

## STRATEGIC CONSENSUS AND PERFORMANCE: THE ROLE OF STRATEGY TYPE AND MARKET- RELATED DYNAMISM

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*This paper examines the link between consensus among senior managers and performance at the SBU level and considers factors which may moderate the strength of this relationship. Using data from a cross-national study in three industry sectors, the authors find that consensus increases the performance of the SBU in the case of a differentiation strategy but not in the case of a low-cost strategy. Additionally, the relationship between consensus on a differentiation strategy and performance is negatively influenced by dynamism of the market. This research thus clarifies and extends prior consensus research by indicating the conditions under which consensus positively affects performance. For managers, our results indicate that investing managerial time in obtaining consensus is more important for a differentiation than for a low-cost strategy and is particularly important when using a differentiation strategy in a stable environment. Copyright © 1999 John Wiley & Sons, Ltd.*

### INTRODUCTION

The issue of whether managerial consensus enhances business performance has drawn the attention of a number of researchers (e.g., Dess, 1987; Priem, 1990; West and Schwenk, 1996). Much of the prior research has looked at interpersonal consensus among members of the top management team (TMT) with the general hypothesis that consensus within the TMT will increase business performance. The premise of our study is that there are costs to obtaining consensus and the benefits of consensus only offset these costs in certain situations. Our study has the goal of exploring whether the type of strategy and dynamism in the environment are factors which affect the consensus–performance relationship. Indeed, empirical results of prior

studies have been mixed, with some studies finding strong support for the proposition that consensus improves performance and other studies finding the opposite effect or no effect at all.

One possible explanation for the mixed empirical evidence is methodological in nature—that is, weak measurement reliability and validity may have led to contradictory findings. In addition to the methodological explanation, we also identify three substantive explanations. First, few studies have considered different strategies when looking at performance implications of consensus. Since it has been shown that (a) different strategies require different implementation mechanisms (e.g., Govindarajan, 1988; Porter, 1985) and (b) achieving consensus is an instrument of strategy implementation (Floyd and Wooldridge, 1992), it follows that consensus may be more important for one type of strategy than for another.

A second substantive explanation for contradictory empirical results is that most previous studies have not examined factors which may moderate the strength of the relationship between consensus and performance. Priem (1990) argued that con-

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sensus may have higher performance implications in situations of low vs. high dynamism but he did not empirically test such a relationship. Given the paramount importance of contingency factors in strategy research (Ginsberg and Venkatraman, 1985), the lack of studies investigating moderator effects on the consensus–performance relationship constitutes another important research gap.

A third factor which may explain contradictory findings is that previous research in the consensus area has typically analyzed the role of consensus at the corporate level. Since much of the strategy-making takes place at the business unit level (especially in large and diversified companies), it may not be appropriate to use the entire firm as the unit of analysis. In this paper we focus on the consensus–performance relationship at the SBU level. This is consistent with much of the strategy research which has been at the SBU rather than at the firm level.

In this paper we focus on *strategic consensus*, which we define as the *level of agreement among senior managers concerning the emphasis placed on a specific type of strategy*. In our characterization of strategic types, we include both the ends (goals) and typical means for achieving those ends. This conceptualization of consensus as consisting of agreement among senior managers about both means and ends is consistent with the conceptualization of consensus of other researchers (Dess, 1987; West and Schwenk, 1996).

We start with a review of literature on the consensus–performance relationship. Next, we present the objectives and hypotheses of our study. We then describe the research methodology and continue with a presentation of empirical results based on a cross-national data set. Finally, we discuss implications and directions for future research.

## LITERATURE REVIEW

The strategic choice perspective (Child, 1972) claims that managers have discretion and the decisions they make are of vital importance for the success of the firm. Because the top management team is often viewed as critically involved in formulating and implementing strategy, there has been extensive research about the composition and actions of top managers over the past 10 years. As Finkelstein and Hambrick

(1996: xix) note, ‘If we want to understand why organizations do the things they do or why they perform the way they do, we must examine and understand top executives.’ One of the aspects of the TMT which is important for effective execution of a strategy is the extent of agreement among them concerning the strategy. In reviewing the prior research on consensus, we first consider different types of consensus and performance implications of consensus. We then review related research on group composition.

### Types of consensus studied

When reviewing empirical studies on the consensus–performance relationship, two characteristics of the studies warrant special attention (see Table 1). First, the *subject of consensus* is important—that is, the question of *consensus between whom* is considered. The most common subject of consensus has been members of the top management team in organizational settings (see column 2 of Table 1). However, other researchers have used students in laboratory studies to understand the performance implications of consensus (e.g., Schweiger, Sandberg, and Ragan, 1986; Tjosvold and Field, 1983). While the laboratory studies provide greater control over other factors and potentially allow for greater sample size, they sacrifice the realism of corporate decision-making.

A second dimension for comparing prior research concerns the *object of consensus*—that is, *consensus about what*. Empirical studies on the consensus–performance relationship have usually focused on strategic issues at the firm level studying such factors as consensus on *goals* which the organization is trying to achieve and consensus on *means* (or competitive methods) which are used to implement these goals. As can be seen in column 3 of Table 1, most of the studies have been integrative in terms of their object of consensus since they considered both goals and means as objects of consensus. Our study is in line with this research, considering both means and ends of the strategy.

