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AN EXPLORATORY STUDY OF THE
FACILITATORS AND IMPEDIMENTS TO
SHARING PRACTICES BETWEEN TEAMS

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# INTER-TEAM TRANSFER OF KNOWLEDGE:
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# TO  SHARING PRACTICES BETWEEN TEAMS

## ABSTRACT

Facilitators and impediments to inter-team transfer of practices were investigated using

qualitative analysis of multinational interviews and review of literature.  An internal organization

knowledge transfer model is developed and propositions concerning emergence, identification

and transfer of practices between teams are proposed.  Contributions and implications for theory

and research are discussed.

Key Words:          **Teams;  Knowledge;  Best Practices**

Scholars and practitioners have become increasingly interested in the study of organizational knowledge and competencies. A recent focus within this literature is the managed capture and transfer of successful practices, standard operating procedures, and routines. This increased interest is concurrent with the emergence of the view of the firm as knowledge-based (e.g. Conner, 1991; Kogut & Zander, 1992, 1996; Conner & Prahalad, 1996) and the idea that competitive advantage is built around proprietary knowledge and competencies (Nonaka & Takeuchi, 1995). Relatively few empirical studies have been done in this area, and those which have been done have typically been macro in focus, examining the movement of innovations and practices from organization to organization or unit to unit of a multinational corporation (MNC). For the most part, the recent surge in interest has ignored transfer of practices within the same organization (Szulanski, 1996), and most studies focus on a relatively top-down view of transfer of practices (e.g. researchers study situations where the headquarters of an organization determines a practice or set of practices it deems successful or useful and then dictates the implementation of these practices to sub-units).

Furthermore, the important role that teams may play in generating new work practices and the subsequent transfer of practices across teams has not been addressed. This is a serious oversight considering that organizations are becoming more team-based and the use of work teams within organizations has increased dramatically. At the outset of this decade Wellins, Byham and Wilson (1991) found that only about one quarter organizations surveyed were using teams, and only a small percentage of the workforce was involved. By 1994, one study determined that 54.4 percent of U.S. organizations have at least some of their employees working in teams and 40.5 percent of U.S. organizations have over half of their workforce involved in teams (Osterman, 1994). Additional evidence suggests that the use of teams will continue to increase (Lawler, Mohrman, & Ledford, 1992).

Teams are considered important instruments for learning and innovation. The innovation and learning literatures suggest that when different perspectives and knowledge bases are joined within teams problems are often reframed. This may lead to solutions that may not have been

likely or possible from a single perspective, and innovation may be more likely (Kanter, 1983; Pinchot, 1985; Senge, 1990). As such, teams are an important source of organizational knowledge. Furthermore, practices developed by one team may be useful for other teams in a given organization. Leveraging this team-specific knowledge may be an important source of competitive advantage.

We feel that studying the emergence, identification and transfer of practices at the level at which they emerge is an additional important and unstudied area. Teams represent one such level.

We present a set of propositions concerning the transfer of practices between teams in the same organization. Specifically, we address the question: What factors contribute to team-level decisions to share and adopt practices within the same firm?

This paper will proceed in a somewhat unconventional manner. Our goal is to develop *team-specific* propositions concerning practice transfer based on a combination of interview data from an exploratory qualitative study and a review of related literatures. There is a growing body of literature on knowledge management and related topics, but current theory does not directly address applications to teams. It is not clear whether causal logic developed at other levels of analysis is appropriate for examining team-level transfer. We work back and forth between qualitative interview data from teams and the extant knowledge management literature. Interview data is used to support the use of arguments formulated at other levels of analysis at the team level of analysis. Interview data are also used to identify previously unaddressed issues of relevance to team-level transfer. Therefore, the structure of this paper will be as follows. First, a brief background on the topic of knowledge transfer will be presented. Then the design and methods of the interview study will be described. The results of this study will be woven with information from several theoretical sources to develop a series of propositions. Finally, implications and future directions will be discussed.

Knowledge management continues to be a highly salient and important topic. Increasing globalization of business and speed of competition make knowledge management a crucial

capability (Hedlund, 1994; Nonaka & Takeuchi, 1995). A corporation's competitive advantage rests in part on its unique knowledge and how it manages its knowledge (Nonaka & Takeuchi, 1995). The knowledge-based view of the firm shifts the emphasis from minimizing costs to also managing the firm's knowledge base (Madhok, 1996). Numerous inefficiencies may be avoided if critical knowledge is identified within the organization, codified and moved to other points where it can be utilized. Doing so avoids redundancies in which sub-units (or teams, as the focus will be here) start from the ground up solving the same problems over and over again. A poignant example of such inefficiencies was provided by one of our interviewees:

> "And the other day at lunch, I was talking to this guy -- we just happened to be sitting at the same table at lunch -- and [name] was there, who heads up [product] and [product] and so they were talking and he said -- they were talking about a particular study that they were doing -- and he said, "oh, gosh we should coordinate that because I'm doing the same study." We found out that we had three different groups on *this* floor doing the same study. So we paid for it three separate times. We've learned it three different times. And so just, so that opened up the discussion of, you know, what we need are interdepartmental needs, there needs to be somebody who takes charge of "Hey, you know what? [product] is doing this; and [product] is in the same market so then they need to share. Remember to share their information with [product]. But we missed, you know we were talking about how many opportunities we missed, just like that."

The focus placed on managing knowledge as part of competitive advantage suggests that studying and understanding knowledge transfer is an important area for continued attention by organizational researchers. Furthermore, the increasing importance of teams in organizations opens an additional avenue for knowledge management applications. Our paper opens a dialogue on team-level knowledge transfer. Before turning to the specifics of the interview study and propositions, we provide a brief review of recent works of particular relevance to the issues addressed later in this paper.

In efforts to address knowledge management, researchers have identified at least four factors which affect knowledge transfer: (1) characteristics of the knowledge being transferred; (2) characteristics of the source of the knowledge; (3) characteristics of the recipient of the

knowledge; and (4) characteristics of the context in which the transfer occurs (Leonard-Barton, 1990; Teece, 1977; Rogers, 1983; Szulanski, 1996).

In a similar vein, Schulz and Jobe (1996, 1997) have been building a model of the determinants of knowledge flows in MNCs. They argue that interdependence among sub-units (characteristics of the recipient and source), the strategic context (characteristics of the context), innovativeness of the sub-unit (recipient and source) and codification of the knowledge (characteristics of the knowledge) all play important roles in facilitating knowledge flows across sub-unit boundaries. These authors have empirically examined the relationship between self-reported levels of general codification, codification "strategies" and sub-unit performance and found evidence that sub-unit performance varies with codification strategy. However, Schulz and Jobe have not yet empirically examined whether codification strategy directly affects the transfer of specific practices, nor have they directly measured knowledge flows.

Kostova and Cummings (1997) presented empirical work on the transfer of quality management practices from US headquarters to international sub-units. They found that the institutional environment of the recipient country (characteristics of the context) had a statistically significant effect on the successful transfer of practices to sub-units. They also obtained evidence that psychological variables such as organizational commitment and organizational identity (characteristics of the recipient) are related to transfer success. The more committed the sub-unit employees, the more successful the transfer. Also, the more employees identified with the parent organization, the more probable the transfer success. However, Kostova and Cummings investigated only one set of practices (quality management) and only examined institutional factors relating specifically to quality practices, not more general regulatory, competitive or cultural environments.

Teams *have* been explicitly considered in the knowledge management literature, but the focus is typically on the use of a particular type of team, the cross-functional team, as a facilitator of knowledge transfer. Cross-functional teams integrate multiple functions within one team (Mohrman, Cohen & Mohrman, 1995). Cross-functional teams were designed in part to improve

knowledge sharing across diverse functional areas or sub-units within an organization, particularly for continuous improvement initiatives (Deming, 1986; Mohrman, Cohen & Mohrman, 1995; Morhman & Mohrman, 1993). Conceptually, cross-functional teams are thought to play an integral role in knowledge transfer, particularly in new product development endeavors. Cross-functional teams are theorized to enhance transfer of knowledge by providing direct access to expertise and information and contact across functional areas (Ancona, 1990; Mohrman, Cohen & Morhman, 1995). The role of cross-functional teams has not been extensively tested empirically. It is likely that other types of teams also play key roles in knowledge transfer (e.g. natural work teams, project teams or process improvement teams).

We feel that many of the concepts currently being explored and elaborated in organizational theory and strategy have excellent application to the team level of analysis. These concepts may also help enhance our understanding of team performance and expand our view regarding the potential uses of teams. Some of knowledge transfer concepts have proved difficult to test on an organizational level due to complexities involved in gaining access to appropriate samples and valid indicators of key constructs. Teams provide an intriguing setting in which to explore these theories.

Within a team setting, we argue that routines will be particularly important to understand. There is a rich tradition in the study of evolutionary change concerning changes in routine action (e.g. Nelson & Winter, 1982). There is also a small body of research, mainly conceptual, on routine or habitual behavior in groups (e.g. Gersick & Hackman, 1991; Louis & Sutton, 1991). These literatures will be drawn upon where appropriate, but a clear distinction needs to be made between previous approaches and our own. Traditionally, routines have been studied as preconscious or habitual behaviors which people engage in as a reaction to a stimulus event. While this approach is valuable to our understanding of organizational behavior, we instead focus in this paper on the study of consciously accessible -- or "mindful "-- information about behavioral routines and practices (Argyris & Schon, 1978; Langer, 1989).

Using a similar focus, Szulanski (1996) empirically investigated the "internal stickiness," or difficulty of transfer, of best practices. His study examined 122 within-firm transfers of 36 different practices. The study is unique among empirical investigations of knowledge transfer in that Szulanski specifically identified focal practices in an initial survey, and then followed-up with a second survey which explored perceptions regarding adoption of those practices. In doing so, Szulanski directly examined transfer of specific practices. He found evidence that knowledge-related factors, such as the recipient's lack of absorptive capacity, causal ambiguity and an arduous relationship between source and recipient, were key reasons for failed transfer attempts. These factors explained more variance than what he calls "motivational" factors which include interdivisional jealously, lack of incentives, lack of confidence, low priority, lack of buy-in, and resistance to change. Szulanski points out that the "non-motivational" sources of difficulty have received comparatively little attention from researchers and practitioners. He suggests that future research and practice should place greater focus on developing units' learning capacity, fostering closer relationships and more frequent contact, and developing ways to systematically understand and communicate practices (1996:37).

Following Szulanski (1996), we argue that the sharing and adoption of practices may distinctly different experiences. Transfer of best practices is defined by Szulanski as "dyadic exchanges of organizational knowledge between a source and recipient unit" (1996:28). Transfer depends upon characteristics of both parties, the source and the recipient (Szulanski, 1996). This view de-emphasizes change that occurs as a gradual process of diffusion throughout an organization. Furthermore, we separate the dependent variable of "*sharing* of practices" from the dependent variable "*adoption* of practices."

