

THE STABLE CORE AND DYNAMIC PERIPHERY IN TOP MANAGEMENT TEAMS

MICHAEL A. ROBERTO
Assistant Professor of Business Administration
Harvard Business School
Morgan Hall 475
Boston, MA 02163
Tel: (617) 495-5011
Fax: (617) 496-5271
e-mail: mroberto@hbs.edu

September 10, 2002

I would like to thank Teresa Amabile, David Garvin, Clark Gilbert, Jay Lorsch, the members of the Strategy Process Research Workshop and several anonymous reviewers from the Academy of Management Conference for their insightful comments and suggestions. This research was funded by the Harvard Business School Division of Research.

THE STABLE CORE AND DYNAMIC PERIPHERY IN TOP MANAGEMENT TEAMS

ABSTRACT

This study explores how top management teams make strategic decisions. The findings indicate that the top management team performs a variety of monitoring and control functions within most firms, but that a single team with stable composition does not make strategic choices in most organizations. Instead, different groups, with members from multiple organizational levels, form to make various strategic decisions. A stable subset of the top team forms the core of each of these multiple decision-making bodies. The findings offer a possible explanation for inconsistent findings in the top management team literature, and suggest several new directions for future senior team research.

Keywords: Top Management Teams, Strategic Decisions, Leadership

In the early 1980s, Hambrick and Mason (1984) proposed the “upper echelons” model of organizations. They argued that senior leadership matters a great deal, but that chief executives do not make strategic choices on their own. Instead, a team of senior executives often bears responsibility for making strategic decisions. A large body of research then emerged on top management teams (TMTs). This research focused on how the demographic composition of the TMT affected strategic choices and outcomes. Scholars examined demographic characteristics such as age, tenure, education, and functional background (Bantel & Jackson, 1989; Finkelstein & Hambrick, 1990; Keck & Tushman, 1993). These studies linked team demographics to outcome variables such as sales growth, innovation, and executive turnover (e.g. Bantel & Jackson, 1989; Eisenhardt & Schoonhoven, 1990; Murmann & Tushman, 1997).

Hambrick and Mason (1984) offered the “upper echelons” model as a response to the population ecologists (Hannan & Freeman, 1977) and evolutionary economists (Nelson & Winter, 1982). Those scholars downplayed the impact that managers had on firm performance and long-term survival. They argued that managers are constricted in their ability to guide organizations in adaptive processes. They stressed that firms exhibit structural inertia (Hannan & Freeman, 1977; Nelson & Winter, 1982). Hambrick and Mason (1984) asserted that managers can make a difference by making strategic choices that affect firm performance and survival. However, they argued that the CEOs rarely make strategic choices on their own. Instead, a dominant coalition exists within firms, and the members of this coalition work collectively to make strategic decisions (Cyert & March, 1963; Allison, 1971; Hambrick & Mason, 1984). The “upper echelons” theorists conceived of the TMT as the dominant coalition inside of firms.

Typically, these scholars assumed that the TMT consisted of the CEO and his/her direct reports (Finkelstein & Hambrick, 1990; Michel & Hambrick, 1992; Hambrick, Cho, & Chen,

1996). Often, they defined the set of direct reports “according to formal titles, using published sources.” (Hambrick, 1994: 173). Some researchers identified the TMT as the CEO and “all other officers above the level of vice president” (Hambrick, 1994: 174). Others included only those executives who served on the Board of Directors (Finkelstein & Hambrick, 1990).

Ultimately, many researchers chose to ask the firm’s CEO to identify the members of the TMT (Bourgeois, 1980; Frederickson & Iaquinto, 1989; Bantel & Jackson, 1989; Smith, et al., 1994).

Beyond disagreements over how to define the TMT, some scholars have questioned whether CEOs actually employ teams at the top at all (Pettigrew, 1992; Hambrick, 1994; Katzenbach, 1998). Hambrick acknowledged that reality does not fit the conceptualization of TMTs prevalent in the “upper echelons” literature:

“In short, many top management ‘teams’ may have little ‘teamness’ to them. If so, this is at odds with the implicit image in much of the top team literature of an executive conference table where officers convene to discuss problems and make major judgments, with outcomes dependent on the mix of perceptions and values sitting around the table” (Hambrick, 1994: 172).

Similarly, Katzenbach (1998) argued that the CEO and his/her direct reports often refer to themselves as a team, but typically, they do not behave as such. He asserted that the CEO and other senior executives perform very little work collectively. Furthermore, Bower (1998) pointed out that the CEO’s power and status enable him to exert a great deal of influence, and minimize the usefulness of the team metaphor at the top of firms.

Hambrick (1994, 1998) began to address these concerns by defining the concept of behavioral integration within TMTs. Behavioral integration referred to the “degree to which the senior management group engages in mutual and collective interaction” (Hambrick, 1998: 127). A senior team with high behavioral integration exchanged a great deal of information, collaborated on various projects, and engaged in joint decision-making. Hambrick (1998) and

others (e.g. Mooney & Sonnenfeld, 2001) have assessed the level of behavioral integration, and then tried to link it to certain team and organizational outcomes.

