Knowledge and Innovation: Diffusion of HRM Systems

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The subsidiaries of multi-national corporations (MNCs), when selecting their Human Resource Management systems (HRMS), usually face two options: adaptation of locally designed HRM practices or diffusion from the parent company. Firstly, this article argues, from a knowledge characteristics perspective, that the transfer of the HRM system as a whole rather than individual HRM practices can create a competitive advantage for MNCs. When an MNC succeeds in transferring the entire HRM system, it would be more difficult to imitate for competitors. Secondly, it proposes that the diffusion of an HRMS can be conceived to be the diffusion of an innovation. Thirdly, we propose that cultural characteristics of the host country impact whether MNCs pursue local adaptation or diffusion. We propose an analytical model and examine the local adaptation vs. diffusion issue using cultural similarity and four organisational attributes. Finally, suggestions for future research are discussed.

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Introduction

Internal transfers of practices are critical for multinational corporations (MNCs), since an important source of competitive advantage for the MNCs is the utilization of organisational capabilities worldwide (Ghoshal and Bartlett, 1988; Nohria and Ghoshal, 1997). The cross-border transfer of the practices that reflect its core competencies and superior knowledge forms a special advantage of the MNC (Bartlett and Ghoshal, 1997; Kogut, 1991). Also, MNCs could have the need to make all units become isomorphic to the parent organisation’s norms (Wally, Carroll and Flood, 1996; Harzing, 2001), because such isomorphism, if successfully achieved, may provide organizations with a unique capability that may be difficult for competitors to imitate.

However, the foreign subsidiary resides in a host country that has its own set of highly established and culturally sanctioned action patterns and expectations. Therefore, the subsidiary also faces coercive, mimetic, or normative pressures of the host institution, which could make it environmentally isomorphic. The foreign subsidiary is not an independent entity since it is constrained by the host country environment (Kostova and Roth, 2002). Thus, the foreign subsidiary is confronted with two distinct sets of isomorphic pressures: from the institutional environment of the host country to conform to the local norms and values; and from the corporate parent to be iso-
morphic with the parent company’s norms and values. Kostova and Roth (2002) refer to this situation as institutional duality.

Human resource management (HRM) is undoubtedly conceived as one of the most important areas of management practices to MNCs (Doz and Prahalad, 1986; Beechler and Yang, 1994). So, the subsidiaries of an MNC typically face two competing forces. The adaptation of a locally designed (hereinafter referred to as local adaptation) HRM system (HRMS), including policies, procedures, and practices, can be locally responsive to the institutional environment of the host country. That is, local adaptation refers to the subsidiary developing administrative and human resource systems locally using its managerial resources to respond to host country and host organisational contexts. The second option facing MNCs is the adoption of the parent company’s HRMS. Subsidiaries may be required to adopt an HRMS centrally developed by the parent company (hereinafter referred to as diffusion), which can sustain the global isomorphism of an MNC’s knowledge base. The HRMS formed through local adaptation or diffusion from theparent company may provide the MNC with a differential source of competitive advantage. Such diffusion may also be influenced by certain organizational characteristics. This paper explores the influences of organisational attributes on the option between local adaptation and diffusion of HRMS using the diffusion of innovation framework.

Individual HRM practices have been the subject of a good amount of research across cultures (Rosenzweig and Nohria, 1994; Dedoussis, 1995; Purcell et al, 1999). However, treating the HRMS as a configuration of individual practices and examining the conditions under which a parent company may be able to successfully transfer this configuration to its subsidiaries, and, the conditions under which a subsidiary may reject the parent company’s configuration and adopt an existing local configuration of HRMS has not been adequately dealt with. We grant that isolated, individual components (e.g., compensation practices or training practices) are easier to transfer but the real competitive advantage to an MNC comes from transferring the HRMS as a ‘bundle’ or ‘package’ as this may help an MNC to achieve global consistency in its organizational culture. Huselid (1995:636) also presumes that “the system of HRM practices, which simultaneously exploit the potential for complementarities or synergies among such practices, is a source of sustained competitive advantages”. When an organisation successfully transmits its entire HRM system to its subsidiaries, such a capability may even be more difficult for competitors to imitate than the transfer of individual HRM practices.

We can conceptualise the successful transfer or diffusion of an HRM system within an MNC from the parent firm to subsidiaries as a special case of the diffusion of innovation. According to Rogers (1995:11), an innovation is “an idea, practice or object that is perceived as new by an individual or other unit of adoption”. It matters little whether or not an idea is objectively new as measured by the lapse of time since its first use or discovery. The perceived newness of the idea for the individual determines his or her reaction to it. “If the idea seems new to the individual, it is an innovation”(Rogers, 1995:11). Successful organizational practices in the arena of HRM as practiced and demonstrated in the parent company and therefore, their introduction into a subsidiary can be considered to be an innovation. The HRMS itself may not be new but its introduction to the organisation is perceived as new. Thus, we conceive the diffusion of HRMS as a special case of the diffusion of innovation.

