the consensus *outcome*, but even the consensus *process* must pass through the cognitive conflict (disagreement) phase. In examining the link between conflict during the decision process and the consensus decision outcome, Fisher cites several studies (Fisher, 1970; Torrance, 1957) in concluding that 'greater consensus is obtained when a group experiences a greater amount of disagreement during decision-making interaction' (1980: 240). This leads to the proposition that:

> *P3: Disagreement (cognitive conflict)* during *the decision making process is positively related to the group consensus outcome.*

In discussing group norms in the consensual decision process, Gero notes that 'as these consensus norms are operationalized in the process of decision making, conflicts and disagreements may be absent or suppressed' (1985: 497). Thus, one would expect that dialectical inquiry and devil's advocacy, structured to encourage disagreement during the decision-making process, would produce higher levels of outcome consensus than would the consensus process, wherein consensus-seeking behavior may suppress the expression of such disagreement.

Performance contingencies

A number of contingencies affect the performance side of the consensus–performance relationship. Different industries have different average levels of profitability, thereby influencing the performance results of firms competing in those industries (Beard and Dess, 1981; Lieberson and O'Connor, 1972; Porter, 1980). At the organization level of analysis, Lawrence and Lorsch (1967) suggest that a firm's immediate environment and organizational structure are important variables influencing performance. Their multi-industry comparative study found that an appropriate match between environmental certainty/diversity and the firm's internal states and processes is necessary for high performance. Similarly, organization structure and size (Kimberly, 1976; Pugh *et al.*, 1969), operating technology (Woodward, 1965), and information technology (Galbraith, 1973) have been suggested as contingency factors affecting performance.

Thomas (1988), however, argues convincingly in reviewing the leader succession literature that leadership accounts for a substantial amount of performance variation within firms, supporting the upper echelon perspective of Hambrick and Mason (1984). Our focus, then, is on the effects of TMT group factors on the consensus outcome, as suggested by the descriptive propositions advanced, and on the relationship between that TMT consensus and firm performance. Organizational environment and structure contingencies will be revisited in the theory-building sections that follow. While the TMT group factors discussed previously each influence the consensus outcome, identification of archetypical factor configurations (Miller and Mintzberg, 1984) and the relation of these configurations to the performance contingencies may provide additional insights into the consensus–performance relationship.

A SUGGESTED EXTENSION TO CONSENSUS–PERFORMANCE THEORY

Recent empirical researchers have partitioned TMT consensus into goals consensus, means consensus, and consensus on environmental perceptions (Bourgeois, 1980, 1985; Dess, 1987; Dess and Keats, 1987). They have attempted to compare the relative strength of relationships between *each* area of TMT consensus and firm performance. The descriptive propositions advanced earlier, however, indicate consistent relationships between TMT group factors and consensus outcomes, regardless of whether the consensus concerns goals, methods, or perceptions of the environment. It may therefore be appropriate, from a group dynamics perspective, to consider the *aggregate* level of consensus within the TMT which results from group composition, structure, and process factors.

Aggregate TMT consensus and performance

One may, for example, consider aggregate TMT consensus outcomes to be a continuum ranging from extreme diversity of opinion to perfect consensus on goals, means, and environmental perceptions together. Extreme diversity can be defined as the situation in which there are *no* points of intersection in the opinion sets of the top management team. In set notation this situation can be represented as:

$$\{A,B,C\ldots\} \cap \{L,M,N\ldots\} \cap \{X,Y,Z\ldots\} = \{\phi\}.$$

The implication which can be drawn from the extreme diversity situation, consistent with assumptions of both the rational–normative and incremental–political literature, is that perfect disagreement (indeed, chaos) within the top management team will reduce effectiveness and negatively influence performance. If a highly authoritarian CEO *were* able to force order in the situation where perfect disagreement exists within a TMT, one would expect that the

remaining TMT members would implement the imposed strategy with little 'gusto,' again resulting in reduced effectiveness and relatively low performance. This conclusion is consistent with Brodwin and Bourgeois' suggestion that a CEO using the Commander Approach to strategy implementation 'may find himself faced with an extremely unmotivated, un-innovative group of employees' (1984: 180).