As is indicated in column 4 of Table 1, all of the prior studies have used the entire firm as the unit of analysis. However, this constitutes a limitation in two respects. First, consensus on strategic issues within the TMT does not necessarily result in consensus on different SBU strate-

Table 1. Empirical studies of consensus

Author(s)	Subject of consensus	Object of consensus	Nature of unit of analysis	No. of units of analysis	No. of respondents per unit of analysis	Performance measures	Data collection	Methodology	Moderator effects?	Findings
Bourgeois (1980)	TMT	Consensus on goals and means	Firm level	12	3–10 members of TMT	Objective	On-site interviews	ANOVA	No	While both consensus on goals and on means increase performance, consensus on means has stronger performance implications; consensus on goals without consensus on means reduces performance
Bourgeois (1985)	TMT	Consensus on perceived environmental uncertainty; consensus on goals	Firm level	20	5	Objective	Questionnaires and secondary data	Correlational analysis	No	Congruence between perceived environmental uncertainty and volatility increases performance; diversity in environmental perceptions and diversity in goals within firms increase performance; consensus on perceived environmental uncertainty combined with goal consensus reduces performance
Bourgeois and Singh (1983)	TMT	'Strategic discord'—disagreement on environment, goals, and strategies	Firm level	No total sample size	4–10	—	On-site interviews and questionnaires	Correctional analysis	No	Additional slack reduces strategic discord and increases goal consensus; slack resources provide the opportunity for policy conflicts and leads to the formation of coalitions necessary to achieve goal consensus
Dess (1987)	TMT	Consensus on objectives and methods	Firm level	19	2–6	Self-reported objective and subjective	On-site interviews and questionnaires	Correlational analysis	No	Consensus on objectives increases firm performance even when controlling for consensus on methods; consensus on methods increases firm performance even when controlling for consensus on objectives
Grinyer and Norburn (1977/78)	2/3 CEOs or Exec. VPs; 1/3 sr. managers reporting directly to a top executive	Consensus on: perception, formality of planning systems, information monitoring	Firm level	21	4–5	Objective	On-site interviews	Correlational analysis	No	Higher performance associated with use of more informal channels and more information processes; when performance is good, there is little desire for change—managers in companies struggling to survive want to make changes
Hrebiniak and Snow (1982)	President, Chairman, CEO, or COO (13%); Exec. or Sr VP (20%); VP (57%); Gen. or Group Mgr (8%); Div. Mgr (2%)	Agreement on firm's strengths and weaknesses regarding environmental complexity	Firm level	88	2–3	Objective	Questionnaires	Correlational analysis and multiple regression analysis	No	Top management's agreement on firm's strengths and weaknesses increases performance; interaction among top managers and commitment to plans and objectives have positive implications for strategy implementation

Table 1. Continued

Author(s)	Subject of consensus	Object of consensus	Nature of unit of analysis	No. of units of analysis	No. of respondents per unit of analysis	Performance measures	Data collection	Methodology	Moderator effects?	Findings
Iaquinto and Fredrickson (1997)	TMT	Agreement about the comprehensiveness of the strategic decision process	Firm level	2 samples: 57, 38	At least 3	Objective	Data from three prior studies; mailed questionnaires	Correlational analysis and multiple regression analysis	Yes	TMT agreement about the comprehensiveness of the strategic decision process was positively related to organizational performance; this positive relationship was not moderated by the industry/environment interaction; determinants of agreement: organizational size was negatively related to agreement; firms in an unstable environment showed more agreement than firms in a stable environment; as past performance was not related to agreement, it was suggested that agreement increases performance and not the reverse
Schweiger, Sandberg, and Ragan (1986)	Part-time night students in laboratory study	Case recommendations generated under 3 conditions; dialectical inquiry, devil's advocate, and consensus	Firm level	30	4	Evaluation of group performance by judges	Laboratory study	Comparisons of means of groups	No	Both dialectical inquiry and devil's advocacy led to higher-quality recommendations than consensus; dialectical inquiry more effective than devil's advocacy with respect to the quality of assumptions brought to the surface; satisfaction with their groups and acceptance of decisions higher in consensus groups than under dialectical inquiry and devil's advocacy approaches
Stagner (1969)	Vice presidents	Managerial cohesiveness—amount of agreement on responses to questionnaire items by executives	Firm level	109	2–4	Objective	Mailed questionnaire	Correlational analysis	No	Executive satisfaction with decision-making practices and profitability are positively correlated; support view of corporation as a coalition; factor analysis reveals three important dimensions of decision-making process: managerial cohesiveness, formal procedures in decision-making, and centralization
Tjosvold and Field (1983)	Undergraduate students in laboratory study	4 groups/experimental conditions of decision-making: cooperative consensus, cooperative voting, competitive consensus, competitive voting	Firm level	22	4–5	Subjective	Laboratory study	Comparisons of means of groups	No	Same general understanding of the problem in all 4 groups; groups from the different conditions did not differ in the quality of their decisions; higher individual commitment to the groups' decisions in consensus groups; greater individual understanding of the problem in the cooperative condition; decisions made most rapidly in the cooperative consensus group

Table 1. Continued

Author(s)	Subject of consensus	Object of consensus	Nature of unit of analysis	No. of units of analysis	No. of respondents per unit of analysis	Performance measures	Data collection	Methodology	Moderator effects?	Findings
West and Schwenk (1996)	TMT	Consensus on organizational goals and means	Firm level	65	3-4	Subjective	Mail survey	Regression analysis	No	Significant findings of earlier studies could not be replicated
Whitney and Smith (1983)	Student subjects assuming the role of either product manager or strategic planner in laboratory study	Group cohesiveness— inferred from the number and strength of mutual positive attitudes among the members of a group	Firm level	6	14-15	-	Laboratory study	Comparison of means	No	Group discussions conducted under conditions designed to emphasize group cohesiveness resulted in an increase in the polarization between product managers and strategic planners; high cohesiveness within groups reduces the individual group member's receptivity of information and may lead to selective use of information

gies that have to be developed in order to implement firm-level strategies. Second, even if there is consensus about SBU strategies at the corporate level, there may not be consensus among SBU managers. If, within each of a firm's SBUs, managers of different functional units do not agree on the strategy of the business unit, there can be negative implications for the performance of the SBU. As a result, the overall performance of the firm can be negatively affected. In this case, positive effects of consensus at the corporate level would be diminished or reversed by negative effects from lack of consensus at the SBU level. Especially in large and highly diversified companies, much of the strategy-making takes place at the SBU level. The importance of competitive strategy at the SBU level is noted by Porter:

