New Strategy Implementation and Learning: Importance of Consensus

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ABSTRACT

This study examines the effects of consensus and resulting organizational learning on new strategy implementation. In doing so, we consider two challenges inherent in implementing new strategy: breaking and reestablishing organizational and individual routines and managing uncertainties and unexpected problems. By sampling 113 groups within a large company, we found that group performance can be lowest when consensus on strategy contents is medium (U-shape relationship between group consensus on strategy contents and group performance). We also found that the consensus on strategy contents – performance relationship is moderated by consensus on strategy implementation progress.

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Under frequent change of customer needs, technology, and competition, organizations need to continue to develop a new strategy and flexibly adapt to the new environments (Adner & Levinthal, 2004; Brown & Eisenhardt, 1997; Shimizu & Hitt, 2004). However, even with rigorous planning, a new strategy often encounters various problems and challenges in its implementation (Denrell & March, 2001; Mintzberg, 1990). Positive and negative feedback from the market provides important clues for organizations to adjust/redirect their strategy and improve performance (Crossan, Lane, & White, 1999; Schulz, 2002). Therefore, continuous learning plays a key role in implementing the new strategy successfully (Crossan et al., 1999; Prokesch, 1997) and to do so requires organizational members to share the common understanding of the new strategy (Crossan et al., 1999; Kellermanns, Walter, Lechner, & Floyd, 2005). Without any common ground, effective learning and adjustment of the strategy are unlikely to happen (Fiol, 1994; Huber, 1991).

In this sense, learning and consensus are both important elements for the successful implementation of a new strategy. However, research on strategy implementation, organizational learning, and consensus has rarely communicated with each other. Perhaps it is because strategy formulation and decision making have been historically regarded as more important than implementation (Barney & Zajac, 1994; Hickson, Miller, & Wilson, 2002; Mintzberg, 1990). Additionally, learning research has often emphasized on innovation (Nonaka & Takeuchi, 1995), adapting and diffusing relatively well defined practices (Argote, 1999; Szulanski, 1996; Tucker, Nembhard, & Edmondson, 2007) and applying past experience and knowledge to the next events in such occasions as M&As (Hayward, 2002). Limited attention has been paid to the on-going strategy implementation (Brown & Duguid, 1991 and Kale & Singh, 2007 are some exceptions). Moreover, the focus of consensus research has been on top management, whereas consensus in
relation to strategy implementation at the lower level was not well examined (Dess & Origer, 1987; Homburg, Krohmer, & Workman, 1999; Kellermanns et al., 2005; West & Schwenk, 1996).

This study examines the effects of consensus on organizational learning and resulting performance in the context of new strategy implementation. Implementing a new strategy is associated with two primary challenges: resetting organizational and individual routines developed for an old strategy (Huff, Huff, & Thomas, 1992; Pisano, Bohmer, & Edmondson, 2001; Stinchcombe, 1965) and overcoming various unexpected problems (Denrell & March, 2001; Mintzberg, 1990; Noble, 1999). We argue that the relationship between the degree of consensus on strategy contents and performance is not linear, but U-shaped. It is because medium level consensus may develop a false sense of consensus (we call “superficial consensus”), resulting in ineffective implementation of a new strategy. Moreover, we argue that the relationship is moderated by the degree of consensus on strategy implementation progress, to effectively share unexpected problems and solutions to the problems (Mintzberg, 1990).

The primary contributions of this study include the integration of the three research streams of strategy implementation, organizational learning, and consensus, which are closely related to each other but not well communicated. Particularly, this study contributes to the learning literature by paying specific attention to the importance of consensus. Although researchers have examined learning in an organization from various viewpoints, the importance of consensus as a foundation was often assumed and not explicitly discussed (Fiol, 1994 and Huber, 1991 are notable exceptions). Our empirical contributions include testing the hypotheses by sampling multiple groups composed of middle and lower level managers and employees from one organization (Markoczy, 2001).
In the following sections, we briefly review past studies associated with strategy implementation, organizational learning, and consensus. We then integrate these three streams of literature and develop hypotheses, followed by methods and results sections. Findings and their future implications are discussed in the last section.

LITERATURE REVIEW

Strategy Implementation

Although the importance of implementation has been recognized (Burgelman, 1983; Mintzberg, 1990), research on strategy implementation has been scattered in various areas, such as control and reward systems (Goold & Quinn, 1990; Simons, 1994), implementation tactics (Dutton & Ashford, 1993; Nutt, 1989, 1999), organizational politics (Narayanan & Fahey, 1982; Quinn, 1980), and employee training and motivation (Wright, Dunford & Snell, 2001). The fragmentation is partly due to the notion that strategy implementation is less important and less difficult than strategy development (Burgelman, 1983). It has been common belief that “people think of execution as the tactical side of business, something leaders delegate while they focus on the perceived ‘bigger issues’” (Bossidy & Charan, 2002: 6).