Perfect consensus, on the other hand, can be defined as the situation in which there is perfect union in the opinion sets of the TMT. In set notation this situation can be represented as:

$$\{A,B,C\ldots\} \cap \{A,B,C\ldots\} \cap \{A,B,C\ldots\} = \{A,B,C\ldots\}$$

The implication which can be drawn from the perfect consensus situation is that the Orwellian top management team acts as, indeed is, one person, once again reducing effectiveness and negatively influencing performance. This conclusion receives support from literature concerning the negative performance influences of the 'groupthink' syndrome (Janis, 1972) and consensus-seeking in response to threat (Staw, Sandelands, and Dutton, 1981), and from the positive performance effects of minority group influence in complex decision-making situations (Nemeth, 1986). Nemeth concludes that 'Minority viewpoints are important, not because they tend to prevail but because they stimulate divergent attention and thought. As a result, even when they are wrong they contribute to the detection of novel solutions and decisions that, on balance, are qualitatively better' (1986: 23).

Given that poor performance can be expected to result at either end of the aggregate consensus continuum, one can suggest a curvilinear aggregate consensus–performance relationship. The optimum level of consensus, relative to performance, falls somewhere between perfect consensus and perfect diversity of opinion within the TMT.

The proposed curvilinear relationship between aggregate TMT consensus and performance receives support from the empirical consensus–performance studies discussed earlier. Both Bourgeois (1985) and Dess (1987) conclude that too much consensus may be dysfunctional. Dess's examination of goals consensus and methods consensus found that each was positively related to performance, but that both together were not. This result, for fragmented industries, indicates two equally viable approaches to achieving performance through consensus, as would be expected given the curvilinear aggregate consensus–performance relationship. Sullivan and Nonaka's (1986) organizational learning proposition that variety amplification and variety reduction occur simultaneously in organizations also supports the proposed consensus–performance relationship. Under their theory, variety amplification (leading to diversity) stimulates variety reduction (leading to consensus) in high-performing firms, suggesting that optimal performance will be achieved through a simultaneous combination of diversity of opinion and consensus. Similarly, Hedberg, Nystrom, and Starbuck (1976), in advancing prescriptions for self-designing organizations, assert that 'An organization can extract advantages from both consensus and dissension simultaneously. Balance implies that consensus does not become regimentation and dissension does not become warfare' (1976: 56). To date, however, no study has examined aggregate TMT consensus (on goals, methods, and the environment) and its relation to performance.

Environmental dynamism as a consensus–performance moderator

Additional insights into the consensus–performance relationship may be gained by relating certain configurations of the proposed TMT group factors and performance contingency factors to firm performance. One may, for example, explore possible relationships between environmental dynamism, structure, TMT consensus, and performance. Lawrence and Lorsch (1967) theorize that more formalized group structures are appropriate in more stable environments. Following Stogdill's (1959) group structure–freedom of action proposition, consensus is more likely under the formalized structure. Higher levels of consensus in stable environments will then be consistent with the appropriate environment–structure match and, therefore, high performance. This conclusion is consistent with Hambrick and Mason's (1984) assertion that homogeneous TMTs (implying high consensus) will be positively related to performance in stable environments. Additional support is provided by Fredrickson (1984), who determined that

comprehensiveness (herein related to the consensus outcome of the rational planning process) in strategic planning is positively related to performance in stable environments. The converse idea, that lower levels of consensus in dynamic environments will be consistent with the appropriate environment–structure match, is again consistent with Hambrick and Mason (1984). They assert that heterogeneous TMTs (implying low consensus) will be positively related to performance in turbulent, discontinuous environments. Additional support is provided by Fredrickson and Mitchell's (1984) determination that comprehensiveness is negatively related to performance in unstable environments.

