



KNOWLEDGE PROCESSES AND LEARNING OUTCOMES IN MNCs: AN EMPIRICAL INVESTIGATION OF THE ROLE OF HRM PRACTICES IN FOREIGN SUBSIDIARIES

BERNARD L. SIMONIN AND AYŞEGÜL ÖZSOMER

By examining the case of American and European firms operating in Japan, this article contributes to the central debate of how and when multinational corporations (MNCs) learn from their foreign subsidiaries. Through structural equation modeling, we assess how specific human resource management (HRM) practices (critical thinking encouragement, supervisory encouragement, learning incentives, deployment of internal mechanisms and processes, expatriation, and corporate training) enhance (1) knowledge transfer outflows from the subsidiary to other parts of the MNC and (2) the subsidiary's performance in its local market. We find learning orientation to be a key antecedent of all HRM practices we investigated. From a practical point of view, a noticeable finding relates to the lack of effects of critical thinking encouragement on market knowledge acquisition and dissemination when (1) there is a significant presence of expatriates in the subsidiary and (2) when local managers have access to training programs at headquarters (HQ) and other affiliates. © 2009 Wiley Periodicals, Inc.

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Researchers have widely acknowledged that a key advantage of multinational corporations (MNCs) is their ability to transfer and exploit knowledge more effectively and efficiently within their intracorporate network than through external market mechanisms (e.g., Bartlett & Goshal, 1989; Gupta

& Govindarajan, 1991, 2000). Realizing this advantage requires the MNC to benefit from the creativity and experience of all units throughout its differentiated network. The MNC's ability to leverage the knowledge dispersed across its country markets, capitalizing on and maximizing learning from local markets, is therefore a fundamental

Correspondence to: Bernard L. Simonin, Associate Professor of Marketing & International Business, The Fletcher School, Tufts University, 160 Packard Avenue, Medford, MA 02155, Phone: 617-627-5255, Fax: 617-627-3712, E-mail: bernard.simonin@tufts.edu

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strategic imperative (Bartlett & Ghoshal, 1989; Hedlund, 1986).

Recent conceptualizations of the MNC as a differentiated network have started to inform us on questions of generation, assimilation, and transfer of knowledge created in various parts of the MNC (Foss & Pedersen, 2004; Gupta & Govindarajan, 2000; Holm & Pedersen, 2000; Minbaeva, Pedersen, Björkman, Fey, & Park, 2003; Özsomer & Gençtürk, 2003). To date, however, most research on internal knowledge transfers within MNCs fails to consider fully the critical role human resource management (HRM) practices play in creating and

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sharing knowledge in and by the MNCs' subsidiaries (cf. Minbaeva et al., 2003). Certainly, HRM practices "can contribute to sustained competitive advantage through facilitating the development of competencies that are firm specific and generate organizational knowledge" (Lado & Wilson, 1994, p. 699). Subsidiary-focused HRM competence, like any of a firm's context-generalizable resources, has the potential to give the MNC a competitive advantage (Taylor, Beechler, & Napier, 1996). Yet,

while this premise is attractive, our understanding and empirical support remain limited in this area where HRM practices intersect with knowledge-related outcomes (Minbaeva, 2005).

How organizational design issues in general (Foss & Pedersen, 2004) and HRM questions in particular (e.g., provision of incentives, supervisory encouragement, or mentoring) influence knowledge creation and transfer in MNCs' subsidiaries is poorly understood for two reasons. First, little theoretical work exists on how subsidiary and MNC managers can best enact knowledge creation within subsidiaries and transfer knowledge from subsidiaries through the design and implementation of dedicated HRM practices and procedures. It is thus unclear how HRM practices such as training, expatriation, use of reward

systems, coaching, and encouraging critical input may influence subsidiaries' knowledge acquisition and dissemination. Second, as Foss and Pedersen (2004) critically noted, when it comes to the managerial dimension, subsidiary managers are left without much theory-based guidance for problems of HRM design and implementation.

To address these limitations and advance our understanding of HRM and learning in MNCs, we tested a model of how specific HRM practices enhance market knowledge generation and sharing, as well as learning outcomes. The subsidiary is the focal point of this work. Unlike past research, our study centers on knowledge seeking and outflows from the subsidiary and the related role of HRM practices in these units. Bartlett and Ghoshal's (1989) view of the MNC as a worldwide learning organization informs this perspective. From a practical point of view, we are viewing HRM theory and practice within a framework of learning and knowledge (Kamoche, 1997; Minbaeva, 2005). Based on a survey of 171 managers and executives in Japan and the use of a structural equation methodology, our study empirically investigates the simultaneous effects on learning outcomes of several HRM practices (ranging from socialization mechanisms to mentoring and adoption of a facilitative leadership style), learning orientation, and market knowledge acquisition and dissemination (see the conceptual model in Figure 1).

Theoretical Model and Background

Minbaeva's (2005) insight inspired the theoretical foundation of our study regarding "bringing together two fields, which have not met very often: knowledge transfer and HRM" (p. 126). In line with recent studies (e.g., Birkinshaw & Hood, 1998) on subsidiary entrepreneurship, initiative, and evolution that look at subsidiaries as sources of knowledge creation and as "centers of excellence" (see Holm & Pedersen, 2000), our model focuses on knowledge transfer *from subsidiaries* to the rest of the organization.

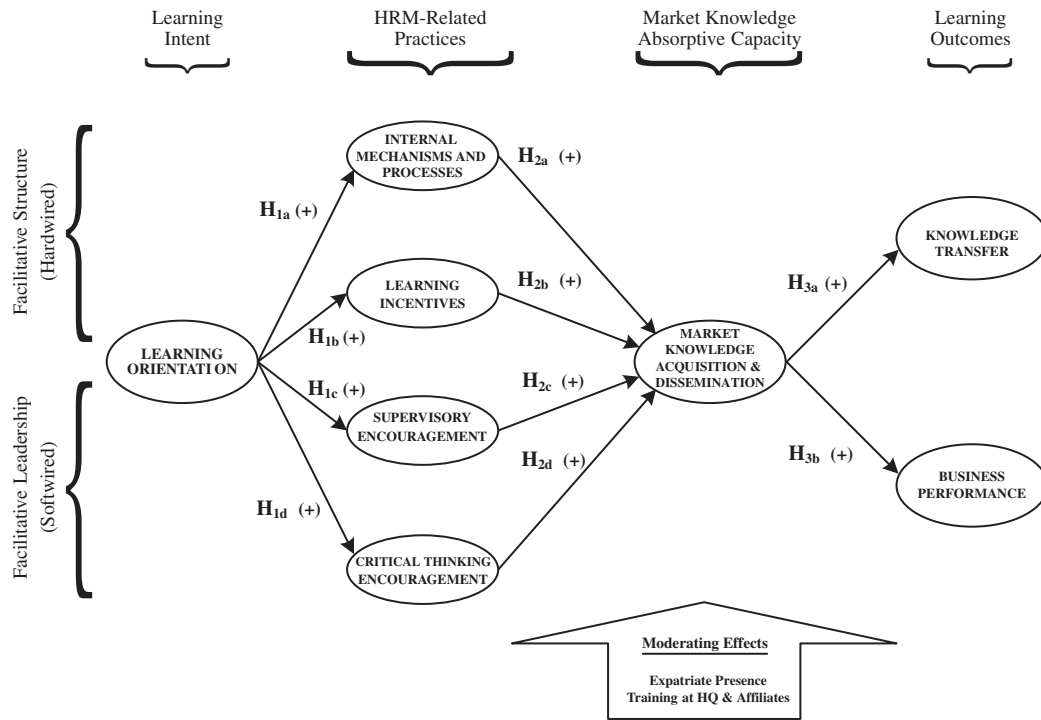


FIGURE 1. Conceptual Model

The study looks at subsidiaries of American and European MNCs operating in Japan, a lead market for many global operations. By focusing on market knowledge in Japan, we can observe how HRM practices can help a foreign subsidiary (1) to perform in a highly competitive market (locally) and (2) to serve the overall learning imperative of an MNC from one of its key markets (globally).

Our model presented in Figure 1 accounts for the concurrent effects of three drivers on knowledge transfer and business performance: (1) *learning orientation*; (2) key HRM practices (*critical thinking encouragement*, *supervisory encouragement*, *learning incentives*, and deployment of *internal mechanisms and processes*); and (3) *market knowledge acquisition and dissemination*. Although studies have identified the importance of these variables separately, researchers have yet to examine their simultaneous effects in the context of MNC subsidiaries empirically. Furthermore, we investigated the influence of two moderating variables: the presence of expatriates in the subsidiary and the training and development of local

managers at headquarters (HQ) and at other subsidiaries.