Questions designed to address the sharing and adoption of practices between teams were developed and included in interviews conducted as part of a larger research project on the multinational implementation of teams[1]. This project comprehensively explored the use of teams

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[1] The methods for the larger study were discussed in greater detail in a paper entitled "Intercultural Analysis of the Meaning of Teamwork: Evidence From Six Multinational Corporations" presented by the authors at the 1997 Academy of International Business Conference, Monterrey, Mexico.

in six multinational organizations. Teams in four different cultural regions were studied in each firm. The methods used in conjunction with this study are described below.

## METHODS

*Sample*. Multinational firms listed in the *Corporate Families and International Affiliates Directory* encompassed the general pool from which organizations were selected. Three key factors were taken into consideration in selecting organizations: (1) industry, (2) geographic representation, and (3) use of permanent teams in at least two functional areas (Manufacturing/Production and Sales/Marketing). Procedures associated with each of these three factors are discussed below.

Firms were first screened using the Standard Industrial Classification (SIC) coding system to control for potential industry effects. The SIC system has been widely adopted as a standard for defining and analyzing industries and is periodically revised by the U.S. government. The SIC system assigns lines of business in a firm to one of ten major categories and then assigns a four digit code to each line. The first two digits describe the general nature of the work activity being conducted, the third and fourth digits describe the specific activity.

Two major SIC divisions were included in order to incorporate different stages of the production cycle - the Manufacturing Division and the Wholesale Trade Division. Within Manufacturing, the four-digit codes 2833 (*Medicinal Chemicals and Botanical Products*), 2834 (*Pharmaceutical Preparations*), and 2899 (*Chemicals and Chemical Products*) represent pharmaceutical-related activities. Within Wholesale Trade, the four digit codes 5047 (*Medical, Dental, and Hospital Equipment and Supplies*), 5122 (*Drugs, Drug Proprietaries, and Druggists Sundries*), and 5169 (*Chemicals and Allied Products)* represent pharmaceutical-related activities. To be considered for this study, a firm was required to have a least one line of business coded as pharmaceutical manufacturing (2833, 2834, or 2899) and at least one line of business coded as pharmaceutical wholesale trade (5047, 5122, or 5169).

Because the larger study these interviews were designed for includes several cultural variables as key explanatory constructs, locations of facilities were also used to narrow the choice set. Only firms with facilities in each of four regions (the U.S., Latin America, Southeast Asia, and Western Europe) were considered. Furthermore, the facilities in each of these regions had to represent lines of business coded as described above using the SIC coding system. Using this procedure yielded a total of ten multinational firms: Abbott Laboratories, Baxter International, Eastman Kodak Company, GE Medical Systems, Johnson and Johnson, Merck and Company, Pfizer, Sanofi Winthrop, SmithKline Beecham, and Warner-Lambert.

Human resource professionals in each of the above firms were contacted by phone in order to provide a brief introduction to the research and in order to screen for the use of teams. Based upon the work of Mohrman, Cohen, and Mohrman (1995), our working definition of work teams was, "a group of individuals who work together interdependently in a continuous manner to produce products or deliver services for which they are mutually accountable." Only firms that utilize work teams in both manufacturing/production and sales/marketing across each of the four geographic regions were invited to participate. Six of the ten multinational firms listed above qualified. The identity of these firms has been disguised here using code numbers.

A written project proposal was submitted to each of the six firms that qualified for inclusion in the sample. Written correspondence was followed by phone contact in order to gather further information about the teams being utilized and answer potential questions about the research. Meetings were conducted with human resource professionals in order to schedule interviews. Human resource professionals in each multinational firm were asked to select three to four teams per facility across the four geographic regions for the interviews. Appropriate implementation of teams remains a concern within these facilities.

A total of 111 individuals were interviewed. These individuals represent 59 teams. Between one and eight individuals were interviewed from each team. In the United States 45 individuals representing 11 teams were interviewed; in France 16 individuals representing 12

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teams; in Puerto Rico 25 individuals representing 11 teams; and in the Philippines 26 individuals representing 12 teams were interviewed. Sample statistics are presented in Table 1.

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Insert Table 1 About Here

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Four types of teams were included. The majority of the teams in the sample (59%) were *work teams*. Work teams are ongoing teams responsible for producing goods or services (Cohen & Bailey, 1997). Their membership is typically stable. The second most prevalent team type (18%) was *project teams*. Project teams are time-limited and used for a one-time output such as a new product or service. They are typically cross-functional. Two other team types represented in the sample are parallel teams (6%) and management teams (6%). Parallel teams pull people from many different work units to perform a job that the regular organization is not well equipped to do -- they exist "in parallel" to the formal structure. Management teams laterally integrate sub-units, provide direction and are responsible for the overall performance of a business unit.

The researchers traveled to each region of the world and conducted in-depth personal interviews. Interviewees ranged from first line supervisors of manufacturing and distribution teams to vice presidents and business unit managers. The researchers posed several questions pertaining to the sharing of knowledge and practices across teams. Interviewees were also asked to discuss which factors they felt were the most important facilitators and inhibitors of team effectiveness. Sample interview questions are contained in the Appendix.

## ANALYSIS

*Database Preparation and Analysis*. All interviews were tape recorded and transcribed by a professional transcriptionist to prepare them for qualitative analyses. The transcriptions resulted in a text database consisting of over 1,000 pages of single-spaced text. We then conducted a qualitative analysis of the text database. Qualitative analysis involves the process of making sense of data that is not expressed in numbers and is especially useful in the exploratory stages of theory development (Tesch, 1990). The analysis was conducted in a manner consistent

with that recommended by both Strauss and Corbin (1990) and Gephart and his colleagues (Gephart, 1993; Wolf, Gephart, and Johnson, 1993).

The analysis of the textual database for this paper consisted of a word-processor search. This search used a word processor program to search the interview texts for a set of key words relating to sharing practices.[2] These words were highlighted in color in the database to facilitate easy identification of passages relating to the terms of interest. The interview texts were then scanned visually to locate these terms. Passages around the key terms were read to determine where a segment about the term began and ended. These segments were copied and pasted into another document which then contained only text segments about sharing practices.

147 pages of interview excerpts relating to sharing practices were obtained using this method. We used the four factors identified by Szulanski (1996) and others (Leonard-Barton, 1990; Teece, 1977; Rogers, 1983) that influence the ease or difficulty of knowledge transfer to guide the next step in our analysis. As noted earlier, these four factors are: (1) characteristics of the knowledge being transferred; (2) characteristics of the source of the knowledge; (3) characteristics of the recipient of the knowledge; and (4) characteristics of the context in which the transfer occurs. These factors were used to begin the process of organizing the textual data into meaningful chunks. We carefully read each of the diverse interview excerpts with these categories in mind. Some excerpts contained uses of the key words that were not related to knowledge management or the specific interests of this paper. These excerpts were removed from further analysis. Text segments and interviewee quotations which did relate to knowledge management and sharing of practices were then examined. Each segment was categorized as one of the four factors. The researchers discussed each segment to reach agreement on the categorization.

After the text excerpts were sorted into the four categories, we re-examined them to see if they could be classified into more fine-grained categories. We grouped excerpts together in sets

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[2] The following terms were used in the word processor search: best practice; share; sharing; learn; learning; routine; routines; practice; practices; knowledge; transfer.

of like meaning. For example, the following two excerpts were grouped together: "[Teams don't learn from other teams' experiences because we are] not taking time out and thinking about the process. Overreacting. Just sit down and take a time-out and just, you know, writing it down, meeting or whatever" and "Uh, no [there's not a formal mechanism to try to share ideas]. Not really. There just doesn't seem to be any time for communication." These excerpts were grouped together because they placed a common emphasis on time as an inhibitor of transfer. Working together, we categorized all the excerpts into like meaning groups. A total of ten categories emerged. As we worked with the interview data it became clear that our interviewees identified more subtle constructs than the four broad factors Szulanski (1996) identified. We also discovered that several of the concepts identified by our interviewees as facilitators and impediments to transfer could be classified as characteristics of more than one of the four factors. For example, codification has been identified as an important factor in the transfer of knowledge (Schulz & Jobe, 1996; 1997). Codification was also identified as a facilitator to inter-team transfer of knowledge by several of our interviewees; however, they suggested that codification can be considered an aspect of the practice itself *and* an aspect of the organizational context. These findings suggested to us that it may be more useful to use a more fine-grained approach to factors affecting team-level knowledge transfer.

The general nature of the excerpts in each category was compared with constructs identified in the literature to identify concepts particularly appropriate to inter-team transfer of knowledge. We used an iterative process, moving back and forth between our interview results and the literature, to label the categories. Through this process we identified the following ten factors that serve as either impediments or facilitators to inter-team transfer of knowledge: (1) contact; (2) interdependence; (3) competitive organizational rewards; (4) time pressure; (5) time devoted to strategizing; (6) global integration versus local responsiveness; (7) legitimacy of practices; (8) codification systems; (9) codification; and (10) prior team effectiveness. These categories and excerpts were summarized in table form.

Insert Table Two About Here

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## PROPOSITIONS

We now turn to specific propositions concerning team-level transfer of practices. As noted earlier, we separate the dependent variable of "*sharing* of practices" from the dependent variable "*adoption* of practices." The same team can, and often does, participate in both aspects of knowledge transfer. Our interview results suggest that sharing and adoption may have different facilitators and impediments. For this reason, it is important to make the more fine-grained distinction between adoption (implementation) of a practice and sharing (contribution) a practice.

We have developed a preliminary model of team knowledge transfer based on the ten categories identified in the analyses. Their proposed effects on transfer or practices are based on views expressed by our interviewees and issues discussed in the knowledge management literature. This model is depicted in Figure 1. This model is primarily descriptive, for use as a visual summary device for the text and propositions.

We now discuss each component of this model, providing illustrative excerpts from our interviews and a discussion of relevant literature. As we present each component, we develop propositions for future research investigating team adoption and sharing of practices.

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Insert Figure One About Here

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*Contact with other teams.* Bresman and Birkinshaw (1997) studied the transfer of knowledge in international acquisitions. They hypothesized that the number of visits made by members of one organization to another [e.g. technical meetings, task forces, training sessions, etc.] would facilitate knowledge transfer across organizations. They found that the number of

visits and transfers made by individuals had a positive and statistically significant effect on knowledge transfer across organizations.