We have organised this paper into the fol-
lowing sections. First, we define HRMS, analyse its knowledge characteristics and discuss problems associated with the transferability of HRMS. Second, we discuss issues surrounding the introduction an HRMS to the subsidiaries, using the innovation framework. Third, we present our analytical model and argue that organizational attributes impact the decision of local adaptation or diffusion of the HRMS. Fourth, we examine the potential moderating role of culture in the diffusion of parent company HRMS and the adaptation of local-country HRMS. Finally, we conclude with a discussion and recommendations for future research.

**HRMS and Its Knowledge Characteristics**

There are transferability differences to different HRM practices. Walton and Lawrence (1985) identified four major areas of HRM policies and Rosenzweig and Nohria (1994) analysed six HRM practices in their separate study on the issue. However, we argue that these HRM policies and practices may be viewed as a configuration of an ‘HRMS bundle’ or ‘HRMS package’. The approach helps us understand the complexities of local adaptation vs. diffusion. It also has the significant advantage of linking the HRMS to knowledge management literatures. In fact, dealing with the HRMS as a kind of knowledge is appropriate, because, according to Davenport and Prusak (1998), knowledge is “a fluid mix of framed experience, important values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information”. A human resource system is not just embedded in written documents but also resides in the routines, practices, norms and values of the organisation (Flood, Turner, Ramamoorthy and Pearson, 2001). In sum, the HRMS may be legitimately viewed as a kind of knowledge.

A human resource management system involves the features of three types of knowledge: human, social and structured knowledge identified by De Long and Fahey (2000). Human knowledge of an HRMS constitutes what individuals know or know how to do. Social knowledge of an HRMS exists in relationships among individuals and the group. Social and collective knowledge is composed of cultural norms that exist as a result of working together, and its salience is reflected in our ability to collaborate and develop transactional relationships. Structured knowledge of an HRMS is embedded in organisational systems, processes, rules, and routines.

Each of these three types of knowledge includes both tacit and explicit components. Polanyi (1985) makes a distinction between tacit knowledge and explicit knowledge. Tacit knowledge is personal, context-specific, and therefore hard to formalize and communicate. Explicit or “codified” knowledge, on the other hand, refers to knowledge that is transmittable in formal, systemic language. As Polanyi (1985) has pointed out, knowledge is often highly personal in nature, difficult to communicate, highly specialised and not always easily transferred. The causal ambiguity of tacit knowledge is in itself a barrier to the effective transfer of an HRMS across borders. Accordingly, tacit knowledge of an HRMS is also a crucial source of sustainable competitive advantage.

According to Garud and Nayar’s analysis (1994), an HRMS includes both simple and complex elements, and independent and systemic components. Complex knowledge evokes more causal uncertainties, and, therefore, the amount of factual information required to completely and accurately convey such types of knowledge is greater than would be the case with simple types of knowledge. Simple knowledge can be captured with little
information and is, therefore, relatively easy to transfer. Knowledge that is independent can be described by itself, whereas knowledge that is systemic must be described in relation to a body of knowledge existing in the transferring organisation.

The knowledge involved in the diffusion of a human resource management system is likely to be complex, tacit and systemic and hence, it will be more difficult to transfer and absorb (Bhagat et al., 2002). The concept of velocity, the speed with which knowledge moves through an organisation, and viscosity, the richness or thickness of knowledge (Davenport and Prusak, 1998) of knowledge flow may reflect the effectiveness of diffusing of an HRMS. A number of cognitive and organisational factors and, in particular, the mode of transfer, influence viscosity. When an HRMS is learned through a form of apprenticeship in which layers of knowledge are built up over time it will, therefore, be highly viscous in character.

In summary, we consider a transferred HRMS with the configuration of ‘bundle’ or ‘package’ to be a kind of knowledge management transfer. We argue that the real competitive advantage to an MNC comes from transferring the bundle rather than isolated, individual components.

**Innovation and Diffusion of HRMS**

The diffusion of an HRMS may be, therefore, conceived as a special case of diffusion of innovation. Four key elements, according to Rogers (1995), can be identified in the introduction process: (1) the innovation itself, (2) the communication channels by which the knowledge of the innovation is transmitted, (3) a temporal dimension which tracks the adoption of the innovation over time, and (4) the social system in which the individual adopters exist.