Learning Orientation and HRM-Related Practices

Learning Orientation

Learning is a critical organizational resource because it enables the firm to maintain competitive advantage by continuously improving its capacity to process market knowledge at a faster rate than its rivals (Dickson, 1996). A growing body of research places *learning orientation* at the heart of this learning cycle (Baker & Sinkula, 1999; McGuiness & Morgan, 2005). As noted by Baker and Sinkula (1999), learning orientation is a set of values that influence the degree to which an organization is satisfied with its theories in use (Argyris & Schön, 1978), mental models (de Geus, 1988), and dominant logics (Bettis & Prahalad, 1995).

Learning orientation influences the degree to which firms promote generative (double-loop) learning as a core competency (Sinkula, Baker, & Noordewier, 1997). Firms with a strong learning orientation encourage

their employees to question established routines and norms (Baker & Sinkula, 1999; Day, 1994; Garvin, 1993). These firms are more supportive of developing critical thinking in their employees (Senge, 1990; Slater & Narver, 1995). Hence, it has a direct bearing on the occurrence of higher-order learning (Slater & Narver, 1995). We concur with Day (1994) and contend that learning orientation, as an inside-out process, enhances the adoption of HRM practices, which, in turn, enhances the outside-in process in the subsidiary of *market knowledge acquisition and dissemination*.

One key aspect of learning orientation is the commitment to learning (McGuinness & Morgan, 2005). In their study of key drivers of human capital management, Bassi and

Commitment to learning translates into proper resource deployment and adoption of HRM practices conducive to knowledge generation and diffusion.

McMurrer (2007) recognize “value and support” for learning as a core practice. It represents a practice in which “leadership behavior consistently demonstrates that learning is valued, and managers consistently make learning a priority.” Commitment to learning translates into proper resource deployment and adoption of HRM practices conducive to knowledge generation and diffusion. Our model relates learning orientation to several such HRM practices: critical thinking and supervisory encouragement (facilitative leadership), learning incentives, internal mechanisms and processes,

and expatriation and training (socialization mechanisms). Pullig, James, and Hair (2002) point to a very similar set of variables (adequate training, encouragement, facilitative leadership, and organizational support) as enablers of an effective climate for adopting a new system or process of collecting and disseminating customer information throughout the organization.

We now turn to the first four of these HRM practices in our model. The first two—the deployment of *internal mechanisms and processes* and *learning incentives* for knowledge creation and diffusion—are more structural. They relate to the resource-based and incentive-based dimensions of Simonin’s (2004)

learning capacity. In comparison, the other two variables—*supervisory encouragement* and *critical thinking encouragement*—speak to facilitative leadership (Pullig et al., 2002; Slater & Narver, 1995). They relate more closely to the cognitive-based dimension of Simonin’s (2004) learning capacity. These variables capture the view that “leaders encourage individual learning through engaging followers both cognitively and emotionally” (Amy, 2008, p. 227).

Internal mechanisms and processes for learning correspond to the commitment and appropriateness of resource deployment of human and tangible support assets (Simonin, 2004). Resource-poor staffing strategies (Pucik, 1988) driven by cost considerations rather than an investment outlook certainly diminish the capacity to learn (usually by denying the resources necessary to learning). Next to human resources, the support assets of information processing and logistic, organizational, financial, and communication capabilities are needed to help in acquiring, processing, storing, and diffusing relevant information and knowledge components. It is important for leaders committed to organizational learning to apply learning tools and to institutionalize learning by relying on processes and procedures, systems and technology, and best practices (Amy, 2008).

H1a: Learning orientation is positively related to the presence of internal mechanisms and processes for learning.

Learning incentives correspond to explicit institutional routines, systems, rules, and guidelines that clarify individual expectations and duties, steer learning activities in nonambiguous terms, and induce commitment to a learning objective (Simonin, 2004). An employee’s willingness to share knowledge is likely to rest on whether the organization equitably fulfills its reward obligations (O’Neill & Adya, 2007). After all, as Hendry, Woodward, Bradley, and Perkins (2000) argue, performance management is about people and motivation: Incentives and reward systems will reflect top management’s assumptions and prejudices. Beyond corporate rhetoric and wishful thinking, how does

one assess true organizational commitment to learning? Pucik's (1988) answer to this question is predicated on the existence of an actual reward system and the presence of a clear learning agenda—two critical enablers or obstacles to organizational learning. A reward system for learning can take many forms (e.g., a direct monetary incentive, a factor in promotion and advancement, or a source of formal recognition and acknowledgment in the organization). Gupta and Govindarajan (2000), for instance, find that higher knowledge inflows from the parent company occur in the subsidiary when its president's bonus is subsidiary focused rather than network focused.

H1b: Learning orientation is positively related to learning incentives.

Facilitative Leadership for Learning

Facilitative leadership emphasizes development of people, promotes learning, and fosters a climate of inquiry into all aspects of a firm's business leadership (Pullig et al., 2002). Facilitative leadership values those who promote respect and positive relationships among team members, productive conflict resolution, and an open expression of ideas and opinions (Hirst, Mann, Bain, Pirola-Merlo, & Richter, 2004). In their study of market orientation and organizational learning, Slater and Narver (1995) argue that a complex environment calls for such a facilitative leadership style. Facilitative leaders focus on developing the people around them, encouraging them to break through learning boundaries, and motivating them to perform beyond set expectations. Instead of using a "command and control" mindset, facilitative leaders motivate through empowerment and develop people by serving as coaches and mentors (Amy, 2008). They help people to question surface assumptions and understand complex patterns and relationships. Subordinates in this environment tend to take more responsibility for learning and make better decisions with less interference from management (Senge, 1990). We consider two

distinct manifestations of facilitative leadership in our model: *supervisory encouragement* and *critical thinking encouragement*.

Supervisory Encouragement

Employees look to their supervisors for cues and information regarding how to work successfully within an organization's social environment (Baldwin & Ford, 1988). In our study, we define and limit the concept of *supervisory encouragement* to the extent to which managers are encouraged to be coaches, mentors, and learning facilitators. Managers in favorable organizational climates are more likely to apply new knowledge to work settings (Baldwin & Ford, 1988). In learning organizations, according to Ellinger and Bostrom (2002), managers and leaders are exhorted to become coaches, facilitators, developers, leaders of learning, as well as teachers (Cohen & Tichy, 1998). For Amy (2008), the mentoring/coaching role is the foundation for fostering individual learning. At the heart of facilitative leadership, "an informal, approachable communication style creates an open, trusting environment in which leaders facilitate learning through asking questions, clarifying expectations, delegating learning projects, teaching based on their personal experience and example, and upholding standards that foster accountability" (Amy, 2008, p. 277).

For managers, organizational culture influences the transition from a traditional control model to a learning facilitator model (Ellinger & Bostrom, 2002). Learning orientation in particular encourages and facilitates learning new knowledge about tasks and situations, which is incorporated into leadership behavior and practices such as in the exercise of facilitative leadership (Hirst et al., 2004). General attitudes and beliefs toward learning that prevail in the organization—its learning orientation—are thus expected to relate to managers' propensity to act as facilitators and coaches of learning.

Facilitative leaders focus on developing the people around them, encouraging them to break through learning boundaries, and motivating them to perform beyond set expectations.

H1c: Learning orientation is positively related to supervisory encouragement toward learning.

Critical Thinking Encouragement

The propensity to unlearn corresponds to a necessary safeguard against competency traps and the effect of superstitious learning. In this regard, Hedberg (1981) maintains that the process of understanding requires both learning new knowledge and the ability to discard obsolete or misleading knowledge. Only through reviewing the principles underlying corporate dogma, challenging old premises, and questioning prevalent organizational procedures and norms can new ideas find fertile terrain. For our study, then, *critical thinking encouragement* refers to this type of openness and learning culture in an organization. More specifically, it represents the degree to which employees are encouraged to rethink the logic of current behaviors, to question established routines and beliefs, and to challenge established wisdom.

Researchers routinely associate learning orientation with open-mindedness and shared vision (Day, 1994; Senge, 1990). When employees proactively question long-held routines, beliefs, assumptions, and policies, they are engaging in unlearning (Nystrom & Starbuck, 1984). Hence, unlearning is at the heart of organizational change and open-mindedness. Such unlearning, in turn, influences the capacity to acquire and disseminate new market knowledge in the subsidiary. Firms with higher learning orientation are more willing to question long-held assumptions about their fundamental operating philosophies (Senge, 1990; Slater & Narver, 1995); they encourage and even require their employees constantly to question the organizational routines and norms that guide their market information processing activities (Baker & Sinkula, 1999; Garvin, 1993). Learning orientation thus affects the degree to which organizational members are encouraged and even required to think outside the box.