However, as the dynamics of market and competition intensify, the ability to flexibly respond to market changes becomes increasingly important (Shimizu & Hitt, 2004). As ex ante predictions of the market changes and competitive moves become more difficult, an organization needs to continue to adjust its strategy throughout its implementation efforts (Brown & Eisenhardt, 1997; Ghoshal, Bartlett, & Moran, 1999). It is in this context that researchers and practitioners started paying more attention to the importance of strategy implementation (Ghoshal et al., 1999). In fact, major strategy consulting firms that used to be famous for “big thinking”
such as McKinsey and Boston Consulting Group are actively pursuing clients’ needs for strategy implementation. “A strategy that is not implemented is merely a clever idea. We strive to ensure that our clients internalize the strategies we have developed together and organize to put them into practice. Often, we work alongside them to get the job done” (Boston Consulting Group website, 2003).  

Strategy implementation can be broadly defined as “the communication, interpretation, adoption, and enactment of strategic plans” (Noble, 1999: 120). Strategy implementation also includes on-going modification of the strategy through the implementation process (Noble, 1999: 120; also Mintzberg, 1990). Strategy implementation inherently requires learning and adjustment in relation to the strategy, but to date organizational learning researchers have not paid explicit attention to the link between learning and strategy implementation.

**Organizational Learning**

Organizational learning is often defined as processes and contents toward the development of *new* knowledge and understanding (Edmondson, 2002; Fiol & Lyles, 1985; Schulz, 2002). Although organizations can also learn from others (e.g., Kim & Miner, 2007), this study focuses on organizations’ learning from their own experiences. Learning is a tool for developing organizational intelligence (Schulz, 2002) and thus “in order to generate extraordinary value for shareholders, a company has to learn better than its competitors” (John Browne, CEO of British Petroleum, in Prokesch, 1997: 148). Under the conditions of rapid changes of market and competition, the importance of learning has widely recognized and researchers examined the processes and effects of organizational learning in such contexts as adopting new practices (Argote, 1999; Tucker et al., 2007) and managing alliances and M&As (Hayward, 2002; Kale & Singh, 2007).
Crossan et al. (1999) and Nonaka (1994) provide a good foundation for describing the multi-level processes of organizational learning. Individuals are those who learn and acquire new information from experiences (Nonaka, 1994). As members of an organization, individuals share their information and insight with other members, resulting in shared knowledge or organizational learning (Brown & Duguid, 1991; Nonaka, 1994). By sharing the interpretation through socialization, “richer understanding of the phenomenon is developed and new integrated approaches to solving problems are created” (Crossan et al., 1999: 529). Zollo and Winter (2002) argue that experience accumulation, knowledge articulation, and knowledge codification play a key role in organizational learning and resulting knowledge evolution. Extending their arguments, Kale and Singh (2007) find that the learning processes positively influence alliance success.

It is important to note that collective learning within an organization inherently involves diversion and conversion (Fiol, 1994: 404). At an individual level, learning leads to a variety of interpretations and insights due to the difference of organizational members’ background and perspectives (Huber, 1991). For the variety of interpretations and insights to be shared as organizational knowledge, organizational members also need to share a common anchor (Fiol, 1994; Huber, 1991). Unless the members have the same understanding of what new knowledge they seek or what they should improve, the individual learnings have no common threads and will be neither shared nor accumulated (Brown & Duguid, 1991; Fiol, 1994). However, importance of consensus on a new strategy as a common thread across individuals is often assumed and not explicitly discussed in many cases. In the context of strategy implementation, agreement on a new strategy should be a starting point of effective learning and successful implementation.
Consensus

Numerous studies have examined the relationship between strategic consensus and performance in an organization (Dess, 1987; Dooley et al., 2000; Homburg et al., 1999; Kellermanns et al., 2005). Researchers typically define consensus as the extent to which there is “general agreement” to a decision (Dess & Priem, 1995). By this definition, consensus is different from perception of consensus, as it is possible that organizational members erroneously believe they have high consensus (Janis, 1972). The construct of consensus has multiple dimensions (Wooldridge & Floyd, 1989). These include (1) degree, (2) scope (i.e., who participates in consensus), and (3) content (e.g., goal, method, and external environment) (Dess & Priem, 1995; Wooldridge & Floyd, 1989). Most of the research has examined the degree and content dimensions but has limited the scope to top management team (TMT) members.

The argument that top management consensus leads to consistent strategy implementation and thus better performance sounds intuitively reasonable. The empirical results, however, have been rather mixed (Dess & Origer, 1987; Dess & Priem, 1995; Kellermanns et al., 2005; West & Schwenk, 1996; Wooldridge & Floyd, 1990). The mixed empirical results may be attributed to a narrow focus on top management that ignores consensus at lower levels of the organization where strategy is actually implemented (Homburg et al., 1999; Markoczy, 2001; Wooldridge & Floyd, 1990). As discussed, when considering new strategy implementation, it makes more sense to examine consensus and learning at lower level managers and employees (Huber, 1991; Markoczy, 2001; Wooldridge & Floyd, 1990). While the top management and its decisions matter, targeted performance outcomes may be achieved only when the decisions are appropriately shared and continuously executed by the lower level managers and employees (Floyd & Wooldridge, 1992).
In sum, it is fair to argue that strategy implementation, organizational learning, and consensus are closely related. However, to date, these lines of literature rarely conversed with each other explicitly. In the next section, drawing on and integrating them, we develop hypotheses predicting the relationship between consensus and group performance in the context of new strategy implementation and organizational learning.

