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Article

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Transferring Knowledge to Acquisition Joint Ventures: An Organizational Unlearning Perspective

Abstract *Unlike organizational learning, the concept of organizational unlearning has rarely been employed in empirical research. Based on a comparative case analysis, this article examines knowledge transfer, by foreign partners, to acquisition joint ventures in China. Because an acquisition joint venture is formed on the basis of an existing state enterprise, the need for organizational unlearning arises. The article investigates how issues related to organizational unlearning affect knowledge transfer in each stage of the transfer process, namely, initiation, implementation, ramp-up and integration.*
Key Words: *China; joint venture; knowledge transfer; organizational learning; organizational unlearning; stickiness*

Introduction

In his seminal article 'How organizations learn and unlearn' Hedberg (1981: 3) stresses the equal importance of learning and unlearning:

> Knowledge grows, and simultaneously it becomes obsolete as reality changes. Understanding involves both learning new knowledge and discarding obsolete and misleading knowledge. The discarding activity—unlearning—is as important a part of understanding as is adding new knowledge.

During the past two decades, while studies of organizational learning have been proliferating, our understanding of organizational unlearning has languished (Bettis and Prahalad, 1995) and has received limited attention in the literature (Crossan et al., 1995). Although the term 'organizational unlearning' has been mentioned casually from time to time in the literature, with rare exceptions (Martin de Holan and Phillips, 2004), there have been almost no empirical studies of organizational unlearning. To address this gap, this study investigates the transfer of knowledge in Sino-foreign joint ventures based on an organizational unlearning perspective.

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Empirical studies have found that the transfer of knowledge within the multinational corporation is laborious, time-consuming and difficult. Szulanski (1996) uses the term 'internal stickiness' to connote the difficulty of transferring knowledge within an organization, whether domestically or internationally. It is reasonable to expect that the interfirm transfer of knowledge across national borders is even more difficult because of differences in culture, customs, economic, social and political systems. Despite previous studies of transnational interfirm knowledge transfer, researchers seem to have neglected the role played by organizational unlearning. This article has two objectives. First, the article shows that organizational unlearning is a useful concept for explaining knowledge transfer to acquisition joint ventures. We hope to stimulate wider use of the concept in empirical studies, leading to its further theoretical development. Second, our results indicate that issues related to organizational unlearning impede the knowledge-transfer process. In particular, these issues affect the stickiness of transfer in a way that is different to that found by Szulanski (1996). Thus, the article enhances our understanding of the nature of stickiness in the knowledge-transfer process.

The article is organized as follows. The next section presents the theoretical background to the study, defining and discussing some key concepts. It is followed by a description of the research methodology and a profile of the case companies. Research findings are then presented in order of the four stages of the knowledge-transfer process identified by Szulanski (1996). The article ends with some concluding remarks.

Theoretical Background

Interfirm knowledge transfer across borders has been prevalent over the last two decades since countries such as Russia, China, Vietnam and eastern European nations opened up their economies to foreign investment. A popular market-entry mode in these transition economies is the international joint venture. Local partners in these ventures, with the exception of newly established local firms, are used to operating in a planned business environment and, more often than not, are technologically less developed. By contrast, their foreign partners usually come from countries with more sophisticated business environments, and thus possess more advanced management and technological expertise. At least during the initial stage of operation, the foreign partner needs to actively transfer its expertise to the venture in order to develop their competitive advantage in local and international markets. An important factor affecting the difficulty of such knowledge transfer is whether the joint venture is of the greenfield or acquisition type.

Greenfield versus Acquisition Joint Ventures

A joint venture can be established from scratch (greenfield) or be based on an existing organization (acquisition). Many Sino-foreign joint ventures have been established by acquiring the existing assets of state enterprises. Under this arrangement, the Chinese partner, which is a state enterprise, usually contributes its factory and machinery to the venture, whereas the foreign partner injects capital and new machinery. Most of the Chinese staff, who were originally employed by the state enterprise, continue to work in the venture. This acquisition-type joint venture is in contrast to a greenfield investment, whereby the joint venture is based on a factory built on a new site and new staff are recruited from the labor market. The two types of joint ventures differ only in terms of how they are established and are exactly the same in all other aspects.