This discussion suggests that the level of environment dynamism influences the apex, or performance optimizing point, of the aggregate consensus-performance curve, as shown in Figure 1. Thus, for each level of dynamism there is a value of consensus which will maximize performance. This contingency formulation reflects what Schoonhoven labelled 'a "matching" or "maximizing" theory' (1981: 354), and leads to the proposition that:

> *P4(a): In stable environments, higher levels of TMT consensus will be associated with high performance, and*
>
> *P4(b): In dynamic environments, lower levels of TMT consensus will be associated with high performance.*

The level of environmental dynamism is thus proposed as a moderator of the consensus–performance relationship. This suggestion is consistent with the consensus–performance field studies discussed earlier. Dess (1987) and Dess and Keats (1987) sampled firms in the paint and allied products industry and found consensus to be positively related to performance. They argued that low industry munificence would result in a need for TMT consensus. Dess and Beard (1984), however, evaluated 52 four-digit SIC industry classifications on each of three environmental dimensions (munificence, complexity, and dynamism). The paint and allied products industry ranked 20th on munificence, 38th on complexity, and 52nd (last) on dynamism. Thus, results from a highly stable industry indicate positive consensus–performance relationships. Similarly, field studies which sampled firms from multiple industries, such that one would expect higher levels of dynamism, indicate negative consensus–performance relationships (Bourgeois, 1985; Grinyer and Norburn, 1975).

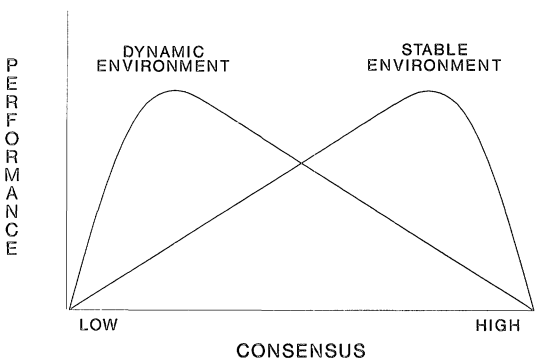

Figure 1. Consensus–performance relationship moderated by environmental dynamism.

Dess and Origer (1987) argue that consensus is inversely related to the environmental variables of munificence, dynamism, and complexity. If one accepts these arguments, the previous discussion would indicate that dynamism is, per Prescott's (1986) classification system, a quasi-moderator of the consensus–performance relationship. If, however, one argues that a TMT may agree that a high level of dynamism exists in the firm's environment, and may subsequently agree on appropriate goals and methods for addressing this dynamism, no dynamism–consensus relationship follows and dynamism would be a pure moderator of the consensus–performance relationship.

The three descriptive propositions made earlier concerning TMT group factor influences on the consensus outcome may now form a basis for prescriptions concerning appropriate configurations of TMT composition, structure, and decision processes in both low and high dynamism environments. For example, it has been argued that TMT homogeneity, structure, and processes which encourage disagreement during decision-making are positively related to the consensus outcome, which is positively related to performance in stable environments. In dynamic environments, however, the configuration associated with high performance would be heterogeneous TMTs which have little structure and which encourage agreement during decision-making. Thus, it is suggested that the TMT group factors influence performance through the

intervening consensus variable. The proposed high-performance configurations for low and high dynamism environments are summarized in Table 1.

Table 1. Proposed high-performance configurations

Environmental dynamism	TMT group factors	Consensus
Low	Homogeneous TMT Structured TMT Encourage disagreement during decision-making	High
High	Heterogeneous TMT Less-structured TMT Encourage agreement during decision-making	Low

DISCUSSION AND IMPLICATIONS

The normative propositions advanced above imply a contingency framework for relationships between TMT group factors, TMT consensus outcomes, and firm performance. The implications of these propositions for research, and tentative implications for practitioners, will now be explored.