H1d: Learning orientation is positively related to critical thinking encouragement.

HRM Practices and Market Knowledge Acquisition and Dissemination

An MNC skilled in learning from its network of differentiated subsidiaries is “skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights” (Garvin, 1993, p. 80). In the context of learning from the market, market orientation strongly parallels the contents of the organizational learning process and learning efforts (Jaworski & Kohli, 1993; Slater & Narver, 1995). The well-established market orientation literature (see Kirca, Jayachandran, & Bearden, 2005, for a review; Jaworski & Kohli, 1993; Matsuno, Mentzer, & Özsomer, 2002) defines market orientation as the organizationwide acquisition of market knowledge pertaining to current and future needs, dissemination of the knowledge across departments, and organizationwide responsiveness to it. Marketing researchers have viewed market orientation as a set of specific behaviors and activities as well as a resource (Hurley & Hult, 1998). Similar to Hult and Ferrell’s (1997) research on global learning organizations and the work of Sinkula et al. (1997) on market-based learning, our study centers on two components of market orientation: market knowledge acquisition and dissemination. Together these two components capture market knowledge-producing behaviors that guide the efforts of the entire business unit (BU) to acquire and disseminate market knowledge about the firm’s current and potential customers and competitors (Day 1994; Hult, Ketchen, & Slater, 2005).

In our conceptualization, HRM practices provide the mechanisms and the microfoundation (à la Foss & Pedersen, 2004) for market knowledge acquisition and dissemination in all levels and departments of the subsidiary’s BU. They in turn influence the transfer of knowledge to other parts of the MNC and enhance the subsidiary’s performance. Effective knowledge dissemination (or sharing) increases the value of knowledge when the

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knowledge can be seen in its broader context by (1) all affected by it and (2) those who can offer feedback, questions, amplifications, or modifications that provide new insights (Hult & Ferrell, 1997). Proper HRM mechanisms and practices of reward systems, incentives, mentoring, and rethinking encouragement have to be present to trigger and improve market knowledge acquisition and dissemination. We therefore propose the following hypotheses:

H2a: The presence of internal mechanisms and processes for learning is positively related to market knowledge acquisition and dissemination.

The absence of formal incentives may inhibit knowledge-sharing initiatives. Knowledge holders may fear personal loss of power and value or view the commitment of time and effort as too costly. Knowledge seekers may find themselves weighing opportunity costs, resisting change, or worrying about the not-invented-here syndrome. In fact, Husted and Michailova (2002) conclude that “unless knowledge-sharing is built into expectations of the individual and is reflected in the reward mechanism, sharing will not take place” (p. 21).

H2b: Learning incentives are positively related to market knowledge acquisition and dissemination.

Facilitative leaders capture the key kernels of information, build bridges between people, create an atmosphere in which people share information, and shape a culture in which people feel comfortable contributing ideas and suggestions (Brome, 2006). Through both words and actions, facilitative leaders foster a climate in which people want to learn; they encourage cross-functional exchange of personnel and ideas and transfer of information and knowledge within the firm (Pullig et al., 2002).

H2c: Supervisory encouragement toward learning is positively related to market knowledge acquisition and dissemination.

In the context of an MNC’s purchasing function, Hult and Ferrell (1997) show that

reflective openness, which encompasses the willingness to challenge one’s views, ideas, and thinking, positively influences the level of information acquisition and information dissemination.

H2d: Critical thinking encouragement is positively related to market knowledge acquisition and dissemination.

Market Knowledge Acquisition and Dissemination and Learning Outcomes

Conceptualizations of the MNC as a heterarchy (Hedlund, 1986) or a transnational corporation (Bartlett & Ghoshal, 1989) identify a strong interdependence between head office and differentiated national subsidiaries. MNCs must transfer knowledge not only from the head office, but also from sister subsidiaries to other parts of the global organization. The unique subsidiary environment puts it in a special position to acquire and disseminate new knowledge about the local or regional market (Bartlett & Ghoshal, 1989). That is, subsidiaries control heterogeneous stocks of market knowledge; they can contribute to global competitive advantage by transferring knowledge to other parts of the MNC (Foss & Pedersen, 2002; Gupta & Govindarajan, 1991, 2000). Indeed, Ghoshal and Bartlett (1988) found that access to local knowledge leads to innovative learning outcomes.

According to Argote and Ingram (2000), knowledge transfer can be measured by changes in knowledge or by changes in performance. This study relies on both, capturing (1) changes that occurred in other parts of the global organization and (2) changes in competitiveness in other foreign markets. We believe that such a dual measure is more representative of the broad domain and effect of knowledge outflows from subsidiaries. In line with recent research (e.g., Foss & Pedersen, 2002), we capture the application and the usefulness

Through both words and actions, facilitative leaders foster a climate in which people want to learn.

of subsidiary market knowledge in other parts of the MNC.

The ongoing relationships among MNC units create a dynamic setting where subsidiaries are motivated to transfer knowledge to other parts of the operation because they perceive its benefits to them (Foss & Pedersen, 2002). In such a dynamic context, a given subsidiary may gain power by transferring knowledge because a subsidiary able to continuously transfer knowledge to other units is likely to enhance its influence within the differentiated network of subsidiaries. Indeed, Foss and Pedersen (2002) found a positive relationship between the internal knowledge European subsidiaries held and the degree of knowledge transfer to other units of the

A subsidiary able to continuously transfer knowledge to other units is likely to enhance its influence within the differentiated network of subsidiaries.

MNC. We thus propose the following hypothesis:

H3a: A subsidiary's level of market knowledge acquisition and dissemination is positively related to the level of knowledge transfer to other MNC units.

Market knowledge acquisition and dissemination place a high priority on the profitable creation and maintenance of superior customer value. The subsidiary will internalize and disseminate knowledge about a BU's current and potential customers and competitors in its

market response. Such market-sensing and customer-linking efforts at the local level will lead to superior business performance (Day, 1994; Hult et al., 2005). Indeed, there is extensive empirical support for the positive relationship between the dimensions of market orientation and business performance, albeit not in a subsidiary context (see Kirca et al., 2005).

We agree that superior performance requires an intimate, firsthand understanding of the subtleties and complexities of the local market environment with respect to customers and competitors. In fact, an MNC's absorptive capacity for such local knowledge enables the transnational MNC to "act lo-

cally," achieving the responsiveness needed to enhance local performance. Furthermore, market knowledge acquisition and dissemination seem even more critical to success in markets where companies usually compete with other global companies and nimble local firms. A foreign subsidiary may find itself caught in the crossfire of other MNC subsidiaries and local companies that can generate and share local market knowledge better than the subsidiary does. Market knowledge acquisition and dissemination are critical to superior performance for three reasons: (1) the acceleration of change, including the explosion of available market data and the importance of anticipatory action (Day, 1994; Hult et al., 2005); (2) the cumulative value that they generate across firm activities, departments, and levels; and (3) the difficulty that competitors have in imitating them.

H3b: A subsidiary's level of market knowledge acquisition and dissemination is positively related to its level of business performance.

Moderating Effects of Corporate Socialization Mechanisms: The Role of Training and Expatriation

The increasingly high interdependence among MNC units necessitates multidirectional flows of knowledge across units. Corporate socialization mechanisms, such as expatriate opportunities and training programs across units, are conducive to such exchanges. Corporate socialization mechanisms are organizational mechanisms that build interpersonal familiarity, personal affinity, and convergence in cognitive maps among personnel from different MNC units (Edstrom & Galbraith, 1977; Van Maanen & Schein, 1979). Through socialization, organization members develop common expectations and shared values that promote like-minded decision making (Nobel & Birkinshaw, 1998). Greater interpersonal familiarity and personal affinity can also be expected to increase the openness of communication among the interacting parties (Gupta & Govindara-

jan, 2000). We would thus expect that greater participation in corporate socialization mechanisms would facilitate and enhance the knowledge transfer from the subsidiary to the MNC's other parts and subsidiaries.

In a study of a Danish multinational entity's subsidiaries, Minbaeva (2005) found no support for a direct effect of corporate socialization mechanisms and flexible working practices on higher degrees of knowledge transfer to a subsidiary. While our study centers on the opposite knowledge flow (from the subsidiary to HQ and to sister subsidiaries) and focuses on other socialization mechanisms (training outside the subsidiary and expatriation), it also models these socialization mechanisms differently by considering their potential moderating effects rather than direct effects. For instance, one thus may be able to assess the degree to which the presence of expatriates alters the relationship between learning orientation and learning incentives or of other HRM practices and performance outcomes. We shall now briefly introduce the two HRM practices included as moderators in our model: training and expatriate presence.

