

# Strategic Decision-Making in High Velocity Environments: A Theory Revisited and a Test

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## Introduction

A decade ago, Eisenhardt (1989) proposed a model of strategic decision-making speed for firms facing high-velocity environments. This theory, while important at the time, has become even more relevant to the strategy-making bodies of firms in the entrepreneurial millennium. The model differed in important ways from much of the existing literature on decision-making speed (Frederickson and Mitchell, 1984; Janis, 1982; Mintzberg, et al., 1976; Nutt, 1976). Eisenhardt's ideas were based on a series of inductive case studies of eight firms competing in the fast-paced micro-chip industry. As such, it was an important theory-building effort in a central area of strategy process, strategic decision-making. To date, however, there have been no attempts to comprehensively test the model with a larger sample of firms.

The changes the economy is experiencing in this new millennium are astounding. In short, the hyper-competitive forces faced a decade ago by micro-chip makers have become pervasive throughout many of our top industries (D'Aveni, 1994; Grimm and Smith, 1997). Thus, the prescriptions of Eisenhardt's model would appear to be critical for today's firms as they seek entrepreneurial approaches to gaining competitive advantage. Top management teams (TMTs) capable of making rapid decisions can enable their firms to be the entrepreneurial first movers in their respective segments. To our knowledge, however, there has been only one attempt to replicate Eisenhardt's preliminary findings. Judge and Miller (1991) tested a portion of the model on a small sample ( $n = 32$ ) of firms in three industries. The research tested two of the five "tactics" mentioned by Eisenhardt, did not incorporate the intervening processes, and produced mixed results. Thus, there have been no successful attempts to test the entire model on a large cross-section of firms. This is due in part to the difficulty researchers face in gaining access to a large sample of top executives, especially those facing fast-paced environments. This research tests Eisenhardt's model on a sample of 66 high technology firms competing in the IT, telecommunications, and engineering services industries.

## Research on Strategic Decision-Making

Interest in top management teams has developed out of a belief on the part of researchers that the composition and functioning of this "dominant coalition" do a better job of describing organizational outcomes than does the study of the CEO alone (Cyert and March, 1963; Mintzberg, 1973; Kotter, 1982). Much of this literature has focused attention on the role the TMT plays in formulating organizational strategy through the decision process (Child, 1972). The strategic decisions top executives make have important impacts on organizational outcomes such as financial returns, sales growth, and survival (Finkelstein and Hambrick, 1996).

Much of the early work on TMT strategic decision-making focused on the ability of the group to reach agreement on important issues (e.g., consensus), and the level of comprehensiveness demonstrated in their decision process (Bourgeois, 1980, 1985; Fredrickson and Mitchell, 1984; Fredrickson and Iaquinto, 1989). A summary of this literature is found in Appendix A. The general results of these streams of literature were that consensus speeds issue

resolution, but perhaps at a cost to quality (e.g., comprehensiveness), and that comprehensiveness is not feasible in all environments. These results were generally in line with the long-standing debate in the decisionmaking literature concerning the rationality of decision processes. Beginning with March and Simon (1958), decision theorists began to realize that actual decision processes deviated considerably from the rational ideal. Decision-makers were seen as cognitively limited, having conflicting goals, and proceeding through the decision process in a much less orderly fashion than rational models would suggest. As a result of "bounded rationality" and time and resource pressures, decision-makers often settled or "satisfied" on the first solution that addressed the problem rather than continuing to search for the optimal solution. Adding to the messiness of real decision processes was the acknowledgment that multiple and conflicting goals (and sometimes no goals at all) motivated decision-makers. Thus, three major schools of thought on decision-making emerged: (1) the rational school; (2) the incremental or boundedly rational school; and (3) the political school. Table 11.1 summarizes the major differences of these three schools of decision theory.

Eisenhardt (1989) found that actual decision processes in high technology TMTs facing turbulent environments deviated from the rational ideal, but not to the extent incrementalists would suggest. In addition, Eisenhardt and Bourgeois (1988) found that political processes were present in these TMTs, particularly in the slow TMTs. This was because fast TMTs realized the inefficiency of politics and employed tactics to minimize the use of politics in their teams. Further, she found that certain TMTs were able to inject a considerable level of rationality into their decision processes with no penalty in decision speed. Thus, Eisenhardt observed actual decision processes in TMTs of high technology organizations to be a combination of the three theoretical perspectives on decision-making. Rather than a purely incremental approach, as empirical research would suggest, fast TMTs incorporated aspects of rationality into their process while attempting to minimize the propensity for political behavior at these levels of the organization. Finally, based on a small sample of inductive case studies, she developed a model of fast decision-making consisting of five decision "tactics" and three mediating processes that fast TMTs used to increase both the comprehensiveness and the pace of their strategic decision process.

Three studies have built on Eisenhardt's ideas during the ten years since the model was introduced. Judge and Miller (1991) confirmed a portion of the model and demonstrated a link between fast strategic decision-making and firm performance in turbulent industries. Wally and Baum (1994) developed a model of decision pace based loosely on the ideas of Eisenhardt and tested on a sample of 151 firms in various industries. Finally, Hambrick et al. (1996) developed and tested a model of competitive speed (e.g., speed of implementation of firm actions and responses) based in part on demographic proxies for TMT decision process. In general, these models provide a fair level of support for the Eisenhardt model for firms facing turbulent environments. The contributions and contextual insights of these studies are mentioned below as they relate to the components of the Eisenhardt model.

**Table 11.1** Three schools of decision theory

<b>Characteristic</b>	<b>Rational</b>	<b>Incremental</b>	<b>Political</b>
Search process	Maximizing	Limited Satisficing	Haphazard
Selection of solution	Maximizing	Cognitively limited	Based on Power and Influence
Managers are:	Efficient processors		Non-rational, self-interested
Decision process unfolds:	Sequentially	Sequentially	Randomly, iteratively
Information is:	Available	Costly	Controlled by the powerful
Decision pace is:	Slow	Fast	Varies, but typically slow
Process suitable for:	Stable environment	Turbulent environment	Ambiguous environment

## Decision-making tactics

Eisenhardt (1989) found that fast TMTs used five "tactics" to speed up the decisionmaking process. Moreover, the slower TMTs either failed to use these, or differed substantially in the implementation of the tactics. Importantly, some of these tactics are not only associated with increases in the speed with which strategic decisions are made, but also impact the level of rationality of the process.

*Real-time information use.* Fast TMTs made extensive use of scanning and reporting to continuously update their understanding of the position of the company, its competitors, and environment. Eisenhardt hypothesized that this activity allowed the members of the group to be on the same page, and to minimize the time needed to gear up for important decision issues facing the firm. Thus, the use of real-time information tactics by the TMT increased the pace of cognitive processing in the teams and led to smooth group process (e.g., consensus and conflict resolution) since all team members had access to similar information. Interestingly, in addition to increasing the pace of decision-making, the use of this tactic resulted in a more rational decision process.