Unless a corporate strategy places primary attention on nurturing the success of each unit, the strategy will fail, no matter how elegantly constructed. Successful corporate strategy must grow out of and reinforce competitive strategy. (Porter, 1987: 46)

It is worth emphasizing that literature in other areas of strategy research has focused more on SBU strategy than the consensus research, typically building on the frameworks and strategy typologies of Porter (1980) and Miles and Snow (1978) (e.g., Govindarajan, 1988; Hambrick, 1983; Miller and Friesen, 1986a, 1986b; Zajac and Shortell, 1989).

### **Performance implications of consensus**

With respect to the performance implications of consensus, there have been mixed results (see last column of Table 1). Some studies find that consensus does lead to increased performance (Bourgeois, 1980; Dess, 1987), while others have found the opposite effect (Bourgeois, 1985) or no effects at all (West and Schwenk, 1996). There have been a number of ideas put forward for why there may be disagreement among these studies. Some authors claim that the conflicting findings result from differences in definition, operationalization, and research type (Dess and Origer, 1987). While some of the conflicting findings may be explained by sample differences and methodological differences, these may not explain all conflicting findings (Priem, 1990).

In many fields of organizational strategy research, ambiguous results concerning the relationship between two constructs have been better explained by looking at contingency or moderator effects. For example, Lawrence and Lorsch (1967) argued that there is no 'single best way' to organize but rather the performance implications of a given organizational arrangement are contingent on contextual and situational factors. One of the most commonly used contingency factors is environmental uncertainty with empirical results generally showing that organic, less structured organizational forms perform better than bureaucratic, mechanistic forms in environments with high levels of uncertainty (Burns and Stalker 1961/1994). The importance of contingency variables in strategy research has been noted by Ginsberg and Venkatraman (1985) among others. Dynamism as an important moderator of the link between organizational decisions and outcomes has recently been demonstrated by Li and Simerly (1998).

Against this background, Dess and Priem (1995), Priem (1990), and West and Schwenk (1996) have argued that contingency or moderating variables may affect the consensus-performance link. This implies that consensus is desirable in some contexts but not in others. While environmental determinants of consensus have been explored conceptually (Dess and Origer, 1987) and empirically (Bourgeois and Singh, 1983), there has been a lack of research into moderating variables which affect the consensus to performance link. This lack of research on moderators may be accounted for by the fact that most studies have focused on performance implications of different types of consensus rather than on contingency effects on the consensus-performance relationship. We are aware of only one empirical study which empirically examined moderating effects (West and Schwenk, 1996). However, they failed to find any moderating effects on the consensus-performance relationship.

As environmental uncertainty is a multi-dimensional construct, in this paper we focus on dynamism which is a key component of environmental uncertainty (Duncan, 1972; Milliken, 1990; Li and Simerly, 1998). We additionally focus on dynamism in the market as this is an aspect of the environment which is of greatest concern to the respondents to our survey (marketing and R&D managers). When operating

in environments with higher dynamism, organizational routines are less established and the criteria by which to evaluate alternate courses of action are not as clear.

The theoretical orientation of previous consensus research has driven decisions on research design and limited the possibilities of studying moderating effects. There is a fundamental trade-off in the research design in consensus research between the total number of firms in the sample and the number of respondents within each firm. Typically, consistent with their theoretical orientation, previous researchers have focused on a larger number of respondents per firm and a limited number of firms. By having a greater number of informants within each firm, researchers can get more perspectives on the strategy but often this has led to relatively small sample sizes (see column 5 of Table 1). This has limited the types of data analyses. Often, only descriptive and correlational analyses have been presented. In order to test for the effects of moderating variables, a larger sample size and more advanced methodology such as moderated regression analysis are needed (Schoonhoven, 1981; Sharma, Durand, and Gur-Arie, 1981).

In summary, given the importance of contingency factors in strategy research (Ginsberg and Venkatraman, 1985), the lack of empirical studies investigating moderating effects on the consensus–performance relationship provides a significant research opportunity.

### Related research

Related research in organization studies has focused on team composition and demography with an interest in such aspects as how homogeneous or diverse groups may affect various outcomes. This research has studied a variety of groups such as TMTs (cf. Finkelstein and Hambrick, 1996), new product development teams (Ancona and Caldwell, 1992; Katz, 1982; Pelled, 1996), R&D lab groups (Tushman, 1979), and general work groups (Jehn, 1995). Since it has been shown that it is more difficult to achieve consensus in groups with diverse perspectives, the research on group composition and demography yields insight into our research. One of the important findings is that there is no optimal group structure, but rather there are moderators of the relationship between group composition

and group outcomes. These findings provide support for our tenet that there may be moderators on the consensus–performance relationship.

One of the moderators of the group composition to performance relationship is dynamism in the environment. For example, Gladstein (1984) studied the relationship between group composition structure and various outcome measures. She argued that environmental uncertainty was a moderator of this relationship. Environmental uncertainty has also been identified as an important moderator in the relationship between organization and performance in numerous classical studies in organization theory (Galbraith, 1977; Thompson, 1967; Tushman, 1979).