While these studies have tried to understand better the extent to which executives interact as a team, they have not examined the nature of the collective work that senior teams perform. Is strategic choice the principal mission of the senior team, or does the group's collaborative work focus on other activities? If behavioral integration is low, then who makes the critical strategic choices within a firm? It is not clear whether low behavioral integration indicates that the chief executives makes strategic decisions based upon little consultation with others, or whether some other organizational mechanism exists for making strategic choices. Moreover, research has not explored whether a stable group of executives engages in strategic decision-making, or whether the composition of a firm's dominant coalition varies across different tasks. Fluid membership within the dominant coalition may be an alternative explanation for what appears to be low behavioral integration. In short, behavioral integration may appear low because membership within the TMT is rather dynamic, with different executives working together on different issues.

These questions suggest that we need to understand better the extent to which the composition of the top management group remains stable across various tasks. This study attempts to sharpen our understanding of what it means for organizations to employ teams at the top. In particular, the paper investigates whether a stable team of senior executives makes strategic decisions through a collective problem-solving process, or whether the "dominant coalition" within firms actually varies depending on the issues involved. If and when the latter occurs, the research sets out to document the dynamism in coalition membership and to describe the composition of different groups that form to address distinct strategic issues over time. By answering these questions, this study intends to enhance our understanding of executive

teamwork and strategic decision processes, and provide guidance for future empirical studies in the “upper echelons” stream of research.

RESEARCH DESIGN AND METHODS

This research combined an intensive small sample field study with a large sample survey. The fieldwork enabled me to gather extensive amounts of qualitative data regarding a few TMTs and a small set of strategic decision processes. The large sample survey provided an opportunity to identify patterns in TMT interaction across many firms.

The qualitative field research focused on the TMTs at three business units of a single, multidivisional corporation in the aerospace industry. The paper refers to the corporation as Military Engineering Inc. (MEI). The three business units that participated were Naval Warfare, Vehicle Systems, and Advanced Electronics. In the field research, I studied each business unit’s TMT, and gathered extensive data regarding ten strategic decisions. I defined “strategic” decisions as choices that:

- had a significant expected impact on future firm performance (Mintzberg, et al., 1976; Bourgeois & Eisenhardt, 1988);
- involved multiple functional units (Bourgeois & Eisenhardt, 1988);
- represented a significant commitment of financial, physical, or human resources (Bower, 1970; Mintzberg, et al., 1976);
- exhibited high complexity (Mintzberg, et al., 1976; Schweiger, et al., 1986).

To select the sample, I met with each TMT, as identified by the chief executive, and asked the members to identify all strategic decisions made in the past 18 months. The study focused on recent decisions to enhance the accuracy of retrospective reporting (Huber & Power, 1985). This process generated a sample consisting of three strategic decisions at Naval Warfare, three

decisions at Advanced Electronics, and four decisions at Vehicle Systems Division. Table 1 provides a brief description of these ten decisions.

--- Insert Table 1 about here ---

I interviewed each business unit's chief executive multiple times. I asked senior executives to identify the key participants in each decision process. Key participants were those who attended meetings about the decision, gathered extensive information, generated alternatives, and/or performed analysis. I conducted 90-minute interviews with 78 managers, for an average of 7.8 informants per decision. Because I studied several decisions within each unit, many TMT members participated in multiple interviews. To insure accurate data collection, I taped and transcribed all interviews. I also adhered to the "24 Hour Rule" for recording interview notes (Yin, 1994).

The large sample survey research took place after this intensive fieldwork. Because the original fieldwork took place at a Fortune 500 corporation, I chose to administer a survey to firms of similar size and scope. I focused on business unit presidents, rather than CEOs to remain consistent with the level of analysis employed in the field research project.

I performed an electronic search to identify business unit presidents within corporations listed on the Fortune 500 in April, 2000. This search extracted a list of each corporation's senior executives from two databases: *MarketGuide* and *OneSource*. Then, I examined each list manually to identify business unit presidents based upon their job titles. I randomly selected 1-2 business unit presidents per corporation, from those firms for which I could identify one or more individuals who served in this capacity. In total, I identified 535 individuals from 271 firms in a random selection procedure. However, I only could obtain current addresses for 498 of these executives from 252 firms.

I mailed a brief questionnaire to these 498 business unit presidents. 78 executives from 73 different firms responded to the survey, for a response rate of 15.7%. The relatively high response rate suggests that this data set consists of an unbiased sample of TMTs. Scholars have noted that response rates below 10% may indicate bias (Pedhazur & Schmelkin, 1991). This study exceeds that threshold by a significant amount. In addition, this response rate exceeds those found in many studies of TMTs (Simons, Pelled, & Smith, 1999; Mueller, Mone, & Barker, 2000). The 73 firms represented in the sample come from many industries, similar to the mix of industries in the original set of 271 firms, also suggesting no systematic response bias. To further demonstrate a lack of response bias, I compared the financial attributes of the corporations that responded to the survey with the firms that did not. The two sets of firms did not exhibit statistically significant differences in terms of sales, profits, assets, or market value.

The questionnaire asked each CEO to identify the size of his or her TMT, the frequency and length of team meetings, and the allocation of time to various activities. In addition, the survey asked the SBU president to identify three recent strategic decisions, and to name (by title) the individuals who played a key role in each of those decision processes. I instructed the respondents to indicate whether or not these participants in each process served as members of the TMT. These questions enabled me to develop a profile of each team, and to compile aggregate statistics regarding how these groups functioned.