As for innovation itself, its five characteristics help explain its diffusion (Rogers, 1995). First, the greater the perceived relative advantage, the more rapid will be the innovation’s diffusion. Second, the compatibility of innovation with existing values also drives its diffusion. Third, simple innovations will be adopted more rapidly. Fourth, a high level of experimentability, that is, “the degree to which an innovation may be experimented with on a limited basis” (Rogers, 1995:17), also facilitates its diffusion. Finally, the easier it is for individuals to see the results of an innovation, the more likely they will accept it. In other words, the HRMS that is perceived by recipient units as having greater relative advantage, compatibility with their values, trialability, observability, and less complexity will be diffused more easily.

Communication channels are the means by which messages get from one organisation to another. The nature of the information-exchange relationship between the parent firm and the recipient unit determines the conditions under which an HRMS will or will not be transferred to the receiver, and the effect of the transfer.

The third key element is time. “Time is an important dimension in the innovation-decision process” (Rogers, 1995:22). Innovation adaptation decisions can be classified into three groups: (1) “optional” (made by individuals), (2) “collective” (made by group consensus), and (3) “authority” (made by higher authorities) (Rogers, 1995:22). It is possible that the parent company may use their power to force the HRMS on the subsidiary. However, this may create a potential resistance due to the “not-invented-here” syndrome (Katz and Allen, 1982).

Diffusion of an HRMS occurs within a social system with pre-defined structure, norms and values. These factors collectively influence the rate of diffusion. The social system constitutes a boundary within which an
HRMS diffuses. The relative issues involve relationships between the social system and the diffusion process that occurs in it. Some researchers, (Kostova, et al.1997, 1999, 2002; Gooderham et al. 2002) have researched this issue from an institutional perspective. Thus, culture may play an important role in the diffusion vs. local adaptation options.

**Organisational Attributes and the Adaptation-Diffusion Option**

Ghoshal and Bartlett (1988) suggested that four organisational characteristics affect the local adaptation or diffusion of innovation. In line with Ghoshal and Bartlett, we suggest that four organisational attributes could influence the option between the local adaptation and diffusion of parent company’s HRMS: (1) extent of local slack resources, (2) local autonomy in decision-making, (3) normative integration of the subsidiary with the goals and values of the parent company, and (4) patterns of communication between the headquarter and the subsidiary. Our analysis is focused on how these organisational attributes influence the option between local adaptation and diffusion of an HRMS. Our analytical model is shown in figure 1.

**Slack resources**

According to Bourgeois (1981:30), “organisational slack is that cushion of actual or potential resources which allows an organisation to adapt successfully to internal pressures for adjustment or to external pressures for change in policy, as well as to initiate changes in strategy with respect to the external environment.” Slack resources or lack of it may also create dependency. When subsidiaries have a higher level of slack, they are less dependent on the parent company. On the other hand, when slack resources are not available, subsidiaries may be more dependent on the parent compa-
ny. Such dependencies may also result in the parent company imposing its HRMS on the subsidiary through the use of authority as suggested by Rogers (1995). Further, slack resources also enable organisations to engage in trial and error activities necessary for adjusting to host country environment. When slack resources are available locally, the local subsidiary may be able to engage in experimentation as suggested by Rogers (1995). That is, the MNC subsidiary may adapt local practices to see if they work for the organization. Further, local slack may impede diffusion of parent company’s HRMS because of the Not-Invented-Here (NIH) syndrome (Katz and Allen, 1982). Also, in the context of MNCs, local search activities promoted by slack resources may identify valid reasons why direct adaptation of HRMS created in other environments may not be appropriate. On the other hand, lack of slack resources might make experimentation costly and therefore, resulting in the corporate centre exercising its authority to diffuse HRMS of the parent company.

Hypothesis 1: A higher level of slack resources at local level should result in the adaptation of a locally designed HRMS at the subsidiary level and rejection of the diffusion of a parent company’s HRMS to the local subsidiary. A lower level of slack resources at the local level should result in the diffusion of the parent company HRMS to the local subsidiary.

Local Autonomy
Bureaucratic controls such as centralisation and formalisation have been found to inhibit innovation in organisations (Aiken and Hage, 1968). Extensive research (e.g., Zaltman et al, 1973) on the effects of centralization on innovation shows that higher levels of centralisation impede an organisation’s ability to innovate. This is not counter-intuitive since the freedom to experiment is necessary for innovation. So, local adaptation that is consistent with developing an HRMS adaptive to local environments becomes difficult under high centralisation. However, the very dependency of the subsidiary on the headquarters may facilitate the diffusion of the parent company’s HRMS since the subsidiary has neither the authority nor the capability to resist (Nohria and Ghoshal, 1997). The MNCs may centralize authority in order to achieve global consistency and to facilitate greater coordination. Under these circumstances, the national subsidiaries possess neither the competence nor the legitimacy to choose between local adaptations vs. diffusion. Therefore we propose the following hypothesis:

Hypothesis 2: Low levels of local autonomy could promote the diffusion of a parent firm’s HRMS to the local subsidiary and should impede the adaptation of a locally designed system at the subsidiary level.