*Multiple simultaneous alternatives.* Eisenhardt also found that fast TMTs tended to look at multiple alternatives side-by-side, rather than in a serial fashion. Typically, this process was preceded by a brainstorming session where TMT members attempted to generate a comprehensive list of possible courses of action. The use of simultaneous comparison aided the teams in their ability to discern subtle differences between alternatives and to quickly discard those that were inferior. This led to a speedy identification of a small number of worthy courses of action from which to choose. Thus, the side-by-side decision tactic allowed the TMT to accelerate its processing of the important issues. Further, Eisenhardt proposed that the process of generating a large number of alternatives and narrowing them down using a clear method increased the confidence of the TMT to act on the decision. As Eisenhardt notes, the use of multiple simultaneous alternatives resulted in a more comprehensive or exhaustive development of alternatives, and thus incorporated elements of the rational ideal.

Wally and Baum (1994) proposed that increases in the cognitive ability of TMT members would enable them to assess multiple alternatives simultaneously. Using a cognitive test and a education-level proxy, they determined that cognitive complexity of TMT members was positively related to decision pace. Though cognitive ability could reasonably affect decision process in multiple ways, this result lends some insight into the Eisenhardt model.

*Decision integration.* Eisenhardt found that fast TMTs attempted to integrate decisions to fit into an overall pattern or plan. Again, the "fit" requirement served as an additional decision rule with which the TMT could differentiate between seemingly sound alternative courses of action. Thus, TMTs that integrated decisions with past decisions were able to quickly resolve ambiguities of choice and felt confident that the current decision matched previous efforts. Thus these TMTs experienced accelerated cognitive processing and an increased decision efficacy.

*Two-tier advice process.* Eisenhardt also found that fast TMTs used two practices in order to break deadlock within the team. One such practice was the use by the CEO of an experienced "counselor" that resulted in a two-tier advice process. The "counselor," as described by Eisenhardt, was an experienced executive who had reached a career plateau, and thus could be trusted to give sound advice based on extensive experience. Wally and Baum (1994) found that experienced executives sometimes used heuristics to speed the decision-making process. The use by the CEO of an experienced counselor may also be relying to some extent on the unmeasured use of heuristics as well. Furthermore, Wally and Baum (1994) found that centralization was related to decision pace. This is because centralized decision processes use less consultation and decision-makers in a centralized structure may have greater feelings of control and thus be more confident to act. In the context of the TMT, the reliance by the CEO on a trusted advisor is a form of centralization.

Eisenhardt did not differentiate insider vs. outsider status, but clearly either situation could fit the counselor profile. The counselor aided the decision process by providing the CEO with a sounding board on tough issues that the TMT was having difficulty in resolving. The existence of a counselor benefited the decision process by breaking the deadlock (e.g., thus accelerating the decision process); increasing smooth group process by virtue of resolving the conflict, and in providing additional confidence on the part of the CEO to act on the decision.

*Consensus with qualification.* Fast TMTs were also using a tie-breaker rule termed "consensus with qualification."

Under this tactic, TMTs specified a set amount of time to attempt to reach consensus on strategy, after which the CEO was authorized by the group to make the call. Because the group pre-authorized the use of fiat by the CEO after having an opportunity to be heard, such TMTs experienced smooth group process. Obviously, the stalemate breaker tactic increased the decision speed of teams facing such a crisis. Consensus with qualification is an explicit compromise between the rationality of extensive attempts to reach consensus, and the very real need highlighted in incrementalism to cut the debate at some point. Hambrick et al. (1996) postulated that diverse TMTs would be able to conceive of and launch new actions rapidly because of expansive repertoires for action. At the same time, they acknowledged the large body of research that demonstrates the association between diversity and dissensus. Thus, Hambrick et al. proposed and found that TMT heterogeneity increased the propensity for action but at a cost to speed. Eisenhardt's model suggests the consensus with qualification tactic as a method with which to avoid the penalty of diversity to decision speed.

### **Intervening processes**

Although Eisenhardt did not measure process, she did explain the linkages between decision "tactics" and decision speed as working through process. These linkages have been described above, however, the link between process and decision speed requires further discussion.

*Accelerated cognitive processing.* Accelerated cognitive processing refers to the ability of the TMT to rapidly consider larger amounts of, often ambiguous, information. TMTs that have greater cognitive capacity of this sort are better equipped to resolve decision issues quickly, especially those being made under conditions of uncertainty and time pressure. Thus accelerated cognitive processing was proposed to be a primary factor in decision speed.

*Smooth group process.* In addition to the ability to deal with large amounts of information, Eisenhardt proposed that TMTs experiencing smooth group process would make quicker decisions. Although the conceptualization of what exactly constitutes "smooth process" is not clear from the Eisenhardt piece, in a general sense she is referring to the ability of the TMT to resolve conflict and reach agreement on difficult decision issues.

*Confidence to act.* Finally, Eisenhardt developed the argument that an important element of decision speed would be the confidence of the TMT to act on their decisions. In the case studies, she found that slower groups often vacillated back and forth in their quest to be absolutely certain, the result being a very drawn-out decision process. By contrast, fast TMTs developed the necessary confidence to make the decision once the solution became clear. Such efficacious decision processes dramatically improved the pace of decision-making in these teams. Wally and Baum (1994) also found that the confidence to act was a determinant of decision speed. In their study, confidence to act was viewed as stemming from personality characteristics of the TMT members. For example, TMT members with an internal locus of control and those with a high tolerance for risk were found to be more confident. Thus, in addition to decision tactics employed by TMT members, individual attributes may play a significant role in decision process. Figure 11.1 shows the model of fast strategic decision-making as proposed by Eisenhardt.

### **Method**

The target population for the study was high-technology public and private organizations located in the mid-Atlantic region of the USA. Within each company, data was collected from multiple respondents: (1) detailed questionnaires were completed by members of the top management team; and (2) a structured interview was conducted with the CEO of each firm.

### **Sample and research procedures**

Companies were selected for participation based on three key conditions. First, to ensure that the firms in the sample were similar across a number of basic characteristics, the companies had to conform to the definition of high-technology firms. This research was focused on high technology firms because many of these firms face "high-velocity" environments, which require constant change and innovation (Eisenhardt, 1989). Milkovich (1987: 80) defined the relevant features of high-technology industries as "firms that emphasize invention and innovation in