RESULTS

The evidence from this research project demonstrates that a group of senior executives interacted on a regular basis, and performed some collective work in most organizations. Interestingly, in the typical firm, this stable team of senior managers spent a great deal of time engaging in the monitoring and control of organizational processes and performance. Strategy

formulation occupied much less of their time as a group. Moreover, the set of senior managers identified as the TMT did not make important strategic decisions as a group. Instead, in most firms, different sets of individuals worked with the chief executive in order to make each strategic choice. A small core group of senior managers (including the chief executive) tended to work together intensively on all decisions. However, the rest of the key decision-makers varied depending on the issues involved. Often, they included other individuals who reported directly to the chief executive, as well as key individuals from lower levels. These results suggest that membership in the firm's dominant coalition is rather fluid, typically consisting of a "stable core group" combined with a "dynamic periphery" – i.e. a changing set of individuals who work together closely with the core group to address particular strategic challenges.

The Top Management Team's Collective Work

The small sample study indicated that a team did exist at the top of each business unit, and the members performed some collective work. Every week, the chief executive of each subsidiary conducted lengthy staff meetings with his TMT. However, group meetings did not serve as a forum for decision-making. Instead, executives utilized these meetings to monitor the organization's performance. Steven Caufield, chief executive of Naval Warfare Division, described his weekly staff meetings:

"I am the leader of our business evaluation process. I meet faithfully every single Monday with my senior management staff. We meet to analyze our operating plans and performance. We always have projects that are being reported on every single Monday. People who are leading those projects are called in to report to the President and the key Vice Presidents, where we provide guidance, steering, and direction on timing and aggressiveness of our reengineering plans. We also periodically look at our capital plans in terms of whether the capital plans are on schedule, on budget. If they have been implemented, we evaluate whether we are achieving the ROI that we calculated as a result of those capital plans."

In these business units, the entire TMT typically did not become involved in each strategic decision. Instead, a subset of the TMT collaborated with lower level managers who possessed expertise relevant to the issue at hand. These decision-making groups kept the rest of the TMT abreast of major developments during the process, and solicited the staff's comments. In addition, these groups often presented their ultimate decision to the entire staff for ratification, though the staff rarely rejected the groups' recommendations.

Brad North, Director of Strategic Planning at Naval Warfare, described how the decision-making group interacted with the TMT during one particular decision process:

“This was not a really democratic process within the company. It involved a limited set of players ... Steven (chief executive of Naval Warfare) did brief the senior management team, but a core group worked this issue... Steven did a pretty good job of keeping people apprised of what was going on, in his staff meetings, in other forums. I think some of the details were happening so fast that we didn't keep everybody apprised every step of the way... [but], we kept them informed. I think Steven did that primarily through the staff meetings... I think the staff was generally aware that we were doing this body of work.”

The large sample survey provides additional data regarding the intensity of TMT interaction in large firms. The average TMT consisted of 10.4 members. 25 of the 78 teams met on a weekly basis for an average of approximately 2 hours per week. 21 teams came together on a biweekly basis, and the remaining 32 teams held monthly meetings. On average, the teams spent 85.1 hours in regularly scheduled staff meetings over the course of a year. Table 2 provides additional data regarding these TMTs.

--- Insert Table 2 about here ---

Consistent with the field research, the survey findings indicate that the monitoring and control function occupied much of the typical group's time. As Table 3 indicates, the average TMT spent nearly 60% of their time together monitoring performance, evaluating major project implementations, and reviewing administrative policies and structures.

--- Insert Table 3 about here ---

The TMT literature has focused almost exclusively on the senior team's role in strategy formulation. This evidence suggests that TMTs perform a critical monitoring and control function. Prior research has not explored this aspect of TMT interaction. We know very little about how TMTs engage in monitoring and control more or less effectively. This data suggest a potential avenue for future TMT research.

The Stable Core and Dynamic Periphery

The field research indicated that a single TMT did not make all of the decisions within each business unit. Instead, multiple ad-hoc groups formed over time to address specific issues. At the field research sites, different members of the TMT became involved in each decision, although a few members participated in all processes. For example, four individuals participated in all of the strategic decisions at Naval Warfare Division. However, ten individuals played a significant role in only one of the strategic decisions. Table 4 presents this group membership information for the three business units.

--- Insert Table 4 about here ---

This evidence in Table 4 indicates that different groups made each decision, though these groups tended to have partially overlapping membership. Typically, these groups began to form when a small set of individuals identified a problem or opportunity. Then, individuals gradually engaged others in the decision process. For example, David Phillips, Vice President of Business Development at Vehicle Systems, described how he initiated the CVP decision process:

“The first alert that we got was from Michelson, our liaison officer at Fort Knox. He indicated that this program might be an opportunity for us. I start talking with my team, the Directors that work for me, about the opportunity. One of my people opened up an inquiry. We then brought it through the Director level, and brought it to a thing that I chair called the Business Development Council.”

Andrew Wilkes, chief executive of Vehicle Systems, explained how he became involved:

“The Business Development Council (BDC) decides how to spend our new business funds. Now in fact, in this case the decision wasn’t made at the council level. The decision went to me... It was a major strategy decision, and there really were multiple alternatives, and our future was going to be decided based upon it. So, at that point, the inputs came together to me, and then I led the group to a conclusion.”

As Table 5 demonstrates, the chief executive worked closely with a few others on all strategic decisions within each subsidiary

--- Insert Table 5 about here ---

John White, Vice President of Finance at Naval Warfare Division, described how the core group functioned at his business unit:

“Within Steven’s (the CEO) staff, there is a more senior group which includes me. For most big decisions, this group is involved. Then, Steven gets others involved when particular issues come up ... For example, on this decision, there are a small cadre of folks who typically work on these types of issues. So, when it comes to a particular decision, there are some folks with better perspectives, with more knowledge and insights on those issues, and therefore, they work on that decision.”