HYPOTHESES DEVELOPMENT

To best utilize the individuals’ intuitions and insights in the process of strategy implementation, communication among organizational members plays an important role (Crossan et al., 1999). Through communication, members codify and share their experience and develop organizational level knowledge that is applied to better strategy implementation (Kale & Singh, 2007). However, effective communication and resulting organizational learning will not occur naturally (Huber, 1991). To accumulate experience and knowledge, organizational members share a common ground (i.e., strategy); otherwise, the intuitions and insights will be fragmented and not well linked (Fiol, 1994; Huber, 1991). In this case, “organizations often do not know what they know” (Huber, 1991: 100). Accordingly, agreeing on the new strategy is the prerequisite of successful new strategy implementation and resulting favorable outcomes.

Past research often examined consensus on broad organizational goals such as net profit and sales growth (Bourgeois, 1980; Dess, 1987). As the target of this research is the middle and lower level managers and employees, we first examine effects of consensus in relation to specific strategy contents (Kellermannns et al., 2005; Homburg et al., 1999), equivalent to what Dess (1987) calls competitive methods. Although process of implementation is also important (Burgelman, 1983; Mintzberg, 1990), uncertainties and unexpected problems make it difficult to
specify the implementation process in detail (Kellermannns et al., 2005). Accordingly, we examine the effects of consensus on implementation progress (e.g., how well strategy is being implemented, what problems members encounter), based on which members obtain and share knowledge and make necessary adjustment (Crossan et al., 1999).

High consensus on the contents of a new strategy and resulting effective learning are important for successful strategy implementation but may not take place easily. Implementing a new strategy requires resetting organizational and individual routines developed for an old strategy (Huff et al., 1992; Pisano et al., 2001). Accordingly, in the face of a new strategy, all the front-level employees may not immediately buy-in to the new strategy, even if top management communicates the new strategy with front-level employees and try to convince them of the new strategy’s importance (Floyd & Wooldridge, 1992; Guth & MacMillan, 1986). Some of the employees follow the instruction given by top management, while others may disagree and adhere to their current routines. When a group is composed of employees with different attitudes toward the new strategy, consensus on the contents of the new strategy is very low. However, group performance may not immediately decrease because a strategy is a long-term plan and the old strategy, while approaching obsolescence, is not completely ineffective. In fact, by modifying or resetting organizational and individual routines developed for the old strategy, performance may, at least in the short-run, decline (Huff et al., 1992; Stinchcombe, 1965). While little teamwork and/or synergy due to sharing new knowledge is expected, a group may perform reasonably well when individual members vigorously pursue their own way of implementing either the new strategy or the old strategy.

In the meantime, when each group member agrees on the new strategy, the consensus within the group is high. Although abandoning established routines and rebuilding new routines
is challenging and may create problems (Huff et al., 1992; Stinchcombe, 1965), high consensus will contribute to effectively sharing and communicating ideas, problems, and solutions as a group (Brown & Duguid, 1991; Crossan et al., 1999; Kale & Singh, 2007). Brown and Duguid (1991) point out that effective learning takes place when group members communicate and interact with each other closely and develop “communities of practice.” Other research on organizational learning continues to provide such evidence directly and indirectly (e.g., Kale & Singh, 2007; Pisano et al., 2001; Tucker et al., 2007). High consensus on the new strategy is likely to positively contribute to effective organizational learning, strategy implementation, and resulting performance.

When group members show some, but not necessarily strong, agreement on the new strategy, members may erroneously believe that they share the common ideas about the new strategy (Janis, 1972). Top management may also think that the strategy is, overall, shared appropriately and will stop making additional efforts to communicate the strategy with front-level employees. However, acting upon this “medium” level of consensus can be risky because the agreement may be superficial and not deep enough to develop clear common grounds. Faced with problems or unclarities in implementing the new strategy, group members often interpret or even invent their own ways (Brooks, 1995). To the extent that the new strategy is vaguely agreed upon, consistent coordination and implementation are hard to achieve, which will develop confusion and conflicts among those who thought they “agreed” (Huber, 1991). Supporting this idea, Alexander (1985) reports that the importance of communication was most frequently mentioned by CEOs in relation to strategy implementation problems. Research on group-think also suggests that it is not consensus per se but premature consensus that is problematic (Aldag & Fuller, 1993; Park, 2000). If the old strategy and implementation routines are abandoned before a
clear consensus on the new strategy is in place, a group as well as individual members will be stuck in the middle and unable to effectively implement either the new strategy or return to operate under the old strategy.

Accordingly, at the group level where strategy is implemented, we argue that the relationship between group level consensus on strategy contents and performance is curvilinear, and, furthermore, is U-shape. Formally the following hypothesis can be obtained:

_Hypothesis 1: The relationship between consensus on strategy contents among group members and group performance is U-shaped. Performance is lowest when consensus is medium level and performance is higher either when consensus is low or high._

As discussed as the other major challenge, new strategy implementation often involves unexpected problems and challenges, and thus on-going learning and adjustment of the strategy is critical (Crossan et al., 1999; Denrell & March, 2001; Kale & Singh, 2007). Strategy as well as its implementation processes need to be continuously renewed with new insights and knowledge (Kale & Singh, 2007; Mintzberg, 1990; Shimizu & Hitt, 2004). To effectively share the necessary adjustments and solution to unexpected problems, it is important for members to have a common idea in terms of the actual progress and problems of implementation (Alexander, 1985; Fiol, 1994). The variety of insights will be best utilized when the variety is integrated toward the same goal (Fiol, 1994; Huber, 1991). The individual level learning will be accumulated and combined to develop innovative solutions to solve problems and challenges that unexpectedly appear in the implementation processes (Beer & Eisenstat, 2000; Brown & Duguid, 1991).