We argue that analogous processes will take place between teams. Several of our interviewees stressed that visits to other teams and contact with members of other teams are an excellent source of new practices:

> "Yeah, what I, what I suggested we do, and nobody's ever taken me up on it, is I said we should go to our other districts. Like, you know if I went with [name] and [name] are the other two district managers. If I went, like for an afternoon, especially when they're talking about [a specific product]. If I go and sit with them, you know, maybe I'll get some, some pretty creative ideas from them, or maybe they'll get something from me, you know, rather than this big group where we have all thirty people and somebody puts on a presentation, and we all sit with the people we work with all the time anyway." [Company 13]

> "We don't share -- until she and I got to know one another -- I didn't even know she was here. She's in a different building. And until she and I got to know one another, we didn't share surveillance data. So now when I get my surveillance data in, I send it over to her, and when she gets here consumer surveillance data in, she sends it over to me." [Company 12]

Based on our review of the literature and the preliminary evidence gathered in our exploratory interviews, we argue that teams that have more contact with other teams will share more practices and adopt more practices from external sources. The following propositions summarize the relationship between contact, sharing and adoption of practices:

**Proposition 1a:**   The more contact team members have with other teams, the greater the likelihood they will share practices.

**Proposition 1b:**   The more contact team members have with other teams, the greater the likelihood they will adopt practices from external sources.

*Interdependence with other teams.* The literature on teams suggests that the level of interdependence *within* teams is an important determinant of team process (Guzzo et. al. 1993; Saavedra, Earley, & Van Dyne, 1993; Wageman, 1995). Recently, researchers have become interested in the impact of level of interdependence *between* organizational sub-units (Schulz &

Jobe, 1996) and between teams. Interdependence can take on various forms, including resource interdependence, outcome interdependence, or task interdependence (Wageman, 1995).

For the sharing and adoption of practices, we argue that the most critical type of interdependence between teams is task interdependence. Task interdependence is a structural feature of work; tasks can be designed to be performed at varying levels of interdependence (Wageman, 1995). The instructions and materials that define a task create a level of interdependence that in turn may influence how much teams interact in executing the task (Hackman, 1987). At one extreme, little or no interaction is required; at the other, coordination, communication, and cooperation are essential to successful task completion. As information sharing and communication increases, the sharing and adoption of practices are likely to increase. Interdependencies increase the likelihood of knowledge flows (Schulz & Jobe, 1996). Our interviews offer preliminary evidence for this argument. For example, our interviewees stated:

> "Well, that, it, we're doing better at that. We're doing better at that with some of the, particularly, with the new product launches, the switches from pharmaceuticals to a kind of, because as we go through it, as some of the team members move to new teams, and they bring that knowledge with them, but there is also a lot of discussion beforehand, in terms of the approach that should be taken and the obstacles that need to be overcome." [Company 12]

> "Within the division, within health imaging, we've begun some, tried to do some sharing around the world and around the, across functions. So for instance, last September in Arizona, the division general, the President and General Manager led personally the first ever country manager's meeting....The idea was to pick four major business topics that needed attention, and from each of the each, across to, by multiplexing across regions and across functions, brought in both some case studies, you know, some anecdotal experience of how people have dealt with and what they've learned about this thing. Presentations to the group. Break-out sessions. Mix and match, everybody in different groups. So that was a week-long. Intensive. [Manager's name]'s point was, somewhere in our world, the answer to every problem exists and it's being done with world-class performance. What we don't have, is a good way for sharing it." [Company 13]

The following propositions summarize our expectations regarding interdependence between teams:

**Proposition 2a:**     The more a team is interdependent with other teams, the greater the likelihood the team will share practices.

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**Proposition 2b:** The more a team is interdependent with other teams, the greater the likelihood the team will adopt practices from external sources.

*Competitive organizational rewards.* Another contextual element which may influence the transfer of best practices is rewards. We argue that organizational rewards will affect transfer on at least two levels. First, rewards may promote competitiveness or cooperation between teams (Ancona, 1990). When awards promote competitiveness, teams will be more likely to hoard information and knowledge and will be less likely to share best practices with other teams. Conversely, rewards may promote cooperation and an emphasis on the larger organization's goals as opposed to individual team performance (Mohrman, Cohen & Mohrman, 1995). Where this emphasis exists, we might expect practices to be shared more freely. Preliminary evidence gathered from our interviewees supports these arguments:

> "You know, I don't know if it's that people are afraid, you know, they're afraid of their little domain. You know, that they're afraid that if I tell you something good, you know, you'll take it to my other people and they'll do good. And I don't mean our team ore our district, but if I take it to somebody else's district and then all of a sudden they do good, you know?" [Company 13]

> "It's that concept of cross-regional teaming that just doesn't go yet. And it's all driven by performance drivers and the local "score" club. And so we keep on reinforcing that behavior, which is really focus on the narrow team, the smaller, the local team as opposed to a, an understanding and even reward for creating a broader team or teams." [Company 10]

> "Regional autonomy is still very much the dominant voice." "And I can tell you that nothing has changed since 1975. So from that perspective, the regional, even the country autonomy, the regional autonomy is driven largely by these performance drivers. I think it's been there for a very long time. And strangely enough, in working with [competitor], I know that they have the same problem. Their European team is going to go its own way." [Company 10]

The following proposition summarizes our expectations regarding the role of organizational rewards in the sharing of practices:

**Proposition 3a:** The more that rewards promote competition between teams, the lower the likelihood that teams will share practices.

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Rewards may also promote the adoption of best practices. At least three of the organizations in our sample have implemented or are attempting to implement formal means for capturing best practices. In most cases, some sort of award is given to teams that develop improved practices. The organizations see the awards as ways to motivate teams to examine their processes and attempt to improve themselves. For example, one interviewee stated:

> "Definitely I think that recognition, uh, would create an incentive in itself that would drive people outside of the process, for example to apply these [best practices] in their own processes." [Company 10]

It is still unclear whether these programs have any positive influence on moving practices around or getting other teams to adopt these practices. It may be that such programs are good ways to motivate the development and sharing of practices, but do not influence whether teams choose to adopt these practices. Future research should examine this notion. Based on our review of the literature and the preliminary evidence gathered from our interviews, we offer the following proposition regarding the relationship between organizational rewards and adoption of practices from external sources:

**Proposition 3b:** The more that rewards promote competition between teams, the lower the likelihood that teams will adopt practices from external sources.

*Perceived Time Pressure.* Teams and individuals experience differences in perceived time pressure. Some of these differences may be attributable to individual differences while others may be inherent to certain industry or task structures. For example, in highly dynamic, extremely competitive environments such as the computer industry or the pharmaceutical industry, project timelines and therefore felt time pressure may be very different from relatively stable, unchanging industries.

Recent research adds credence to this idea, indicating that time constraints are a key reason individuals do not contribute to computerized "suggestion" bulletin boards (Goodman, 1997). In other words, people feel that the cost of their time to pull off-line of their task to share

ideas is too great. Members of our sample provided supporting comments suggesting that time pressure is a significant impediment to the sharing of practices:

> "Not necessarily money, but time [decreases our emphasis on sharing practices]. Because we have separate budgets but we certainly have only so many hours." [Company 12]

> "Not enough [informal sharing occurs]. I get caught up in my own little world and my own set of problems and challenges and you know, I struggle to get out of here at a decent hour at night. I just, you know, don't have the time. I should take the time, but you know, I often don't." [Company 12]

Time pressure influences what McGrath (1991) characterized as a "generic problem" in organizations – the allocation of temporal resources. As time becomes more scarce, the cost of external search for new work routines increases. Time spent engaged in search for new practices reduces the time available that could be allocated to task performance. Indeed, Ancona (1990) found that interactive external activity "takes up a lot of time" and had resultant negative effects on some team processes such as cohesion and team building (p. 359).

Teams facing high time pressure may be less likely to search for external information about new practices. Support for a negative relationship between time pressure and practice transfer is provided in threat-rigidity theory. It has been well documented that social systems, including teams, have a tendency to close down rather than open up under stress or threat (e.g. Staw, Sandelands, & Dutton, 1981). Gladstein and Riley (1985) examined group decision making under threat and found that increased stress resulted in restriction of information processing. Janis and Mann (1977) also suggest that stress will reduce vigilance, and in extremes, may invoke defensive avoidance and restricted search. Time pressure likely increases stress and therefore may produce similar results.

**Proposition 4a:**    Teams facing high time pressure will be less likely to share or contribute practices to other teams.

**Proposition 4b:**    Teams facing high time pressure will be less like to adopt practices from external sources.

Our interviewees also related circumstances in which time was scarce, but practices were still shared; as well as instances in which time was not scarce, but teams failed to share practices. Therefore, we argue further that the *allocation* of time may moderate the relationship between time pressure and practice transfer. Allocation of scarce temporal resources among various and often competing tasks and projects is an important challenge to teams and organizations alike (McGrath, 1991). At the most basic level, teams facing extreme time pressure may operate in a "doing" mode -- focusing relatively more on task completion and relatively less on process and process improvement; or they may operate in a "strategizing" mode, devoting time to an examination of methods and processes for potential improvement. The impact of time pressure will be moderated by the ability of the team to "strategize" under extreme time constraints. Several of our interviewees offered commentary in support of these ideas:

> Interviewer: "What reasons or barriers do you think there are for people not learning from others' experiences?"
> Interviewee: "Not taking time out and thinking about the process. Overreacting. Just sit down and take a time-out and just, you know, writing it down, meeting or whatever." [Company 12]

> "[sharing practices] is not too successful, unfortunately. Because people are too busy. I mean, we're so daggone busy trying to get done what we gotta get done that we, you know...maybe it probably would help us out but you know, we gotta finish this list here, and then try to find time to implement some of those things. And it's like, you go into a sales, you know, week-long sales seminar on how to sell...whatever, and it's so hard. They have a lot of great ideas, but to bring 'em back and to implement those as you're going along, I mean there's gotta be things that you know from those best practice sharings you know, do this one thing. And you know, somehow we need to do better at getting one thing. So I think it's were all so busy, it's hard to implement these things even though it probably would be for the better. We just don't have time to try to, 'cause it takes a lot of time to implement something and make, make it part of your routine. That's the, you know, that's the tough thing, is it takes time to make it part of your routine." [Company 15]

The following propositions summarize our expectations regarding the moderating effect of time allocation on the relationship between perceived time pressure and practice transfer:

**Proposition 4c:**     Time devoted to strategizing moderates the relationship between perceived time pressure and sharing of practices.

**Proposition 4d:**     Time devoted to strategizing moderates the relationship between perceived time pressure and adoption of practices from external sources.

Teams operating in strategizing mode become adapted to their dynamic environments. Even though they experience high time pressure, they still develop adaptive responses allowing them to share and adopt new practices. Recent research has begun to examine the effects of carefully timed interruptions in task work for teams -- interruptions that allow organizational members to "make time" for process checks, reflection and assessment (Okhuysen & Eisenhardt, 1996; Tyre, Perlow, Staudenmayer & Wasson, 1996). This work suggests that through such interventions, teams under great time pressure still may be able to learn. The following propositions summarize our arguments regarding the positive impact of strategizing:

**Proposition 4e:**     Teams which take time to examine their methods ["strategize"] and plan process improvement will be more likely to share practices.