These core group members are the chief executive’s closest advisers, much like the “experienced counselors” described by Eisenhardt (1989) in her study of TMTs in the microcomputer industry. Eisenhardt found that executives utilized a few confidantes as sounding boards on strategic issues, and that the “oldest and most experienced executives filled the counselor role” (Eisenhardt, 1989: 559). Interestingly, the core groups in this study did not consist only of the senior members of the TMT. Instead, the chief executive tended to rely on individuals because he trusted and respected them and enjoyed a strong personal relationship with them. For example, Don Sutherland, President of Advanced Electronics, described his relationship with Ron Bishop, his chief financial officer:

“You need to understand the relationship that Ron and I have. We tend to go off-line with each other. He and I get together and compare notes...We do sanity checks with one another. He and I have worked together for a long time, and I think have a great mutual respect for each other’s view.”

In this case, Sutherland and Bishop had worked together at the corporate office in the past and had developed a strong working relationship. Similarly, at Naval Warfare, the chief executive and chief financial officer had worked together at another business unit. In other cases, strong relationships formed as a result of past collaboration within that business unit. For example, John White explained that Brad North participated in the core group at Naval Warfare, despite the fact that he did not report directly to the chief executive of the subsidiary. White described his trust in North:

“In the alliance decision, I was pretty sure it was a good piece of analysis, mostly because Brad was involved. Brad used to work for me, and I helped to place him as Director of Strategic Planning. He is a super guy with strong analytical skills. Short of giving Brad my kids, I would trust him with anything!”

The members of this core group played a number of special roles in strategic decision-making. First, they often served as the *devil’s advocate*, probing key assumptions and critically evaluating alternatives. A colleague described the person occupying this role in one core group:

“In his own mind, he needed to argue both sides and always make sure that he was absolutely right. That’s what you want to do. Make sure that you have tested the other side...He really kept you on your toes.”

Second, core group members often served as *champion or sponsor* of a particular strategic initiative. As people within the organization surfaced strategic issues and attempted to persuade others to support their proposals, they often looked to members of the core group to endorse, or give impetus, to their plans (Bower, 1970; Burgelman, 1983).

Third, members of the core group often served as *external liaisons* to other parties involved in the strategic decision. Because the chief executive at each unit trusted these individuals

greatly, he often employed them to communicate with the corporate office, the Board of Directors, potential external partners, and with customers and suppliers.

Finally, they often played the role of *trusted intermediary*, helping to resolve conflict among managers who held differing views. Lawrence and Lorsch (1967) coined the phrase “individual integrator” to characterize these influential managers who could resolve tensions among differentiated organizational units. They described these integrators as individuals with expert power and much respect from people of different backgrounds and functional expertise. One of more members of the core group often appeared to occupy this role.

However, these core groups did not act alone. Other managers participated in the decision processes. Some of these individuals served on the senior management staff, but many did not report directly to the chief executive and did not attend TMT meetings. The survey results confirm that multiple groups form to make strategic decisions within most organizations. For 86% of the firms, the chief executive reported that a different set of individuals participated in each decision. Naturally, not every organization employed multiple groups to make strategic decisions. In 14% of the firms, a stable group made all recent strategic choices. However, in nearly one-half of these cases, this stable group represented a subset of the TMT rather than the team as a whole. For those firms in which participation varied across decisions, a few individuals (including the chief executive) worked on each issue, forming a core group similar to the ones described in the field research. The remaining participants varied considerably across decisions.

Determinants of Group Composition

Composition of these multiple decision-making groups appeared to depend upon a number of factors. First, people became involved if their expertise proved relevant to the issues

at hand. For example, Keith Gooding, Vice President of Human Resources at Naval Warfare, explained why the chief executive solicited his advice on one decision:

“The job that I held at the time was Assistant to the President. One of my responsibilities was governmental and community affairs ...I think that’s why I was asked to look at that issue, because I was the conduit to those kinds of community folks, who were critical to this issue.”

People’s job titles and functional responsibilities did not necessarily dictate whether they became involved. Instead, involvement depended on how their expertise matched the specific issues that warranted attention. Sandy Holworthy, Vice President of Strategic Planning at Vehicle Systems, described how this happened on a specific decision:

“It’s interesting because, in a major collaborative international business arrangement, you’d think that the vice president of business development would be more prominent, but Wilkes picks people very effectively for purpose, and his view was, ‘Look. This is essentially going to be a manufacturing business arrangement. Carmen is the general manager of the manufacturing business. He’s got intuitive good sense. He knows what makes sense in terms of make/buy, and in Carmen’s mind probably lies the best assessment of situation.’ So it was slightly out of role, if you will, but it worked.”

People also became involved based upon their personal relationships with others already participating in the decision process. For example, Jim Fagan, Director of Facilities at Naval Warfare Division, explained how his relationship with Steven Caufield enabled him to play a significant role in a recent decision process:

“My relationship with Steven was important in elevating my work on this decision. When Steven joined the company, he became involved in some benchmarking studies. On trips to Europe and Japan, we spent several weeks traveling together to different shipyards. We developed a relationship and shared a lot of expertise about shipbuilding. This was important, because when Steven began to discuss the MOD decision, he knew that I had worked on the benchmarking studies, and that I had been working on concepts for modernizing our facility. So, my relationship with Steven was key to elevating my ideas and getting attention paid to them by Naval Warfare’s senior management.”