In summary, the research on group composition provides support for our contention that there are moderators in the relationship between organizational dimensions and performance and that environmental dynamism is one such moderator.

### OBJECTIVES OF OUR STUDY

Summarizing our review of prior research, we identify the following limitations. First, empirical studies on the consensus–performance relationship have focused on strategic issues at the firm level. Given that the diversified firm should be viewed as a portfolio of businesses with different strategic contexts (Govindarajan, 1988), the performance implications of strategic consensus at the SBU level are in need of empirical investigation.

Second, empirical research on the consensus–performance relationship has used fairly general concepts of strategy and goals, typically not distinguishing between different types of strategy. However, consensus may be more important for one type of strategy than for a different type of strategy. Thus, a second objective of our study is to investigate whether consensus has differential effects based on the type of strategy being pursued.

While there are a number of classification schemes for categorizing strategies (e.g., Miles and Snow, 1978; Rumelt, 1974), we will use the well-known scheme of Porter (1980) and investigate the performance implications of consensus among managers for a differentiation strategy and for a low cost strategy. We use Porter's differentiation and low cost dimensions because they are well known among academics and managers alike and there are existing scales for meas-

uring these two dimensions (e.g., Dess and Davis, 1984; Kim and Lim, 1988).

A third limitation of prior research is the lack of contingency factors affecting the consensus–performance relationship. Thus, an additional objective of our study is to empirically test whether market dynamism, a key aspect of environmental uncertainty, is a moderator of the consensus–performance relationship. We additionally seek to increase generalizability of our findings by collecting data in three industry sectors in two countries.

## HYPOTHESES

Our first hypothesis relates to differential performance implications of strategic consensus depending on the type of strategy (differentiation vs. low cost). The implementation of a differentiation strategy requires the joint efforts of managers from different functions in order to create a unique position along dimensions which are widely valued by the customer (Porter, 1980). Prior research has established that there are similarities between Porter's differentiation strategy and Miles and Snow's (1978) prospector strategy and between Porter's low cost strategy and Miles and Snow's defender strategy. As an example, prospectors use high levels of environmental scanning to identify opportunities for developing new products or markets and differentiators also emphasize product innovation. This similarity is supported by Miller and Friesen (1986a: 38), who state that 'Porter's types bear some relationship to other strategic categorizations, typologies, and taxonomies in the literature. For example, Miles and Snow's (1978) prospectors differentiate via product innovation.' Empirically, Doty, Glick, and Huber (1993) found that prospectors scored higher on product-market development than Miles and Snow's other strategic types. Ruckert and Walker (1987) found partial support for their hypothesis that business units following a prospector strategy would rely more heavily on avoidance, conciliatory, and participative conflict resolution mechanisms. They also found that the level of conflict between marketing and R&D departments was greater under a prospector business strategy as compared to a defender strategy. Since the prospector strategy is similar to the differentiation strategy, this implies that managing con-

flict and obtaining consensus is more important for a differentiation strategy than a low cost strategy. Without trying to achieve consensus, managers from different functions such as marketing and R&D cannot resolve their conflicts, which has negative implications for strategy implementation. On the other hand, if managers from different functions agree that the business unit is emphasizing a differentiation strategy and also agree on the approaches for achieving differentiation, cross-functional cooperation will be enhanced, thus facilitating strategy implementation and increasing performance. Therefore, consensus has positive performance implications in the case of a differentiation strategy.

In contrast, for implementing a cost leadership strategy, control mechanisms and instruments like budget control can be used in order to achieve low costs. These hierarchical control instruments make consensus less important in the case of a low cost strategy. Empirically, Miles and Snow (1978) found that business units following a defender strategy tended to emphasize strong financial controls and efficient production. The use of hierarchical control elements may reduce the importance of consensus in the case of a cost leadership strategy. Song and Dyer (1995) found that in defender firms the level of cross-functional involvement in the planning stage was lower than in prospector firms. Furthermore, given the lower level of conflict between different functional departments in defender firms (Ruckert and Walker, 1987), achieving consensus becomes less important. Thus at a general level, we hypothesize:

*Hypothesis 1: Performance implications of strategic consensus depend on the type of strategy.*

More specifically, we hypothesize:

*Hypothesis 1a: Strategic consensus will have a positive effect on performance in the case of a differentiation strategy.*

*Hypothesis 1b: Strategic consensus will have no effect on performance in the case of a cost leadership strategy.*

A second issue in our hypothesis development is the investigation of moderating effects of environmental variables on the consensus–performance relationship. When considering moderators of the



relationship between some organizational dimension and performance, it is common to consider the role of environmental uncertainty. One important dimension of uncertainty is the level of environmental dynamism (Duncan, 1972). Li and Simerly (1998: 171) assert that dynamism 'may force top managers to perform limited search in their assessment of the environmental situation, develop solutions by taking concrete actions quickly, and attempt less integration of various emergent responses.' As it takes time and managerial effort to build consensus, this investment in obtaining consensus on strategy may not be worth the cost when there is rapid change in the market. Examples of the costs of obtaining consensus include financial resources, slow reaction time, and a potential loss of competitive advantage due to changes in market conditions (West and Schwenk, 1996). Our reasoning is consistent with that of Priem (1990: 473) who argued that 'higher levels of consensus in stable environments will then be consistent with the appropriate environment-structure match and, therefore, high performance.' Dess and Origer (1987) also hypothesized a non-contingent, inverse relationship between dynamism and consensus. Thus we hypothesize:

*Hypothesis 2: The strength of the relationship between consensus on a differentiation strategy and performance is negatively influenced by the level of market-related dynamism.*

To clarify the nature of our hypotheses, Figure 1 shows the structural relational relationships among our key constructs. Since we hypothesize

in Hypothesis 1b that there is no effect of strategic consensus on performance in the case of a low cost strategy, there is no structural or graphical representation of this hypothesis in Figure 1. In summary, we hypothesize a main effect (performance is directly affected by the level of consensus on a differentiation strategy) and a moderator effect (the strength of this relationship is negatively affected by the level of market-related dynamism).