The distinction between greenfield and acquisition joint ventures is important because, in the latter case, the foreign partner normally has to implement a strategy of dismantling or restructuring the existing system of a state enterprise, on the one hand, and installing its own system, on the other hand. The former involves organizational unlearning, whereas the latter involves organizational learning. In other words, compared with greenfield joint ventures, acquisition joint ventures need to go through an additional step of organizational unlearning.

Organizational Unlearning

This study adopts the routine-based approach of Levitt and March (1988: 320), who regard organizational learning as the process of 'encoding inferences from history into routines that guide behavior'. Based on this definition, organizational unlearning refers to the discarding of old routines to make way for new ones. First, despite the different ways that researchers have defined organizational learning, most emphasize the *acquisition* of *new* knowledge or routines that may lead to a change in behavior. By contrast, our definition of organizational unlearning emphasizes the *discarding* of *existing* routines. Organizational learning and unlearning thus describe two distinct types of organizational change process. Second, the definition refers to an intentional process. This is in line with most definitions of unlearning in the literature. For example, Martin de Holan and Phillips (2004) consider unlearning as the purposeful removal of established organizational knowledge. Third, the definition does not place a value judgement on the routines that are discarded. Even when unlearning is intentional, the new routines are not always better than the old ones they replace. Finally, organizational unlearning usually refers to replacing old routines with new ones. Organizational members learn to adopt these new routines while casting off the old ones. Thus, unlearning and learning occur at the same time, or the latter follows the former. However, our definition indicates that unlearning can be an isolated phenomenon. For example, an organization may discontinue its practice of asking for external references when recruiting senior executives because it finds that these references provide little useful information. This simple elimination of an existing routine is not accompanied by the addition of a new routine.

Following Feldman and Pentland (2003), organizational routines are defined as repetitive patterns of interdependent actions carried out by multiple organizational members involved in performing organizational tasks. Feldman and Pentland (2003) emphasize the important role of human agency and distinguish between the ostensive and performative aspects of a routine. The ostensive aspect refers to the schematic form of a routine, whereas the performative aspect consists of specific actions performed by specific individuals in a specific place and time.

Routines should be distinguished from rules or standard operating procedures. The latter are artifacts that deliberately attempt to codify the routine (Pentland and Feldman, 2005).

Knowledge transfer can be regarded as 'a process in which an organization recreates and maintains a complex, causally ambiguous set of routines in a new setting' (Szulanski, 2000: 10). The need to unlearn often hinders knowledge transfer because individuals have a tendency toward maintaining the status quo (Heath et al., 1993); that is, they want to carry on existing organizational routines to which they have been accustomed. Newell et al.'s (2003: 7) study of transferring best practices in the British National Health Service found that one reason for transfer failure was that 'making changes to an existing practice takes considerable time and effort'.

An acquisition joint venture is established on an existing state enterprise that has its own organizational routines in place. These old routines may become a barrier to knowledge transfer. When the foreign partner in an acquisition joint venture tries to install its own routines, local employees may not be willing to give up the corresponding old routines. As discussed in detail later, such inertia complicates the knowledge-transfer process. By contrast, although the local partner in a greenfield joint venture may appoint managers to the venture, the rest of the employees are recruited from the labor market. More importantly, a greenfield joint venture does not inherit any organizational routines from its local partner and the foreign partner establishes the routines from scratch. The foreign partner may have to change certain work habits brought in by local staff from their previous employers, and this task deals with individual unlearning. However, the foreign partner does not have to tackle the collective resistance to discarding old routines, which concerns organizational unlearning, often encountered in acquisition joint ventures. This study investigates how issues related to organizational unlearning affect knowledge transfer at each stage of the transfer process.

Stages of Knowledge Transfer

Similar to other processes, knowledge transfer goes through distinct stages, and Szulanski's (1996, 2000) study of intrafirm knowledge transfer identifies four: initiation, implementation, ramp-up and integration. This study adopts Szulanski's process model because it is probably the most detailed model that has been empirically verified.

Initiation consists of events that lead to the decision to transfer a routine. A transfer begins when both a need and the knowledge to meet that need exist. The implementation stage begins with the decision to carry out a transfer. Resources flow between the source and the recipient during this stage. The ramp-up stage begins when the recipient starts using the transferred knowledge. The recipient will be predominantly concerned with identifying and resolving unexpected problems that arise from using the knowledge. Finally, the integration stage is concerned with the gradual institutionalization of new routines after the recipient has achieved satisfactory results. Later, we discuss the stickiness of transferring knowledge to acquisition joint ventures in each of the four stages.