**Proposition 4f:**     Teams which take time to examine their methods ["strategize"] and plan process improvement will be more likely to adopt practices from external sources.

*Local responsiveness vs. global integration pressures.* The strategic management literature suggests that the success of multinational organizations is hinges upon the management of knowledge and knowledge flows (Nonaka & Takeuchi, 1995; Prahalad & Doz, 1987). Knowledge flows within a multinational organization are affected by two key dimensions of the strategic context of the various subunits: (1) pressures for global integration; and (2) pressures for local responsiveness (Prahalad & Doz, 1987). These two dimensions create an inherent tension. Global integration typically involves central coordination of activities through headquarters. At the same time, subsidiaries are pressured to respond to local demands based on the nature of economic, competitive, and market forces (Prahalad & Doz, 1996:6)

The same can be said of teams within a single organization. For example, a particular pharmaceutical organization may have sales teams working throughout the United States. The organization may wish to implement a newly identified best practice across all teams to maintain a consistent level of service to customers and leverage knowledge created by one team across all teams. This generates pressure for global integration. Certain teams may resist because of differences in their local competitive environments such as the presence or absence of strong managed care organizations. This generates pressure for local responsiveness. Our interviewees described the tension they experience between these two forces as follows:

> "managers within [company name] have a lot of autonomy. When you have a company this size, it's like having a million little companies -- there's a lot of diversity between the regions. And within the regions, between the managers. So there's always some standard [company] laws that are for the whole. But those types of things as far as best practices, there's a lot of diversity between managers.

> "We all use the common PAF form, the common performance appraisal form. So that part is common. But the timing is different. So in many ways we have a lot of freedom, because there's an ocean that separates us. But in some things where we have to be globally consistent, because it has to roll up for some reason, like we all use the common [name of form], which is your internal resume. And that format is consistent and all the same. But in some ways, we have to operate differently, because we have so many countries and languages and different legal constraints." [Company 15]

Other researchers have suggested that pressures for global integration versus local responsiveness impact whether multinational subunits serve as sources of knowledge and/or whether the subunits obtain knowledge from external sources (Schulz & Jobe, 1996). These authors argue that strong pressures for global integration lead to knowledge flows between subunits. They argue that strong pressures for local responsiveness lead to weak knowledge flows between subunits. Although these propositions were formulated at the business unit level, analogous processes may occur at the team level.

For the transfer of practices in a team context, pressures for global integration and local responsiveness are also potentially important dimensions of the strategic context. However, we argue that the amount of tension between these two forces depends upon the *team perceptions* of the pressures. Therefore, these pressure for global integration and local responsiveness are

considered perceptual characteristics of the team and the team may perceive that either one or the other is dominant for their task environment. Pressures for global integration and local responsiveness may vary from practice to practice. In the pharmaceutical industry, certain practices are highly regulated and therefore are subject to extreme pressure for standardization and integration. Alternatively, other practices for the same teams may not be regulated and teams may perceive comparatively high or low levels of pressure for global integration.

Similar to the argument expressed by Schulz and Jobe (1996) at the business unit level, we propose that the trade-off between perceived pressures for global integration and local responsiveness will affect the sharing of practices. If teams feel that they face very unique local environments, they may perceive that their ideas are not readily generalizable to other parts of the company. Some evidence for this notion was obtained in the study conducted by Goodman (1997). In this study of computer assisted practice sharing, individuals were unlikely to contribute ideas to the program if they felt their ideas were not generalizable to other parts of the company. Our interviews provide preliminary evidence that this phenomenon occurs at the team level. For example, one interviewee stated:

> "[When you ask teams to share best practices] first thing you'll get from a European is a dissertation about how different their region is from country to country." [Company 10]

> "I think the one, the one danger is that it is hard to just lift someone else's process and put it into place in your business." [Company 12]

Based on our interviews and the literature regarding strategic context, we offer the following proposition regarding the impact of perceived pressures for local responsiveness:

**Proposition 5a:** Teams which perceive stronger pressures for local responsiveness than for global integration will be less likely to share practices with other teams.

Preliminary evidence gathered from our interviews also indicates that perceived pressure for local responsiveness impedes adoption of practices from external sources. For example one interviewee stated:

"And people have this big aversion to not-invented-here. Well, it works in New York. This is southern California. It doesn't work out here.' Guess what! Nine times out of ten it does, if they'd give it a chance." [Company 15]

"Minneapolis is a perfect example of that [why a homogeneous practice won't work for all], because we are in a highly managed care environment. OK. Arizona is not. So, if the [practice] comes out the same -- says this is the strategy for promoting this product. Well, you can't get into the offices in Minneapolis. And if it's not on the formulary, you might as well go home. If it's not being reviewed soon, there is no way you can promote. In Arizona, it's different. Come into the doctor's office, you know. Describe product and he says: "Sure I'll use it." And he uses it." [Company 13]

Statements such as these, together with the previous literature regarding the impact of the strategic context on practice adoption, suggest the following proposition:

**Proposition 5b:** Teams which perceive stronger pressures for local responsiveness than for global integration will be less likely to adopt practices from external sources.

*Legitimacy.* Legitimacy concerns both characteristics of the source of knowledge and the knowledge itself. A large body of work in neo-institutional theory suggests that legitimacy of routines and practices will have a significant impact on whether or not practices are copied by recipient organizations or subunits (Tolbert & Zucker, 1983; DiMaggio & Powell, 1983). The desire for legitimacy drives the adoption of legitimate practices (Meyer & Rowan, 1977). These same mechanisms should play out at the team level and our interviewees comments suggest this is the case.

There are many potential indicators of legitimacy. Our interviewees spotlighted the importance of both legitimacy of a practice and legitimacy of a source. The most common indicator of legitimacy of a practice in neo-institutional theory is simply the frequency of occurrence of that practice. When a practice is widely used it is considered legitimate. Several empirical studies have demonstrated that as practices occur more frequently, they are adopted at a higher rate (e.g., Fligstein, 1985; Burns & Wholey, 1993; Kraatz, 1982). Our interviewees also suggested practices may be legitimated through identification as a "best practice." Three of

the organizations in our sample indicated either organization-wide or unit-wide programs designed to identify best practices in use by teams. In a fourth organization, central agents identify successful practices during contact with teams. These teams are then asked to present the practices to a larger group of teams at an annual meeting. Finally, the presence of a "champion" spearheading diffusion also enhances legitimacy (Tolbert & Zucker, 1983). The following interview excerpt demonstrates the impact of these legitimization activities:

> "When our leadership sees what we call the best practice, they're never shy to say: 'You know what, your method sucks. Find another, or you do this guy's cause it works.' And that's what having so many good measurements gives you the ability to do, to locate the areas in the country or company that do very well against this measurement. Go over there and find out what the hell they're doing and copy it blatantly." [Company 15]

Legitimacy of a source may also influence the adoption of a practice. Neo-institutionalists suggested that firms adopt the practices of "legitimate" organizations and legitimacy may be inferred from traits of the organization such as success (e.g. DiMaggio & Powell, 1983). Research on individual level diffusion of innovation has also demonstrated the influence of high status opinion leaders on the adoption of innovations (e.g. Rogers, 1995). This same process may hold for teams. For example, when team members regard a source highly, they will trust that source's opinions about practices, which in turn will enhance the likelihood of adoption (Walton, 1975). Or when the source team is successful, it may be considered a legitimate source of practices. Our interviewees also noted the importance of legitimacy of the source:

> "Periodically, the [project name] coordinator, and I know you talked to [name], and he makes an effort to like, identify all the projects and all that. I, my own feeling is, I think that's fairly ineffective. I don't think that somebody can go around and come up with a list and it just isn't a natural way to disseminate information. It's, it tends to happen more when you're talking to your peers or you know the individuals that are in the same area and all that." [Company 12]

> "I don't think that people feel that that's a knowledge base that is useful to them at this point. So, you know, we've gotta overcome some of those things. Oh yeah, certainly some of it's "Not invented here" but the other thing is, OK, you know it's let's say I'm in a plant. For me to go to [name -- HR person] who's in a staff position in [city] to get information on other plant activities isn't a natural thing! You know, that's not how people interact. Where I've seen it, exchange being more effective, is where you get the

name of one of your peers, or a similar organization and it kinda works that way. And they say, "Oh, I did that, or someone else did that." It just seems to be there's a trust factor and a competency factor, I think, that comes into play." [Company 12]

Neo-institutional theory implies that legitimacy impacts whether a perceiver is receptive, but does not necessarily impact whether a party will offer information. Furthermore, our interviewees offered no evidence that legitimacy is a supply-side phenomenon. As such, we argue that legitimacy will impact adoption of practices by teams, but not sharing of practices. Based on our preliminary interview evidence and the literature on legitimization, we propose the following propositions:

**Proposition 6a**:        Legitimacy of practices will increase likelihood of the adoption of the practice.

**Proposition 6b:**        Legitimacy of the source of a practice will increase the likelihood of adoption of the practice.

*Codification Systems*. Codification is defined as the packaging of knowledge into forms which facilitate transfer (Schulz & Jobe, 1997:2). Knowledge that is not codified is tacit; tacitness increases ambiguity and decreases the transferability of knowledge (Polanyi, 1962). Codification was identified by our interviewees as a characteristic of knowledge and a characteristic of the organizational context. Organizations vary in the extent to which they develop formal systems to aid in the codification process. There are several actions that organizations can take in order to increase codification. In at least two of the organizations in our sample, best practices are centrally identified, documented and made available to anyone in the organization. Award winning practices are typically publicized in an organizational publication such as a newsletter. In two organizations, this process is very formalized, requiring an application process in which the practice is thoroughly documented and therefore highly codified. In at least one of the organizations, attempts are underway to centrally post best practices electronically on a web-site.

The extensiveness and success of codification systems varies widely. Such systems will only enhance the transfer of practices if they indeed lead to improved codification. Even if

systems are in place, they may not automatically lead to better codification. For example, our interviewees stated:

> "One thing that really exacerbates the problem is that high performing teams don't even know that they have best practices. They just don't! I mean, 'that's just the way we do things!' So it takes, part of this is, unfortunately, it takes an observer, and that's what [name] and I, I think are. [Company 15]

> "At another level, we're exploring ways right now of trying to build data bases that can be accessed by teams who might want to attack a similar project. And before they actually go into it, they can go in and dial up and find out, has anybody else worked on something like this before us? Uh, so that would be on a more formal basis." [Company 12]

> "If we get this data base put together, there will be a big step forward. And that will be based on like the two to three hundred projects that come in every year, like the [name] award, which will capture at least enough information about the project so that somebody can access it, through Lotus, and be able to say, you know, I'm going to be working on improving uh, you know, my order processing system. Let me check and see if anybody else has worked on this before." [Company 12]

As a result we pose the following propositions:

**Proposition 7a:**          Codification mediates the relationship between codification systems and sharing of practices.