## DECISION TACTICS

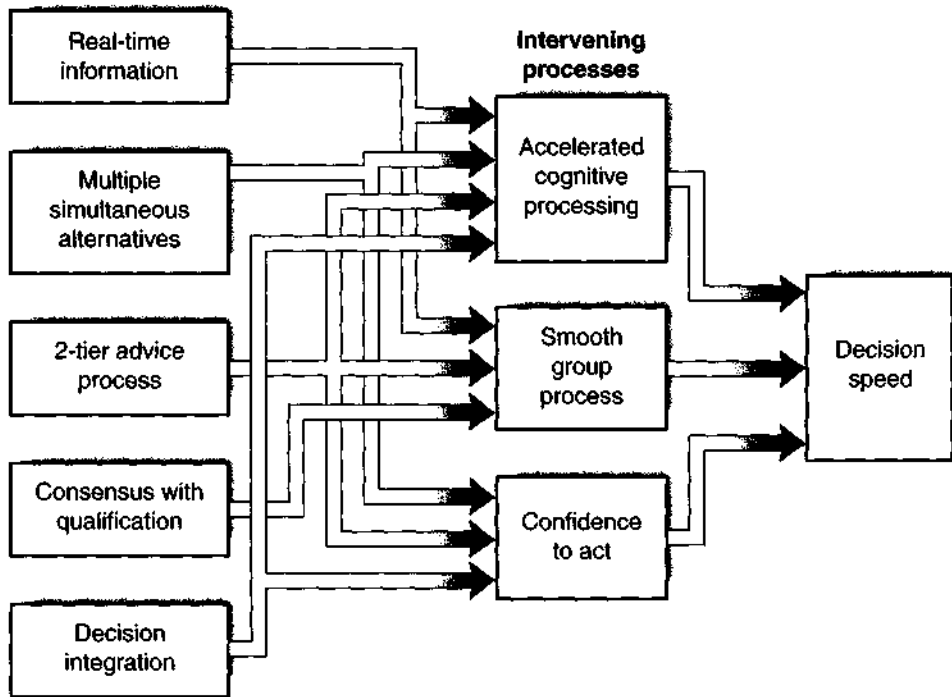


Figure 11.1 Eisenhardt's model of fast decision-making

their business strategy, deploy a significant percentage of their financial resources to R and D, employ a relatively high percentage of scientists and engineers in their workforce, and compete in worldwide, short-life-cycle product markets." Second, because of the time commitments involved in conducting the interviews for the study, organizations needed to be located within a three-hour driving distance from the research location. Third, the sample was restricted to firms meeting a size threshold of 50 or more employees (most were much larger, see below). This eliminated the inclusion of high technology startup firms that face constraints on decision-making stemming from venture-capital involvement.<sup>1</sup>

A list of high technology companies meeting these criteria was developed by using two sources. Initially, firms were identified through the 1998 *Mid-AtlanTech Almanac*. This almanac, published by TechCapital (a regional high-tech publication) contains company profiles, including information about the core business of the firm, contact addresses and phone numbers, number of employees, and names of top managers. Additional organizations were identified through a regional high-technology council. Following these procedures we identified 110 public and 40 high technology firms that were actively operating in the region.

To gain access to organizations, the research team followed a three-step protocol. First, the research team sent a package of four letters to the CEO/President outlining and endorsing the study. The first letter was from the research team introducing the project and outlining the goals of the research. Support letters from the Dean of the Business School, the University's Center for Entrepreneurship, and TechCapital were used to lend credibility and legitimacy to the research project and reinforce the importance of the study. In the second step, the research team called each CEO to schedule interviews (after allowing for sufficient time for the letters to be received and read).

In the final step, each CEO or President was interviewed for approximately one hour. There were three main purposes for the site visit with the CEO. First, the interview was a way to gain the support and endorsement of the CEO (including the signed letter of support and internal contact person). Second, the interview was used to collect information on the competitive environment (turbulence, munificence, complexity, etc.) of the firm. Finally, the CEO was asked to identify the members of their top management team. As part of this interview, each CEO was asked to sign a letter encouraging identified executives to complete questionnaires, and to identify an internal contact who could help the research team distribute and collect surveys. This step was necessary to obtain a full set of responses from employees inside each organization.

Of the 110 public firms contacted, we obtained full responses from 48 for a participation rate of 44 percent. Of the 40 private firms contacted, we obtained full responses from 18 for a participation rate of 46 percent. The average number of top managers that responded per firm was 3.24. The companies agreeing to participate were not significantly different from those not participating in terms of reported sales ( $t_{100} = 1.364, p > .05$ ), or number of employees ( $t_{100} = 1.695, p > .05$ ). There was a large variance in the size of firms in the sample, both in terms of number of employees (45 to 16,668) and in revenue (\$1.2 million to \$4 billion). The average size of organizations in the study was 1,742 full-time employees, with a standard deviation of 3,391 employees.

### **Variable definition and measurement**

All of the items used in this research were five-point Likert type scales. Each variable consists of between two and four items. For each variable, items and scale reliabilities are contained in Appendix B.

*Real-time information.* Eisenhardt suggests that fast decision-making groups are often more comprehensive in their search than their slower counterparts. However, fast decision-making groups only use real-time information about competitors or their environment. We measured TMT use of real-time information with items such as: every member of the TMT knows where our organization is in its progress toward our goals; and, This TMT continuously monitors how our organization is performing.

*Multiple simultaneous alternatives.* Though the literature suggests that the consideration of many alternatives (comprehensiveness) can slow the decision-making process, Eisenhardt proposed that the number of alternatives considered was not important, rather, it was the manner in which they were considered. Fast TMTs were able to simultaneously consider many possible courses of action. We measured the comprehensiveness of the TMTs search with items like: Our TMT develops an exhaustive set of alternatives before making important management decisions; and, Our TMT seeks advice from all the firm's functional areas when making important strategic decisions.

*Two-tier advice process.* Eisenhardt proposed that fast TMT decisions often occurred when the CEO used a two-tiered process. First, the CEO would consult the entire TMT, and then would rely on a smaller subset, perhaps an individual counselor, to make the final decision. We measured the tendency of the CEO to rely on a small group of "counselors" with the following items: When the group cannot reach consensus easily, the CEO will often consult a senior member of the TMT to reach a decision; and, the CEO often makes decisions with the aid of one or two members of the TMT.

*Consensus with qualification.* A particularly effective strategy for reaching quick decisions was termed "consensus with qualification". Fast TMTs operated under the rule that if consensus was not forthcoming, the CEO would make the decision. We measured the use of such strategies with items like: When members of the TMT disagree on an important decision, the CEO often has to step in to make the final decision; and, when TMT members disagree on an important decision, the CEO ends up listening to different viewpoints but making up his/her own mind.

*Decision integration.* Fast TMTs were those that evaluated each decision in the context of prior decisions. TMTs that were better able to integrate their decision-making, were also able to make decisions in a shorter amount of time. We measured the degree to which TMTs integrated their decisions into an overall framework with items such as: We consider the impact of one strategic decision on the other strategic decisions we have made; and, we try to place strategic decisions into an overall pattern or plan.

*Accelerated cognitive processing.* To the extent that TMTs use strategies (e.g., consensus with qualification, decision integration), rely on experienced members, and keep up to date (e.g., real-time information) they are better able to quickly process the information with which they are faced. We measure this ability in TMTs with the following items: When the need arises to make key decisions, the members of this TMT are already "on the same page." and, when making strategic decisions, we often have to re-familiarize ourselves with the key issues involved (reversed).

*Smooth group process.* Eisenhardt observed that fast TMTs often had developed smooth group processes. TMT members were familiar with one another, and avoided unnecessary conflict. We measured the "smoothness" of TMT process with items like: Members of the TMT get along with each other well.

*Confidence to act.* Fast TMTs were confident of their ability to make the right decisions. This confidence was based in part on the strategies they used (multiple simultaneous alternatives, decision integration), and on their up-to date knowledge of the current situation (real-time information). We measured the confidence of TMTs to act with the following items: The quality of this TMT's decisions gives me the confidence to act, and I feel this TMT can solve any problem we encounter; and I have confidence in the TMT's ability to make sound decisions.

*Decision speed.* Decision speed has been linked to performance, particularly for firms facing turbulent environments. We measured the decision speed of TMTs with the following items: This TMT moves quickly to make key strategic decisions; It takes this TMT too long to make important decisions (reversed); and, this TMT routinely makes important decisions in under one month. This approach differs slightly from that used by Eisenhardt. First, Eisenhardt assessed quick decisions as those made in under four months, and measured the length of the decision process as a continuous variable. Secondly, we incorporate a relative measure of decision speed to complement the absolute measure used in previous studies. We believe this approach better captures the meaning of "fast" decisions in the even more turbulent environment now faced by firms.