Personal relationships sometimes affected group composition in a different way. At times, executives attempted to avoid stimulating interpersonal conflict. For example, Jason DiPietro, Naval Warfare's Manager of Business Development, explained how the Caufield and the strategic planning staff selected others to become involved in an alliance decision, and then assigned them to subgroups to stimulate debate:

“We knew we wanted to bring people together with different expertise. There were some personality issues too. Putting a person like Scott together with a person like Ron, both expert in their fields, and very prone to dominating a conversation because of their expertise, we specifically moved those two apart.”

Finally, an individual's expected impact on implementation success also influenced whether they became involved. If managers knew that someone would play a critical implementation role, they often solicited that person's advice to insure effective execution. For example, Mark Thomas, Vice President of Engineering at Advanced Electronics, described how he developed an implementation plan, including financial projections, to facilitate an evaluation of options being considered in a restructuring decision:

“My role in all of this was to work a straw man implementation plan that we could cost to come up with what investment would be required to execute particular alternatives. I had this role because I had run that business for a couple of months, so I had some sense for the revenue streams and the market.”

In sum, as Figure 1 indicates, three major factors appeared to influence the composition of the decision-making groups: expertise, personal relationships, and expected implementation responsibility. Because each of these factors tended to differ in any given situation, it is not surprising that different groups of managers came together to make each decision. The composition of these groups, in turn, shaped the decision process. For instance, in the ALL decision, the inclusion of people from outside the organization enhanced the level of divergent thinking. The nature of the decision processes, in turn, shaped the development of personal

relationships and individual expertise - two factors that played an important role in the formation of future decision-making bodies. For example, the personality clashes that emerged during the RES and ORG decisions diminished interpersonal trust and decreased people's willingness to work together in the future. In the SOF and ALL decisions, several individuals gained expertise in the formation of strategic alliances, and therefore, have become involved in subsequent alliance decisions.

--- Insert Figure 1 about here ---

Nature of Group Composition

The upper echelons model tends to focus exclusively on senior executives when examining strategic choices. These findings indicate that strategic decision processes did not take place strictly at the highest levels. Managers from lower levels surfaced strategic issues and brought them to the attention of the TMT (Bower, 1970; Burgelman, 1983; Dutton & Ashford, 1993). In Bower's (1970) terms, they initiated the definition phase of the decision process. Lower level managers convinced or "sold" senior executives on the strategic importance of issues. For example, Naval Warfare's Director of Facilities described how he managed to focus senior management's attention on the problem of low productivity associated with the company's antiquated ship assembly facility:

"I was really pushing for this at a time when it was clear that top management was not interested in making that kind of investment in the facility. However, I continued to work on developing the concept, improving the ideas, and fine tuning the details. Then, when we performed poorly on the 1996 bid, senior management realized that we needed to consider investing in an overhaul of the facility, and we began discussing various options."

In each of the business units, I found that the groups who engaged in strategic decision-making consisted of individuals from multiple organizational levels. This finding is consistent with what Bower (1970) and Burgelman (1983) discovered when they studied resource

allocation decisions. Those scholars described the roles that managers at different levels played as resource allocation processes unfolded. The processes did not simply unfold sequentially up through the organizational structure, but rather, they proceeded simultaneously at different levels (Burgelman, 1983). In other words, strategic decision-making processes did not proceed strictly in a “bottoms up” or “top down” fashion.

To illustrate, the CVP decision began with discussions occurring independently and simultaneously at different levels. Eventually, people came together to decide whether the division should enter a new market. Meanwhile, the chief executive commissioned a strategic planning study of the opportunities for expanding the firm’s presence in the combat vehicle market. At lower levels, engineers and business development managers noticed market shifts. Several departments began to bid on small R&D projects. Individuals began to sell senior management on these opportunities. Ronald Sorenson, Manager of Business Development, described how he sought approval for several new projects, but did not conceive of a broad strategic initiative to enter a new market:

“Now some people will think that I strategically had some vision that we were going to get into this new market segment, but I can’t tell you that I did... I went to the Business Development Council to brief them on a new R&D project and the potential for other business. I had to get approval for the investment of R&D. At that time, I briefed the potential for other products in this segment ... People refused to fund the projects because they didn’t have enough information to make a decision. The more information we gave them, the more they realized that these opportunities were real. They began get enough information to say, ‘Yes, this is where we ought to go.’”

Eventually, the discussions about funding these small R&D projects became part of a broader discussion about the company’s strategy. Managers from the different levels came together to integrate their thinking. They decided not only to fund the small R& D projects, but also to invest in a more comprehensive new market entry strategy.

Table 6 provides evidence that individuals from several levels participated in each strategic decision. The chief executives participated in each of the strategic decisions. Additionally, two to five vice presidents became involved. However, many individuals who did not report directly to the chief executive played a major role in these decisions. In fact, 38.5% of the people identified as key decision-makers (30 of the 78 informants) held titles below the level of Vice President, and nearly all did not serve as TMT members.

--- Insert Table 6 about here ---

The survey results also confirm that strategic decision processes are not the exclusive provenance of TMTs. 64% of the survey respondents indicated that managers outside of the TMT played a prominent role in strategic choices. An examination of their job titles indicates that engineers, salespeople, and many middle managers participated in these processes.