**Proposition 7b:**          Codification mediates the relationship between codification systems and adoption of practices from external sources.

At the organizational level, Schulz and Jobe (1996, 1997) have developed a conceptual model suggesting that the extent to which knowledge is codified affects the transfer of that knowledge. More specifically, they hypothesize that the greater the degree of codification, the more likely it is that the knowledge will flow from one subunit to another. They have not yet directly tested this hypothesis. We argue that analogous processes occur at the team level. While certain elements of a practice may be difficult to capture, particularly when a team is the source and knowledge is collectively held, codification should reduce ambiguity and enhance adoption. Codification should enhance the ease of communication of practices and therefore improve the likelihood that teams will implement a given practice. In addition to facilitating adoption, codification should facilitate sharing. The act of codification ought to crystallize the

practice and enhance the team's ability to judge the value of the practice to other teams. Our interviewees also indicated the importance of codification to the sharing of best practices:

> "Yes, yes. So I think there were about five countries that asked for copies of this. So that's one way of sharing, sharing the expertise of best practices [documenting them for an awards program and presenting the winning practices at awards celebrations]. It is being exposed in the whole [company name] organization. So we don't have to reinvent the wheel, just sharing the practices." [Company 12]

> "We are building a database of documents that we're responsible for. What that does is speed up the process [of sharing]." [Company 10]

> "I guess, like to me, if they put, if someone would put that in a mailbox or on Lotus you know. Or on the LAN where you could actually go in and pick up. One of the things we built into our project management set, the evaluation step is lessons learned. And our idea is to have up a place on the LAN where people could actually put those things and say: 'Here's a project. Here's the purpose. They had a charter.' So people could do the same thing, they could call up whoever headed that up to say 'Oh my god. We're about to do the same thing. Could you send me your project plan?' and look at what the lessons were there. We're trying to build those mechanisms in." [Company 12]

Based on our interview evidence and the previous literature, we offer the following hypothesis regarding the impact of codification on practice sharing and adoption:

**Proposition 7c:**      The greater the extent to which a practice is codified, the more likely it will be shared by teams in the organization.

**Proposition 7d:**      The greater the extent to which a practice is codified, the more likely it will be adopted by teams in the organization.

*Team Performance.* Prior team performance may have different and potentially competing effects on whether or not a team changes its practices. Therefore we present a set of competing hypotheses concerning team performance and team-level knowledge transfer.

Theories of search (e.g. Cyert & March, 1963; Levinthal & March, 1981) and cognitive processing (Louis & Sutton, 1991) suggest that poor performance may signal a problem which in turn prompts a search. Active search and cognitive processing are engaged by noticing discrepancies between actual and expected performance. Ultimately this search may lead to a change in course of action. As part of this feedback loop, we argue that teams may share and adopt new practices. Teams learn over time whether or not contributing ideas and/or adopting

ideas make a difference to their performance. Good performance will operate as a signal regarding the effectiveness of their current strategy. Poor performance will signal a need to search for and adopt better practices from external sources. Our interviews offer preliminary evidence that poor performance should drive searches for new practices. For example, one interviewee stated:

> "We publish a [table of team performance]. We publish them quarterly. We [identify] the ones that are the best...and the ones that are the worst. And a couple of things [sharing of ideas] come out of that. So the idea is that the guy with the [worst record on a particular indicator] calls the guy with the [best record] and figures out what they are doing." [Company 15]

Based on our interviews and the literature concerning information search, we propose the following:

**Proposition 8a:**     Poor performance will increase the likelihood that a team will adopt new practices from external sources.

Alternatively, threat-rigidity theory (Staw, Sandelands & Dutton, 1981) and the concept of escalating commitment (Janis, 1982) suggest that poor performance may not prompt change, but may rather lead to more vigorous application of existing routines. These theories suggest that in the face of adversity, groups may revert to well-learned patterns of behavior and reduced information processing. This suggests that adversity in the form of poor prior performance will not lead to adoption of practices from external sources, but rather will lead to resistance to change. Therefore, we propose the following:

**Proposition 8b:**     Poor performance will decrease the likelihood that a team will adopt new practices from external sources.

With these propositions in mind, we now turn to a summary of the implications of our findings for future theory, research, and practice.

# IMPLICATIONS AND FUTURE DIRECTIONS

The goal of this study was to develop a model of inter-team transfer of practices. While a growing amount of research is available concerning knowledge transfer at the organizational level, researchers have not yet applied these concepts to the team level of analysis. This paper addressed this gap in our understanding by moving between qualitative interview data and literature from diverse disciplinary areas. We identified ten factors which act as important facilitators and impediments to inter-team practice transfer. We then developed a fine-grained explication of knowledge transfer by examining specific effects for both sharing and adoption.

Our research enhances our understanding of knowledge transfer in at least four ways. First, the research provides supporting evidence for several relationships proposed at the organizational level of analysis. Many of these relationships have not been extensively tested. Our findings, while exploratory and at the team level of analysis, enhance our understanding of these relationships and suggest the usefulness of further testing. Second, our findings suggest that several constructs developed at the organizational level of analysis are applicable to the team level of analysis and can enhance our understanding of inter-team transfer of practices. Third, the interview data pointed out a few new avenues to pursue in knowledge transfer research which may be important for both the team and organizational level of analysis, thus expanding knowledge management theory. Finally, our results suggest the importance of testing relationships between both sharing and adoption. Evidence from our interviewees and the literature provide strong grounds for differential relationships between the constructs identified and the dual aspects of transfer. These contributions are further explicated below.

First, our interview findings confirmed the importance of several factors previously identified at the organizational level for transfer of practices between teams. The single most frequently mentioned concept in our interview transcripts was codification. Our interviewees suggested that codification and codification systems are crucial to enhancing both sharing and adoption of practices between teams. This parallels the organizational level conceptual and empirical work of Schulz and Jobe (1996, 1997).

The second most frequently mentioned means of enhancing inter-team practice transfer was contact. A related construct, interdependence, was also identified by our interviewees as an important influence on transfer of practices between teams. Researchers examining knowledge transfer in multinational organizations have suggested that contact, mainly through physical visits, are critical means for moving knowledge across organizational sub-units. We also found evidence that strategic context is an important factor in inter-team transfer of practices. These findings provide preliminary evidence that the organizational level constructs "local responsiveness" and "global integration" (Prahalad & Doz, 1987) may also have implications at the team level of analysis,

This work also expands current theory by proposing *new* categories of factors that impact the sharing and adoption of practices. Through the iterative process of examining our interview results and reviewing literature, we identified several influential constructs not explicitly applied in previous knowledge transfer literature. For example, the importance of time as an explanatory variable is receiving more attention by organizational researchers. Our interviewees suggested that time pressure, time scarcity, and the resulting trade-offs between task work and strategizing, are common problems which interfere with inter-team transfer of practices. These finding suggest that strategies to manage time may have important effects on knowledge transfer in organizations. This is an important finding for both team and organizational research.

We also identified legitimacy as an important construct for inter-team adoption of practices. Legitimacy is a construct developed in neo-institutional organizational theory. It has not been explicitly applied to the team level of analysis. Interviewees commented that their teams noticed both the legitimacy of the practice, and the source of the practice and use this information to make decisions about adoption.

Many unanswered questions remain concerning knowledge transfer between teams. We hope that this paper and the propositions identified will pique the interest of researchers to examine important knowledge transfer questions at the team level of analysis. Future research should consider how factors both impede and facilitate the two distinct components of

knowledge transfer - *sharing* and *adoption*. Indeed, the same factor may operate in different ways to effect sharing or adoption of practices. It is crucial therefore that future researchers clearly indicate how factors relate to emergence of knowledge and to adoption of knowledge. Future research must also directly examine specific transfers at the team level. Attempts need to be made to gain access to information concerning specific practices, their emergence and their movement. Application of multiple methods will be necessary to adequately capture these phenomena. For example, testing the relationship between contact, interdependence, and transfer may best be accomplished by social network analysis. On the other hand, examining codification may require archival analysis of team documentation. At least some of the constructs may be usefully examined using survey data. For example, perceptions concerning strategic context, competitive rewards, time pressure and legitimacy can be captured via questionnaires. Where possible, hard performance indicators should be identified.

There likely are other facilitators and inhibitors of practice transfer not identified in this paper. Also, we have not yet addressed the relative importance of the factors identified here. It may be that one or two of the factors drive the majority of transfers. Finally, future work should examine the differences, if any, in relative importance of these factors for team-level versus organizational-level analysis.

In practice, this work will hopefully generate markers for managers, trainers and team members to understand moments that are particularly "ripe" for change -- and help them take the necessary steps to either encourage change or discourage it. We found that our visits to each geographic facility within each multinational organization were themselves useful to the sharing of practices inside the companies. Through our feedback and reporting process that followed the interviews conducted in this study, teams became aware of legitimate practices, interdependencies between teams, and efforts to codify practices. This facilitated practice sharing and adoption among the teams in our sample. Similar feedback processes instituted on a more systematic and regular basis might go a long way toward improving the transfer of knowledge between teams and improving the global competitiveness of organizations.