Methodology

The study included eight Sino-foreign joint ventures. Data were collected in two stages. The first stage was conducted in 1995 and 1996. Semi-structured interviews were first conducted in Singapore with managers who were involved in overseeing their companies' overseas investments. These interviews provided useful information about the joint ventures established by the companies in China. The information also helped the selection of joint ventures to be visited. A total of 37 managers were interviewed face-to-face. The number of managers contacted in each case varied from three to seven. Informants included expatriate and mainland Chinese managers holding senior positions, for example, joint venture general managers and deputy general managers, as well as senior managers based in Singapore who were in charge of overseas operations. In each case, at least one manager from each of the two sides (Chinese and foreign) of a joint venture was interviewed.

The second stage of the fieldwork was carried out about two years later. All eight joint ventures were contacted to update their developments. A main objective was to investigate how far the routines brought in by the foreign partners had been integrated into the daily operation of the ventures. In total, 21 managers were interviewed over the phone, with the number of managers contacted in each case varying from two to three. Thirteen of the managers had been respondents in the first stage.

Table 1 presents the major characteristics of the eight cases at the first stage of the fieldwork. With the exception of cases B and E, they had been established for only a couple of years when they were visited during the first stage of the fieldwork. In other words, most of the cases were in the initial phase of knowledge

Table 1 List of case companies

Case company	Main product	Nature of joint venture	Year established	Age of former enterprise (years)	Number of employees	Number of foreign partners	Shares held by foreign partners (%)
A	Cans	Greenfield	1994	n/a	70	1	85
B	Poultry	Greenfield	1991	n/a	1,200	2	65
C	Cans	Greenfield	1995	n/a	100	1	65
D	Cans	Acquisition	1994	12	500	1	57
E	Beverages	Acquisition	1989	4	860	2	70
F	Construction materials	Acquisition	1995	5	1,000	1	51
G	Construction materials	Acquisition	1995	7	1,500	3	66
H	Industrial equipment	Acquisition	1994	37	360	1	60

Note: Cases C and D had the same foreign partner.

transfer. There were three greenfield and five acquisition joint ventures. The three greenfield joint ventures served as the base for investigating issues of organizational unlearning encountered by the foreign partners in the five acquisition joint ventures. Thus, the later discussions focus on the acquisition joint ventures. The ages of the former state enterprises on which acquisition joint ventures were based varied from 4 to 37 years. The sizes of the cases also varied a great deal from 70 to 1500 employees.

In all eight cases, the Chinese partners were minority shareholders. Each venture had one Singapore company as a foreign partner. In case B, the other foreign partner was a Malaysian company, whereas in case E it was a Thai company. Neither company participated actively in the management of the ventures, which were basically run by the Singapore partners. Case G was more complicated. The other two foreign partners were from Indonesia and Japan. The Indonesian and Singapore partners worked together to restructure the original state enterprise, while the Japanese partner was not active in day-to-day management, and mainly transferred production technology to the joint venture. The foreign partners in cases C and D, which manufactured the same type of product, were the same Singapore company. As such, these two cases provide an excellent contrast between greenfield and acquisition joint ventures.

Organizational Unlearning and Knowledge Transfer

Adopting the process model of Szulanski (1996, 2000), this section presents the case findings in the order of the four stages, and focuses on the issues of organizational unlearning that arose in each stage for the five acquisition joint ventures with the three greenfield joint ventures serving as the control group. Moreover, it highlights how the findings differed from those of Szulanski.

It should be noted that this study is not in a position to judge whether all the routines brought in by the foreign partners were appropriate for improving the performance of the ventures. Rather, the study focuses on the problems encountered by the foreign partners in the transfer process.

Initiation

For the three greenfield joint ventures, the foreign partners in cases A and C were in the same industry as the joint ventures. They decided to transfer all major routines to the ventures at the very beginning. Case B was more complicated. The foreign partners were not in the poultry industry but the Chinese partner was. What the foreign partners brought to the venture were mainly non-production routines, such as finance, marketing and purchasing. At the beginning, the Chinese side was responsible for setting up production. Subsequently, the foreign partners hired a poultry consultant from Singapore, who tried to change the Chinese partner's systems. Thus organizational unlearning was involved for the related production routines.