Together, the field research and survey data demonstrate that strategic decision-making was not an activity concentrated at the highest level of most firms. These findings suggest that Bower's (1970) description of how strategic processes unfold across multiple layers of the organization reflects managerial reality more accurately than the "upper echelons" model of strategic choice (Hambrick & Mason, 1984). However, these findings differ from the Bower findings in an important way. Bower (1970) described different roles for managers at each level. In his model, people at lower levels tended to initiate or define projects, while managers at higher levels evaluated proposals and provided the impetus required to obtain corporate approval. By contrast, I found that managerial roles did not differ systematically by organizational level. In fact, the same people occupied contrasting roles in different decisions. For example, James Solomon, Director of Engineering at Vehicle Systems, helped to define the strategic opportunity and initiate the decision process in one situation. During a subsequent

decision, Solomon became involved in order to perform technical analysis of alternatives. Similarly, Joseph Quentin, Manager of Engineering at Advanced Electronics, served a critical role in the initiation stage of one decision. By contrast, others brought him into another decision process to access his knowledge about potential implementation challenges. In sum, an individual's position in the organization structure did not determine his role in the decision process. Instead, individuals occupied different roles interchangeably across various decisions.

RESEARCH IMPLICATIONS

These research findings suggest that the TMT literature offers a very useful, but limited, perspective of strategic decision-making processes by focusing exclusively on the CEO and his/her direct reports. While these scholars typically focused on one group of senior executives, this study finds that multiple groups form to tackle various strategic issues, with a stable core subgroup involved on all strategic choices. Moreover, while the TMT scholars focused on the executives at the highest level of the organization, this evidence indicates that individuals from many levels participated in each strategic decision.

The findings have important implications for the study of TMTs and strategic decision-making. Commenting on the TMT literature, Pettigrew (1992) once asked the question, "Do all executives interact as teams?" (Pettigrew, 1992: 176). Recently, several scholars have argued that executives often may refer to a TMT, but these individuals do not necessarily function as a team (Hambrick, 1998; Katzenbach, 1998). My findings suggest that the TMT may work closely together on certain activities, including monitoring and controlling performance. However, some organizational processes, such as strategic decision-making, may involve a broader array of participants.

These results call attention to the need for research on a broader set of TMT functions and activities. The evidence presented here suggests that monitoring and control processes are central to the mission of TMTs, but the existing literature focuses almost exclusively on the role that TMTs play in strategic choice. Scholars need to broaden their focus to examine the multiple roles and responsibilities that TMTs have in complex firms.

Most importantly, these results have broad implications for the research on organizational demography. Many scholars have noted that the TMT literature offers conflicting findings on the effects of particular demographic variables on team process and outcome measures (Pettigrew, 1992; Hambrick, 1994; Williams & O'Reilly, 1998). My research suggests that the inconsistent results may arise because only a few members of the TMT participate in each strategic decision, and because lower level managers also participate. This pattern of behavior makes it unlikely that the demographic characteristics of a single, stable team actually determine organizational outcomes. In fact, the demographic profile of each decision-making group may vary quite considerably. Consider an organization facing two quite different strategic decisions. It is possible that a relatively homogenous group of managers may come together to make one of those strategic decisions. However, a more diverse group may be assembled to address the other issue.

The findings do not suggest that researchers should end their investigation of team demography. Instead, TMT researchers may wish to identify the key players in particular decisions, and then examine how the demographic composition of *those specific groups* affects process and outcome measures. If researchers examine each decision-making group that forms within the firm, they may discover a stronger link between team compositional characteristics and process or outcome variables. Similarly, researchers may wish to focus their demographic analysis on the core subgroup of senior executives that tends to be involved on all strategic

choices. These individuals appear to have a more profound influence on firm strategy than other TMT members.

A broader implication relates to the fact that the decision-making groups in the field sites did not form at a point in time. Instead, a few individuals began discussing the decision and gradually involved others in the deliberations. The basic structure-process-outcome model employed by scholars presumes a team's structure and composition has a causal effect on how the decision process unfolds. However, these findings indicate that decision processes tended to begin as discussions among a few individuals. Over time, others gradually became involved. Thus, the ad-hoc group formed as the decision process took place. Group structure did not precede process, but rather, structure came into being as the process unfolded. This suggests that team structure and process may be related, but that the former does not necessarily determine the latter. In fact, the decision process may actually shape the formation of a group's structure. Future research should examine the processes by which decision-making bodies form within organizations.

Future studies can build on this work by conducting more in-depth examination of TMT processes as they unfold. One of this study's limitations is that it did not include real-time observation. As Pettigrew (1992) has said, new insights will emerge if "upper echelons" scholars shift away from a singular focus on demographic variables, and engage in careful observation of TMTs in real organizational settings. Observation provides an opportunity to enhance our understanding of how senior executives actually engage in collective work. Future research should incorporate close observation of TMTs in action.