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## TABLE 1.  SAMPLE DESCRIPTION

| Company | U.S. | | France | | Puerto Rico | | Philippines | | Totals | |
|---|---|---|---|---|---|---|---|---|---|---|
| | # of People | # of Teams | # of People | # of Teams | # of People | # of Teams | # of People | # of Teams | # of People | # of Teams |
| 1 | 7 | 2 | 0 | 0 | 3 | 2 | 3 | 1 | 13 | 5 |
| 2 | 10 | 4 | 5 | 1 | 0 | 0 | 3 | 2 | 18 | 7 |
| 3 | 16 | 8 | 1 | 1 | 9 | 2 | 5 | 5 | 32 | 16 |
| 4 | 7 | 2 | 4 | 4 | 9 | 3 | 8 | 1 | 32 | 14 |
| 5 | 0 | 0 | 2 | 1 | 4 | 4 | 2 | 1 | 8 | 6 |
| 6 | 0 | 0 | 4 | 4 | 0 | 0 | 4 | 4 | 8 | 8 |
| Totals | 44 | 11 | 16 | 12 | 25 | 11 | 26 | 12 | 111 | 59 |

**Table 2.**
**Text Excerpts on Sharing Practices**

| Concept | Excerpt |
|---|---|
| contact | "You know, we did the [global team] thing. Well [the larger organization] did a thing called [team name] which is all the CEOs of the [organization's] business units meeting with the [the CEO of the entire organization] and the corporate staff once a quarter. They share best practices. Fundamentally every business is a set of processes. And, you can apply and improve in a process. If you have a greater idea over here -- share it!" |
| contact | "Yeah, what I, what I suggested we do, and nobody's ever taken me up on it, is I said we should go to our other districts. Like, you know if I went with [name] and [name] are the other two district managers. If I went, like for an afternoon, especially when they're talking about [a specific product]. If I go and sit with them, you know, maybe I'll get some, some pretty creative ideas from them, or maybe they'll get something from me, you know, rather than this big group where we have all thirty people and somebody puts on a presentation, and we all sit with the people we work with all the time anyway." |
| contact | Interviewer: "How do you learn about other practices that may be successful?" <br> Interviewee: "We don't. We don't do a very good job." <br> Interviewer: "So you don't have a strong sense of what sales reps in other [teams] are doing?" <br> Interviewee: "No. No, no. See that's what I mean. If you went to another [team], I think, during their time, I think, they do this at national meetings now. Sometimes they'll let us go, break us out in, you know, so you'll go sit with a bunch of people from the Southeast; or you'll go sit with some people from the West or the North, or whatever. And you know, you get kind of an idea as to what kinds of things work for them, and -- we, [company] have never been very good on, at outside resources." |
| contact | "We, the segments, every time [leader's name]'s leadership team gets together -- about six times a year -- the segment managers, my, my direct peers, the five segment managers, have a dinner meeting and we have a list of topics and we talk about the things that affect all of us. So we try to make that happen. The regional managers are starting such an event. So we're trying to get, if you will, different groupings who share, who have needs to share common experiences and common problems or common solutions or whatever, or at least deal with the problems together." |
| contact | "I represent [company name] on what's called the [special training team] for all the businesses, in training. And that's intended to really share best practices. And we come with our bag of tricks and we just spend a few moments just kind of, you know, what have you got? What have you got? And then people learn from each other." |
| contact | "Well, in general [sharing practices] is probably one of our, that's kind of a major problem….It's amazing how little communication there is." |
| contact | "There is an informal team of four of us. We don't really meet on a regular basis, but it's more of a network. The structure of our business designs aren't exactly alike, but the daily issues, the type of reporting we need to do to satisfy both management and [the corporation] are very similar. So we actually do, I think, a pretty good job of sharing some information to come up with some best practices." |

## Table 2 Continued

| Concept | Excerpt |
|---|---|
| contact | Interviewer: "Are there some mechanisms to find possible innovative ideas -- practices -- among these teams and get them spread around?<br>Interviewee: "The process coaches. That's probably why you segwayed into it. What we want the process coach, the process coach to be, among other things, is the conduit of information to and from his [team]. And that's not just to and from his [team] with headquarters, and the different initiatives that are coming out of there every day, but also between [teams] where it's whether its a [performance report indicator] or whether it's just a question on a particular business need, they can call any, any of the process coaches from any of the [teams] and say 'How are you doing this?' And you know, we I don't know if we coined the term best practices, but it's being used a lot. We try to make sure that everybody is looking for what we would call a best practice, from wherever, whenever, however. And to give you an example, the Asian human resources team is going to be in [city] next week. They're taking advantage of their time in [city] next week to have me come over and basically go through everything there is to know about [team type] and create one. So they can go back to Asia and say 'Let's see if this is a fit for Asia.' So obviously, we're trying to create a culture in [organization name] that says it's OK to plagiarize. It's OK to go from Asia to the US, get a good idea and take it back. It may or may not work, but we're going to try it. So that in essence is, the first thing you need to do is have an environment where people say that it's OK, and you know, we'll never erase, we'll never erase the human nature of loving your own idea because it's yours." |
| contact<br><br>legitimacy | "But it's always by phone. In general, [name] does a very good job of letting us know when he's stumbled across something that seems to work. He'll say, it's something useful that is going to help me out a lot. But we all do feel a need for sharing information when we get it. We're actually kind of planning now to start meeting informally once a month or so to do that." [finance directors for different product lines within a division. Each product line is a team] |
| contact | "And then there is just the internal learning that goes on, among ourselves as you know, as we move from team to team. Particularly when we switch teams, and now sharing with people in Canada and the things that we're working on we try to share with them." |
| contact | "We have a three-day off-site [meeting] every summer to use more sharing among, among the different brand teams. Things that we've been successful at." |
| contact | "I get ideas, I mean, having the two-way communication with your team is the first way that you may get ideas for enhancement. We don't have enough emphasis on team leaders getting together and brand managers getting together monthly, quarterly, every six months, uhm to really talk about what's working and what's not. We did institute a program about three or four years ago, four years ago, that was an annual off-site meeting that we have at a resort. That's a good way to share ideas and standard practices. But that happens once a year. Uhm, another way, we're starting to get better at, is uhm, this is another formalized way, is we have the marketing leadership program [MLP] is what we call it for short. And that standardizes practices and helps us be more consistent, and you know, gives us some ideas." |

## Table 2 Continued

| Concept | Excerpt |
|---|---|
| contact | "The other that helps me alot is uhm, just I have people come in and travel with me, you know, bouncing ideas off them. One of the things I don't do that I wish I would do for a sales rep level is travel, even though I may be quote, unquote a successful sales rep...travel with other sales reps. I keep wanting to do that but it never gets done. I don't make it a priority I guess." |
| contact | "The informal methods are more of, uh, just working with people. Uh, interaction. You know -- that was one of the things when I was remote, that I didn't like about it, was that I didn't see anybody and I missed that interaction, you know. And every time I'd go to the office or something, I'd be talking with somebody and they'd be kind of, and it'd be like, Wow! I never thought of that! That's a great, you know, I mean half the time it's something really simple and you're thinking, what's wrong with me? I didn't think of that, you know? But, you know, I miss that. I'll use a metaphor for you. You know, it's like, you know in ancient times the cities that were on the roads at all crossroads, they grew. The ones that were out here 'cause these guys got the new ideas brought from all over. It's the same thing here, you know? The more people that you run through, the more contacts that you know, things like that. For selfish reasons I'll involve myself in a lot of these things." |
| contact | "We do have regional meetings. Like the last regional meeting for HR was held here in the Philippines. That's what, two years ago. And next year it will be or probably I would be part of a team that will be auditing or conducting an audit of the HR function of different divisions. So that would be for HR. For the consumer or for the protectionary and our pharmaceutical groups, we too meet every now and then and discuss significant events or significant projects." |
| contact | "We do [feel that other parts of the world look to them for ideas], but it's more of the region. Uh, more of Asia. Asian countries. A lot of times, in fact, just a week ago or two weeks ago, all the managing directors came over here to be able to learn about the HR system. We presented them all our HR systems, including this one, so they would learn something from it." |
| contact | "We have a conference call monthly but that's just, you know, it's more information sharing." |
| contact | Interviewer: "How would a practice that works well for you get shared with the larger organization? Interviewee: "It would get shared via [name of person] networking with his counterpart in the US. I don't believe there is one in Asia. And also, there's some people in South America. From time to time [he] and the other process coaches in Europe will be on a combined conference call with some of the process coaches in America and also in -- meaning both South America and North America -- so, and then plus, there are mechanisms by which to share those best practices because there are ongoing sort of annual big management meetings, where that could be shared. And as well [he] could go to one of the Americas sales and service meetings and share some of the work we're doing. But he's likely to mostly share with his counterparts. Because they've developed a network." |

**Table 2 Continued**

| Concept | Excerpt |
|---|---|
| interdependence | "My overall team, there is order management [team], and there is accounts receivable [team] and there is judgment [team]. Now we're [all three teams] getting together on a weekly basis." "We're kind of sharing information that way." |
| interdependence | "Within the division, within health imaging, we've begun some, tried to do some sharing around the world and around the, across functions. So for instance, last September in Arizona, the division general, the President and General Manager led personally the first ever country manager's meeting….The idea was to pick four major business topics that needed attention, and from each of the, each, across to, by multiplexing across regions and across functions, brought in both some case studies, you know, some anecdotal experience of how people have dealt with and what they've learned about this thing. Presentations to the group. Break-out sessions. Mix and match, everybody in different groups. So that was a week long. Intensive. [Manager's name]'s point was, somewhere in our world, the answer to every problem exists and it's being done with world-class performance. What we don't have, is a good way for sharing it." |
| interdependence | "Well, that, it, we're doing better at that. We're doing better at that with some of the, particularly, with the new product launches, the switches from pharmaceuticals to a kind of, because as we go through it, as some of the team members move to new teams, and they bring that knowledge with them, but there is also a lot of discussion beforehand, in terms of the approach that should be taken and the obstacles that need to be overcome." |
| interdependence | "We don't share -- until she and I got to know one another -- I didn't even know she was here. She's in a different building. And until she and I got to know one another, we didn't share surveillance data. So now when I get my surveillance data in, I send it over to her, and when she gets here consumer surveillance data in, she sends it over to me." |
| interdependence | "Certainly the way that they've structured the organization, and the emphasis on sort of cross-functional participation, and there is more connection between the different groups now, you know. I deal with my counterparts in pharmaceuticals now. I deal with my counterparts in healthcare in UK, so you know things like that are opening up. Not to say, there's still a lot of you know, the silo thing and everybody thinks their own way is really the best and other guys are silly, but uhm, so, so of that certainly in practice is opening up." |
| interdependence | "If we have teamwork, things are going to be easier. A lot easier. We can learn from each other in teamwork situation. Otherwise you will do things different from me." |
| competitive rewards | "You know, I don't know if it's that people are afraid, you know, they're afraid of there little domain. You know, that they're afraid that if I tell you something good, you know, you'll take it to my other people and they'll do good. And I don't mean our team or our district, but if I take it to somebody else's district and then all of a sudden they do good, you know?" |
| competitive rewards | "It's that concept of cross-regional teaming that just doesn't go yet. And it's all driven by performance drivers and the local "score" club. And so we keep on reinforcing that behavior, which is really focus on the narrow team, the smaller, the local team as opposed to a, an understanding and even reward for creating a broader team or teams." |
| competitive rewards | "I think people heard the reward and celebrate more than they heard the sharing their learnings." |