Implications for research

In considering research implications, several methodological issues not previously discussed must be addressed. Measurement issues, for example, generate a number of questions important to research on the consensus–performance linkage. In attempting to measure TMT consensus outcomes, are the intended strategies or the realized strategies of the executives being measured (Mintzberg, 1978)? One could speculate that instruments requesting perceptual information tap executive intentions. In making their responses, however, executives may be influenced by the realized strategic results of their firms. Another question is whether more complex strategies might provide more areas for potential diversity of opinion. While this notion is intuitively appealing, at some level of complexity information overload may function to reduce opinion diversity. One may also question whether the 'summation of standard deviations' method of measuring the TMT consensus outcome (Bourgeois, 1980, 1985; Dess, 1987; Dess and Keats, 1987) is totally an *outcome* measure. For ongoing top management teams (rather than *ad hoc* groups) this measure may indeed also reflect the level of conflict/disagreement which is occurring *during the ongoing process* of strategic decision-making. Hence the TMT consensus measure may have both outcome and process components. An additional problem is the empirical issue of power weighting (e.g. is it more important if two 'key people' disagree than if there is disagreement between those who are not in power?). Hambrick (1981) determined that strategic and environmental contingencies are related to individual executives' power within the TMT. It may be beneficial to attempt to account for such power differences when examining the consensus outcome.

Causality is also an important issue. The cross-sectional, correlation-based nature of consensus–performance studies performed to date does not allow causal inferences to be drawn or lag effects to be examined. Prior consensus–performance researchers have hypothesized a primary causal path from consensus to firm performance, but have also acknowledged the potential for firm performance influencing TMT consensus (Bourgeois, 1985; Dess, 1987), suggesting that as firm performance declines the TMT may experience greater dissensus concerning goals, competitive methods, and perceptions of the environment. The issue of primary, or even simultaneous, causality is thus complex. The key question is whether a primary causal path indicates that consensus predicts performance, or that consensus is simply a result of performance. If consensus is primarily a performance predictor, future research results may have important and wide-ranging normative implications for practitioners. If consensus is primarily a result of performance, future research may prove much less helpful to the practitioner. The TMT group factors proposed earlier may be useful in addressing this problem. If they are, in fact, antecedent variables to the consensus–performance relationship, they may prove useful in analysis of the primary causal direction of that relationship (Rosenberg, 1968).

The proposed antecedents to and moderator of the curvilinear consensus–performance relationship

result in an increasingly complex, but potentially more accurate, consensus–performance theory, reflecting the inevitable simplicity, accuracy, and generalizability tradeoffs of social theories (Weick, 1979). This theory integrates the conflicting results of prior research by suggesting a contingency approach which moves beyond the universal consensus–performance relationships generally posited in the past. The theory advances propositions concerning the direction of relationships between group factors of TMT composition, TMT structure, and TMT decision processes, and the consensus outcome. It also proposes environmental dynamism as a moderating influence on the consensus–performance relationship, and develops contingency propositions for the TMT group factors, consensus, and firm performance in differing environments. Additional complexity may result when possible interrelationships among the TMT group factors, and additional configurations of these factors, are considered.

A first step in addressing this complexity and testing accuracy of the proposed theory may be the use of hybrid methods (Harrigan, 1983). Future research, incorporating multiple sources and both quantitative and qualitative methods, might examine the relationship of TMT group factors and both aggregate and disaggregated (goals, methods, environmental perceptions) consensus outcomes to firm performance in differing industry environments. Such examination could yield considerable insight into the difficult issues of process and causality.

Implications for practitioners

The recent economic success of Japan (Vogel, 1979) has generated new interest among practioners in the consensus–performance relationship. *Nemawashi* and *ringi*, the former as process and the latter as process and outcome, have been described by numerous researchers and practitioners (Abegglen and Stalk, 1985; Clark, 1979) as consensus-based. The popular *Theory Z* (Ouchi, 1981) relates consensual, bottom-up decision-making to performance, although there is dispute over how accurately this description of the decision-making process actually reflects Japanese practice (Sullivan, 1983). Nonaka (1988) has noted that many members of a heterogeneous design team at Honda expressed concern that they would be unable to reach consensus. Thus, one might expect that many practitioners may hold the view that consensus is positively and universally related to performance. Such a view would be in conflict with the consensus–performance theory proposed in this paper.