## METHOD

### Sample and data collection

Data for the study were obtained from SBUs in three industry sectors in the United States and Germany: consumer packaged goods, electrical equipment and components, and mechanical machinery. We used a cross-national sample to test for the generalizability of our findings. Our industry groupings were defined by standard industry codes (SIC codes) to ensure equal industry membership in the U.S. and German subsamples. The consumer packaged goods sector consisted primarily of 20- (food products), 21- (tobacco), and 284- (soaps and toiletries). Electrical equipment and components consisted primarily of 357- (electrical machinery and peripherals), 36- (electronics), and 38- (instruments). Mechanical machinery consisted mainly of 35- with the exception of 357- which includes computers and peripherals. In both countries the above SIC codes were used. The names of the SBUs included in our sample were derived from firm names obtained from

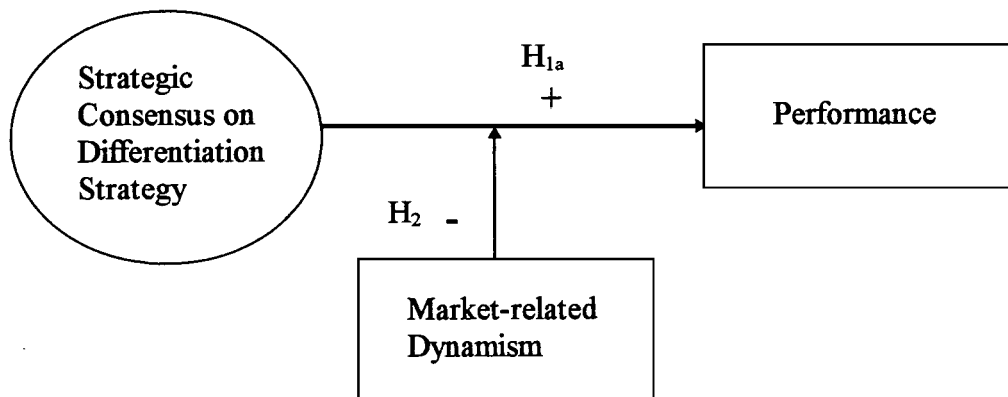


Figure 1. Structural relation of key variables

Dun and Bradstreet in both the United States and Germany.

We defined an SBU as a relatively autonomous unit with the management having control of at least three of the following functions: marketing, sales, manufacturing, R&D, finance, and human resources. Given the orientation of our study, we decided to have a larger sample of business units rather than a large number of respondents per unit. We sought responses from two managers responsible for different functional groups within the same business unit. We decided to consistently use functional managers from the same areas across the entire sample rather than two randomly selected functional managers provided by the general manager of the SBU in order to reduce the amount of uncontrolled variance. More specifically, we sought responses from the managers in charge of marketing and R&D in the business unit. The choice of these two functions was prompted first by their strategic importance (Griffin and Hauser, 1996; Ruekert and Walker, 1987; Walker and Ruekert, 1987) and second by our observation in prior field research that other functions such as manufacturing, sales, and finance are more frequently centralized across business units. The decision to use two functions was based on the trade-off between number of respondents per firm and number of firms included in the study (see columns 5 and 6 in Table 1). Studies which have measured consensus among all members of a team have typically used either laboratory studies or have done studies with a very limited number of firms, which limits the ability to test for contingency effects.

Data collection of our study was based on a previous survey among marketing managers in SBUs within the three industries mentioned above. Based on the respondents from the first survey we then sent out 505 surveys to R&D managers we identified in the same SBU as the marketing manager. The second survey was sent within a 4-week time period after the receipt of the responses from the first survey. We received 101 usable responses (53 in the United States and 48 in Germany), a response rate of 20 percent. To test whether our respondents were different from the nonrespondents, we compared their size and industry profiles with those of nonrespondents. We found no statistically significant differences, indicating there is no systematic bias in terms of industry or firm size of our respondents. We

additionally examined whether there were any differences in the means of the key constructs between early and late respondents. The assumption of such an analysis is that later respondents are more similar to the general population than the early respondents (Armstrong and Overton 1977). Again, we found no statistically significant differences, indicating that nonresponse bias is not an issue in our study.

## Measure development and assessment

### *Consensus*

Since we are testing a theory of consensus at the SBU level of analysis, we develop our measures at the SBU level. We measured two types of consensus: consensus on differentiation strategy and consensus on low cost strategy. Respondents were asked about the degree to which the SBU emphasized those two strategies. The specific items measuring the strategic emphasis were based on those used by Kim and Lim (1988) and Dess and Davis (1984). They are shown in the Appendix. For each strategy, we calculated a continuous measure of consensus by computing the mean of the absolute value of the differences between marketing and R&D managers' responses to individual items (which could potentially range from -6 to 6) and multiplying this value by a negative one so that higher values indicate greater consensus. This thus assumes interval properties of the scale, which is consistent with prior work in this literature (e.g., Dess, 1987; West and Schwenk, 1996).