Training at HQ and Other Affiliates

In general, limited investments in training and development tend to result in low levels of knowledge and skills in employees, a key impediment to learning (Minbaeva et al., 2003). In this study, we look at training of subsidiary managers at HQ and other subsidiaries as a corporate socialization mechanism. We thus capture both lateral and vertical socialization mechanisms (Gupta & Govindarajan, 2000). There is ample evidence that investment in employee training enhances the organization's human capital, which then boosts organizational performance (Minbaeva, 2005). For instance, Minbaeva et al. (2003) report a significant positive correlation between training of subsidiary managerial and nonmanagerial employees and the level of knowledge the parent company and other subsidiaries transfer into the subsidiary.

Specifically, when training levels at HQ and other subsidiaries are high, we expect the relationship between market knowledge acquisition and dissemination and knowledge transfer (outflows) from the subsidiary to be stronger. Furthermore, training of subsidiary managers at other MNC units should also enhance the effectiveness of HRM practices in market knowledge acquisition and dissemination.

Expatriate Presence

Researchers in international HRM have recently become keenly interested in expatriates' role as a means for disseminating knowledge across MNC units (Hocking, Brown, & Harzing, 2007; Minbaeva & Michailova, 2004). This coincides with a notable shift in expectations regarding the expatriates' role from one of control and coordination across units ("getting the job done") to supporting skills transfer and engaging in local staff development (Minbaeva & Michailova, 2004). Under this new knowledge management imperative, expatriates should no longer be viewed as a unidirectional vehicle for transferring a parent's company knowledge to a given subsidiary. From an experiential learning perspective, expatriates also gain local subsidiary knowledge and apply it to the broader global operations (Hocking et al., 2007). Beyond their role as knowledge "grafters," expatriates also have the capacity to encourage and facilitate knowledge sharing across sister subsidiaries and back to the parent company.

National background accounts for significant differences in managerial perspectives (Tung, 1982). The presence of expatriates in a subsidiary's top management team enriches the pool of perspectives and inherent capacity to address complex issues. By interpreting the locally generated market knowledge within a broader organizational context (Hocking et al., 2007), expatriates can facilitate knowledge transfer from the subsidiary to other units. The greater the expatriate manager presence in a subsidiary, therefore, the greater the association between market knowledge acquisition and

diffusion and knowledge outflows from the subsidiary. Indeed, the presence of expatriates would increase the homophily between the subsidiary and the rest of the MNC units (Gupta & Govindarajan, 2000). Homophily, the “degree to which two or more

The majority of the respondents were top decision makers in a key subsidiary of some of America’s and Europe’s largest multinationals.

individuals who interact are similar in certain attributes, such as beliefs, education, social status, and the like” (Rogers, 1995, pp. 18–19), is important in facilitating the transfer of knowledge created in the subsidiary to the rest of the MNC because similar individuals within the MNC share a mutual subcultural language, common meanings, and norms. For a more complete understanding of the overall learning process in the MNC em-

anating from the subsidiaries, it is pertinent to examine to what extent these socialization mechanisms impact the postulated model.

Methods

Sample and Data Collection

The population of our study consisted of large and medium-size U.S. and Western European MNCs operating in Japan. We selected the BU for analysis, as opposed to the subsidiary as a whole, because many subsidiaries are so diversified that their various BUs may face a different market environment, have different internal resources and idiosyncratic management practices, and pursue different knowledge management strategies. Since our study is concerned with the actual level of learning orientation, HRM support, and knowledge outflows rather than with ideal levels of these constructs, we instructed respondents to consider the current state of their operation and encouraged them to answer factually. That is, the data collected represent managers’ perceptions of actual use and practice.

We used the directory published by the American Chamber of Commerce as the sampling frame in Japan. The American Chamber

of Commerce in Japan counts more than 2,400 members (representing more than 750 domestic and foreign companies) identified by their full name, title, company, responsibilities, and corporate contact numbers and address. Given our research focus on the foreign subsidiaries of U.S. and Western European MNCs involved in manufacturing and service industries, we discarded from the directory all other entries (i.e., a majority of Japanese firms), resulting in a set of 223 distinct subsidiaries with qualified respondents. These targeted respondents were the subsidiary’s top-level managers and executives. The strategic nature of the survey’s content with its focus on organizational boundaries issues such as knowledge transfer, expatriation, and the probing of HRM practices necessitated the participation of top executives whose understanding and field of action encompass the overall organization, not just the Japanese subsidiary. These top executives were the most able to observe and to determine the impact of specific HRM practices on the rest of the organization’s activities.

Respondents

From the list of qualified subsidiaries, we contacted 515 identified executives by mail with a copy of the questionnaire and a personalized cover letter outlining the nature of the study and its confidential nature. The initial and follow-up mailings yielded 173 completed questionnaires. We discarded two anonymous questionnaires, which led to 171 usable responses and an effective response rate of 34%.¹ The majority of the respondents were top decision makers in a key subsidiary of some of America’s and Europe’s largest multinationals: 41% were presidents and general managers. These respondents averaged more than 12 years of experience with the company and 6 years of experience in the Japanese subsidiary. Half of the subsidiaries had been established in Japan for more than 22 years. The median number of subsidiary employees was 200, while the median number of expatriates was 2. Nineteen broadly defined industries were represented with chemicals and pharmaceuticals (23%), medi-

cal and measuring equipment (20%), and general consumer products (8%) as leading categories.

Instrument

We based the questionnaire design, implementation, and conduct of the survey on the Total Design Method approach (Dillman, 1978). We used questionnaires in English for the Japanese BUs. We attempted no translation because the executives in prestudy panels conducted in Japan assured us that top-level foreign or local managers were accustomed to conducting business in English and that local language terminology did not exist for some of the terminology used.

The questionnaire prompted respondents to focus on their BU in Japan, the BU's ability to generate and disseminate market intelligence and knowledge, as well as best marketing practices within the subsidiary and across the MNC's organizational boundaries. This focus on marketing as an explicit knowledge area is consistent with past empirical research in this area (e.g., Gupta & Govindarajan, 2000; Minbaeva, 2005). In addition to general facts and descriptive information about the subsidiary and BU under scrutiny, the questionnaire included specific questions related to HRM practices, performance, organizational norms and beliefs, and issues of knowledge transfer. To enhance face validity, separate panels of four executives from three subsidiaries in Japan qualitatively evaluated the initial pool of items, which led to some final modifications mostly in the clarity and format of the instructions.

Measures

We measured the latent variables in the model by multiple indicators. Appendix A gives the indicators and their source in the literature, and Appendix B provides the correlation matrix. In particular, similarly to Baker and Sinkula (1999), we used two self-reported indicators (market share and sales growth of the subsidiary) to assess *business performance*. For the multigroup comparisons

investigating the role of expatriation and training, we divided the sample (median-split) along each of these variables. We captured expatriation by the number of expatriates in the Japanese subsidiary self-reported in the questionnaire. Likewise, we captured training by the importance given to training local managers at HQ and other subsidiaries.

Market knowledge acquisition and dissemination is a multidimensional construct similar to Hult and Ferrell's (1997) *market information processing* construct. It is measured by the two dimensions of information acquisition and information dissemination that are conceptualized as part of the well-established market orientation measure MARKOR (Kohli & Jaworski, 1990; Matsuno et al., 2002). Six items pertain to local market knowledge acquisition and six to local market knowledge dissemination. The Cronbach's alpha coefficients for the two components—knowledge acquisition (.75), dissemination (.75)—surpass the .70 threshold Nunnally (1978) recommends for scale reliability. To assess the measurement model of the scale, we carried out a second-order confirmatory factor analysis (CFA) with (1) *knowledge acquisition* and (2) *knowledge dissemination* as the two first-order dimensions. We fitted second-order CFA by the maximum likelihood procedure of the EQS program (Bentler, 2002) and had an adequate fit ($\chi^2 = 115.67$, $df = 53$, $p = .00$, CFI = .93, NNFI = .91; standardized RMR = .08). All first-order and second-order factor loadings were significant, thus demonstrating convergent validity. These results provided us with enough confidence to calculate averages for the six items that load on the first-order factor of *market knowledge acquisition* and the other six items loading on *market knowledge dissemination*, which we used in subsequent analysis.