**Table 2 Continued**

| Concept | Excerpt |
|---|---|
| time pressure/ strategizing | "[sharing practices] is not too successful, unfortunately. Because people are too busy. I mean, we're so daggone busy trying to get done what we gotta get done that we, you know...maybe it probably would help us out but you know, we gotta finish this list here, and then try to find time to implement some of those things. And it's like, you go into a sales, you know, week-long sales seminar on how to sell...whatever, and it's so hard. they have a lot of great ideas, but to bring 'em back and to implement those as you're going along, I mean there's gotta be things that you know from those best practice sharings you know, do this one thing. And you know, somehow we need to do better at getting one thing. So think it's were all so busy, it's hard to implement these things even though it probably would be for the better. We just don't have time to try to, 'cause it takes a lot of time to implement something and make, make it part of your routine. That's the, you know, that's the tough thing, is it takes time to make it part of your routine." |
| time pressure  local responsiveness | "If I've [been identified as having the worst performance on a given indicator among the teams], I should be talking to the [team with the best performance on that indicator] to figure out how to get better. That's best practice sharing. It doesn't happen institutionally. And we don't know exactly why, except people are busy. And people have this big aversion to not-invented-here. 'Well, it works in New York. This is southern California. It doesn't work out here.' Guess what! Nine times out of ten it does, if they'd give it a chance." |
| local responsiveness | "It's usually set up based on product and different people present and give an overview of what they're supposed to be doing, but they also typically include what Merck calls best practices so the sharing of things that are working well and things that physicians appreciated and received well."<br><br>Interviewer: "Is there a competition for those [best practices]?"<br><br>Interviewee: "Yeah, there has been in the past, but those are things that, uh, managers within [company name] have a lot of autonomy. ...when you have a company this size, it's like having a million little companies -- there's a lot of diversity between the regions. And within the regions, between the managers. So there's always some standard [company] laws that are for the whole. But those types of things as far as best practices, there's a lot of diversity between managers. And my manager was excellent at just awards and recognition, and did a lot of that for best practices, and then other managers do it seldom. Then there are also are, every once in a while, national -- I don't know if there's an award for it though -- but they ask for different product managers out of our headquarters will ask for best practices via voice mail in certain areas. They do have a great big one going on now for one of our big products -- a huge national award for best practices." |
| local responsiveness | "First thing you'll get from a European is a dissertation about how different their region is from country to country." |
| local responsiveness | "I think the one, the one danger is that it is hard to just lift someone else's process and put it into place in your business." |

**Table 2 Continued**

| Concept | Excerpt |
|---|---|
| local responsiveness | "We're, I think, a very internally focused organization here. We say we benchmark, but we don't really look that much at anybody else. We're also for the most part, my team is internally focused." |
| local responsiveness | "Sure, sure. Minneapolis is a perfect example of that [why a homogeneous practice won't work for all], because we are in a highly managed care environment. OK. Arizona is not. So, if the [practice] comes out the same -- says this is the strategy for promoting this product. Well, you can't get into the offices in Minneapolis. And if it's not on the formulae, you might as well go home. If it's not being reviewed soon, there is no way you can promote. In Arizona, it's different. Come into the doctor's office, you know. Describe product and he says: "sure I'll use it." And he uses it." |
| global integration | "There are some things that are going to be dictated [by headquarters]. Or highly recommended. Others, there is no tail of the tape yet." |
| global integration | "Well you know, there are starting to be, I was gonna say, standard methodologies that are being implemented across the organization. The marketing group, I don't know if they talked about their MLP program, which is a huge effort. And that's certainly clearly a way to standardize the practice across the organization. Again, to the extent that for example, we now report our, our IR group reports to the same guy as the pharmaceutical IR group in the US. So we get together on a regular, I guess, quarterly basis, and then you know there are areas where we that becomes a mechanism to share practices." |
| global integration | "For some processes there is a great deal of uniformity...because we all use the same format." |
| global integration/local responsiveness | "We all use the common PAF form, the common performance appraisal form. So that part is common. But the timing is different. So in many ways we have a lot of freedom, because there's an ocean that separates us. But in some things where we have to be globally consistent, because it has to roll up for some reason, like we all use the common [name of form], which is your internal resume. And that format is consistent and all the same. But in some ways, we have to operate differently, because we have so many countries and languages and different legal constraints." |
| global integration | "I know the company is, they sincerely want to take a stab at finding our best practice; if it worked in France, it sure must be able to work in Germany. I think they're giving it the old college try. I just don't know how successful they've been or will be." |
| legitimacy | "Periodically, the [project name] coordinator, and I know you talked to [name], and he makes an effort to like, identify all the projects and all that. I, my own feeling is, I think that's fairly ineffective. I don't think that somebody can go around and come up with a list and it just isn't a natural way to disseminate information. It's, it tends to happen more when you're talking to your peers or you know the individuals that are in the same area and all that." |
| legitimacy | We freely share [with other units in the region]. Although there, sometimes there are, it, it we're a benchmark, not just for HR. Also for engineering, I think and operations. And generally, in a general sense of the word for most of them, for most of the area, cause we just got, the quality award silver. And that's an award for [company name] all [company name] subsidiaries. |

**Table 2 Continued**

| Concept | Excerpt |
|---|---|
| legitimacy | "There have been best practice presentations, when the CEO, where you get as a form of recognition, you get to present to the CEO a certain best practice that you've accomplished. Other people are there and listen and perhaps come up with ideas. Although I will tell you most of the time it's about more presenting than sharing, because it's not like, people, it's not like a lot of those ideas are really transferable unless they're really out doing sales or something. I mean, in some cases they are, but not a lot though." |
| legitimacy<br><br>contact | "I got a call from the finance director [of another product line within the organization] about a week ago. He asked me do I have a product planner to do a quick estimate of whether a product will be profitable. And I did. I have that. It's not a very complex -- something that pretty much anybody can use -- put in some data and see what they come out with as a result. So I sent it to him and he probably has refined it somewhat for his business, and now we're sharing that same model, which I think is actually very good, because I think you build a company [around] the same model. And you can, you know, feel like the whole division is looking at the same model." |
| legitimacy<br><br>contact | "Then on a less formal basis, often times, just through word of mouth, people, I get calls, not a lot of calls, but often I'll get, I do get a number of calls that will come in and say, you all worked on some project or somebody in your company worked on a project two years ago, and we're getting ready to do the same thing, and I heard about this by talking to so and so, and what can you tell me about it? And if I don't know enough about it, most of the time I don't, because I can't, wasn't directly involved or don't remember. I can at least put them in touch with the right people." |
| legitimacy<br><br>codification | Interviewer: "Would you use the database of best practices?"<br>Interviewee: "No. Um, what would hold me back from doing that? I guess, if I knew that there was a marketing specific database. Or, if it were you know, if it's just set up like this is the team that won and stuff like that, it's hard to get good information on. If it was maybe set up like, OK, you know, team building skills, or launch, marketing launch teams, or something like that, you know. Maybe I'm looking for good ideas on how to reward a team. So here's somebody who got rewarded for good rewarding." |
| legitimacy | "I'm sure there's learning elsewhere. Uhm, frankly, I think that there's more benefit to be gained from a smaller market coming to the US than the US going elsewhere, just because if we have the sheer amount of resources we have, and expertise, and level of sophistication. But I don't want to sound conceited, but it's because I've been doing this a long time and I get a sense for where there are opportunities. I think there's a lot we can learn in this country that, even more so than sharing with other [company name] sub-units. If I was [company name]-Canada, for example, they tend to use us as a sponge much more frequently. But it makes a lot of sense because they leverage things that we've done and adapt off of us...versus the other way around. They don't have the resources for us to adapt off of them." |

**Table 2 Continued**

| Concept | Excerpt |
|---|---|
| legitimacy | "I don't think that people feel that that's a knowledge base that is useful to them at this point. So, you know, we've got to overcome some of those things. Oh yeah, certainly some of it's "Not invented here" but the other thing is, OK, you know it's let's say I'm in a plant. For me to go to [name -- HR person] who's in a staff position in [city] to get information on other plant activities isn't a natural thing! You know, that's not how people interact. Where I've seen it, exchange being more effective, is where you get the name of one of your peers, or a similar organization and it kind of works that way. And they say, 'Oh, I did that, or someone else did that.' It just seems to be there's a trust factor and a competency factor, I think, that comes into play." |
| legitimacy | "Tracking indicators with statistics and posting results on a regular basis tells teams something about the outcome but not the process. It was something that was a learning, and people enjoy that so much. The only people, the people that don't like it you see [are] the managers. They cannot afford, some of them, not all of them, but some of them were so difficult for them to sit down again and talk. I just, I mean I hear the story so much: 'I have an MBA but I have to sit somebody that maybe don't know how to read or write or something.' It's difficult, but that person knows a lot about the machine or how to clean the floor." |
| legitimacy performance | "When our leadership sees what we call the best practice, they're never shy to say: 'You know what, your method sucks. Find another, or you do this guy's cause it works.' And that's what having so many good measurements gives you the ability to do, to locate the areas in the country or company that do very well against this measurement. Go over there and find out what the hell they're doing and copy it blatantly. And so that's, that's our method of best practice sharing, is basically by edict sometimes. Hopefully in other cases, within the, within the advisory team, we have two process coaches who care enough to call other process coaches and say: 'How are you doing this?' And better yet: 'Hey, we just discovered something great. I'm going to send out a group distribution list to my process coaches across the country saying this is what we're doing. Feel free to use it.'" |
| codification | "The answer to that question is, we probably do a pretty lousy job of best practice sharing. It's very catch as catch can. And it's probably the main driver for myself and my partner...that is going to be one of our primary focuses in 1997 -- How do we make best practice transfer work?" |
| codification | "One of the pieces of that three-day meeting is going to be a best practice fair. We did that last year. It was hugely successful." |
| codification | "One thing that really exacerbates the problem is that high performing teams don't even know that they have best practices. They just don't! I mean, 'that's just the way we do things!' So it takes, part of this is, unfortunately, it takes an observer, and that's what [name] and I, I think are." |
| codification | "We have 'town meetings' where upper management share their ideas." |
| codification | "There are newsletters." |
| codification | "We are building a database of documents that we're responsible for. What that does is speed up the process [of sharing]." |

**Table 2 Continued**

| Concept | Excerpt |
|---------|---------|
| codification | "[Sharing practices] is really one of the things we're struggling with right now. I will be submitting documentation for one of those awards this year." |
| codification | "I have yet to see where the best practices come. I don't know if you can make it to capture that. I guess, like to me, if they put, if someone would put that in a mailbox or on Lotus you know. Or on the LAN where you could actually go in and pick up. One of the things we built into our project management set, the evaluation step is lessons learned. And our idea is to have up a place on the LAN where people could actually put those things and say: 'Here's a project. Here's the purpose. They had a charter.' So people could do the same thing, they could call up whoever headed that up to say 'Oh my god. We're about to do the same thing. Could you send me your project plan?' and look at what the lessons were there. We're trying to build those mechanisms in." |
| codification | "Well at one level [the awards] bring together the best of the best teams to present at our management conference which is the single level managers from around the world, projects that really have some significant pay-back. So it allows, it allows the shared learning in the sense that you give, you show, you show by example to people who have business units. Or partial business units under their responsibility what can be done if you go out and try to improve a process or solve a problem in a very systematic, rigorous way." |
| codification | "At another level, we're exploring ways right now of trying to build data bases that can be accessed by teams who might want to attack a similar project. And before they actually go into it, they can go in and dial up and find out, has anybody else worked on something like this before us? Uh, so that would be on a more formal basis." |
| codification | "If we get this data base put together, there will be a big step forward. And that will be based on like the two to three hundred projects that come in every year, like the [name] award, which will capture at least enough information about the project so that somebody can access it, through Lotus, and be able to say, you know, I'm going to be working on improving uh, you know, my order processing system. Let me check and see if anybody else has worked on this before." |
| codification | "Well from the [name] awards, there are two pieces of information that we think we can scan into the system. One would be the charter, so the charter would give you basic information about what the project set out to do, and who was on the team, and what the expectations of the sponsors were, and so on. And then there is a summary sheet that describes kind of an overview of the project." |