REFERENCES

- Allison, G.T. 1971. *The Essence of Decision: Explaining the Cuban Missile Crisis*. Little Brown, Boston.
- Amason, A.C. 1996. "Distinguishing the Effects of Functional and Dysfunctional Conflict on Strategic Decision Making", *Academy of Management Journal*, Vol 39, pp. 123-148.
- Bantel, K. & Jackson, S. 1989. "Top Management and Innovations in Banking: Does the Composition of the Top Team Make a Difference?" *Strategic Management Journal*, Vol 10, pp. 107-124.
- Bower, J.L. 1970. *Managing the Resource Allocation Process*. HBS Press, Boston.
- Bower, J.L. 1998. Process Research on Strategic Decisions. Papadakis, V. & Barwise, P. (Eds.), *Strategic Decisions*, Kluwer Academic Publishers, Boston.
- Bourgeois, L. & Eisenhardt, K. 1988. "Strategic Decision Processes in High Velocity Environments: Four Cases in the Microcomputer Industry", *Management Science*, Vol 34, pp. 816-835.
- Bourgeois, L. 1980. "Performance & Consensus", *Strategic Management Journal*, Vol 1, pp. 227-248.
- Burgelman, R.A. 1983. "A Model of the Interaction of Strategic behavior, Corporate Context, and the concept of Strategy", *Academy of Management Review*, Vol 8, pp. 61-70.
- Butler, R., Mintzberg, H., Pettigrew, A., & Waters, J. 1990. "Studying Deciding: An Exchange of Views between Mintzberg and Waters, Pettigrew, and Butler", *Organization Studies*, Vol 11, No 1, pp. 1-16.
- Cyert, R.M. & March, J.G. 1963. *The Behavioral Theory of the Firm*. Blackwell Business, Cambridge, MA.
- Dutton, J.E. & Ashford, S.J. "Selling Issues to Top Management", *Academy of Management Review*, Vol 18, No 3, pp. 397-429.
- Eisenhardt, K.M. 1989. "Making Fast Strategic Decisions in High-Velocity Environments", *Academy of Management Journal*, Vol 12, pp. 543-576.
- Eisenhardt, K. & Schoonhoven, C. 1990. "Organizational Growth: Linking Team Founding, Strategy, Environment, and Growth Among U.S. Semiconductor Ventures, 1978-88", *Administrative Science Quarterly*, Vol 35, No 3, pp. 504-529.
- Finkelstein, S. & Hambrick, D.C. 1990. "Top Management Team Tenure and Organizational Outcomes: The Moderating Role of Managerial Discretion", *Administrative Science Quarterly*, Vol 35, pp. 484-503.

- Frederickson, J.W. & Iaquinto, A.L. 1989. "Inertia and Creeping Rationality in Strategic Decision Processes", *Academy of Management Journal*, Vol 28, pp. 516-542.
- Hambrick, D. & Mason, P. 1984. "Upper Echelons: The Organization as a Reflection of its Top Managers", *Academy of Management Review*, Vol 9, pp. 193-206.
- Hambrick, D. & D'Aveni, R. 1992. "Top Team Deterioration as Part of Downward Spiral of Large Corporate Bankruptcies", *Management Science*, Vol 38, pp. 1445-1466.
- Hambrick, D.C. 1994. Top Management Groups: A Conceptual Integration and Reconsideration of the Team Label. Staw, B. M. & Cummings, L.L. (Eds.), *Research in Organizational Behavior*, JAI Press, Greenwich, CT, pp. 171-214.
- Hambrick, D., Cho, T., & Chen, M. 1996. "The Influence of Top Management Team Heterogeneity on Firms' Competitive Moves", *Administrative Science Quarterly*, Vol 41, No 4, pp. 659-684.
- Hambrick, D. 1998. Corporate Coherence and the Top Management Team. Hambrick, D., Nadler, D., & Tushman, M. (Eds.), *Navigating Change*, HBS Press, Boston, pp. 123-140.
- Hannan, M.T. & Freeman, J.H. 1977. "The Population Ecology of Organizations", *American Journal of Sociology*, Vol 82, pp. 929-964.
- Katzenbach, J.R. 1998. *Teams at the Top*, HBS Press, Boston.
- Keck, S. & Tushman, M. 1993. Environmental and Organizational Context and Executive Team Structure. *Academy of Management Journal* 36(6): 1314-1344.
- Knight, D., Pearce, C.L., Smith, K.G., Olian, J.D., Sims, H.P., Smith, K.A., & Flood, P. 1999. "Top Management Team Diversity, Group Process, and Strategic Consensus", *Strategic Management Journal*, Vol 20, pp. 445-465.
- Lawrence, B.S. 1991. *The Black Box of Organizational Demography*. Working Paper. Anderson Graduate School of Management. UCLA.
- Lawrence, P. & Lorsch, J. 1967. *Organization and Environment*, HBS Press, Boston.
- Michel, J.G. & Hambrick, D.C. 1992. "Diversification Posture and Top Management Characteristics", *Academy of Management Journal*, Vol 35, pp. 9-37.
- Miller, C.C., Burke, L.M. & Glick, W.H. 1998. "Cognitive Diversity Among Upper-Echelon Executives: Implications for Strategic Decision Processes", *Strategic Management Journal*, Vol 19, No 1, pp. 39-58.
- Mooney, A. & Sonnenfeld, J. 2001. "Exploring antecedents to conflict during strategic decision making: the importance of behavioral integration", AOM Conference Paper.