Analysis

To assess the relationships the theoretical model in Figure 1 posits, we used the maximum likelihood LISREL 8.54 program (Jöreskog & Sörbom, 2003). Structural equa-

tion modeling takes into account errors in measurement, variables with multiple indicators, and multiple-group comparisons.

Measurement Model

For the full sample, the constructs display satisfactory levels of reliability as indicated by composite reliabilities ranging from .86 to .99 and shared variance coefficients ranging from .76 to .98, which were computed from the LISREL loading estimates following Fornell and Larcker's (1981) formula. Convergent validity can be judged by looking at both the significance of the factor loadings and the shared variance. The amount of variance a construct shares or captures should be greater than the amount of measurement error (shared variance > .50). All the multi-item constructs met this criterion with each loading (λ) being significantly related to its underlying factor (t -values greater than 3.50) in support of convergent validity. Likewise, a series of chi-square difference tests on the factor correlations showed that discriminant validity was achieved among all constructs (Anderson & Gerbing, 1988).

Structural Model

Table I reports the parameter estimates and goodness-of-fit indicators of the structural equation system. Although the overall chi-square is significant ($\chi^2 = 80.91$; 51 df ; $p < 0.00$), as might be expected with this statistic's sensitivity to sample size (Bagozzi & Yi, 1988), the ratio of χ^2 to degrees of freedom (1.59, less than 3) corresponds to a satisfactory fit (Carmines & McIver, 1981), while the other fit indices (NNFI = .96; NFI = .91; CFI = .98) and the low standardized root mean square residual (RMR = .05) are all within acceptable ranges and show that the model accounts for a substantial amount of variance (Bagozzi & Yi, 1988). Hence, the model is a reasonable representation of the data.

Looking at the parameter estimates, a first, notable result consists of the significant positive effects of the main exogenous variable *learning orientation* on *internal mechanisms and processes*, *learning incentives*, *supervisory encouragement*, and *critical thinking encouragement* in support of H1a ($\gamma_{11} = .39$, $t = 5.21$), H1b ($\gamma_{21} = .53$, $t = 7.82$), H1c ($\gamma_{31} = .64$, $t = 9.84$), and

TABLE I Structural Parameter Estimates and Goodness-of-Fit Indices (Full Sample)

Hypotheses	Paths	Estimate	t-value
H3a	Market Knowledge A&D ==> Knowledge Transfer	β_{56} .59	5.63**
H3b	Market Knowledge A&D ==> Business Performance	β_{57} .47	4.45**
H2a	Internal Mechanisms & Processes ==> Market Knowledge A&D	β_{51} .37	5.23**
H2b	Learning Incentives ==> Market Knowledge A&D	β_{52} .24	1.93*
H2c	Supervisory Encouragement ==> Market Knowledge A&D	β_{53} .16	1.59
H2d	Critical Thinking Encouragement ==> Market Knowledge A&D	β_{54} .11	1.30
H1a	Learning Orientation ==> Internal Mechanisms & Processes	γ_{11} .39	5.21**
H1b	Learning Orientation ==> Learning Incentives	γ_{21} .53	7.82**
H1c	Learning Orientation ==> Supervisory Encouragement	γ_{31} .64	9.84**
H1d	Learning Orientation ==> Critical Thinking Encouragement	γ_{41} .41	5.72**
	NFI = .94	Standardized RMR = .05	
	NNFI = .96	χ^2 (51 df) = 80.91	
	CFI = .98	p -value = 0.00	$n = 171$

* significant at the $p < .10$ level.

** significant at the $p < .05$ level.

H1d ($\gamma_{41} = .41, t = 5.72$). That is, stronger (weaker) learning orientation in the MNC corresponds to more (less) supportive HRM practices toward learning in the subsidiary. An additional analysis through a series of chi-square difference tests (see Anderson & Gerbing, 1988) further reveals that only two out of the six possible paired comparisons are significant: The overall positive effect of *learning orientation* on *supervisory encouragement* is greater in magnitude than its effect on *internal mechanisms and processes* ($\Delta\chi^2=4.58, \Delta df = 1; p < .05$) and critical thinking encouragement ($\Delta\chi^2=4.94, \Delta df = 1; p < .05$). This set of results is consistent with prior research on knowledge transfer processes that has shown empirically the criticality of learning intent on the presence of resource-based and cognitive-based learning capacity (see Simonin, 2004). These initial results are also in line with the recent interest and research impetus on learning orientation as a pertinent construct (e.g., Baker & Sinkula, 1999; McGuinness & Morgan, 2005).

Turning to the endogenous variables in the model, Table I reveals that only the presence of *internal mechanisms and processes* ($\beta_{51} = .37, t = 5.23$) and *learning incentives* ($\beta_{52} = .24, t = 1.93$) show a significant effect on *market knowledge acquisition and dissemination* in the subsidiaries. That is, the more (or less) prevalent *internal mechanisms and processes and learning incentives* (not *supervisory encouragement and critical thinking encouragement*) are, the stronger (or weaker) market knowledge acquisition and dissemination in the subsidiary are. H2a and H2b are thus supported, while H2c and H2d are rejected. It is the structural variables, rather than the ones attached to facilitative leadership (Amy, 2008; Slater & Narver, 1995), that seem to be associated with the development of knowledge-processing capacity.

Finally, looking at learning and performance outcomes, Table I reveals that *market knowledge acquisition and dissemination* has a positive significant effect on both knowledge transfer ($\beta_{56} = .59, t = 5.63$) and

business performance ($\beta_{57} = .47, t = 4.45$), in support of H3a and H3b. That is, stronger (or weaker) *market knowledge acquisition and dissemination* in the subsidiary relates to (1) more (or less) market knowledge being transferred to headquarters and sister units and (2) higher (or lower) business performance at the subsidiary level. Furthermore, a chi-square difference test reveals that, statistically, the positive effects of market knowledge acquisition and dissemination on knowledge transfer and on business performance are of the same magnitude ($\Delta\chi^2=0.94, \Delta df = 1; ns$). Taken simultaneously, these initial results offer empirical support to a model of learning that rests on the interplay of motivation, capability, and learning outcomes. Overall, the model explains a substantial amount of variance in the key endogenous variables market knowledge acquisition and dissemination ($R^2 = .59$), knowledge transfer ($R^2 = .28$), and business performance ($R^2 = .21$).

Moderating Effects

The moderating variables investigated serve as vehicles of knowledge transfer, socialization, control, and, possibly, career advancement and promotion in the context of subsidiary-HQ relationships. From a knowledge flow and acculturation perspective, they could be viewed as mirror images: (1) expatriates infusing best global practices, grafting the corporate ethos, and establishing or reinforcing institutional norms and value systems into the subsidiary (the reverse is true as well, and expatriates can play a significant dissemination role upstream; see Minbaeva & Michailova, 2004); and (2) training and development of local subsidiary managers at HQ and other affiliates encapsulating the same transformative potential outside-in. This inward-outward contrast in directionality offers a pertinent basis of comparison.

Expatriate Presence

Table II shows that the previous results differ somewhat across groups characterized by dif-

ferent levels of expatriate presence. The two groups to be contrasted are very distinct (mean = .49 for the “low expatriate presence” group versus mean = 11.73 for the “high expatriate presence” group; means are significantly different: $t = 5.28$, $p < 0.00$). That is, the “low” group averages less than 1 expatriate (about 20% of all subsidiaries had no expatriates at all), while the “high” group averaged about 12 expatriates (the range was between 2 and 140 expatriates). The results in the “low expatriate presence” group are almost identical to the general results. The only difference is the relationship between critical thinking encouragement and market knowledge acquisition and dissemination that is now significant ($\beta_{54} = .45$, $t = 3.81$) in support of H2d.