Meanwhile, developing consensus on actual implementation progress among managers and employees can also be difficult (e.g., Welch, 2001). Similar to consensus on strategy
contents, individual level differences resulting from personal views and experiences are a major factor leading to the development of different interpretations of the same phenomena (e.g., Fiske & Taylor, 1984). Those who perform relatively better may perceive less problems and less necessity to modify the strategy, while those who perform poorly or do not like the strategy may perceive the strategy in a more dismal way and argue major modification. When implementation progress and related problems are not well agreed upon, individual insights will not be shared and modifications will be inconsistent. Expected results will be hard to come by.

Thus, when the degree of consensus is high regarding both the strategy contents and the strategy implementation progress, members can consensually and collaboratively adjust the strategy and their implementation actions (Brown & Duguid, 1991; Crossan et al., 1999; Kale & Singh, 2007). Conversely, fragmentation and conflict in perceiving the implementation progress will prevent effective modification of the strategy, even when the strategy contents are well shared, resulting in inconsistent and ineffective implementation. These assertions can be summarized as the following hypothesis:

_Hypothesis 2: The curvilinear relationship between consensus on strategy contents among group members and group performance is moderated by the consensus on strategy implementation progress._

**METHODS**

**Research Setting and Sample**

The data used in this research were collected as part of a larger study. The data came from a large office equipment company (hereby called Yamato, a pseudonym) whose headquarters is located in Tokyo, Japan. In its sales unit, Yamato has six departments based on
the location and type of customers. Below the departments exist 57 divisions, which have 156 groups. We use the groups as a unit of analysis in this study.

While using data from only one company constrains the generalizability of the results, we selected this approach mainly for the following three reasons. First, Yamato was in the middle of a strategy transition. To maintain future growth and its competitive position in this maturing industry, Yamato sought to emphasize high-margin services such as designing and consulting. To lead the company in a more service-oriented direction, Yamato started a new strategy internally called “Big 21” (pseudo name) in April 2004. This is an ideal setting in which we can examine how the degree of the agreement by organizational members can influence the implementation and performance. Second, the industry is very competitive. Although Yamato has been strong in serving large corporate customers, competitors have been aggressively challenging Yamato. It is crucial for front-level sales representatives and managers to flexibly respond to competitors’ unexpected moves and effectively adjust and implement the strategy. Third, past consensus research has often been criticized by its global measures of strategy (West & Schwenk, 1996), focus on corporate-level performance, and potential methodological biases due to self-evaluating performance data (Homburg et al., 1999). As Yamato has more than 100 sales groups across the country and agreed to provide group level objective performance data, this research setting provides a valuable opportunity to fill these gaps. Yamato also allowed us to interview multiple managers and employees at various levels. By incorporating company-specific strategy issues and comparing groups within the same organization, the design of this study controls for the unobserved heterogeneity and other noises embedded in multi-company design and provides high internal validity.
We collected key data associated with consensus among middle or lower level managers and employees with a survey method. To construct a survey that correctly reflects the idiosyncratic strategy of Yamato (West & Schwenk, 1996), we involved insiders and carefully took multiple steps including a test survey. To facilitate the response of busy sales representatives, the survey was conducted through the intra-network of Yamato in early August in 2005, a period when business activities decrease due to summer vacation. Among 1405 members, we received 1022 responses, in which a response rate was of 73%. Due to the unavailability of group level performance for some groups, the final sample consists of 113 groups, in which response rate was 74% (797 responses out of 1087 members).

**Dependent Variable**

In contrast to studies that use subjective measures, the dependent variable of this study is the financial performance of each sales group. Performance is measured as the ratio of the actual gross profit of the hardware and one-time service revenue (e.g., consultation, designing configurations, installation) over the preset target gross profit goal. This metric has been used in the company with continuous refinements and proved to be reliable. Using this metric allows us

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1 First, we received a three-hour informational briefing by a manager in the strategic planning division regarding the market conditions and Yamato’s new strategy. We then interviewed managers and employees to increase our understanding of the new strategy and actual implementation processes (including issues and problems). We visited six departments and interviewed a total of 24 managers and sales representatives, as summarized in Table 1. Each interview took between one and two hours and all interviews were tape-recorded. The knowledgeable planning division manager attended all the interviews. His attendance and assurance helped diminish interviewees’ concerns about discussing internally sensitive issues with outsiders. The manager also helped us to clarify or understand various points after each interview. Second, after the interviews, a first draft of the survey was developed. One person developed a draft and all the people (including the planning manager) who attended the interviews spent approximately three hours discussing and examining the objectives, contents, and wording of each survey item. Third, once the draft was completed, a pre-test was conducted by 36 managers and sales representatives in six different departments. This pre-test and feedback from the pre-test helped us to identify items that were not clear to respondents. We had one more meeting to incorporate the resulting feedback to finalize the survey.