### *Performance*

Our choice of the SBU as our unit of analysis was driven by conceptual considerations and our review of previous research on consensus. Given this unit of analysis, we must use measures of performance at the SBU rather than at the corporate level. We used a three-dimensional conceptualization of performance consisting of effectiveness, efficiency, and adaptiveness (Ruekert, Walker, and Roering, 1985). Measure development was based on the following definition by Ruekert *et al.* (1985: 15):

Effectiveness involves the degree to which organizational goals are reached, efficiency con-

siders the relationship between organizational outputs and the inputs required to reach those outputs, and adaptiveness reflects the ability of the organization to adapt to changes in its environment.

Efficiency is most closely associated with profitability, effectiveness with achieving nonfinancial goals, and adaptiveness with adaptation to changes. Specific items were adapted from Irving (1995). To provide an appropriate frame of reference, we asked respondents to rate the performance of their business unit in relation to that of competitors. For hypotheses testing we averaged the marketing and R&D managers' assessment on these performance dimensions and used this average as the dependent variable in our study. A list of items is provided in the Appendix.

We decided to use perceptual measures of performance rather than objective financial performance measures for several reasons. First, financial performance measures such as ROI or ROA are typically not available at the business unit level because a balance sheet is needed to compute them. Most multidivisional firms do not have balance sheets at the business unit level. Second, objective financial performance measures computed at the business unit level are usually highly firm specific. They may be influenced by, for example, internal transfer prices, the way business units cover headquarters' costs, or tax considerations. Therefore, cross-company (and especially cross-cultural) comparison is difficult. The third argument against objective financial performance measures is that respondents may be reluctant to give the figures. German managers, for example, emphasize privacy of information to a greater extent than managers in other cultures. Also, the proportion of small companies that are publicly traded is smaller in Germany than in the United States and secondary data on such companies are less readily available. Finally, perceptual performance measures have been shown to have a high correlation with objective financial performance measures, which supports their validity (e.g., Dess and Robinson, 1984; Hart and Banbury, 1994; Naman and Slevin, 1993; Venkatraman and Ramujam, 1986, 1987).

#### *Market-related dynamism*

The construct of market-related dynamism is conceptualized as the frequency of major market-

related changes (Child, 1972; Duncan, 1972). The construct is based on the responses from the marketing managers, who were asked to assess the frequency of major changes in market-related aspects of the business environment from which their business unit derived its largest amount of sales. Aspects included sales strategies, pricing behavior, and sales promotion/advertising strategies, among others. The complete list of items is shown in the Appendix. We did not include this construct in the survey to R&D managers since we felt that they would not be knowledgeable about items such as changes in sales strategies or changes in pricing behavior.

#### *Controls*

We additionally control for the effects of country (United States = 0, Germany = 1), SBU size (mean of standardized sales volume and standardized number of employees of the SBU), and industry (dummy variables for consumer packaged goods and electrical equipment).

#### *Measure reliability and validity*

Measure reliability and validity for the constructs measuring strategy, performance, and dynamism were initially assessed using coefficient alpha (Cronbach, 1951) which assumes that each indicator contributes equally to the overall variance observed. As illustrated in the Appendix, for most of the measures the coefficient alphas exceeded the recommended standard of 0.7 that has been suggested by Nunnally (1978). We additionally calculated composite reliability, which is a measure based on confirmatory factor analysis (Bagozzi, Yi, and Phillips, 1991). Composite reliability represents the shared variance among a set of observed variables measuring an underlying construct (Fornell and Larcker, 1981) and a value of at least 0.6 is considered desirable (Bagozzi and Yi, 1988: 82). As can be seen in the Appendix, this requirement was met for all the factors in our study.

## RESULTS

We utilize multiple regression analysis to test for the relationships between strategic consensus and the different performance measures. The results

of the regression equations for the relationship between consensus on differentiation strategy and the three performance dimensions are shown in Model 1 in Table 2. The regression results for the relationship between consensus on low cost strategy and the three performance dimensions are shown in Table 3.

Since we see that consensus on a differentiation strategy has a positive impact on all three performance dimensions shown in Table 2, Hypothesis 1a is supported. In contrast, consensus on a low cost strategy is not significantly related to any of the three performance dimensions (see Table 3). This result thus provides support for Hypothesis 1b.

Hypothesis 2 was tested using moderated regression analysis (Schoonhoven, 1981; Sharma, Durand, and Gur-Arie, 1981). This involves including an interaction effect between the independent variable (consensus) and the hypothesized moderator (market-related dynamism). The results are shown in Model 2 of Table 2.

As can be seen from these findings, Hypothesis

2 is also supported. All three regression parameter estimates associated with the interaction terms are negative with two of them (related to adaptiveness and effectiveness) being significant at the 5 percent level while the moderator effect of market-related dynamism on the consensus–efficiency relationship is significant at the 10 percent level. It is also worth noting that controlling for the moderating effect of market-related dynamism on the consensus–performance relationship increases the magnitude of the main effect of consensus on differentiation on the three performance components.

An additional interesting result from the regression concerns the effect of country on efficiency. Table 2 indicates that efficiency is lower in Germany than in the United States. While this may be counterintuitive, considering popular images of German efficiency, given that our efficiency primarily reflects profitability this result is not so surprising. German trade associations have long complained that high labor costs, inflexible business practices, and taxes to support

Table 2. Results of regressing performance on consensus on differentiation strategy