Turning to the “high expatriate presence” group, Table II shows that the results are also very consistent with those of the main model. Unlike in the “low” group, the effect of critical thinking encouragement on market knowledge acquisition and dissemination remains insignificant (H2d is not supported). Unlike in the main model and the “low” group, however, two other antecedents of *knowledge processing capacity* show opposite outcomes: *Learning incentives* is now insignificant (H2b is not supported), while *supervisory encouragement* turns out to be significant ($\beta_{53} = .39$, $t = 2.31$), in support of H2c. In addition to these explicit differences between the two groups, another pertinent question relates to the actual comparative strength of the significant effects across “low” and “high” condi-

TABLE II Structural Parameter Estimates and Goodness-of-Fit Indices for Two-Group Comparison on Expatriation and Training Levels

Paths/Hypotheses		Expatriate Presence		Training at HQ & Affiliates	
		Low ($n_1 = 92$)	High ($n_2 = 79$)	Low ($n_1 = 95$)	High ($n_2 = 75$)
Market Knowledge A&D ==> Knowledge Transfer	H3a	.27**	.74**	.42**	.65**
Market Knowledge A&D ==> Business Performance	H3b	.57**	.32*	.56**	.28
Internal Mechanisms & Processes ==> Market Knowledge A&D	H2a	.41**	.54**	.44**	.47**
Learning Incentives ==> Market Knowledge A&D	H2b	.30**	.01	.13	.28**
Supervisory Encouragement ==> Market Knowledge A&D	H2c	.07	.39**	.10	.24**
Critical Thinking Encouragement ==> Market Knowledge A&D	H2d	.45**	-.16	.26*	.11
Learning Orientation ==> Internal Mechanisms & Processes	H1a	.39**	.40**	.46**	.25**
Learning Orientation ==> Learning Incentives	H1b	.62**	.66**	.71**	.51**
Learning Orientation ==> Supervisory Encouragement	H1c	.59**	.68**	.60**	.64**
Learning Orientation ==> Critical Thinking Encouragement	H1d	.48**	.50**	.49**	.23**
		CFI = .97		CFI = .96	
		Standardized RMR = .07		Standardized RMR = .06	
		χ^2 (102 df) = 134.79		χ^2 (102 df) = 141.85	

* significant at the $p < .10$ level

** significant at the $p < .05$ level

Correlation matrices available from authors upon request

tions of expatriate presence. Based on a series of chi-square difference tests, the significant effects of learning orientation on the four HRM practices are also found to be of equal magnitude across groups: Expatriation (or lack thereof) does not alter the effects. In contrast, a significant difference in chi-square ($\Delta\chi^2=4.10$, $df = 1$) exists for the effect of market knowledge acquisition and dissemination on knowledge transfer, indicating that, comparatively speaking, greater expatriate presence coincides with a stronger effect of the subsidiary's market knowledge processing capacity on the knowledge transfer outcomes.

The preceding pattern of results across the two groups is consistent with (1) the role of expatriates as catalysts of knowledge transfer from the subsidiary to the rest of the organization (Minbaeva & Michailova, 2004) and (2) a type of substitution effect in building absorptive capacity triggered by the presence or absence of expatriates in the subsidiary: While *learning incentives* and *critical thinking encouragement* (but not supervisory encouragement) are effective in the absence of a strong expatriate representation, *supervisory encouragement* (and neither *learning incentives* nor *critical thinking encouragement*) seems to matter in the presence of expatriates. The managers' value as coaches, mentors, and learning facilitators thus seems to be conditioned on the presence of expatriates in the subsidiary through either the expatriates' direct contribution as mentors and advocates themselves or an indirect contribution via their influence on other managers to play that role. Likewise, open-mindedness—the ability to challenge established wisdom and to unlearn—seems to matter with respect to *market knowledge acquisition and dissemination* only when there are no or very few expatriates.

Although not formally hypothesized, another issue of interest in examining the role of expatriates concerns the possible structural differences across groups. A series of independent *t*-tests reveals that, in fact, the “high” and “low” groups only differ for market share performance and the presence of *internal mechanisms and processes*. That is, “higher”

expatriate presence is actually associated with lower performance on market share (Mean_{High} = 4.41 versus Mean_{Low} = 5.00; $t = 2.07$ for Y_4) and more limited existence of specific mechanisms and processes to facilitate knowledge creation and transfer (Mean_{High} = 3.85 versus Mean_{Low} = 4.39; $t = 2.37$ for Y_7).

Training at HQ and Other Affiliates

Table II also reports the results of the multiple group analysis for the second moderator, *training* of subsidiary managers at HQ and other affiliates. Here, too, the two groups represented are very distinct in terms of training extent (Mean = 2.79 for the “limited training” group versus Mean = 5.72 for the “extensive training” group; means are significantly different: $t = 20.76$, $p < 0.00$). The results in the “limited training” group are almost identical to those of the “low expatriate presence” (and general results). The only difference is the effect of *learning incentives* on *market knowledge acquisition and dissemination*, which now is not significant (H2b is not supported). But the other effects of *market knowledge acquisition and dissemination* on *knowledge transfer* and *business performance* (H3a and H3b are supported) and of *learning orientation* on the four HRM practices of the model (H1a to H1d are supported) remain significant and positive.

In comparison, the “extensive training” group offers more nuanced results. As with all the other models, the effect of *learning orientation* on the four HRM practices is significant (H1a to H1d are supported). While the effects of *market knowledge acquisition and dissemination* on *knowledge transfer* remain significant (H3a is supported), however, the parallel effect on *business performance* is not significant anymore (H3b is not supported). That is, in subsidiaries with greater international training opportunities for local managers, *market knowledge acquisition and dissemination* relates to knowledge transfer outcomes, but it does not seem to be associated directly with the subsidiary's performance. Turning to the antecedents of market knowledge acquisition and dissemination, the results are even more contrasted. Consistently with all the other

models, the effect of internal mechanisms and processes on market knowledge acquisition and dissemination is significant (H2a is supported). Then, under “limited training” conditions, only critical thinking encouragement displays an additional significant positive effect (H2d is supported). The exact opposite is true under the “extensive training” condition: Only learning incentives and supervisory encouragement display a significant effect on *market knowledge acquisition* and *dissemination* (H2b and H2c are supported). Here, too, with respect to market knowledge acquisition and dissemination, open-mindedness seems to matter when local managers are only exposed to limited training opportunities at HQ and other affiliates. Conversely, reward systems and coaching/mentoring postures seem to play a

role in building market knowledge processing capacity only when the same managers have greater access to international training opportunities.

The influence of top decision makers and chief knowledge officers is not limited to building a proper knowledge strategy and infrastructure (Davenport & Prusak, 1998). It also matters in shaping attitudes, beliefs, and expectations regarding learning in and from subsidiaries.

Discussion and Conclusions

The Drivers of Learning Outcomes

The overall results point to the fundamental roles learning orientation, internal mechanisms and processes, and market knowledge acquisition and dissemination play. We found the significant effects between these constructs and learning outcomes consistently across the main analysis (full sample) and the two group analyses. As such, they are at the heart of the learning process and provide additional support for a learning intent-capacity-outcomes view of

the learning organization (Hamel, 1990; Pucik, 1988; Simonin, 2004). Regardless of the degree of expatriate presence in subsidiaries and the offshoring of the training programs for local managers, we found learning orientation always to exert a positive direct effect on all of the HRM practices.² These

results underline the theoretical importance of learning orientation and call for the need to account formally for this construct in future research.

Furthermore, on a comparative basis, we also established that the effect of learning orientation on the ability to turn managers into coaches, mentors, and facilitators of learning (supervisor encouragement) was stronger than the same effects on the propensity (1) to have reward systems aimed at encouraging employees to advance and share their individual knowledge with others (learning incentives) and (2) to develop specific mechanisms and processes aimed at creating and diffusing knowledge (internal mechanisms and processes). The fact that learning orientation can impact the supervisory encouragement side of HRM practices to such an extent carries some important implications. The influence of top decision makers and chief knowledge officers is not limited to building a proper knowledge strategy and infrastructure (Davenport & Prusak, 1998). It also matters in shaping attitudes, beliefs, and expectations regarding learning in and from subsidiaries.

Turning to the antecedents of market knowledge acquisition and dissemination, internal mechanisms and processes display a significant effect under all conditions. Indeed, the presence of specific mechanisms and processes to facilitate knowledge creation and transfer *within* a BU extends to the generation and dissemination of market knowledge as well as of best marketing *practices* across the MNC. Of course, while this study has focused on only one type of practice, it is clear that this multifaceted construct warrants further research interest in relation to information processing, technological infrastructure, communication platforms, or personnel (recruiting, assignment, training, and promotion in particular). Further research is needed on the question of optimal levels and types of resource deployment.

Finally, a key finding of this study relates to the empirical verification of the link between learning outcomes and market knowledge acquisition and dissemination HRM practices shape. Indeed, it was shown that the capacity to seek and process market

knowledge is significantly related to two types of performance outcomes, one at the subsidiary level (business performance as captured by sales and market share) and the other at the corporate level (knowledge transfer as captured by increased competitiveness and changes in global operations). Of course, when interpreting and building on the results of this study, one should keep in mind that correlation is not causation. If the linear equations system isomorphic to the proposed path diagram fits the data well, it is encouraging but hardly proof of the truth of the causal model.