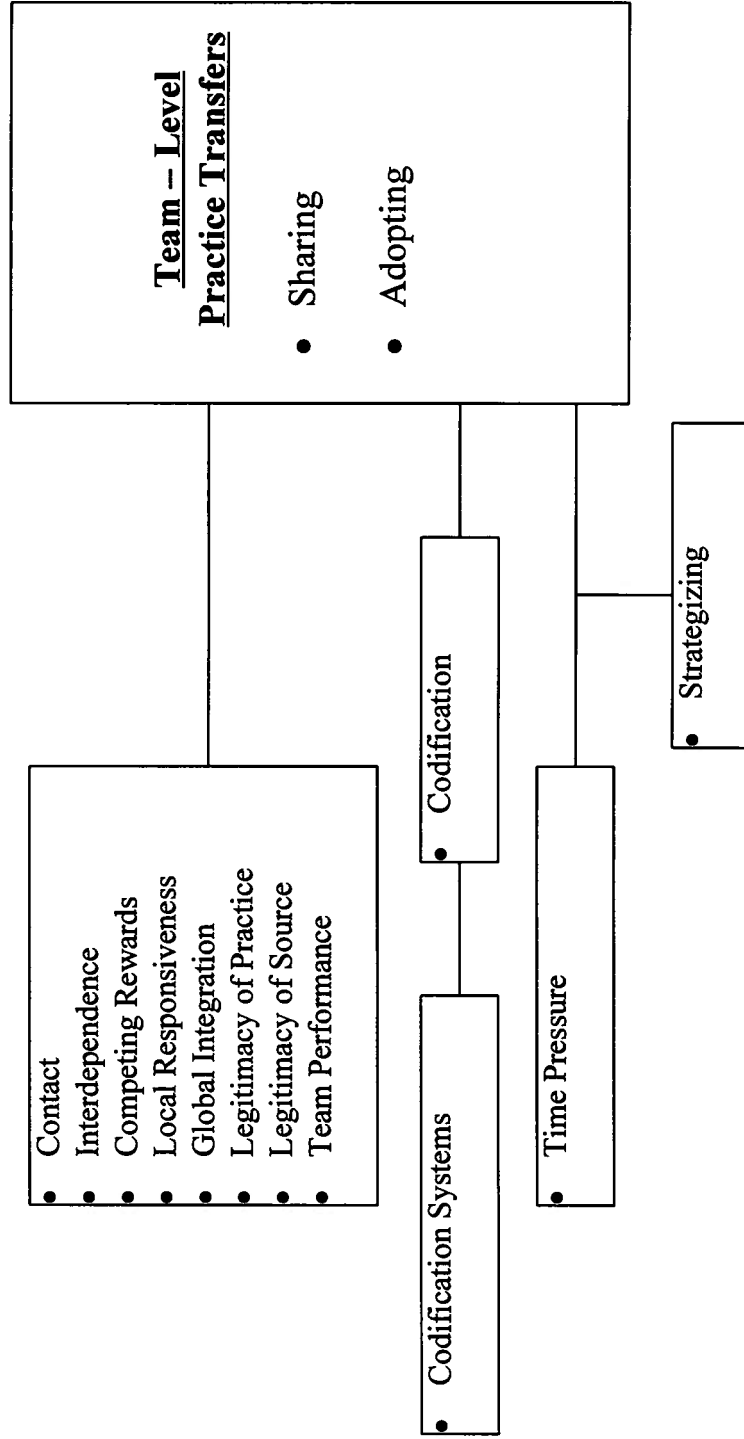| codification | "There's some, there are some formal means -- we have formal meetings where for example, different promotion are recommended, and other people will be there. And I don't mean there's a reluctance to share information, but by definition -- but on the same token, there's not a formal sharing, slash training, slash mentoring, uhm, process here. And it's not, I don't think training is institutionalized. It's very haphazard, frankly. It depends on the individuals involved. Some people do it more extensively than others, both because they want to and like to or they gain, receive benefit from it. I think other people don't. So, I'm sure that we repeat good ideas -- or we don't repeat good ideas and we do repeat bad ideas because they get lost in the shuffle. Uhm, we don't archive really well, in terms of gaining knowledge and sharing it; we try to but it, we have a lot of turnover, not in a company standpoint but in a responsibility standpoint." |

**Table 2 Continued**

| Concept | Excerpt |
|---|---|
| codification | "There's a whole category of management structure that's supposed to be designed to help exchange information and share learning and best practices around the world. You'd have to ask those guys how successful that is. I don't know because I'm not really involved in it. But, I mean, I know the people in Canada, I know the people in the UK, and on an informal basis, things will go back and forth. But now, not as much certainly as it could. And probably not even as much as it should." |
| codification | "There's an awards program that kinda rewards teamwork and all that. And, you know, certainly that's a way to share best practices, although, I mean I've been an assessor, so I'm aware of the project, but I'm not sure in reality how they've really gotten that out to whomever, should be the sharing people! So, again, a lot of these things in theory are fine, but on a practical basis, it becomes quite difficult." |
| codification | "We have uhm, [name of publication], an internal newspaper that goes, there's uh, [name] I guess it's called that, it goes out in here. And then there's also a publication that goes out from corporate so that it's helping give you an awareness of, uh, of say what the research and development group is doing or what [city where HQ is]. So they do have numerous publications that are, are going to the masses. The field and the sales get some of those." |
| codification | "I'd say it again, it comes down to region meetings. Being driven by the region manager. At our ë97 kickoff we had best practice sharing and there were six reps that you know, presented on something else and that kind of stuff." |
| codification | "That's right. So there's six thousand emails that come across your screen. 'Hey, give me the twelve best practices in your group on this' and 'here is my best practice and your best practice' and then let's have a best practices meeting', let's have a best practices seminar.' We have more teleconferences of best practices than I care to mention. But we do have that. And it is effective because I will read it, and it especially if you pick and choose. You know, I may not read two hundred fifty of them." |
| codification | "Yes, yes. So I think there were about five countries that asked for copies of this. So that's one way of sharing, sharing the expertise of best practices [documenting them for an awards program and presenting the winning practices at awards celebrations]. It is being exposed in the whole [company name] organization. So we don't have to reinvent the wheel, just sharing the practices." |
| codification | "What they did, when they did an [award program name] project, the facilitator, in the Philippines, and anyone else, advises, you know. There's a committee who are interested in the roll- out. They are advised us to, you know, about teams. What are respective in projects….Then at the end of the year, they advise our team that there will be a [award name] this is an annual event, of the entire, from the countries that would like to submit to the SB way committee. And so, here are the requirements that they set. So whether you, I think what happens is that every [award program name] project is qualified to apply for, for that, for that award. But there's I think, there's the certain procedure that you have to meet in order to either be a grand winner or get a team award….So they make a presentation during the senior management conference being held about February every year." |

**Table 2 Continued**

| Concept | Excerpt |
|---|---|
| codification | "To answer your question, no, I don't think that a set-up system for receiving information at the regional level, nor is there a feedback mechanism that allows us to know what is going on what are the effects of the changes [due to new practices] in the other sub-units." |
| codification | "Yes we do [send information to headquarters for the award]. It's a, basically, the signature quality has about seven or eight different key elements that they look for." |
| codification | "Yes, yes we do [have access to the submissions that other facilities make]. [A] central place for all the materials. All the experts. All the, all the books. They're putting together programs for the entire world. Uh, and then of course we have those materials and any time we ask for them, they'll just give it to us." |
| codification | "We do recognize invention, by just putting the names on the bulletin board, or the newsletter, and congratulatory memo from the district manager or from the president himself." |
| codification | "There are competitions to develop best practices." |
| codification | "Because of the competitions, because of the newsletters, those innovations were recognized by corporate headquarters and shared with other facilities." |
| performance | "We publish a [table of team performance]. We publish them quarterly. We [identify] the ones that are the best...and the ones that are the worst. And a couple of things [sharing of ideas] come out of that. So the idea is that the guy with the [worst record on a particular indicator] calls the guy with the [best record] and figure out what they are doing." |
| performance | "Clearly they're already up the learning curve. They're not going to learn anything from Europe or Asia." [Comment made in a discussion about a new business strategy developed in the U.S. and the fact that high performing teams have been asked to help get the same strategy up and running in other parts of the world. Illustrates the idea that oftentimes there is no pressure to look for better ways or to collaborate with the new regions to feedback knowledge into the established region.] |
| performance | "Yes, yes [we do anticipate sharing their best practice with other units]. We, if it's successful here, one of the, one of the criteria for, for example, uh, uh, is really a project should be recognized in the company world wide, it should be, it can be replicated. So if we're successful, we should be able to replicate that process elsewhere. I was asked by my contact in the region about, about you know, using it as an example." |
| performance | Interviewer: "How did you choose which practices to share at that meeting?" |
| legitimacy | Interviewee: "The managers decided, you know, there were two regions that came together and they decided that, they know I think they have a good feel for who their successful members are in certain areas. And so they basically came to us and said "I want you to present on your successful MCT. I want you to present on successful, you know, relationship selling; I want you to present on time management or whatever. Uhm, so they, they, I guess looked at their own individual players and decided who would give the best, who have done the best job in their opinion and then asked them to present. As we get together, you know, that's how I see a lot of best practices sharing going on." |

Figure 1

Inter-Team Transfer of Practices



**Team – Level Practice Transfers**

- Sharing
- Adopting

- Contact
- Interdependence
- Competing Rewards
- Local Responsiveness
- Global Integration
- Legitimacy of Practice
- Legitimacy of Source
- Team Performance

Codification

- Codification Systems

- Time Pressure

Strategizing

-

## Appendix

## Sample Questions From Interviews

1. What are some of the techniques this organization uses to share practices?

2. How would you say practice get shared in your organization?

3. Do you have an awards program for best practices? If so, please describe it.

4. Are there formal mechanisms to find innovative practice among teams and get them spread around to other teams?

5. How does your team learn about new or successful practices?

6. When practices have been published, have you found any that your team has incorporated? Why or why not?

7. To what extent are new practices or ways you do your work dictated to your team?

8. Does headquarters have a big impact on the practices you use?

9. Why would or wouldn't your team adopt a practice identified as a "best practice?"

10. Do you feel that you can learn from other teams or locations? Why or why not?

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