- Mueller, G., Mone, M., & Barker, V. 2000. "Formal Strategic Analyses and Corporate Performance: Decomposing the Rational Model", *Academy of Management Proceedings*.
- Murmann, P. & Tushman, M. 1997. "The Effects of Executive Team Characteristics and Organizational Context on Organizational Responsiveness to Environmental Shock", Working Paper, Columbia Business School.
- Murray, A. 1989. "Top Management Group Heterogeneity and Firm Performance", *Strategic Management Journal*, Vol 10, pp. 125-141.
- Nelson, R.R. & Winter, S.G. 1982. *An Evolutionary Theory of Economic Change*, Belknap Press, Cambridge, MA.
- Pedhazur, E. J., & Schmelkin, L. P. 1991. *Measurement, Design, and Analysis: An Integrated Approach*, Erlbaum, Hillsdale, NJ.
- Pettigrew, A.M. 1992. "On Studying Managerial Elites", *Strategic Management Journal*, Vol 13, pp. 163-182.
- Porter, M.E. 1980. *Competitive Strategy*, Free Press, New York.
- Simons, T, Pelled, L., & Smith, K. 1999. "Making Use of Difference: Diversity, Debate, and Decision Comprehensiveness in Top Management Teams", *Academy of Management Journal*, Vol 42, pp. 662-673.
- Smith, K. Smith, K., Olian, J., Sims, H., O'Bannon, D., & Scully, J. 1994. "Top Management Demography and Process: The Role of Social Integration and Communication", *Administrative Science Quarterly*, Vol 39, pp. 412-438.
- Wiersema, M. & Bantel, K. 1993. "Top Management Team Turnover as an Adaptation Mechanism: The Role of the Environment", *Strategic Management Journal*, Vol 14, pp. 485-504.
- Wiersema, M. & Bantel, K. 1992. "Top Management Team Demography and Corporate Strategic Change", *Academy of Management Journal*, Vol 35, pp. 91-121.
- Williams, K. and O'Reilly, C. 1998. Demography and Diversity in Organizations: A Review of 40 years of Research. Staw, B. and Sutton, R. (Eds.), *Research in Organizational Behavior*, JAI Press, Greenwich, CT, pp. 77-140.

TABLE 1:
Decisions in the Small Sample Study

Name of Decision	Business Unit	Type of Decision	Description
MOD	Naval Warfare	Capital Investment	How should we modernize the shipyard facilities in order to enhance the efficiency of

			the ship assembly process?
ALL	Naval Warfare	Strategic Alliance	What firms should we form an alliance with in order to compete successfully on a major new U.S. Navy program?
LEV	Naval Warfare	Capability Development	How can we leverage the world class engineering capability throughout the corporation in order to improve ship design and engineering at the division?
CVP	Vehicle Systems	Strategic Alliance	What domestic and international firms should we team with in order to compete successfully on a new combat vehicle program?
ENG	Vehicle Systems	Strategic Alliance	What firm should we team with in order to produce engines that are in high demand in international markets?
NEW	Vehicle Systems	New Business Entry	Should we enter a new segment of the combat vehicle market?
ORG	Vehicle Systems	Organization Design	What organizational structure should we employ to manage a newly acquired, highly entrepreneurial business?
COM	Advanced Electronics	Organization Design	How should we design an organization to commercialize a new technology created originally for defense applications?
SOF	Advanced Electronics	Strategic Alliance	What firm should we team with to enhance our capability to develop and market a line of software products?
RES	Advanced Electronics	Business Restructuring	How should we restructure the Advanced Electronics business in order to enhance profitability?

TABLE 2:
Top Management Team Meeting Data

Team Meetings Take Place:	# of Teams	# of Team Members	Average Hours per Meeting	Average Hours per Year
Weekly	25	10.0	1.9	100.4
Biweekly	21	10.3	3.2	84.2
Monthly	32	11.0	6.2	73.9
Total	78	10.4		85.1

TABLE 3:
Collective Work of Senior Teams

Type of Activity	Average % of Time Spent on Each Activity During Team Meetings
Monitoring/Evaluation of financial/operating performance	23.2%
Updates/Reviews of major projects and initiatives	22.2%
Review/approval of major capital appropriation requests	3.5%
Review/discussion of important human resource issues	14.6%
Planning/formulation of business unit strategy	20.1%
Evaluation/discussion of administrative policies/procedures	6.6%
Review/discussion of organization structure/reporting relationships	4.2%
Other (Please explain)	5.8%

TABLE 4:
Partially Overlapping Membership of the Groups

	# of Individuals Involved In:			
	4 Decisions	3 Decisions	2 Decisions	1 Decision
Naval Warfare	N/A	4	2	10
Vehicle Systems	2	3	2	7
Advanced Electronics	N/A	3	5	5

TABLE 5:
Members of the Core Team at Each Business Unit

Naval Warfare	Vehicle Systems	Advanced Electronics
<ul style="list-style-type: none"> • Chief Executive Officer • Vice President of Finance • Vice President of Engineering • Director of Strategic Planning 	<ul style="list-style-type: none"> • Chief Executive Officer • Vice President of Strategic Planning 	<ul style="list-style-type: none"> • Chief Executive Officer • Vice President of Finance • Vice President of Program Management

TABLE 6:
Composition of the Decision-Making Groups

Name of Decision	CEOs	Vice Presidents	Directors	Managers	Total # of Decision-Makers
MOD	1	5	4	1	11
ALL	1	4	1	1	7
LEV	1	3	4	0	8
CVP	1	5	1	0	7
ENG	1	3	2	1	7
NEW	1	4	3	0	8
ORG	1	4	1	0	6
COM	1	2	3	2	8
SOF	1	3	2	2	8
RES	1	5	2	0	8
Total	10	38	23	7	78

FIGURE 1:
Factors Influencing Decision-Making Group Composition