On-going field research by colleagues[1] may provide some insight into executive perceptions. Executives in various industries were asked about the importance of consensus in strategic decision-making in their firms. Only eight of 98 respondents indicated that the consensus outcome was 'not at all' or 'not very' important. Responses to the open-ended question 'How is consensus achieved in your organization?' generally reflect the use of some form of the consensus process as operationalized by Schweiger *et al.* (1986). For example, the president of a *Fortune* 500 conglomerate indicated that consensus is achieved in his firm 'through a series of business planning meetings . . . where everyone can present their opinions openly.' Similarly, the CEO of a small office products distributor stated that during strategic planning sessions 'there are *no bosses*, as we need input from everyone.' An executive of a rapidly growing restaurant chain responded that his firm encourages 'a healthy welcoming of individual input and opinion.' These representative responses may indicate that the consensus process is frequently used in American business in an attempt to achieve TMT agreement (consensus outcomes) on strategic issues and actions. This practice is not consistent under all environments, however, with the high performance configurations suggested in Table 1.

The normative propositions advanced in this paper could therefore have important implications for practitioners. If archetypical configurations of TMT group factors and consensus in differing industry environments are indeed apparent for successful firms, prescriptions such as those suggested in Table 1 may be more strongly advanced concerning TMT composition, structure, and processes. These prescriptions would indicate both the appropriateness of striving for TMT consensus within a particular firm, and the methods (some counterintuitive) which could be used to encourage/discourage such consensus.

[1] These data were gathered by Greg Dess and Wayne Bodensteiner from TMT executives in two major southwestern metropolitan areas.

ACKNOWLEDGEMENTS

The author wishes to thank Greg Dess, Kathy Eisenhardt, Howard Garland, Nancy Origer, Joseph Rosenstein, and the anonymous reviewers for their helpful comments. Portions of this paper were presented at the 1988 Academy of Management Meetings in Anaheim, California. I would also like to acknowledge the financial support of an AACSB National Doctoral Fellowship Award.

REFERENCES

Abegglen, J. C. and G. Stalk, Jr. *Kaisha: The Japanese Corporation*, Basic Books, New York, 1985.

Allison, G. *Essence of Decision*, Little, Brown, Boston, MA, 1971.

Andrews, K. R. *The Concept of Corporate Strategy*, Dow Jones-Irwin, Homewood, IL, 1971.

Ansoff, H. I. *Corporate Strategy*, McGraw-Hill, New York, 1965.

Beard, D. W. and G. G. Dess. 'Corporate-level strategy, business-level strategy, and firm performance', *Academy of Management Journal*, **24**, 1981, pp. 666–688.

Blau, P. M. *Inequality and Heterogeneity*, Free Press, New York, 1977.

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

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

Braybrooke, D. and C. E. Lindblom. *A Strategy of Decision: Policy Evaluation as Social Process*, Free Press, New York, 1970.

Brodwin, D. R. and L. J Bourgeois, III. 'Five steps to strategic action', *California Management Review*, **26**, Spring 1984, pp. 176–190.

Clark, R. *The Japanese Company*, Yale University Press, New Haven, CT, 1979.

Cosier, R. A. 'Methods for improving the strategic decision: Dialectic versus the devil's advocate', *Strategic Management Journal*, **3**, 1982, pp. 373–374.

Cosier, R. A. and C. R. Schwenk. 'Agreement and thinking alike: Ingredients for poor decisions', *Academy of Management Executive*, **IV**, 1990, pp. 69–74.

Cyert, R. and J. G. March. *A Behavioral Theory of the Firm*, Prentice-Hall, Englewood Cliffs, NJ, 1963.

Davis, J. H. *Group Performance*, Addison-Wesley, Reading, MA, 1969.

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

Dess, G. G. and D. W. Beard, 'Dimensions of organizational task environments', *Administrative Science Quarterly*, **29**, 1984, pp. 52–73.

Dess, G. G. and B. W. Keats. 'Environmental assessment and organizational performance: An exploratory field study', *Academy of Management Proceedings*, 1987, pp. 21–25.