## Results

The results of the study provide moderate support for the Eisenhardt model. As can be seen in table 11.2, the correlations amongst many of the key variables of Eisenhardt's model are very strong. High levels of multi-collinearity between independent variables can result in unstable betas, though this does not affect the overall R-squared for the model (Pedhazur, 1982). Green (1978: 227-8) suggests three strategies for dealing with high levels of intercorrelation in predictor measures: (1) ignore it; (2) delete one or more of the correlated variables; or (3) transform the predictors into a new set of mutually uncorrelated variables by use of a data reduction algorithm like

factor analysis. Option 1 seems cavalier, however, Green suggests that under certain circumstances this may be the best course of action. First, when standard errors are high, multicollinearity is likely to be a problem. Second, regressions may be re-run after randomly dropping some observations (Green suggests 20 percent). If the results of the reduced sample are similar to the original results, then multicollinearity is not likely to be a problem. In the present analysis, the standard errors were not large. Furthermore, they remained stable when the sample was randomly reduced. The mediated regression was re-run after randomly dropping 10 observations (approximately 20 percent). The results were virtually identical to the full-sample regressions. Thus, it appears that the moderate levels of intercorrelation in the independent variables do not cause problems of interpretation of the results. A factor analysis was also performed and the results are reported later.

Mediated regression analysis was utilized to better understand the relationships amongst the independent variables, the intervening processes, and decision speed. Table 11.3 shows the results of the direct and mediated regression on decision speed. Tables 11.4, 11.5, and 11.6 show the regressions of the independent variables on the mediating processes. Figure 11.2 shows the direct relationships between decision "tactics" and decision speed.

The results of our analysis show strong support for three of Eisenhardt's five propositions with respect to the link between decision tactics and decision speed. Indeed, the model explained 76.9 percent of the variance in decision speed for this sample of firms. In support of Eisenhardt's first proposition, real-time information use was found to affect decision speed ( $\beta = .417, p < .001$ ) through its impact on the TMT's accelerated cognitive processing ( $\beta = .390, p < .001$ ) and through their confidence to act ( $\beta = .392, p < .001$ ). In support of proposition two, the consideration of multiple simultaneous alternatives by the TMT affected decision speed ( $\beta = .324, p < .001$ ) through its impact on the TMT's accelerated cognitive processing ( $\beta = .367, p < .001$ ) and through their confidence to act ( $\beta = .363, p < .001$ ) (P2). Contrary to Eisenhardt's model, the use of real-time information was not found to be linked to smooth group process, however, it was linked to TMT confidence ( $\beta = .392, p < .001$ , not predicted by Eisenhardt). Smooth group process was not found to be linked to decision speed. No other independent variables were found to be related to either accelerated cognitive processing or TMT confidence to act. Finally, some support for proposition five was demonstrated as decision integration was found to affect decision speed ( $\beta = .251, p < .05$ ), not through the mediating processes as proposed, but directly (P5). Figures 11.2 and 11.3 show the direct and mediated models. Note that the direct links to decision speed for both real-time processing and multiple simultaneous alternatives drop when the mediating processes are introduced to the model. Only decision integration links directly to decision speed rather than through mediating processes as Eisenhardt proposed. In conclusion, the results of our analysis provide moderate support for the propositions of Eisenhardt's inductive case studies.

**Table 11.7** Factor Analysis of decision tactics

	Parallelism	Tie-Breaker
Decision integration	.819	-.185
Real-time information use	.869	-.009
Multiple simultaneous alternatives	.839	-.345
Consensus w/qualification	-.008	.950
Two-Tier advice system	-.386	.834

A principal components factor analysis with varimax rotation was also performed to further validate the results reported above. This data reduction strategy transforms the correlated predictors into uncorrelated factors. Factor scores can then be entered in to the regression model in the place of intercorrelated predictor measures. The downside of this method is that some level of richness and detail is lost during the transformation. The factor analysis (table 11.7) extracted factors: the first factor was comprised of the real-time use of information, consideration of multiple simultaneous alternatives, and decision integration tactics. This factor was labeled "parallelism" since each of the components refers to a tactic that involves analysis in parallel. The second factor was comprised of the consensus with qualification and two-tier advice system tactics. The second factor was labeled "tie-breaker" since both components are tactics used to resolve dissensus. The results of the regression of decision speed on the two decision tactics factors was consistent with the results reported above. The parallelism factor was related to decision speed ( $\beta = .823, p < .001$ ), while the tie-breaker factor was not ( $\beta = -.069, p = .M5$ ).

**Table 11.2** Correlation table

	RT	SA	2-tier	CQ	DI	AP	SP	CA	DS
Real-time information	1.000								
Simultaneous alternatives	.747 <sup>a</sup>	1.000							
Two-tier advice	-.419	-.542 <sup>a</sup>	1.000						
Consensus w/qualification	-.189	-.415 <sup>a</sup>	.708 <sup>a</sup>	1.000					
Decision integration	.581 <sup>a</sup>	.639 <sup>a</sup>	-.483 <sup>a</sup>	-.228	1.000				
Accelerated processing	.715 <sup>a</sup>	.762 <sup>a</sup>	-.470 <sup>a</sup>	-.360 <sup>a</sup>	.572 <sup>a</sup>	1.000			
Smooth process	.628 <sup>a</sup>	.703 <sup>a</sup>	-.612 <sup>a</sup>	-.423 <sup>a</sup>	.566 <sup>a</sup>	.815 <sup>a</sup>	1.000		
Confidence to act	.734 <sup>a</sup>	.784 <sup>a</sup>	-.558 <sup>a</sup>	-.345 <sup>a</sup>	.580 <sup>a</sup>	.879 <sup>a</sup>	.829 <sup>a</sup>	1.000	
Decision speed	.753 <sup>a</sup>	.730 <sup>a</sup>	-.354 <sup>a</sup>	-.145	.667 <sup>a</sup>	.816 <sup>a</sup>	.727 <sup>a</sup>	.804 <sup>a</sup>	1.000

N = 66. <sup>a</sup> significant at  $p < .01$  level (2-tailed)

**Table 11.3** Predicting decision speed

Step	Variable	$\beta$	t
1	Real-time information	.417 <sup>c</sup>	3.908
	Simultaneous alternatives	.324 <sup>c</sup>	2.680
	2-tier advice	.048	.401
	Consensus with qualification	.081	.745
	Decision integration	.251 <sup>a</sup>	2.516
2	Real-time information	.158	1.714
	Simultaneous alternatives	.095	.882
	2-tier advice	.089	.859
	Consensus with qualification	.147	1.598
	Decision integration	.196 <sup>a</sup>	2.359
	Smooth group process	.105	.920
	Confidence to act	.225 <sup>a</sup>	2.245
Accelerated cognitive processes	.322 <sup>a</sup>	2.687	

Dependent variable = Decision speed, step 1  $R^2 = .658$ ; step 2  $R^2 = .769$

N = 66

<sup>a</sup>  $p < .05$ , <sup>b</sup>  $p < .01$ , <sup>c</sup>  $p < .001$

**Table 11.4** Predicting smooth group process

Variable	$\beta$	t
Real time	.238 <sup>a</sup>	1.475
Simultaneous alternatives	.282 <sup>a</sup>	2.006
2-tier advice	-.204	-1.168
Consensus with qualification	-.079	-.626
Decision integration	.139	1.197