When the foreign partners in the five acquisition joint ventures decided to invest, all planned to restructure the original state enterprises. Major restructuring processes usually took place during the initial stage of the operation. The foreign partners often had a tight schedule dictating which routines had to be replaced and when the replacement needed to be completed. The foreign partner was naturally the director of change. The participation of local staff was seldom invited, partly because the tight schedule made extensive participation and consultation difficult.

Szulanski (2000: 13) states that initiation stickiness 'is the difficulty in recognizing opportunities to transfer and in acting upon them'. Such stickiness was not a major issue for either the greenfield or the acquisition joint ventures in this study because the foreign partners usually recognized opportunities for transferring their routines and acted upon them. A more important type of stickiness for the acquisition joint ventures was to convince the recipient that the transfer was necessary.

Case G is a classic example. The original state enterprise began production in 1988 and had been profitable since 1991. Its productivity was highest among similar plants in China, and in 1994, it was named by the Chinese government as an excellent enterprise. The only objective of converting in case G was to expand production by building a new production line, which cost over $100 million and was financed by the foreign partners. The enterprise director assumed the position of general manager in case G. He had been working in the enterprise from day one and was involved in building it from scratch. Because the former enterprise had been doing well, he argued that the Singapore and Indonesian partners should not intervene in day-to-day management, and that changes initiated by these partners would only make things worse. Many local employees adopted a passive stance on the changes introduced by the foreign partners— now the foreign partners are the boss, locals have to follow their instructions. Although in several management meetings, the foreign partners tried to justify the need to transfer their routines to the venture, local employees were not convinced.

In short, as suggested by this study, a major source of stickiness in this stage is convincing local employees that the transfer of routines by the foreign partner is necessary and in the best interests of the venture. The Chinese partner's attitude toward the transfer was critical in overcoming the stickiness.

Implementation

A key finding of this study was that when actually implementing the transfer, foreign partners in acquisition joint ventures generally encountered greater resistance than their counterparts in greenfield joint ventures. The following comment, made by an expatriate manager in case D, describes a typical situation faced by foreign partners in an acquisition-type Sino-foreign joint venture:

> People are very resistant to change . . . If we say, 'The production flow will be this: we'll put this coating on before that coating,' they (the Chinese staff) don't like that because change in the system of the factory changes the routine of the factory. The change makes their life more complicated.

Local employees in the five acquisition joint ventures often held their old routines up as benchmarks by which to judge the new routines introduced by the foreign partners. In other words, before they were willing to carry out a new routine, they first compared it with the old one. For example, case D increased hygiene standards on the production line because their products were to be used to hold food or drink. Local workers complained that their old practice had been used for many years without causing any problems. Their logic was that the practice must have been all right, otherwise it would not have lasted for so long.

As indicated by this study, the foreign partner often needs to argue that the new routine is, in principle, superior to the one it is supposed to replace. The objective is to establish the legitimacy of the new routine in the joint venture. The legitimacy of a routine, as viewed by local employees, depends on two main factors: (1) the social embeddedness of the routine, and (2) the perceived expertise of the foreign partner.

Social Embeddedness of Routines For routines that are more socially embedded, it is often difficult, if not impossible, for the foreign partner to demonstrate that the new routines are unquestionably more effective and efficient than their alternatives. The old human resource management (HRM) system in Chinese state enterprises is a good example. The system was very much a socially constructed product firmly embedded in the former socialist production model (Von Glinow and Teagarden, 1988). In all eight cases, the person directly in charge of HRM was a local Chinese manager. One expatriate manager in case G mentioned that when he implemented a certain recruitment procedure, local HRM staff resisted, saying that they had been using the old procedure for many years and there had been no complaints. The expatriate manager had to explain in detail the benefits of the new procedure over the old one.