Dess, G. G. and N. K. Origer.'Environment, structure and consensus in strategy formulation: A conceptual integration', *Academy of Management Review*, **12**, 1987, pp. 313–330.

Fisher, B. A. 'Decision emergence: Phases in group decision making', *Speech Monographs*, **37**, 1970, pp. 53–66.

Fisher, B. A. *Small Group Decision Making*, 2nd edn, McGraw-Hill, New York, 1980.

Fredrickson, J. W. 'The comprehensiveness of strategic decision processes: Extension, observations, and future directions', *Academy of Management Journal*, **27**, 1984, pp. 445–466.

Fredrickson, J. W. 'The strategic decision process and organizational structure', *Academy of Management Review*, **11**, 1986, pp. 280–297.

Fredrickson, J. W. and T. R. Mitchell. 'Strategic decision processes: Comprehensiveness and performance in an industry with an unstable environment', *Academy of Management Journal*, **27**, 1984, pp. 399–423.

Galbraith, J. *Designing Complex Organizations*, Addison-Wesley, Reading, MA, 1973.

Gero, A. 'Conflict avoidance in consensual decision processes', *Small Group Behavior*, **16**, 1985, pp. 487–499.

Grinyer, P. and D. Norburn. 'Planning for existing markets: Perceptions of executives', *Journal of the Royal Statistical Society*, **138**(1), 1975, pp. 70–97.

Hambrick, D. C. 'Environment, strategy and power within top management teams', *Administrative Science Quarterly*, **26**, 1981, pp. 253–276.

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

Harrigan, K. R. 'Research methodologies for contingency approaches to business strategy', *Academy of Management Journal*, **8**, 1983, pp. 398–405.

Hedberg, B. L. T., P. C. Nystrom and W. H. Starbuck. 'Camping on seesaws: Prescriptions for a self-designing organization', *Administrative Science Quarterly*, **21**, 1976, pp. 41–65.

Huber, G. P., M. J. O'Connell and L. L. Cummings. 'Perceived environmental uncertainty: Effects of information and structure', *Academy of Management Journal*, **18**, 1975, pp. 725–740.

Janis, I. L. *Victims of Groupthink*, Houghton-Mifflin, Boston, MA, 1972.

Kimberly, J. R. 'Organizational size and the structuralist perspective: A review, critique, and proposal', *Administrative Science Quarterly*, **21**, 1976, pp. 571–597.

Lawrence, P. R. and J. W. Lorsch. *Organization and Environment*, Richard D. Irwin, Homewood, IL, 1967.

Lieberson, S. and J. F. O'Connor. 'Leadership and organizational performance: A study of large corporations', *American Sociological Review,* **37**(2), 1972, pp. 117–130.

Michel, J. G. and D. C. Hambrick. 'Diversification posture and the characteristics of the top management team'. Working paper, Columbia University, New York, 1988.

Miller, D. and H. Mintzberg. 'The case for configuration', In G. Morgan (ed.), *Beyond Method: Strategies for Social Research*, Sage Publications, Beverly Hills, CA, 1984.

Mintzberg, H. 'Patterns in strategy formulation', *Management Science,* **24**, 1978, pp. 934–948.

Mintzberg, H., D. Raisinghani and A. Theoret. 'The structure of "unstructured" decision processes', *Administrative Science Quarterly,* **21**, 1976, pp. 246–275.

Mitroff, I. I. 'Talking past one's colleagues in matters of policy', *Strategic Management Journal,* **3**, 1982, pp. 374–375.

Nemeth, C. J. 'Differential contributions of majority and minority influence', *Psychological Review,* **93**, 1986, pp. 23–32.

Nonaka, I. 'Toward middle-up-down management: Accelerating information creation', *Sloan Management Review,* **29**(3), 1988, pp. 9–18.

Ouchi, W. G. *Theory Z*, Addison-Wesley, Reading, MA, 1981.