Dependent variable = Decision speed,  $R^2 = .530$

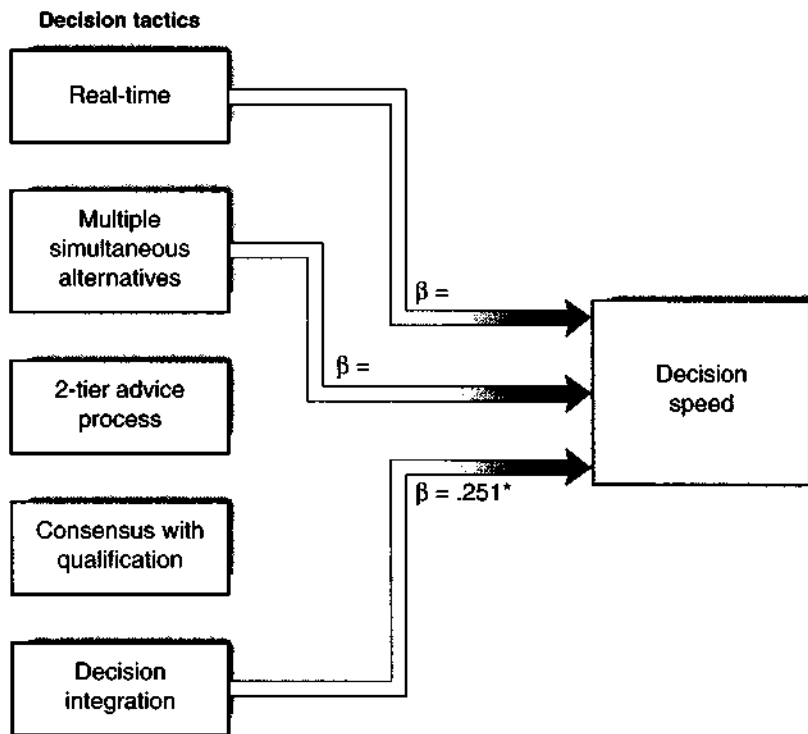
N = 66, <sup>a</sup>  $p < .05$ , <sup>b</sup>  $p < .01$ , <sup>c</sup>  $p < .001$

**Table 11.5** Predicting confidence to act

Variable	$\beta$	t
Real time	.392 <sup>c</sup>	3.719
Simultaneous alternatives	.363 <sup>c</sup>	3.034
2-tier advice	-.167	-1.426
Consensus with qualification	-.014	-.134
Decision integration	.038	.387

Dependent variable = Decision speed,  $R^2 = .660$

N = 66, <sup>a</sup>  $p < .05$ , <sup>b</sup>  $p < .01$ , <sup>c</sup>  $p < .001$



**Figure 11.2** Direct relationships

**Table 11.6** Accelerated cognitive processing

Variable	$\beta$	t
Real time information	.390 <sup>c</sup>	3.487
Simultaneous alternatives	.367 <sup>b</sup>	2.895
2-tier advice process	.055	-.438
Consensus with qualification	-.169	-1.482
Decision integration	.098	.937

Dependent variable = Decision speed,  $R^2 = .618$

$N = 66$ , <sup>a</sup>  $p < .05$ , <sup>b</sup>  $p < .01$ , <sup>c</sup>  $p < .001$

## Discussion

In general, the results of this research support Eisenhardt's central, if unstated, claim that fast TMTs are able to simultaneously inject a measure of rationality into their decision process without an adverse impact on decision speed. Certainly, we found that fast TMTs did this through the use of such tactics as the use of real-time information, side-by-side consideration of alternatives, and by integrating current decision issues with existing plans. The story is much more complex, however, and a closer examination of the results yields insights into the true functioning of fast TMTs. Figure 11.3 (below) contains the revised model of fast strategic decision-making.

*Real-time information use.* As Eisenhardt proposed, the use of real-time information increased strategic decision-making indirectly through decision process. As predicted, real-time information use accelerated cognitive processing in the TMT leading to increased decision speed. Eisenhardt hypothesized that accelerated cognitive processing in such teams would be the result of the development of real-time information tactics of intuition. An alternative explanation is that TMTs whose members keep current are able to begin processing *earlier* than those TMTs whose members have to spend time gearing up for decisions.

This research found that the use of real-time information gave the TMT increased confidence to act ultimately increasing decision speed. It is interesting that Eisenhardt did not propose the linkage between real-time information and confidence to act, which would appear to be fairly straightforward. Simply put, TMTs that continually update their knowledge bases concerning the state of the firm, the activities of rivals, and changes in the competitive environment are likely to perceive that they have a good grasp of the current situation. Such teams are likely to feel that they have left no stone unturned. The perception in the team that they have prepared themselves and have been comprehensive (e.g., up-to-date) in their search will directly bolster their confidence to act on such information. Such teams may experience what Hambrick and colleagues (1996) termed a higher propensity to act. This explanation is supported by evidence provided by Eisenhardt concerning the inability of certain TMTs to make decisions. She describes one team that continually sought more and more information, due to a fear that they were overlooking some key factor.

Finally, while real-time information use was associated, as Eisenhardt predicted, with smooth group process, this linkage did not impact decision speed in this sample.

*Consideration of multiple simultaneous alternatives.* Again, the predictions of the Eisenhardt model are strongly supported. TMTs that were able to simultaneously assess several alternatives experienced increased confidence to act and accelerated cognitive processing. As Eisenhardt explained, the practice of comparing alternatives side-by-side helps TMTs to readily discern and evaluate slight differences and ambiguities. These differences may be very difficult for TMT members to recall and evaluate given a serial decision process. Indeed, TMTs may have to revisit earlier alternatives to resolve ambiguities adding time to the decision process. The insights garnered from a simultaneous comparison process helps solidify the preferences of TMT members resulting in increased conviction in the solution that is chosen.

Although such groups experienced smoother group process, this was not related to decision speed. Even though not directly relevant to this study, smooth group process has been associated in the literature with various desirable outcomes. The argument is that the use of a side-by-side comparison process drastically reduces the chance for divergent perceptions of the "facts" by forcing TMT members to evaluate alternatives simultaneously. Serial, particularly if temporally dispersed, modes of evaluation contain much greater opportunity for such misunderstandings to occur and to fester, ultimately leading to decreased functionality of group process.

*Decision integration.* Eisenhardt (1989) proposed that the attempt to match current decisions with an existing overall pattern of strategy would speed the decision process by accelerating the cognitive processing of the team, and by increasing their confidence to act. While this research found that decision integration is related to decision speed, the link is direct, rather than through mediating processes.

There are several clues as to why the form of the relationship identified in this research deviates from the model as originally proposed. From Eisenhardt (1989), "[TMTs] maintained mental maps of how decisions fit together" and "[they] simultaneously kept in mind multiple decisions" (ibid.: 567) and "such integration may limit discontinuities between decisions" (ibid.: 566). These statements suggest that decision integration is an on-going process that transforms "batch" to "process" decisionmaking. Because fast TMTs view decisions as a continual integrated procession, they do not have to gear up for new issues - they remain in a state of heightened readiness.