By contrast, production routines are more technology-based and less socially embedded. Moreover, it is relatively straightforward to demonstrate the superiority of a new production routine. For example, in the first month after case F was formed, production volume reached a record level once certain production routines had been revised. This clearly established the legitimacy of the changes made by the foreign partner. Another example is the transfer of accounting practices. Few problems were encountered in any of the eight cases. There were several reasons for this. First, accounting standards and practices are well codified and somewhat independent of the social context. As such, they should be readily transferable. Second, it is evident that China needs to replace her socialist accounting system with international accounting practices. The legitimacy of the latter is thus in place, and the need to discard the former is obvious. Finally, Chinese employees are motivated to learn international accounting practices. For example, in case C, a local accountant who had more than 20 years of professional experience was eager to learn under the supervision of two Singaporeans who were much younger. She recognized that what she learned was of great value in the labor market.

Perceived Expertise of the Foreign Partner Local employees judge the expertise of the foreign partner largely based on two related aspects, namely, the reputation of the foreign partner in the industry and the quality of the most senior person assigned by the foreign partner to the venture. The cases in this study provide a good contrast with respect to the reputation of the foreign partner in the industry. The Singapore partner in case E possessed a very popular brand in the Asia Pacific market. The Chinese deputy general manager said, ‘As you know, the

Singapore side is a famous company in this industry and we are very confident in the technologies and changes brought in by them. They will lead us to regain our lost market share in the Chinese market'. Similarly, the Singapore partner in cases C and D was a major player in the industry. Even though the Chinese partners had reservations about some of the changes implemented in the ventures, they never questioned the technical superiority of the Singapore partner.

By contrast, the Singapore partners in cases B and G were not in the same business as the ventures. Partly because of this lack of expertise, the changes initiated by them were not well received by their Chinese counterparts. The Chinese deputy general manager in case B commented, 'They (i.e., the Singapore partner) have never been in this ball game before. How can they be the coach?' Although the Singapore partner in case H was rather experienced in the industry, it was only a medium-sized company and was not well known. By contrast, the Chinese partner was a pioneer in that sector in China. 'Many people here are not yet convinced by the necessity to change, as proposed by the Singapore partner. . . . They (i.e., the Singapore partner) do not seem to be technically superior to us. Let's wait and see how good they are. Time will tell', commented the Chinese deputy general manager.

The quality of the most senior person assigned to the venture by the foreign partner also affects the perceived expertise of the partner. This person represents the foreign partner in designing and implementing the whole program of technology transfer, and should be able to gain not only the trust, but also the respect of local staff. Possessing relevant work experience and technical knowledge is essential. When local employees are asked to change their job routines, they will wonder whether the new method is better than their old one. If the instruction comes from someone whom they regard as an expert in that area, it will be much more convincing and more likely to be accepted. This is particularly the case in China because the Chinese treasure experience.

The cases again offer a good contrast. The first general manager in case H was appointed by the Singapore partner and was newly recruited for this position. He had worked in several textile factories in China but did not have any experience in case H's industry. He frankly told the joint venture staff on the first day of his arrival that he had experience in the textile industry only. He then had a hard time in the venture; local staff simply did not believe that he could revive the enterprise. Case G was in a somewhat similar situation. The Japanese partner was in the same industry as the joint venture, whereas the Singapore and Indonesian partners were not. Unfortunately, the Japanese did not involve themselves in managing the venture other than transferring production technology. The most senior expatriate manager was the executive director from the Indonesian partner. He was a marketing expert but had no experience in case G's industry. He initiated some changes in the marketing department, such as pricing and promotion procedures. The Chinese managers scorned the changes, saying that he was not familiar with the industry. 'It's like laymen leading experts', said one Chinese manager.

By contrast, case F is a good illustration of the importance of having the right leader. The Singapore partner, which was in the same industry as case F, assigned two managers to China: the general manager and a deputy general manager in charge of finance, personnel and administration. The general manager had worked for the Singapore partner for over 20 years and had been the general manager in charge of operation. The other two Chinese deputy general managers showed great respect for the general manager's experience and expertise. Owing to his wealth of experience, the general manager was able to tackle problems arising from knowledge transfer very effectively.

To summarize, implementation stickiness arises from the need to establish the legitimacy of the new routine and demonstrate that the new routine is superior to the old one. It is easier to establish the legitimacy of the new routine if it replaces a less socially embedded routine and when local employees perceive that the foreign partner possesses the required expertise.