Expatriation Versus Training Local Managers: Different Conditions, Different Roles

Unlike internal mechanisms and processes that are significant across conditions, we found that supervisory encouragement only plays a role when there is either a significant presence of expatriates in the subsidiary or a sustained practice of training local managers at HQ and other affiliates. The opposite is true of critical thinking encouragement, which only plays a role when there is either (1) a limited presence of expatriates in the subsidiary or (2) no habit of training local managers at HQ and other affiliates. In combination, these two sets of results are revealing. The role of managers as mentors, coaches, and facilitators of learning in subsidiaries seems predicated on norms of corporate socialization, acculturation experiences, and exposure to corporate mantra. This can occur either through a process that is outward looking (knowledge permeates from the environment—that is, training at HQ and other affiliates) or inward looking (knowledge radiates from the expatriates—that is, expatriate presence).

Interestingly, when these two processes are idle (for example, when expatriation presence and training opportunities outside the subsidiary are limited), critical thinking encouragement then displays a significant effect on market knowledge acquisition and dissemination. That is, in a balancing way, the ability to challenge established wisdom

and to unlearn seems to serve as a countermeasure in developing market knowledge. It is in the absence of a close pulse with corporate reality that open-mindedness as a cultural trait emerges as an important capacity-building driver. Critical thinking (or lack thereof) in the subsidiary, then, shapes the development of market knowledge generation. While many researchers have stressed the importance of developing the right organizational culture for encouraging learning (Davenport & Prusak, 1998), the question of quantifying these learning dividends remains of great interest to researchers and practitioners alike.

The effect of learning incentives on market knowledge is significant under different circumstances. Reward systems play a role when expatriate presence is low (this may be a substitution effect) and when training opportunities are high (this may be a reinforcement effect). There is thus some partial support to the idea that learning needs to be recognized and rewarded to build learning organizations (Davenport & Prusak, 1998). Looking at learning outcomes, our results also show that the expatriates' presence triggers a stronger effect of the subsidiary's capacity to create and share market knowledge on actual knowledge transfer outflows to other parts of the MNC. This finding is consistent with the conceptualization of expatriates as boundary spanners well placed to facilitate connections between their host subsidiary and other MNC units (Kostova & Roth, 2003) and as important disseminators of knowledge from subsidiaries (Minbaeva & Michailova, 2004).

For a better understanding of the role of corporate training and development of local managers we performed a series of independent t-tests on the variables in the model. Some significant structural differences seem to exist as subsidiaries with more extensive international training opportunities are also characterized by:

- (1) a stronger learning orientation
(Mean_{High} = 5.35 versus Mean_{Low} = 4.74; $t = 2.88$);

- (2) a lower level of learning incentives, with fewer formal incentives for employees to develop marketing know-how (Mean_{High} = 4.45 versus Mean_{Low} = 3.95; $t = 2.15$ for Y_9) and fewer established reward systems to share individual learning (Mean_{High} = 3.40 versus Mean_{Low} = 2.98; $t = 1.80$ for Y_8);
- (3) a stronger supervisory encouragement, with managers more committed to be coaches, mentors, and facilitators of learning (Mean_{High} = 5.22 versus Mean_{Low} = 4.68; $t = 2.53$);
- (4) a stronger critical thinking encouragement and greater open-mindedness, with a greater propensity to question established routines and beliefs (Mean_{High} = 5.05 versus Mean_{Low} = 4.49; $t = 2.62$ for Y_{11}) and a greater ability to rethink the logic of policies and programs (Mean_{High} = 5.05 versus Mean_{Low} = 4.57; $t = 2.27$ for Y_{12}); and ultimately
- (5) a stronger learning outcome and evidence of knowledge transfer, with greater competitiveness in foreign markets as a direct result of what is

Similar to expatriates being sometimes accused of going native, local managers could well be going corporate.

learned in Japan (Mean_{High} = 5.03 versus Mean_{Low} = 4.59; $t = 1.84$) and more changes in global operations based on what is learned from the Japanese subsidiary (Mean_{High} = 4.42 versus Mean_{Low} = 3.94; $t = 2.02$).

Remarkably, all these significant differences are consistent with a strategic view of training and development of local personnel in other parts of the organization as a necessary condition for creating and operating a truly global learning organization. Sustained training of local managers at HQ and other affiliates is expected to create an environment of shared understanding and corporate identification (what Ouchi [1979]

calls the clan identification) that may well encourage managers to act as coaches and mentors and enhance knowledge-processing capacity. Training at HQ and affiliates also identifies subsidiary managers as part of the pool of talented, experienced international managers (O'Donnell, 2000). Being selected or identified as a member of such an elite group from across the MNC is likely to engender a deeper commitment to a learning orientation and acting as mentors and facilitators of learning.

One of the results suggests an important caveat. The significant effect of market knowledge acquisition and dissemination on local business performance goes away under the condition of extensive training opportunities at HQ and affiliates. One possible explanation is that when local managers are not so indoctrinated in the corporate way, they are better at using the local market knowledge created to enhance subsidiary performance. Corporate training of local managers particularly at HQ and other foreign locations is likely to sensitize local managers to the organization's worldwide learning needs. This new, global exposure can create new priorities or shift existing ones. Similar to expatriates being sometimes accused of going native, local managers could well be going corporate with a suddenly greater affinity for the interests of the global operation at the conscious or unconscious expense of the subsidiary's performance. Our results (higher levels of knowledge outflows and a stronger coefficient estimate for the high training group) are consistent with this explanation.

Further Managerial Implications

As revealed by the shifting of some results under the examination of moderating factors such as expatriation and training practices, a key to success in this area is adopting an integrated approach and systemic orchestration. Managers should carefully consider the full range of strategic levers and practices available to them. They should also be aware of the simultaneous nature of the effects. They must properly

integrate actions and initiatives to hope for incremental and synergistic effects, which is not an easy task in complex organizations such as MNCs. In the end, it is a cumulative effect of numerous practices, not isolated ones, that feeds back into developing and sustaining an organization-wide learning culture. This requires inspired leadership.

Finally, one should think carefully about expatriates' role as knowledge transfer facilitators and catalysts of learning in subsidiaries. Our results are consistent with a possible substitution effect between the presence of expatriates and the role of critical thinking encouragement: We only observed the effects of critical thinking encouragement on market knowledge acquisition and dissemination when no or very few expatriates are present. Then, one may wonder whether or not local management stops thinking critically when expatriates are around. This is a rather intriguing, if not provocative, question that warrants a much finer analysis. If true, the next question is, Why is this true? What are the root causes of this? Our results can only trace the presence or absence of an effect. The final outcome is a function of the actual direction and intensity of the encouragement itself: It can help or hurt. Ultimately, then, it depends on the quality and style of the individual expatriate. In this light, expatriation should be viewed as a resource-enhancing opportunity calling for the best talents, not a sidetrack for fatigued or underperforming managers.

Limitations and Future Research

This study elaborates on the microdimensions of HRM practices and fills a gap in the literature by capturing the subsidiary's perspective. In terms of knowledge transfer outcomes, the combined viewpoints of other MNC units, including HQ and sister subsidiaries, would enhance the validity of the results. Likewise our study focuses on foreign subsidiaries in Japan, a major lead market for most MNCs in terms of innovativeness, new product development and testing, and competitiveness; further re-

search is needed to assess the pertinence and strength of these relationships in other types of markets. Not all foreign subsidiaries play such a strategic role and, therefore, are beneficiaries of corporate attention and HRM best practices.

While this study constitutes a significant attempt to depart from speculative ground by operationalizing and testing complex organizational variables, the current limitations of its measurement model are a clear reminder that more work is needed at the level of construct development and validation. In particular, some of the constructs (e.g., *learning orientation*) have relied on single-item indicators, an obvious shortcoming of our measurement model. Likewise, as Minbaeva and Michailova (2004) and others note, the problem of reverse causality between expatriation practices and organizational outcomes tends to challenge survey-based research like ours.³ We would hope a modeling approach like ours that (1) focuses on process issues and simultaneous effects across variables of interest and (2) formally tests for moderating effects rather than absolute levels of effects could inspire others to engage in similar research aimed at the complex realities of MNC management.

Consistent with past research (Hult & Ferrell, 1997), our study has posited *market knowledge acquisition and dissemination* as an expression of absorptive capacity through a single construct. Research that distinguishes more precisely between knowledge acquisition and knowledge dissemination should help shed additional light on the intricate interplay among HRM practices, learning processes, and performance outcomes. Like Hocking, Brown, and Harzing (2007), we believe that knowledge-based research is a key to a more reasoned approach to understanding and applying international HRM practices. Our understanding will benefit from similar empirical undertaking based on large samples, diverse organizational and geographical contexts, and new knowledge domains.