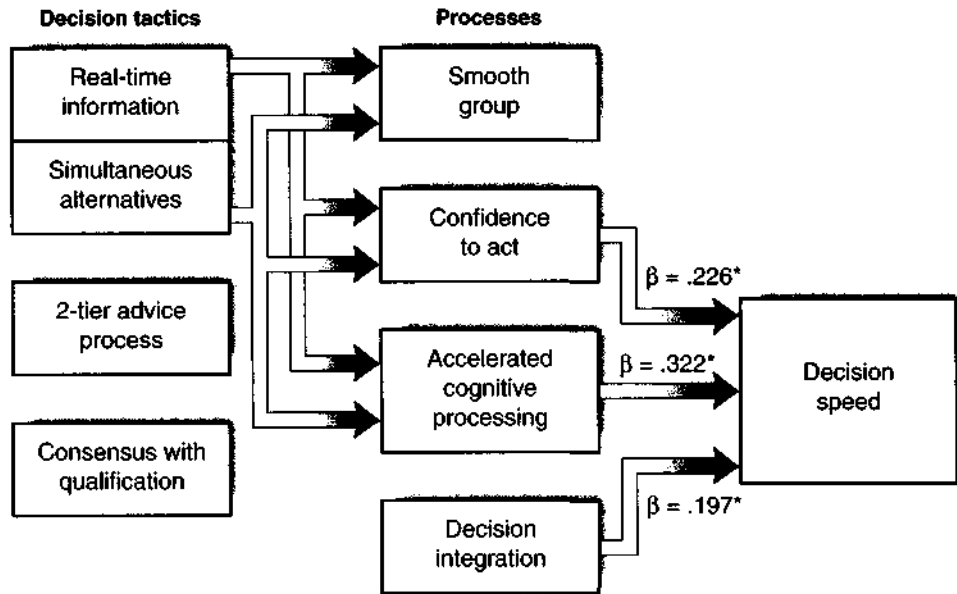


Figure 11.3 Revised model of fast strategic decision-making

Importantly, this concept is distinct from Eisenhardt's "accelerated processing" in that it is really continual rather than speedy processing. Perhaps an apt analogy is that of the tortoise (continual processing) vs. the hare (accelerated processing). Of course, the most speedy decisions will be made by a tortoise with a kick. Additional support for this explanation can be found in Eisenhardt's observation that slow TMTs often shifted from stalemated inactivity to making "snap" decisions. In summary, decision integration is likely a standalone process, rather than an antecedent to accelerated cognitive processing.

*Intervening processes.* Two of the three intervening processes, confidence to act and accelerated cognitive processing, were found to be strong predictors of decision speed. These findings lend good support for the Eisenhardt model and are generally consistent with the results reported by Wally and Baum (1994).<sup>2</sup> The present research cannot assess whether the confidence certain TMTs felt to act was based predominantly on the decision tactics employed by the team (e.g., use of real-time information and the simultaneous evaluation of alternatives), on certain personality factors as Wally and Baum propose, or on other factors such as past performance. Accelerated cognitive processing was also found to be a strong predictor of decision speed. Although Eisenhardt describes accelerated cognitive processing as emanating from "deep personal knowledge of the enterprise that allows (TMTs) to access and interpret information rapidly when major decisions arise" (1989: 570), it may be that the use of real-time information simply allows these teams to begin the processing component of decision-making earlier than other teams. Regardless of the actual mechanism, TMTs that experience accelerated cognitive processing do make quicker decision.

Finally, the non-finding for the proposed linkage between TMT smooth process and decision speed is worthy of some discussion. Smooth process has been the topic of substantial research on TMT decision-making (Hickson et al., 1986; Mintzberg, 1973). Implicit in many of these studies is the idea that smooth process, particularly consensus, will lead to faster decision-making. It is, therefore, intriguing that this relationship was not detected in this study. There are two plausible explanations for this: (1) differences in the operationalization of the smooth process construct; and (2) smooth process may work through another construct.

In this study, smooth group process was operationalized as a linear combination of the standardized team scores for cohesion, consensus, and conflict. In Eisenhardt's study group process was referred to as the ability of the TMT to deal constructively with conflict and thus move the group to a decision. Though our definition of smooth process does not, on the surface, appear to deviate much from what Eisenhardt intended, the research findings regarding the effects of cohesion and conflict have been varied. For example, as Amason (1996) details, the upper echelons stream has consistently proposed that conflict is dysfunctional for decision-making groups, while others have indicated that certain types of conflict may actually help the decision process (Murray, 1989; Amason, 1996; Amason and Sapienza, 1997). Similarly, the impact of cohesion on group outcomes has been varied (Janis, 1972; Bourgeois, 1980, 1985). Therefore, a more careful operationalization of the construct may sort out the linkage between smooth process and decision speed.

An alternative explanation may be that smooth group process works through increased confidence to act. The logic for this specification of the model comes from the "groupthink" literature (Janis, 1972). In essence, groups that experience extremely smooth process may develop interaction norms such that the ideas of team members quickly converge, with little or no dissent. What may occur in such teams is a self-reinforcing escalation of confidence. Team members may develop hubris with respect to the group decision based in part on the lack of disconfirming voices. While this scenario is clearly dysfunctional from the perspective of decision quality, it may help explain the strong linkage detected in this research between decision efficacy and decision speed.

## Conclusion

In a nutshell, Eisenhardt was on to something. Firms facing turbulent environments can take greater control over their decision-making processes by instituting certain tactics and by developing certain processes. Further, these TMTs can actually increase the speed with which they make decisions while simultaneously improving decision rationality. While the essence of Eisenhardt's arguments is correct, the findings of this research highlight the critical role theory testing plays in conjunction with inductive theory development research. Ultimately, it is the interplay of these two approaches to research over multiple iterations that leads the field to new insights and greater understanding. Just as inductive research seeks to clarify the questions that should be studied, and proposes potential linkages to be tested, so too deductive research should propose new directions for further study. It is to

this task that we now turn.

Figure 11.2 contains a modified model of fast decision-making based on the results of this cross-sectional study. The model is not complete, however, since there are many factors that could reasonably be expected to impact decision speed, but which were omitted from the model as originally proposed by Eisenhardt. Many of these factors have been alluded to in the preceding discussion, however, it is important to reiterate them here for ease of reference.

*Controls.* There are several compositional factors that might reasonably be expected to impact TMT decision speed. Chief among these is the cognitive capacity of the individual executives that comprise the TMT. Wally and Baum (1994) found that TMTs whose members had greater cognitive complexity were able to make quicker decisions. A second factor that may affect the speed of decision-making in the TMT is the propensity of executives to take risks. To the extent that TMT members are willing to "roll the dice" the decision process should progress more rapidly. Such teams are less likely to experience the "analysis paralysis" described by Eisenhardt. Wally and Baum (1994) also suggest the use of a team size control. This is consistent with earlier research that demonstrates the process difficulties of larger teams. A final control that should be included in subsequent studies of decision pace is the rate of change found in the firm's primary industry (note: Eisenhardt controls for this by virtue of conducting a single industry study, while Judge and Miller (1991) determined that this was an important contextual variable for strategic decision-making).