2 To maintain the anonymity of survey respondents, the only data available to check non-response bias was age. A Kolmogorov-Smirnov test (Siegel & Castellan, 1988) showed that respondents (average age = 42.4) were relatively older than non-respondents (average age = 38.3), with a p-value less than 0.01. Further inquiry indicated that the sales organization includes also administrative assistants who are typically young women. Administrative assistants did not actively participate in the survey as “we are not sales reps.”
to control for the difference of market conditions or skill levels across the groups. Using objective data is important and valuable to exclude the potential perceptual biases and common method variance problems.

The time frame for the performance data is the first half of the company’s fiscal year 2005, which is April through September. As the survey was conducted in early August in 2005, the time frame of the performance does not guarantee temporal precedence. We discussed this issue with an executive and the planning manager of Yamato and decided to use the data for the following reasons. First, while specific sales tactics, such as discounts that can be offered to particular customers, were discussed on a daily or weekly basis, major issues associated with the strategy were intensively explained and discussed in the beginning of the fiscal year (April) and to a lesser degree in the beginning of the second half of the year (October). Thus, the degree of employees’ agreement of key strategic issues in August is unlikely to differ significantly from their understanding in April. It is also possible that the responses in August are less likely to be biased by recency effects than those in April or May, and thus reflect fundamental understanding of the strategy that consistently influence members’ behaviors. Second, historically, the last month of each half of the fiscal year (i.e., September and March) is the most important period for Yamato. In almost all groups, those months account for a large volume of sales, sometimes as much as 20~25% of all sales of the half fiscal year. Thus, while it will not be perfect, the semi-annual period containing the September data will reasonably reflect the sales behaviors based on the perceptions of group members measured in August. Finally, we considered using performance data for the second half of the fiscal year (October through March) to assure the temporal order. However, as the competitive environment of the industry continues to intensify, Yamato repeatedly restructures its organization on a semi-annual basis. Accordingly, complete
matching of the survey data with performance data from the second half-year period would be
difficult. Further, new instructions based on the past performance data in the early second half-
year period might change the understandings and perceptions of individual members.
Considering the three reasons above, we concluded that the April-September performance period
was the best objective data available.\(^3\)

**Independent Variable**

Much of the past research on consensus among top management examines the influence
of consensus on broad organizational goals and means (Bourgeois, 1980; Dess, 1987; West &
Schwenk, 1995). However, strategy is typically idiosyncratic to a particular organization (West
& Schwenk, 1995) and learning takes place in the particular context in relation to the particular
objective (Brown & Duguid, 1991). Accordingly, we focus specifically on the new strategy of
Yamamoto (Homburg et al., 1999; West & Schwenk, 1995). All independent variables were
measured with a survey on a five-point Likert-type scale, coded 5 for “strongly agree” and 1 for
“strongly disagree.” All of the items as well as the scale we used are presented in the Appendix.

*Consensus on strategy contents* was measured with five items that capture the importance
of customer relationship building in relation to sales outcomes. With these five items, we
examined the degree of consensus in terms of relative importance of the different dimensions of
“Big 21” (Dess, 1987; Kellermanns et al., 2005). Similarly, *consensus on strategy
implementation progress* was measured with nine items that capture current status of the new
strategy implementation in terms of customer relation building activities as well as the degree of
internal coordination to facilitate the relation building. We examined the degree of consensus in

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\(^3\) We asked to collect the second half data from the largest department for validation. The department used to have
47 groups in the first half of 2005. Out of 47, five groups were deleted and six new groups were added. We were
also informed of a move of a number of people across groups. When we compared the performance results of the
first half and second half of the 42 groups we were able to match, the correlation was 0.49 (p<0.001).
terms of how group members perceive the current progress of “Big 21” in these dimensions. These items were also developed based on interviews, discussions with the planning manager, and feedback from the pre-test. Consistent with studies on strategic consensus (e.g., Dess, 1987; Kellermanns et al., 2005; West & Schwenk, 1996), we operationalized these variables as the sum of the standard deviation for each item within a group. We subtracted the value from positive constants so that a high value indicates a high degree of consensus (e.g., West & Schwenk, 1996).

**Control Variables**

To exclude the alternative explanations and confounding effects of factors beyond our interest, we included four types of control variables. *Average organizational tenure* and *average tenure in the group* of members of each group were included as they will reflect the degree of exposure to implicit organizational and group norms (i.e., a common thread), which may not be reflected in the survey items and may influence performance. Both variables were obtained in the cover sheet of the survey. Organizational tenure was selected by each respondent with values ranging from 1 to 8 that define tenure in five-year intervals (i.e., 1, less than five years, through 8, equal to or greater than 30 years). Tenure within a group was similarly measured with values ranging from 1 to 5 (1, less than one year; 2, one~three years; 3, three~five years; 4, five~ten years; 5, equal to or greater than ten years). As described earlier, Yamato frequently changes its organizational structure. Therefore, respondents were instructed to assume that they belong to the same group when their target market and contents of the activities remained the same even if the name of the group changed. *The number of group members* was also included because the performance of the smaller groups may fluctuate because of the exceptional performance of a few individuals. Finally, five *dummy variables* were included to control for the potential environmental and other differences in the six different departments.
RESULTS

The descriptive statistics and intercorrelation matrix are presented in Table 2. The relatively high correlations among independent variables imply some concern about multicollinearity, particularly as we include product terms for examining moderating effects. To minimize the potential multicollinearity problems, we centered all the independent variables (Cohen, Cohen, West, & Aiken, 2003). We checked every model and found that the largest variance inflation factor (VIF) is less than 10 and that the average VIF is not significantly higher than 1 (Cohen et al., 2003).