Szulanski (2000) discusses several factors affecting implementation stickiness, such as the communications and technical gaps between the source and the recipient. Although these factors may be valid for many cases, he misses the point that establishing the legitimacy of a new routine often constitutes significant implementation stickiness in unlearning cases where justification is required for replacing an old routine by a new one. The failure to establish such legitimacy may result in the reluctance of the recipient to accept the ostensive aspect of the new routine, not to mention the recipient's unwillingness to implement the routine.

Ramp-up

This stage begins when the recipient starts using the transferred knowledge, and is characterized by unexpected problems that the source and recipient need to tackle. An important unexpected problem identified among the five acquisition joint ventures was that local employees sometimes continued to enact the old routine although its related standard operating procedures had been replaced by those of the new one. There are three main factors affecting the occurrence of this problem: deployment of experts by the foreign partner, the social embeddedness of routines and human relation complications.

Deployment of Experts Expatriates often play the role of change agents—explaining the nature of the new routines and their superiority over the old ones, teaching local staff to operate the routines, and making necessary adjustments to suit the local situation. For a new routine to be properly enacted by local employees, the foreign partner needs to deploy sufficient manpower in the venture. For example, relative to the size of the operation, the Singapore partner in case E appeared to have the greatest deployment of experts among all eight cases. Although the general manager said that a gradual localization program had started, there were seven expatriate managers in charge of major functional areas. The Singapore partner stressed that a large number of expatriate managers was required, particularly at the initial stage of restructuring, to discard the old routines quickly, ensure that new routines were run properly, and deal immediately with any problems that might arise.

By contrast, the Singapore partner in case H assigned two expatriate managers to the venture, one of whom was the general manager. Later, both returned to Singapore. At the time of the author's visit, the Singapore partner did not have any full-time expatriate managers. The position of general manager was left vacant. The executive director in case H was also the general manager of the Singapore partner. He spent about two weeks a month in the joint venture and managed the restructuring process there. The problem of having part-time expatriate managers was the difficulty of following through the ramp-up stage. The Chinese deputy general manager, who was supposed to be in charge of the joint venture during his absence, commented:

> The executive director once asked me to implement a new procedure in the factory. Then he went back to Singapore. Some problems were encountered when the procedure was implemented. The supervisors and workers who were affected by the procedure pressed me for solutions. Frankly speaking, I didn't have any idea. I called Singapore but he was on a business trip and other people there could not help much . . . . Finally, the workers reverted to the old method. Anyway, they didn't like the change.

It is natural that the local employees of an acquisition joint venture revert to their old routines when they fail to obtain sufficient support from the foreign partner during the ramp-up stage. The old routine is something that they are most familiar with and have enacted for a considerable time. There were no reported incidences of this problem in the three greenfield joint ventures because, with the exception of the production system in case B, the corresponding old routines simply did not exist.

Social Embeddedness of Routines When the old routine is heavily embedded, it takes time for local employees to fully abandon its use. As mentioned earlier, HRM practices are among the most socially embedded organizational routines in China. Consider the issue of bonus allocation. Under the former socialist system, the range of pay in virtually all Chinese enterprises was narrow. Income polarization was discouraged, and spiritual incentives were preferred to material rewards. Outstanding performers were awarded titles such as 'model worker' and given public acclaim. Egalitarianism in pay was also consistent with the Chinese culture of cultivating harmonious interpersonal relationships in the workplace and playing down interpersonal competition within the organization. An expatriate manager in case D recounted the difficulty of eliminating egalitarianism due to Chinese supervisors' worry that the new appraisal system would hurt the harmony of their work groups.

Human Relations Complications Because routines often require interpersonal co-operation and communication within the organization, human relations complications can be a barrier to the adoption of new routines. With the exception of case H, the former enterprises in the other four acquisition joint ventures were relatively young by Chinese standards when the foreign partners came in. When the former enterprise was converted into case H, it was 37 years old, older even than the Singapore partner. 'This is an old factory with old machines and old guards', the executive director exclaimed. State enterprises used to provide life employment and 'cradle-to-grave' welfare coverage for their employees. A state enterprise is, in a sense, more like a social community than a production unit (Shenkar, 1996). The implication is that the older the state enterprise, the more complicated the human relations among its employees. This was the situation in case H. There were several deeply entrenched cliques in the organization. 'Implementing a change which upsets the status quo of these cliques is like moving mountains', said the Chinese deputy general manager. This comment was verified by a failed attempt to install a new organizational structure, which was supposed to improve internal coordination and communication. There was little change in how local employees coordinated and communicated after the new structure became official. 'You can't put long-time enemies in the same team and hope that they will work together', said the deputy general manager, although she appreciated the new structure introduced by the Singapore partner. In short, if a new routine upsets the status quo of complicated human relations, it is likely that people will revert to the corresponding old routine generated by and comfortably embedded within such relations.