*Leader behavior.* Eisenhardt focuses considerable attention on the behaviors the CEO exhibits during times of stalemate (e.g., seeking counsel, instituting tie-breaker rules), but she does not incorporate the variety of other CEO behaviors that could reasonably be expected to impact the pace at which decisions occur in the TMT. For example, a transactional leader may develop in their TMT a very different process than an autocrat - one that most certainly would impact decision speed. The approaches detailed by Eisenhardt appear to be hybrids that incorporate some aspects of decentralization (some form of consultation with other members of the TMT), while still retaining a semblance of autocracy (ultimately, the CEO calls the shot). Neither of these tactics was found to be associated with increased decision speed. In the interest of informing future research efforts, possible explanations for these non-findings are offered below.

*Two-tier advice process.* The counselor tactic suggested by Eisenhardt was not something that the fast TMTs in our sample incorporated into their decision process. Indeed, in addition to failing to achieve statistical significance in the regression, the sign was reversed. There are two very plausible explanations of this non-finding: the first deals with way in which the "counselor" was conceptualized; and the second deals with the "tie-breaker" flavor of two-tier advice tactics.

Eisenhardt explains the "counselor" process she observed in the fast TMTs as the use by the CEO of an experienced member of the top management team who acted as a knowledgeable and unbiased sounding board. In their 1991 study, Judge and Miller conceived of the "counselor" as an external member of the board of directors. This highlights a fundamental flaw in the model proposed by Eisenhardt, and in the way we operationalized the counselor construct. A critical distinction future researchers should make in the conceptualization of the counselor centers on who that person is, more particularly, whether the counselor is internal to the TMT or an outsider. The reasoning for this is that other members of the top management team may react to the existence of a counselor very differently depending on the status of the advisor - internal vs external. The use by the CEO of an internal counselor is likely to be visible to other members of the team. Depending on the composition of the team, the individual motivations of team members, and a host of other factors, team members may react unfavorably to the increased influence the counselor appears to have with the CEO. There is some evidence for this scenario from Eisenhardt and Bourgeois' paper on politics and decision-making in TMTs. "(our meetings are) open and forthright" . . . "It's very open . . . we talk as a group, not committees" (1988: 752). One instance related in the paper described several team members voicing their displeasure at the coalition of three members (including the CEO) who tended to have off-line, but visible, conversations that were perceived to result in the decision being made. Certainly the reliance of the CEO on an internal counselor could be viewed by other TMT members in a similar light. The likely response to such a situation is bi-modal: (1) TMT members may decide they do not matter and thus decrease participation in decision-making; or (2) TMT members may deal with the influence of the counselor by forming a counter-coalition and employing various political tactics.

In contrast to the potential for dysfunctional behavior associated with internal counselors, the use of an external

counselor may better aid the decision process. First, the jealousy and feelings of devalue risked in the first scenario are unlikely when an outsider is used. The outsider is much less likely to be known, or visible to the TMT, thus the CEO can portray counselor-aided decisions as their own, and use other tactics (e.g., consensus with qualification) to mitigate the process loss that typically accompanies autocratic decision-making. Second, an external counselor is even more likely to be unbiased than the plateaued executive Eisenhardt describes in her study. As compared to the plateaued executive, the outsider really has very little at stake - they do not work for the firm, they may have little to no equity holdings in the firm, and are likely providing the advice for no other reason than friendship with the CEO. The implication of this goes beyond the reliability of the advice the CEO is likely to receive. The real impact on decision speed comes in the increased efficacy the CEO will feel when making decisions based on the advice of a person with no stake in the organization, or agenda to pursue.

Thus, in order to determine whether the counselor tactic is associated with more rapid strategic decision-making, it is necessary to separate internal from external advice systems. At a minimum, researchers should ascertain what the specific impact of the use of a counselor has on group process, politics, and CEO decision efficacy.

*Consensus with qualification.* In order to avoid prolonged dissensus, Eisenhardt found that fast TMTs specified that efforts to reach consensus would persist for a pre-ordained amount of time, after which the CEO would make the call. Again, our research findings did not support the role of this tactic in speeding decisions. There are two plausible explanations for this non-finding: (1) tie-breakers may homogenize decision duration, rather than minimize it; and (2) fast TMTs may rarely experience prolonged dissensus.

There is a fair amount of support for the idea that TMTs may routinize their decision processes over time. That is, decision-making techniques, if successful, may become a relatively permanent part of a team's repertoire of behavior. Indeed, Eisenhardt (1989) and others (Wally and Baum, 1994) argue that the development of experience-based intuition, and routines for decision-making may speed the process in some teams. The corollary to this argument is that routines may continue to be followed even in circumstances where they are dysfunctional. Habits may be formed based on early evidence of usefulness, but may persist in the absence of continued functionality.

In the present case, TMTs may have developed tie-breaker rules such as "consensus with qualification" and experience these to be effective ways of dealing with stalemate. One example of such a rule might be that the team agrees to discuss the various viewpoints surrounding an important decision issue for one month, after which they will spend an additional week to attempt to reach consensus on the proper course of action. If consensus is not forthcoming, the CEO will make the decision. Such a rule would certainly constrain the duration of major decisions to five weeks and most TMTs would consider this a fairly speedy process. The unintended consequence of such a rule, were it to become routinized, is the propensity of the TMT to take five weeks to make decisions even when the issues may be much more easily and quickly resolved. The structure introduced by the tie-breaker tactic could, therefore, actually lengthen the duration of decision-making in some instances, the end result being the homogenization rather than maximization of decision pace.

A second possibility exists that might also explain the non-finding for the "consensus with qualification" tactic. It is quite feasible that fast TMTs simply do not experience prolonged stalemates, and thus are not in a position to need or develop such tie-breakers. The results of our analysis lend some support for this view. Fast TMTs were very likely to depend heavily on real-time information, to use side-by-side comparison of alternatives, and to integrate current decisions into a coherent pattern of strategy. The use of these three "tactics" forces teams to deal in real time with all of the issues involved in making the decision. There are no time gaps or discontinuities which may lead to differential understanding of the issues. The process that emerges through the use of these three tactics may be much more objective, thus facilitating the rapid resolution of factual and perceptual differences amongst team members. Simply stated, fast decision-making teams may rarely get to point where they have occasion to utilize tie-breakers.

Finally, Eisenhardt specifies only two ways in which the CEO can actively deal with dissensus, however, there are many other means of conflict resolution that are not included in the model. An important way to distinguish between alternative conflict management styles may be the degree of passivity. Active management of conflict by the TMT should result in rapid decision-making.

*Smooth process.* Smooth process, as has been discussed above, is a fuzzy label that could encompass multiple constructs. In addition to cohesion, conflict, and consensus, smooth process might reasonably be interpreted to mean a lack of political behaviors within the TMT. A full model of decision speed would necessarily incorporate various political behaviors, discriminate between cognitive and affective conflict in the TMT, and measure cohesion and consensus separately. In this way, the field can determine with much improved precision exactly which sorts of processes are driving decision speed. The non-finding for smooth process reported here highlights this need.

*Decision speed.* The pace of decision-making is a multifaceted construct. One common conceptualization of decision speed is in terms of the absolute amount of time that passes between issue identification and the choosing of a course of action. Another way to think of pace is in terms of the *relative* speed with which a TMT makes decisions. Further, there are at least two ways to conceptualize relative speed: (1) are we quicker than our rivals?, and (2) are we quick enough to meet or exceed the rate of change in our environment? Future research should explore these variations on the theme of decision speed to determine which types of speed are most important to competitive advantage.