Independent variables	Standardized Regression Coefficients					
	Model 1			Model 2		
	Adaptiveness	Effectiveness	Efficiency	Adaptiveness	Effectiveness	Efficiency
<b>Main effects</b>						
Consensus on differentiation strategy	0.16*	0.24***	0.22**	0.62**	0.67***	0.58**
<i>Control variables</i>						
Country (U.S.A. = 0, Germany = 1)	−0.05	0.03	−0.28***	0.01	0.07	−0.27***
Size	0.02	0.09	0.18*	0.06	0.12	0.20**
Consumer packaged goods industry	0.29**	0.22*	0.10	0.22*	0.15	0.03
Electrical equipment and components	−0.02	−0.01	−0.02	−0.08	−0.05	−0.06
<b>Interaction effects</b>						
Consensus on differentiation strategy × market-related dynamism				−0.48**	−0.47**	−0.39*
Constant	4.69***	5.15***	5.56***	4.77***	5.25***	5.74***
F-value	2.59**	2.80**	3.12**	2.87**	2.87**	3.07***
R <sup>2</sup>	0.13	0.14	0.15	0.17	0.17	0.18
Adj. R <sup>2</sup>	0.08	0.09	0.11	0.11	0.11	0.12

\* $p \leq 0.10$ ; \*\* $p \leq 0.05$ ; \*\*\* $p \leq 0.01$

Table 3. Results of regressing performance on consensus on low cost strategy

Independent variables	Standardized regression coefficients		
	Adaptiveness	Effectiveness	Efficiency
Consensus on low cost strategy	0.02	0.05	0.03
<i>Control variables</i>			
Country (U.S.A. = 0, Germany = 1)	-0.07	0.01	-0.31***
Size	0.03	0.09	0.19*
Consumer packaged goods industry	0.32***	0.28**	0.14
Electrical equipment and components	-0.02	-0.01	-0.02
Constant	4.48***	4.69***	5.15***
F-value	2.05*	1.67	2.10*
R <sup>2</sup>	0.11	0.09	0.11
Adj. R <sup>2</sup>	0.05	0.04	0.06

\* $p \leq 0.10$ ; \*\* $p \leq 0.05$ ; \*\*\* $p \leq 0.01$

the social safety net in Germany reduce business profits compared to other countries. For example, net return on sales (after corporation taxes) in the manufacturing sector was on average significantly lower in Germany (1.5%) than in the United States (3.6%) for the period between 1988 and 1994 (Institut der deutschen Wirtschaft, 1996: 58).

On an overall basis, we find strong support for our theoretical reasoning. First, our findings show that the performance implications of strategic consensus clearly depend on the type of strategy. We find significant and consistent positive relationships between consensus on differentiation strategy and performance while there seem to be no performance impacts of consensus on low cost strategy. Our second hypothesis which stated that consensus on differentiation strategy has weaker performance impacts in situations of higher market-related dynamism is also confirmed.

## DISCUSSION

### Theoretical implications

Our research has extended knowledge in consensus research in essentially three respects. First, we were able to show that the importance of consensus for business performance depends on the type of strategy. More specifically, our research suggests that consensus is a success factor in the case of a differentiation strategy but not in the case of a low cost strategy. Second, we provided evidence for moderator effects on

the consensus–performance relationship. We were able to show that the consensus–performance link is stronger in situations of low market-related dynamism. This finding is consistent with theoretical reasoning by Priem (1990) and West and Schwenk (1996). Third, our study represents a contribution to the underresearched area of strategic consensus at the business unit level. It is also worth emphasizing that, to the best of our knowledge, our study is the first to examine the importance of consensus based on a cross-national data set.

Our research also provides additional insight into strategy implementation. Achieving strategic consensus among managers may be considered as an instrument of strategy implementation (Floyd and Wooldridge, 1992). Our research shows that this particular instrument of strategy implementation is more important for some strategies than for other strategies. We were able to show that in order to successfully implement a differentiation strategy a high degree of consensus is important. Previous research has identified links between the type of strategy being pursued and the adequacy of certain implementation approaches (e.g., Bourgeois and Brodwin, 1984; Miller, 1987; Skivington and Daft, 1991; Walker and Ruekert, 1987). Our research contributes to this field as we provide more detailed insight concerning the role of strategic consensus in strategy implementation.

On a general level, our study highlights the importance of studying moderating effects on per-

formance implications in strategy research. As Govindarajan (1988: 845) notes, 'for an SBU to be successful, design choices should be internally consistent and also consistent with the SBU's strategic context.' While the contingency notion is generally accepted in strategy research (Ginsberg and Venkatraman, 1985), there are still areas where empirical analysis of contingency effects is underrepresented. One of these areas is consensus research.

### Managerial implications

From a managerial perspective it is worth emphasizing that achieving consensus requires costs and the investment in achieving consensus may only pay off in certain situations. Probably the greatest cost of obtaining higher levels of consensus is the investment of senior management time which is needed in order to allow more voices to be heard and to allow greater discussion of alternative organizational actions. Examples of activities which may lead to higher consensus include special off-site strategy sessions and regularly scheduled meetings of the TMT to review developments by competitors and changes in customers needs. Since consensus is not free, this then brings up the question, 'Under what circumstances should you invest in achieving a high level of consensus among senior managers of the SBU?'

Our findings indicate that when pursuing a differentiation strategy, it is important to invest in activities which will lead to higher consensus among members of the top management team. When using a differentiation strategy, consensus on *how* the firm should differentiate is very important as there are numerous ways to differentiate the firm's offerings. Therefore, functional managers need to understand this basis of differentiation and their contribution to it. On the other hand, our results indicate that when pursuing a cost leadership strategy managers should not invest too many resources into achieving consensus. Firms emphasizing cost leadership are typically more hierarchical and focused on efficiency and there is often less managerial discretion when implementing strategies. Ford's focus on costs with its Model T car is indicative of a lower role for managerial discretion, as many of the critical decisions were made at high levels of the corporation and the percent of salaried employees was reduced by 60 percent over an 8-year period

(Aaker 1984: 181). Research on organizational life cycles provides support for our finding, claiming a greater role for management discussion and participation in the earlier as opposed to the later stages of the cycle (e.g., Hax and Majluf, 1984; Kimberly, 1980).