To summarize, the results indicate that during the ramp-up stage, local employees may continue to enact the old routine although the standard operating procedures have been replaced by those of the new routine. This tendency is more serious when the foreign partner deploys few expatriate managers to the acquisition joint venture, when the routine is more socially embedded, and when human relations within the venture are more complicated. The last factor is, in turn, closely related to the age of the former state enterprise in that human relations tend to be more complicated in older enterprises.

In discussing ramp-up stickiness, Szulanski (2000: 15) comments that 'when a new practice coexists over time with the practice it was meant to replace, duplication of effort and resource contention is likely'. Although he touches upon the issue of unlearning, he fails to elaborate how it affects ramp-up stickiness. Again, this study throws new light on this neglected issue.

Integration

A key finding of this study was that the integration stage was often longer in acquisition than in greenfield joint ventures. Cases C and D provide an excellent contrast. They were in the same line of business, had the same Singapore parent company, and were established at almost the same time. The only major difference was that case C was a greenfield investment, whereas case D was an acquisition venture. Thus, case D offered an opportunity to study organizational unlearning with case C serving as a control group. At the time of the author's visits during the first stage of the fieldwork, the expatriate managers in case D were still tackling problems related to organizational unlearning in the implementation and ramp-up stages, whereas case C had already successfully passed through the implementation stage and the ramp-up stage was progressing satisfactorily.

Shadows of Old Routines As in the ramp-up stage, one difficulty encountered by the five acquisition joint ventures was that local employees occasionally reverted to the old routines even though the new ones had been operational for a considerable time. For example, case G introduced a new purchasing procedure that required a more rigorous assessment of supplier quality. After the procedure had been in place for about two years, staff in the purchasing department continued using the old procedure from time to time. Some respondents commented that they could still see the shadows of the old routines that had been discarded. 'The old system haunts this place', said the deputy general manager in case F. The situation was more serious in case H, in which the former state enterprise was old. An organization's routines are stored in not only in the non-human component of its organizational memory such as manuals, policies, files, information systems, and so on, but also in the collective memory of its members. Usually, it is the human component of organizational memory that forms the greatest obstacle to change (Nystrom and Starbuck, 1984). Hence the older the former state enterprise, the more fossilized the collective memory. An old enterprise's routines may have become part of the members' work habits, and habits are difficult to get rid of.

More often than not, a routine is not a stand-alone item. Routines within an organization are inter-related in the sense that the performance of one may involve another. Because it is virtually impossible to change all the routines at the same time, the foreign partner in an acquisition joint venture usually brings in new routines in a sequential manner. Another factor affecting the institutionalization of new routines is that they may not be compatible with existing old routines. The foreign partners in case G, for example, asked the marketing department to regularly collect detailed information about potential customers through daily marketing and sales activities. Although the practice was considered a good idea, it could not take root, partly because the existing system for storing information was backward. Because this information could not be retrieved efficiently, the sales people were not motivated to collect it.

The Effect of Time Despite the abovementioned difficulties, time is on the side of the foreign partner. When routines are not enacted regularly, they tend to decay (Martin de Holan et al., 2004). The influence of a discarded routine therefore diminishes over time and may ultimately be forgotten. For example, when case E was first visited in 1995, it had been established for about six years and had gone through the integration stage. The Singapore general manager was satisfied with the outcome of the restructuring and said that his major task was maintenance. In fact, the Chinese deputy general manager could not recall in detail how certain things had been done in the past; that is, his memory of the old routines had faded with time.