We used ordinary least square (OLS) models to examine the hypotheses. Model 1 includes only control variables. Model 2 includes all independent variables and control variables without any squared or product terms. Hypothesis 1 predicts a U-shape curvilinear relationship between consensus on strategy contents and performance. To test the curvilinear relationship, we included a squared term of the consensus on strategy contents in Model 3, in which the coefficient of consensus on strategy contents squared is positive and statistically significant. Therefore, Hypothesis 1 was supported.

Hypothesis 2 predicts moderating effects of consensus on implementation progress on the curvilinear relationship between consensus on strategy contents and performance. To test this effect, we added the product term between consensus on strategy contents squared and consensus on implementation progress and the product term between consensus on strategy contents and consensus on implementation process to Model 3 (Cohen et al., 2003: 292). Model 4 shows that
the coefficient of the product term between consensus on strategy contents squared and consensus on implementation process is positive and statistically significant, suggesting that the curvilinear relationship is moderated by the consensus on implementation progress. Hypotheses 2 also received support.

To facilitate understanding of these relatively complex relationships, these statistically significant interaction effects are illustrated in Figure 1, using the range of plus (high) and minus (low) one standard deviation from the mean (Cohen et al., 2003). The figures provide visual support for the hypotheses. Further implications are elaborated in the discussion section.

DISCUSSION

This study examines the effects of consensus and resulting organizational learning on new strategy implementation. The primary contributions of this study include the integration of the three research streams of strategy implementation, organizational learning, and consensus. Particularly, this study contributes to the learning literature by paying specific attention to the importance of consensus (Fiol, 1994; Huber, 1991). In doing so, we consider two challenges inherent in implementing new strategy: breaking and reestablishing organizational and individual routines (Huff et al., 1992) and managing uncertainties and unexpected problems (Denrell & March, 2001; Mintzberg, 1990; Noble, 1999). Our empirical contributions include extending the consensus literature and testing the hypotheses by sampling multiple groups composed of middle and lower level managers and employees from one organization (Markoczy, 2001), which excludes various noises threatening internal validity.

Drawing on and extending the learning and consensus literature, we argue that consensus on both strategy contents and strategy implementation progress is important and influences the
strategy implementation and resulting performance. We hypothesize that group performance can be lowest when consensus on strategy contents is medium (U-shape relationship between group consensus on strategy contents and group performance). We also hypothesize that the consensus on strategy contents – performance relationship is moderated by consensus on strategy implementation progress.

Our hypotheses were largely supported, as shown in Figure 1. The results remind us of the two major challenges in implementing new strategy. First, top management needs to fully convince front-level managers and employees of the importance and effectiveness of the new strategy. Given that front-level employees are accustomed to activities associated with the old strategy and develop mindsets and routines consistent with the old strategy, breaking the routines and rebuilding new routines may be difficult and risky (Guth & McMillan, 1986). Stinchcombe (1965) called this risk “liability of newness.” Moreover, as the curvilinear U-shape relationship in Figure 1 shows, compromising and being satisfied with “medium” consensus could be even more dangerous than not being able to obtain consensus at all (low consensus). The medium level consensus can be an indication of superficial agreement to the new strategy among front-level employees (Aldag & Fuller, 1993; Janis, 1972; Park, 2000). To the extent group members erroneously perceive that they agree on the new strategy, the fact that they do not agree on many parts of the new strategy results in confusion and inconsistencies in rebuilding new routines for the new strategy (c.f., Crossan et al., 1999; Huber, 1991).

Second, new strategy implementation often encounters unexpected problems and setbacks (Denrell & March, 2001; Mintzberg, 1990; Noble, 1999). Thus, successful implementation requires incorporating feedback from the market, clarifying the problems, and flexibly adjusting the new strategy (Kale & Singh, 2007; Mintzberg, 1990). In other words,
agreeing on the initial strategy contents is important but not sufficient for successful strategy implementation. Facing realities and sharing common understanding of the implementation progress and problems is also important. Otherwise, prioritizing problems and directing strategy modification will become inconsistent and efforts to do so can either be wasted or result in conflicts (Crossan et al., 1999). In this sense, developing consensus on the progress in the process of implementation is as important as consensus on strategy contents before implementing the strategy. The results of this study clearly present the importance of a common ground (i.e., consensus) among organizational members, which was often taken for granted and not well articulated, to effectively transform individual level learning to organizational level learning (Fiol, 1994; Crossan et al., 1999; Huber, 1991).

An interesting and unexpected finding is that performance is highest when both consensus on strategy contents and consensus on progress are low, as shown in the second graph in Figure 1. Given that the performance data are only 18 months after Big 21 started, the results indicate that short-term results of a new strategy are not necessarily more favorable than those of old strategy even if the new strategy is well agreed at a group level and vigorously pursued. The results reconfirm that breaking established routines and developing new routines are costly, particularly in the short-run (Stinchcombe, 1965). The results indicate another challenge for top management: to manage strategy change while maintaining performance.