### **Managerial implications**

The results of this study hold important implications for management practice. In providing further empirical support for Eisenhardt's decision-making model, we can reiterate with additional confidence and increased precision the behaviors and strategies that managers can employ to make rapid decisions.

First, managers can be confident that quick decisions do not have to be low quality decisions. While this research does not directly measure decision quality, a more comprehensive decision process should reasonably lead to better decision outcomes (Wally and Baum, 1994). Top management teams that made very quick decisions were also able to consider multiple alternatives. Moreover, use of restricted search by some teams did not help to speed the team's decision. The key factor was the manner in which the TMTs went about comparing the alternative courses of action. Fast TMTs were able to look at several options concurrently, to quickly determine which options were of highest quality, and then to focus on just these few. In contrast, TMTs that looked at alternatives in a serial fashion were very slow to come to a decision.

Second, managers who are "up on things" are in a much superior position to make quick decisions. Eisenhardt suggests that there may be various ways TMTs can ensure that they are up to speed when the decision is at hand. The critical factor is for the managers in the top management team to have real-time access to key information about the state of the firm, what competitors are doing, and any important changes in the external environment. We propose that the utilization of nested information systems, and Internet notification services (e.g., automated daily searches based on key words) can help managers have the information they need at all times.

Third, managers need to attempt to make decisions in the context of previous actions. The ability to integrate current decisions with the overall decision history of the organization actually increases the speed with which executives make decisions. This is in addition to the obvious advantages an overarching integrated plan can provide a firm.

Finally, while our results did not support the role of smooth group process in facilitating decisions, it did not preclude the possibility that certain types of cooperative behaviors of TMTs might be functional. More study is needed to determine whether smooth process is a good thing for decision-making bodies, and if so in what ways.

In conclusion, it appears that the top management teams of firms will continue to face increasing levels of uncertainty and competitive pressure. TMTs that are able to quickly assess the competitive landscape and make good quality decisions in a timely fashion will provide their organizations with the best chance to succeed in the entrepreneurial millennium.

### **Notes**

- 1 One organization included in the sample had only 45 employees. Because this organization was not a start-up and met all other requirements of the research, it was deemed acceptable for inclusion in the study.
- 2 Although Hambrick and colleagues (1996) reported no significant correlation between action propensity and action speed, the constructs and measures used in their study differed substantially from our conceptualization of decision speed and confidence to act.

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## Appendix A

Selected studies of concepts related to TMT decision-making

Year	Study	Demographic concept	Associated decision concept
1975	Taylor	Age	Slow decision-making and increased information seeking during decision-making
1984	Dollinger Wagner, Pfeiffer, and O'Reilly	Education Job tenure heterogeneity	Tolerance for ambiguity Turnover, conflict
1988	Goodstein and O'Reilly	Past joint work experience	Trust and cohesion
	Goodstein and O'Reilly	Tenure	Trust and cohesion
1989	Zenger and Lawrence	Past joint work experience	Communication frequency
1990	MacCrimmon and Wehrung	TMT size TMT age	Lower communication frequency Risk aversion
1995	Bantel and Finkelstein	TMT size	Lower cohesion
1991	Haleblian and Finkelstein	TMT size	Lower cohesion, less communication, higher creativity, higher organizational performance
1991	Hitt and Tyler	TMT age	Risk aversion
1991	Jackson et al.	Heterogeneity	Decreased social integration
1991	Miller	Tenure	Restricted information gathering
1991	Smith	Education	Increased competitive response
1991	Smith, Grimm, Gannon, and Chen	Industry experience	Increased competitive response
1992	Jackson	Heterogeneity	Dissensus

1992	Wiersema and Bantel Wiersema and Bantel	TMT size Heterogeneity	Lower cohesion, lower communication frequency Use of more sources of information, more creative, decreased social integration
1993	Bantel	Education	Increased demand for detailed information
1993	Hambrick, Geletkanycz, and Fredrickson	Age	Solidification of executives mental models
1994	Smith et al.	TMT size	Communication formality
1994	Smith et al.	Experience heterogeneity	Formality of communication
1994	Wally and Baum	Education	Cognitive complexity
1995	Jackson, May, and Whitney	Heterogeneity	Increased variance in decision-making alternatives
1996	Hambrick, Cho, and Chen	Education heterogeneity	Increased actions, decreased action speed
	Hambrick, Cho, and Chen	Heterogeneity in organizational tenure	Increased actions
	Hambrick, Cho, and Chen	Functional heterogeneity	Decreased action speed
	Hambrick, Cho, and Chen	Education	Increased actions
	Hambrick, Cho, and Chen	Tenure in organization	Lower propensity to act
1997	Amason and Sapienza	TMT size	Increased cognitive and affective conflict
1998	Miller, Burke, and Glick	Cognitive diversity	Decision-making comprehensiveness long-range planning
1998	Papadakis, Lioukas and Chambers	CEO organizational tenure	Decentralization of decision-making
1999	Knight et al.	Heterogeneity	Decreased strategic consensus

## Appendix B

### Items and reliabilities

Variable	Items (five-point Likert-type)	$\alpha$
Real-time information	Every member of the TMT knows where our organization is in its progress toward our goals. This TMT continuously monitors how our organization is performing. Members of this TMT track our progress over time concerning our ideas and new developments.	.80

Year	Study	Demographic concept	Associated decision concept
	Multiple simultaneous alternatives	Our TMT develops an exhaustive set of alternatives before making important management decisions. Our TMT seeks advice from all the firm's functional areas when making important strategic decisions. Our TMT is extremely thorough in its evaluation of strategic alternatives.	.77
	Two-tier advice process	When the group cannot reach consensus easily, the CEO will often consult a senior member of the TMT to reach a decision. The CEO often makes decisions with the aid of one or two members of the TMT. All members of the TMT are actively involved in making important strategic decisions. (reversed)	.75
	Consensus with qualification	When members of the TMT disagree on an important decision, the CEO often has to step in to make the final decision. When TMT members disagree on an important decision, the CEO ends up listening to different viewpoints but making up his/her own mind.	.68
	Decision integration	We consider the impact of one strategic decision on the other strategic decisions we have made. We try to place strategic decisions into an overall pattern or plan. We make strategic decisions independent of our day-to-day operations. We consider each strategic decision in its own unique context. (reversed)	.76
	Accelerated cognitive processing	When the need arises to make key decision, the members of this TMT are already "on the same page." This TMT doesn't need to spend much time "gearing up" when a key decision issue is at hand. When making strategic decisions, we often have to re-familiarize ourselves with the key issues involved. (reversed) We are always ready to make key decisions when they need to be made.	.69
	Smooth group process	Members of the TMT get along with each other well. Members of the TMT really stick together. Members of this TMT are ready to defend each other from criticism by outsiders.	.81
	Confidence to act	The quality of this TMT's decisions gives me the confidence to act. I feel this TMT can solve any problem we encounter. I have confidence in the TMT's ability to make sound decisions. I believe this TMT's decision-making capabilities can lead this firm to achieve high performance.	.89
	Decision speed	This TMT moves quickly to make key strategic decisions. It takes this TMT too long to make important decisions. (reversed) This TMT routinely makes important decisions in under one month.	.71