Time also facilitates unlearning through the turnover of personnel. Martin de Holan et al. (2004: 47) argue that when '(k)ey personnel leave the organization, routines are forgotten'. This concerns the elimination of human memory, an important component of organizational memory (Walsh and Ungson, 1991). As mentioned earlier, the foreign partners in case B were not in the poultry industry. The Chinese deputy general manager was a poultry expert and was responsible for setting up the production system. Later, the foreign partners hired a poultry consultant from Singapore who tried to change the system. The Chinese deputy general manager opposed the changes, commenting that the industry was location-specific and things that worked in Singapore might not work in China. He became an obstacle to carrying out the new production routines. He was subsequently transferred out of the venture by the Chinese partner.

His departure signified the end of the old production system. In the second stage of the fieldwork, it was found that the new production routines gradually took root in the venture.

In summary, similar to the ramp-up stage, local employees' tendency to revert to the old routine makes institutionalization of the new routine difficult. Time facilitates unlearning because human memory fades with time. Moreover, as time passes, employees of the original state enterprise gradually leave the organization.

For integration stickiness, Szulanski (2000: 16) argues that 'when difficulties are encountered, the new practices may be abandoned and, when feasible, reversal to the former status quo may occur'. This study enhances our understanding of this issue by showing that the chance of reversal to the former status quo will be higher when unlearning is involved and that time is a key factor facilitating the discarding of old routines.

Table 2 summarizes the differences between stickiness related to organizational learning and unlearning for each stage of knowledge transfer.

Conclusions

Although the term 'organizational unlearning' has been stated casually from time to time in the literature, the concept has rarely been employed in empirical research. By contrast, the concept of organizational learning has been used widely in studying various kinds of organizational change. Our results show that the

Table 2 Contrast between stickiness related to organizational learning and unlearning

Stages of knowledge transfer	Organizational learning (Szulanski, 2000)	Organizational unlearning (this study)
Initiation	Recognizing opportunities to transfer routines and acting upon them	Convincing the recipient that the transfer of certain routines is necessary
Implementation	Bridging the communications gap between the source and recipient, filling the recipient's technical gap and improving coordination between the source and recipient	Establishing the legitimacy of a new routine, failure of which may result in the recipient's reluctance to accept the ostensive aspect of the new routine
Ramp-up	Resolving unexpected problems arising from using the new routine	Recipient continuing to enact the old routine although it has been replaced by the new one
Integration	Removing obstacles and dealing with challenges related to the institutionalization of the new routine	Recipient's tendency to revert to the old routine, making institutionalization of the new one difficult

routine-based conception of organizational unlearning is useful in helping us understand the stickiness of transferring knowledge to acquisition joint ventures. Future empirical research should further test the concept of organizational unlearning by investigating other phenomena that involve replacing existing routines by new ones.

On a theoretical level, Huber (1991) argues that organizational unlearning is conceptually subsumable under learning. This study empirically refutes his argument by clearly showing that organizational learning and unlearning are distinct processes. Learning takes place in greenfield joint ventures without the need for unlearning, and issues related to unlearning become obstacles to learning in acquisition joint ventures. This study thus contributes to the theoretical development of the concept.

This study represents a step toward a deeper understanding of the phenomenon of stickiness in knowledge transfer investigated by Szulanski (1996, 2000). For each of the four stages in a knowledge-transfer process, this study identifies issues associated with organizational unlearning that affect stickiness. As indicated in Table, 2, these issues, which enhance our knowledge of stickiness, have not been discussed previously. It should be noted that the need for unlearning is not unique to acquisition joint ventures and arises whenever a new routine replaces an existing one. For example, in the collaboration between Rover and Honda, Honda suggested that wire connections in the engine be clamped, whereas Rover had a long tradition of not clamping. Based on this traditional practice, the Rover people asked why they needed this extra step. That is, they challenged the legitimacy of the new routine (Saka 2004).

This article is not without limitations. In addition to the usual limitations associated with the nature of the cases and respondents, this study adopts a traditional perspective of knowledge that it is embedded in routines, and so can be transferred from one organization to another through implementation of the related routines. Blackler (1995) discusses other perspectives of knowledge, which may entail very different knowledge-transfer processes or even deny the possibility of transfer.

Another limitation is that, owing to space constraints, the earlier discussion misses a political dimension of knowledge transfer. The foreign partners in all eight cases were majority shareholders, and there was an uneven distribution of power between the Chinese and foreign partners. Routines brought in by foreign partners might be perceived by their Chinese counterparts as symbols of exercising power. Part of the stickiness may originate from the political considerations of the Chinese partners.

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