**Research and Managerial Implications**

This study provides an important implication to the learning research and other streams of research that incorporates organizational learning such as dynamic capability research (Eisenhardt & Martin, 2000). As Fiol (1994: 404) point out earlier as an “apparent paradox,” organizational learning inherently involves diversion and conversion. Unless the members have
the same understanding of what new knowledge they seek or what they should improve, the diverse individual learnings have no common threads and will be neither shared nor accumulated (Brown & Duguid, 1991; Fiol, 1994; Huber, 1991). However, the importance of consensus or common framing received limited attention in the literature. As a result, failure to learn is often attributed to (1) superstitious learning (Levitt & March, 1988) where individuals and organizations learned “wrong” knowledge and (2) individual level learning was not appropriately shared due to organizational politics and psychological safety problems (Edmondson, 1999; Schulz, 2002). This study provides another important reason for the learning failure. Individual level learning is not shared or shared wrongly when consensus is not built for the learning objective. Without consensus, potentially important individual level insights may be largely wasted. Although we acknowledge that learning is not always positive (Huber, 1991) and start paying attention to the negative outcomes of learning (Haas & Hansen, 2005; Finkelstein & Halebian, 2002), lack of clear consensus can be more prevalent and needs more research. By further exploring the importance of consensus that becomes a common thread and transforms diverse individual insights into organizational knowledge (Fiol, 1994), we can broaden and deepen our understanding of organizational learning and failure in organizational learning.

The results of this study also provide several direct implications for managers. First, the results reconfirm that organizational performance is influenced not only by top managers but also by lower level managers and employees. In a competitive and uncertain environment, flexible and effective implementation plays a key role in achieving higher performance. Top managers should pay close attention to the importance of strategy implementation, in addition to that of strategy formulation (Barney & Zajac, 1995; Bossidy & Charan, 2002). Second, to manage effective implementation, explaining new strategy and facilitating common understanding before
implementation is important but not sufficient. Top managers also need to pay attention to how the implementation progress is perceived and shared by lower level managers and employees in the process of implementation. As Figure 1 shows, high consensus on strategy contents with low consensus on implementation progress results in the worst performance, by rigidly sticking to the initial plan and failing to effectively modify the strategy. Third, the incidence of high performance when both consensus on strategy content and consensus on implementation progress are low suggests one of the most important challenges for top management in initiating strategic change. When initiating strategic change, initial results are unlikely to be favorable due to liability of newness in establishing new routines and unexpected problems inherent in new strategy (Denrell & March, 2001; Mintzberg, 1990). In the face of the initial problem, top managers need to evaluate whether the results are a temporary setback or an indication of a fundamental flaw in the new strategy (Shimizu & Hitt, 2004). The decision is a critical one, as premature withdrawal can terminate valuable potential in the new strategy, while too much commitment only exacerbates losses and problems (Adner & Levinthal, 2004; Denrell & March, 2001; Shimizu & Hitt, 2004).

It is notable that the data for this study was obtained from a company in Japan, where consensus has been argued to be at the heart of management philosophies (e.g., Dess, 1987). Even still, we found enough variance of consensus to explain differences in group performance. The variance may not be surprising as front level managers and employees are faced with changing environments through customer pressures and competitive forces. Meanwhile, the results also confirmed that consensus is important for successful new strategy implementation. It is speculated, accordingly, that high velocity environments may widen the gap in terms of implementation effectiveness between the companies that stress the importance of consensus and
those that do not. Additionally, the U-shape curve shown in Figure 1 may partially explain why some Japanese management systems (e.g., TQC) that seem easily transferable are often hard for US companies to adopt and successfully deliver expected results. We speculate that superficial consensus in US companies often misled both top and lower managers and resulted in failure and abandonment of the promising management system.

Limitations

This study also has limitations that need to be supplemented by future research. The most critical one may be the limited generalizability posed by using groups from only one Japanese company. To the extent that the unique external and internal conditions of the company are reflected in the results, the findings may not be generalizable to other organizations or contexts. However, based on our experience and observations, Yamato is not substantially different from other Japanese or US companies. The intense competition in Yamato’s industry, for example, may be more of a norm than an exception in the current environment. Moreover, our focus on one company allows us to control for various confounding factors and assure internal validity in examining the consensus-performance relationships. Future studies should extend the findings of this research and examine the generalizability of the findings, possibly using a sample of firms in US or other countries. Another limitation is the temporal precedence of the independent variable (survey data) to dependent variable (performance data). As the performance data reflect April-September results and the survey was conducted in early August, the causal relationship cannot be perfectly assured. Our discussion with managers in Yamato and other practical constraints convince us that the performance reasonably reflects the effects of strategic consensus among group members. Still, the results need to be interpreted with caution.
In conclusion, this study extended the literature of strategy implementation, organizational learning, and consensus both theoretically and empirically. The results indicate important challenges for managers to pursue successful implementation of new strategy under a changing environment.
REFERENCES