One may wonder whether or not local management stops thinking critically when expatriates are around.

Notes

1. We assessed potential nonresponse bias by comparing the characteristics of responding and nonresponding subsidiaries, as well as early and late respondents. The *t*-tests for number of employees, sales volume, and age of the company revealed no significant differences. Likewise, wave analysis suggested no significant differences. In particular, performance measures did not vary between early and late respondents in support of no self-selection biases by more successful firms. Furthermore, since we collected all measures in the same survey instrument, we tested the possibility of common method bias using Harman's one-factor test (see Scott & Bruce, 1994). A principal-components factor analysis on the questionnaire measurement items yielded seven factors with eigenvalues greater than 1.0 that accounted for 63% of the total variance. Since we identified several factors, as opposed to one single factor, and since the first factor did not account for the majority of the variance (only 28%), a substantial amount of common method variance does not appear to be present (Podsakoff & Organ, 1986).
2. For completeness, we further evaluated the model for the possibility of partial mediation of the effect of *learning orientation* on *market knowledge acquisition and dissemination* by *HRM practices*. We found no direct effect of learning orientation on knowledge acquisition and dissemination ($\Delta\chi^2=0.18$, $\Delta df=1$; *ns*) in support of full, not partial, mediation.
3. To examine reverse causality, we tested a series of alternate models. A first competing model with the performance variables (*knowledge transfer and business performance*) as antecedents of learning orientation yielded a worse fit ($\chi^2 = 102.48$; 51 *df*; standardized RMR = .10) than our base model ($\chi^2 = 80.91$; 51 *df*; standardized RMR = .05). We also found a second model with the same performance variables now antecedents of the four key HRM practices (*critical thinking encouragement, supervisory encouragement, learning incentives, and deployment of internal mechanisms and processes*) to be a worse fit ($\chi^2 = 99.42$; 47 *df*; standardized RMR = .06). Finally, we assessed the possibility of reverse causality between *learning orientation* and these same four HRM variables. Here, too, the significant chi-square difference tests between models ($\Delta\chi^2=30.06$, $\Delta df=4$) points to the appropriateness of the hypothesized model. That is, our data are consistent with the view that *learning orientation* is shaping HRM practices rather than the other way around.

BERNARD L. SIMONIN is an associate professor at the Fletcher School of Law and Diplomacy. He holds a Ph.D. in international business from the University of Michigan. His research interest in knowledge management and strategic alliances spans the fields of strategy and management, international business, and marketing. His work has been published in the *Academy of Management Journal*, *Strategic Management Journal*, *International Executive*, *Journal of Business Research*, *Global Focus*, *Nonprofit Management and Leadership*, *Journal of International Business Studies*, *Journal of Marketing Research*, *International Journal of Research in Marketing*, *Journal of Advertising*, and *Journal of International Marketing*. He has taught at the University of Michigan, University of Washington, University of Illinois, and Harvard University.

AYŞEGÜL ÖZSOMER is associate professor of Marketing at Koç University, Istanbul, Turkey. She received her Ph.D. in marketing and international business from Michigan State University. She conducted research, taught, and consulted in the United States before joining Koç University. Her research on MNCs and their subsidiaries focuses on market knowledge generation, dissemination, transfer, and standardization issues. She has published in journals including the *Journal of Marketing*, *Journal of International Marketing*, *Journal of Business & Industrial Marketing*, *European Journal of Marketing*, and *International Journal of Research in Marketing*. Dr. Özsumer is a visiting scholar at the marketing department of the University of Michigan, Ann Arbor, in 2008–2009.

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APPENDIX A Questionnaire Items

Knowledge Transfer		(Source: Newly developed) (CR* = .91; AVE** = .84)	Strongly Disagree	Strongly Agree
Y ₁	What we have learned in Japan has helped our company to be more competitive in other foreign markets.		1 2 3 4 5 6 7	
Y ₂	Based on what has been learned in Japan, some changes in the way to conduct marketing activities have occurred in other parts of our global organization.		1 2 3 4 5 6 7	
Business Performance		(Source: Baker & Sinkula, 1999) (CR = .86; AVE = .76)	Very Weak	Very Strong
Y ₃	Please assess the overall performance of the Japanese subsidiary for the last five years with respect to sales growth.		–3 –2 –1 0 1 2 3	
Y ₄	Please assess the overall performance of the Japanese subsidiary for the last five years with respect to market share.		–3 –2 –1 0 1 2 3	
Market Knowledge Acquisition and Dissemination		(Source: Kohli & Jarowski, 1990; Hult & Ferell, 1997) (CR = .98; AVE = .96)	Strongly Disagree	Strongly Agree
Y ₅	Market Knowledge Acquisition (six-item scale; $\alpha = .75$)		1 2 3 4 5 6 7	
Y ₆	Market Knowledge Dissemination (six-item scale; $\alpha = .75$)		1 2 3 4 5 6 7	
Internal Mechanisms and Processes		(Source: Adapted from Hamel, 1990; Pucik, 1988)	Strongly Disagree	Strongly Agree
Y ₇	We have specific mechanisms and processes to facilitate knowledge creation and transfer within our Business Unit.		1 2 3 4 5 6 7	
Learning Incentives		(Source: Adapted from Pucik, 1988) (CR = .96; AVE = .92)	Strongly Disagree	Strongly Agree
Y ₈	There is a well-established reward system to encourage employees to share their individual learning with others.		1 2 3 4 5 6 7	
Y ₉	There are clear incentives to encourage employees to advance their level of marketing know-how.		1 2 3 4 5 6 7	

APPENDIX A Continued

Supervisory Encouragement		(Source: Newly developed)	Strongly Disagree	Strongly Agree
Y ₁₀	Managers are encouraged to be coaches, mentors, and facilitators of learning.		1 2 3 4 5 6 7	
Critical Thinking Encouragement		(Source: Adapted from Hamel, 1990; Pucik, 1988)(CR = .99; AVE = .98)	Strongly Disagree	Strongly Agree
Y ₁₁	In our company, questioning established routines and beliefs is encouraged.		1 2 3 4 5 6 7	
Y ₁₂	In our company, rethinking the logic of current marketing policies and programs is welcomed.		1 2 3 4 5 6 7	
Learning Orientation		(Source: Adapted from Hamel, 1990)	Strongly Disagree	Strongly Agree
X ₁	Learning is highly valued in our organization.		1 2 3 4 5 6 7	
Expatriate Presence (moderator)		(Source: Newly developed)	Strongly Disagree	Strongly Agree
M ₁	How many expatriates are working in the whole Japanese operation?		1 2 3 4 5 6 7	
Training (moderator)		(Source: Newly developed)	Strongly Disagree	Strongly Agree
M ₂	Training of local managers at headquarters or other subsidiaries plays a key role in transferring company policies and strategies to our operation.		1 2 3 4 5 6 7	

*CR: Composite Reliability.

**AVE: Average Variance Extracted.

A P P E N D I X B Means, Standard Deviations, and Pearson Correlations*

Measures	Means	S.D.	Y ₁	Y ₂	Y ₃	Y ₄	Y ₅	Y ₆	Y ₇	Y ₈	Y ₉	Y ₁₀	Y ₁₁	Y ₁₂	X ₁
Y ₁	4.79	1.55	1.00												
Y ₂	4.15	1.53	.64	1.00											
Y ₃	5.21	1.48	.14	.07	1.00										
Y ₄	4.67	1.86	.11	.09	.48	1.00									
Y ₅	5.05	1.07	.30	.37	.17	.23	1.00								
Y ₆	4.88	1.12	.32	.39	.19	.29	.62	1.00							
Y ₇	4.09	1.48	.26	.25	.20	.25	.51	.52	1.00						
Y ₈	3.18	1.52	.20	.23	.10	.26	.39	.33	.37	1.00					
Y ₉	4.17	1.50	.04	.15	.19	.42	.33	.31	.37	.54	1.00				
Y ₁₀	4.92	1.38	.23	.31	.29	.20	.40	.39	.37	.38	.44	1.00			
Y ₁₁	4.80	1.39	.15	.19	.14	.27	.32	.40	.28	.32	.30	.50	1.00		
Y ₁₂	4.75	1.42	.10	.17	.17	.19	.26	.31	.31	.38	.32	.50	.77	1.00	
X ₁	5.02	1.38	.14	.11	.33	.30	.41	.34	.37	.43	.53	.60	.37	.41	1.00

* Based on n = 171.