Finally, our results indicate that when pursuing a differentiation strategy, consensus is more important in stable than in turbulent environments. In periods of rapid market change, the benefits of consensus are lower since the market may have changed by the time consensus is reached. Several examples illustrate this point. First, Andersen Consulting, a leading computer system integration firm, has encountered difficulties in continuing to use a consensus-based partnership mode of governance. Such a governance system, which may be well suited to accounting firms, is less appropriate in the more dynamic information technology sector. Second, German universities which are typically run by the state are increasingly facing a turbulent environment as there is more competition from private German universities, more competition from universities outside of Germany, and increasing demands from employers for more relevant training. Consistent with our results, there is a lot of activity in these organizations to move away from the traditional consensus-oriented mode of governance. Finally, the Japanese consensus management approach which received much attention in the 1980s is often now viewed as less appropriate for the more turbulent environments facing many corporations in the 1990s.

### Directions for future research

Our work can be extended in several directions. In this paper we have studied consensus among two specific groups (marketing, R&D) and have focused on consensus concerning the strategic direction of the SBU. Future research on consensus at the SBU level could examine consensus regarding objects of consensus other than competitive strategy (such as strategy implementation) and could also test for the generalizability of the subjects of consensus (in our case marketing and R&D managers). For example, consensus of managers responsible for finance and operations may be more important in the case of a low cost strategy. Additionally, future research could consider the effects of consensus on performance

for types of strategy other than differentiation and low cost strategies (e.g., a focus strategy).

Our research has demonstrated the usefulness of including the contingency notion in consensus research. Given the paramount importance of contingency research in the strategy field (e.g., Ginsberg and Venkatraman, 1985), we feel that more research including moderator variables is needed in the consensus research stream. This research will typically be based on large-scale survey studies rather than extensive field interviews in order to have sufficient statistical power to detect contingency effects.

An additional direction for extending research on consensus is to synthesize research streams on subunit power (Enz, 1988; Hambrick, 1981; Hinings *et al.*, 1974) and consensus. For example, it might be hypothesized that in case of large power disparities across subunits the importance of strategic consensus is less critical than in case of a more equal power distribution. Dess and Priem (1995) hypothesize that consensus among TMT members with high power will have a greater effect on organizational outcomes than will consensus among members with low power. We think that this link of consensus to power is especially important for consensus at the SBU level.

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### APPENDIX: Scales, Items, Scale Means, Standard Deviations, Coefficient Alphas, and Composite Reliabilities for Measures

<i>Scale name, response cue, and individual items</i>	<i>Scale mean/S.D. (marketing managers)</i>	<i>Scale mean/S.D. (R&amp;D managers)</i>
<p><i>Strategy</i> (respondents scored on 7-point Likert scale with anchors 1 = not at all and 7 = a great deal) To what extent does your business unit emphasize the following activities?</p>		
<p><i>Differentiation strategy</i></p> <ul style="list-style-type: none"> <li>Creating superior customer value through services accompanying the products.</li> <li>Building up a premium product or brand image.</li> <li>Obtaining high prices from the market.</li> <li>Advertising.</li> </ul>	5.01/1.06	4.66/1.07
<p>(marketing managers: coefficient alpha = 0.67; composite reliability = 0.71) (R&amp;D managers: coefficient alpha = 0.66; composite reliability = 0.71)</p>		
<p><i>Low cost strategy</i></p> <ul style="list-style-type: none"> <li>Pursuing operating efficiencies.</li> <li>Pursuing cost advantages in raw material procurement.</li> <li>Pursuing economies of scale.</li> </ul>	5.26/1.14	5.18/1.40
<p>(marketing managers: coefficient alpha = 0.79; composite reliability = 0.84) (R&amp;D managers: coefficient alpha = 0.72; composite reliability = 0.87)</p>		
<p><i>Business performance</i> (respondents scored on 7-point Likert scale with anchors 1 = very poor and 7 = excellent) While answering the following questions, please relate to the situation in your business unit over the last three years. Relative to your competitors, how has your business unit performed with respect to:</p>		
<p><i>Adaptiveness</i></p> <ul style="list-style-type: none"> <li>Adapting your marketing strategy adequately to changes in competitors' marketing strategies?</li> <li>Adapting your products quickly to the changing needs of customers?</li> <li>Reacting quickly to new market threats?</li> </ul>	4.68/.99	4.44/1.06
<p>(marketing managers: coefficient alpha = 0.66; composite reliability = 0.70) (R&amp;D managers: coefficient alpha = 0.73; composite reliability = 0.82)</p>		

<i>Effectiveness</i>	4.93/1.04	4.87/1.13
Achieving customer satisfaction?		
Securing desired market share?		
Attracting new customers?		

(marketing managers: coefficient alpha = 0.70; composite reliability = 0.74)

(R&D managers: coefficient alpha = 0.72; composite reliability = 0.76)

<i>Efficiency</i>	4.85/1.59	4.43/1.57
Earning profits.		

*Market-related dynamism* (scored on 7-point Likert scale with anchors 1 = very few changes and 7 = very frequent changes; scale based on responses from marketing managers of phase 1)  
 Please indicate the frequency of major changes in the following aspects of the business environment that your business unit derives its largest amount of sales from:

- Changes in sales strategies by your business unit and your competitors. Changes in sales promotion/advertising strategies of your business unit and your competitors.
- Changes in pricing behavior of your business unit and your competitors.
- Changes in customer preferences in product features.
- Changes in customer preferences in the price/performance relationship.

(marketing managers: coefficient alpha = 0.63; composite reliability = 0.65)