Table 1
Interviewees

<table>
<thead>
<tr>
<th></th>
<th>Executive</th>
<th>Department Manager</th>
<th>Division Manager</th>
<th>Group Manager</th>
<th>Sales Representative</th>
<th>Total</th>
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<tr>
<td>Headquarters</td>
<td>2</td>
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<td></td>
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<td>2</td>
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<td>Department A</td>
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<td>1</td>
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<td>2</td>
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<td>1</td>
<td></td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Department C</td>
<td></td>
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<td>1</td>
<td></td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Department D</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Department X a</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>10</td>
<td>24</td>
</tr>
</tbody>
</table>

a Department X is officially a sales subsidiary. CEO (Department manager) is sent from Yamato. We initially interviewed people at department X to comprehensively understand the competitive environment as well as internal issues of Yamato. As the target customers are different and their strategic initiative was still focusing on hardware sales, we excluded Department X from our sample.
### TABLE 2

Descriptive Statistics and Correlations $^a$

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tr>
<td>1. Group performance</td>
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<td>.49</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>2. Consensus on strategy contents</td>
<td>.92</td>
<td>.18</td>
<td>-.09</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Consensus on implementation progress</td>
<td>.83</td>
<td>.16</td>
<td>-.05</td>
<td>.51***</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4. Organizational tenure</td>
<td>4.1</td>
<td>.90</td>
<td>-.26**</td>
<td>-.12</td>
<td>-.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Group tenure</td>
<td>2.8</td>
<td>.76</td>
<td>.08</td>
<td>.05</td>
<td>-.09</td>
<td>-.00</td>
<td></td>
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<tr>
<td>6. Group size</td>
<td>9.4</td>
<td>7.0</td>
<td>.00</td>
<td>.24**</td>
<td>.17†</td>
<td>.05</td>
<td>.03</td>
</tr>
</tbody>
</table>

†$p < .10$

*$p < .05$

**$p < .01$

***$p < .001$

a. dummy variables are not included.
### TABLE 3

Results of OLS Regression Models

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3 (H1)</th>
<th>Model 4 (H2)</th>
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</thead>
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<tr>
<td>Intercept</td>
<td>1.64*** (.26)</td>
<td>1.67*** (.28)</td>
<td>1.42*** (.27)</td>
<td>1.29*** (.27)</td>
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<tr>
<td>Organizational tenure</td>
<td>-.22*** (.05)</td>
<td>-.23*** (.06)</td>
<td>-.20*** (.05)</td>
<td>-.16** (.05)</td>
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<tr>
<td>Group tenure</td>
<td>.01 (.05)</td>
<td>.02 (.06)</td>
<td>.03 (.05)</td>
<td>.03 (.05)</td>
</tr>
<tr>
<td>Group size</td>
<td>.02† (.01)</td>
<td>.02 (.01)</td>
<td>.02† (.01)</td>
<td>.01 (.01)</td>
</tr>
<tr>
<td>Consensus on strategy contents</td>
<td>.19 (.26)</td>
<td>.01 (.26)</td>
<td>-.32 (.28)</td>
<td></td>
</tr>
<tr>
<td>Consensus on implementation progress</td>
<td>.08 (.30)</td>
<td>.02 (.28)</td>
<td>-.28 (.30)</td>
<td></td>
</tr>
<tr>
<td>(Consensus on strategy contents)^2</td>
<td>2.53** (.74)</td>
<td>1.09 (.09)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consensus on strategy contents x Consensus on implementation progress</td>
<td>3.27* (1.50)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Consensus on strategy contents)^2 x Consensus on implementation progress</td>
<td>7.92* (3.88)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>3.58**</td>
<td>3.18**</td>
<td>4.28***</td>
<td>4.57***</td>
</tr>
<tr>
<td>R²</td>
<td>.21</td>
<td>.24</td>
<td>.32</td>
<td>.38</td>
</tr>
</tbody>
</table>

†p < .10  
*p < .05  
**p < .01  
***p < .001  

Maximum VIF of a variable = 2.50 (Model 4)  
a. Values are unstandardized coefficients and standard errors are in parentheses. n=113, dummy variables are not shown.
Figure 1
Visualization of the Curvilinear and Moderating Effects

H1: Curvilinear relationship between consensus on strategy contents and performance

H2: Moderated curvilinear relationship between consensus on strategy contents and performance by consensus on implementation progress
APPENDIX

Questionnaire Items and Scales

Strategy contents (5 items, 1 strongly disagree; 5 strongly agree)

1) “Big 21” emphasizes sales growth more than cost savings.
2) Building close relationships with customers increases hardware sales.
3) Pursuing “Big 21” and building closer customer relationships is more important than increasing short-term sales.
4) The goal of the sales group is always the quantity of hardware we sell, regardless of what “Big 21” says.
5) The quantity of hardware we sell is more important than the quality of relationship we develop with customers.

Implementation progress (9 items, 1 strongly disagree; 5 strongly agree)

1) After “Big 21” started, our sales approaches began emphasizing more on building customer relationships.
2) Sales representatives are successfully developing closer relationship with key customers.
3) Sales representatives do not have enough time to follow and examine the change of customer needs.
4) Developing closer relationship with customers is an additional task that overloads sales representatives.
5) Organizational support systems for sales representatives are not effectively utilized.
6) Under “Big 21,” we are spending more time on internal work than on customers.
7) Sales groups communicate and work well with support groups to pursue “Big 21”.
8) “Big 21” increases peripheral work and decreases actual sales time.
9) Due to lack of support, “Big 21” results in overloading sales representatives.