Pfeffer, J. 'Organizational demography'. In B. Staw and L. Cummings (eds), *Research in Organizational Behavior*, JAI Press, Greenwich, CT, 1983, pp. 299–357.

Porter, M. E. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, Free Press, New York, 1980.

Precott, J. E. 'Environments as moderators of the relationship between strategy and performance', *Academy of Management Review,* **29**, 1986, pp. 329–346.

Pugh, D. S., D. J. Hickson, C. R. Hinings and C. Turner. 'The context of organizational structures', *Administrative Science Quarterly,* **14**, 1969, pp. 91–114.

Quinn, J. B. *Strategies for Change; Logical Incrementalism.* Richard D. Irwin, Homewood, IL, 1980.

Rosenberg, M. *The Logic of Survey Analysis*, Basic Books, New York, 1968.

Rumelt, R. P. *Strategy, Structure and Economic Performance*, Harvard University Press, Boston, MA, 1974.

Schoonhoven, C. B. 'Problems with contingency theory: Testing assumptions hidden within the language of contingency "theory"', *Administrative Science Quarterly,* **26**, 1981, pp. 349–377.

Schwenk, C. R. 'Dialectical inquiry in strategic decision making: A comment on the continuing debate', *Strategic Management Journal,* **3**, 1982, pp. 371–373.

Schwenk, C. R. 'A meta-analysis on the comparative effectiveness of devil's advocacy and dialectical inquiry', *Strategic Management Journal,* **10**, 1989, pp. 303–306.

Schwenk, C. R. and R. A. Cosier. 'Effects of the expert, devil's advocate and dialectical inquiry methods on prediction performance', *Organizational Behavior and Human Performance,* **26**, 1980, pp. 409–424.

Schweiger, D. M. and W. R. Sandberg. 'The utilization of individual capabilities in group approaches to strategic decision making'. *Strategic Management Journal,* **10**, 1989, pp. 31–43.

Schweiger, D. M., W. R. Sandberg and J. W. Ragan, 'Group approaches for improving strategic decision making: A comparative analysis of dialectical inquiry, devil's advocacy, and consensus', *Academy of Management Journal,* **29**, 1986, pp. 51–71.

Shaw, M. E. *Group Dynamics: The Psychology of Small Group Behavior*, 2nd edn, McGraw-Hill, New York, 1976.

Smith, M. and M. C. White. 'Strategy, CEO specialization, and succession', *Administrative Science Quarterly,* **32**, 1987, pp. 263–280.

Staw, B. M., L. E. Sandelands and J. E. Dutton. 'Threat-rigidity effects in organizational behavior: a multilevel analysis', *Administrative Science Quarterly,* **26**, 1981, pp. 501–524.

Stogdill, R. *Individual Behavior and Group Achievement*, Oxford University Press, New York, 1959.

Sullivan, J. J. 'A critique of theory z', *Academy of Management Review,* **8**, 1983, pp. 132–142.

Sullivan, J. J. and I. Nonaka. 'The application of organizational learning theory to Japanese and American management', *Journal of International Business Studies*, Fall 1986, pp. 127–147.

Thomas, A. B. 'Does leadership make a difference to organizational performance?', *Administrative Science Quarterly,* **33**, 1988, pp. 388–400.

Tjosvold, D. and R. H. G. Field. 'Effect of concurrence, controversy, and consensus on group decision making', *Journal of Social Psychology,* **125**(3), 1985, pp. 355–363.

Torrance, E. P. 'Group decision making and disagreement', *Social Forces,* **35**, 1957, pp. 314–318.

Vogel, E. F. *Japan as Number One*, Harvard University Press, Cambridge, MA, 1979.

Wagner, W. G., J. Pfeffer and C. A. O'Reilly, III. 'Organizational demography and turnover in top-management groups', *Administrative Science Quarterly,* **29**(1), 1984, pp. 74–92.

Weick, K. *The Social Psychology of Organizing*, 2nd edn, Addison-Wesley, Reading, MA, 1979.

Woodward, J. *Industrial Organization: Theory and Practice*, Oxford University Press, London, 1965.