Normative Integration
According to Nohria and Ghoshal (1997), for a subsidiary to engage in the action of adaptation of an HRMS, two conditions—feasibility and desirability—need to be present. Local resources and autonomy provide the condition of feasibility for local adaptation. From a subsidiary’s perspective, these two factors, determine if local adaptation is feasible or not. On the other hand, normative integration helps create the desirability to adopt the parent company’s HRMS. The extent to which a subsidiary is normatively integrated with the parent company, sharing its overall strategy and goals, will have a positive effect on the diffusion of a parent company’s HRMS. The extent to which a shared value pervades between the MNC’s headquarters and the subsidiary should motivate the local subsidiary to be responsive to the needs and aspirations of the parent firm.
Higher levels of normative integration are also established through socialisation mechanisms such as expatriation and managerial transfers between the headquarters and subsidiary and through joint project work teams and liaison committees (Ghoshal and Bartlett, 1988). Different MNC staffing policies may help or hamper the achievement of such normative integration and, subsequently, influence the choice of local adaptation or diffusion. The common organizational staffing policies can accordingly be categorized as polycentric (hiring local individuals locally) or ethnocentric (hiring parent country nationals in all subsidiaries at least for key positions). Polycentric policies are generally used when local talents are available in abundance whereas ethnocentric policies are generally used when the parent company needs to exercise greater control over the subsidiary. The former strategy may facilitate local adaptation since the local nationals are familiar with the local HRMS. On the other hand, ethnocentric policies may result in a greater diffusion of parent company’s HRMS as a tool to exercise control over the subsidiary.

Hypothesis 3: A higher level of normative integration between the headquarter and subsidiary achieved through ethnocentric hiring policies and shared strategy, goals, and values should facilitate the diffusion of a parent company’s HRMS to the subsidiary and impede the adaptation of a locally designed HRMS.

Patterns of Communication
Communication patterns between the headquarters and subsidiaries reflect the nature and extent of organisational integration (Lorsch and Lawrence, 1965). The MNCs with high densities of internal communication between headquarter-subsidiary appear to have many formal and informal mechanisms such as cross-functional and cross-organisation teams, more durable committees at multiple levels of management, and multidisciplinary task forces. Such mechanisms can facilitate and enhance internal communication among managers in different companies. Extensive headquarter-subsidiary communication is likely to produce dependence between the subsidiary and the headquarters and reliance of the subsidiary on the ideas and opinions of the headquarters. Ghoshal and Bartlett (1988) pointed out that subsidiaries especially effective at adopting parent company innovations were typically those that had manifestly dense communications between local managers and managers at the headquarters. Therefore, we suggest that an MNC subsidiary’s adaptation of HRMS diffused from the parent company will be facilitated if headquarter-subsidiary communication is intense but such dense communication patterns are unlikely to be helpful to local adaptation.

Hypothesis 4: A greater density of communication between the headquarter and the subsidiary in an MNC should reduce the adaptation of a locally designed HRMS while it will enhance the diffusion of the parent company’s HRMS.

The Effect of National Culture
The introduction of an HRMS to the subsidiary could be effective if the HRMS appears simple, explicit and independent and if cultural differences between the parent company and the recipient unit are not considered. However, the parent country and host country cultural similarity is a key moderator in the decision option between local adaptation and diffusion. In other words, the differences between the cultural patterns of the societies in which the organisations are located exert moderating influences (Bhagat et al, 2002). Hofstede (1980) defines culture as the collective programming of the mind. Further, Hofstede (1992) argues that management practices are culture bound.
Ramamoorthy and Carroll (1998; Ramamoorthy and Flood, 2002) examined the fit between the cultural dimensions of individualism and collectivism and HRM practices. Ramamoorthy and Carroll (1998) reported that individualism/collectivism orientation does impact the reactions to HRM practices such as merit-based hiring, equity versus equality based rewards and so on. These authors further suggested that an HRMS could be conceived of as either an individualistic HRMS that focuses on individual needs and reactions or a collectivist HRMS that focuses on the group to which one belongs. Further, they argue that there could potentially be incompatibilities between implementing an individualistic HRMS in a collectivist culture and vice versa. Thus, cultural similarity could be a potential moderator of whether a subsidiary develops a local adaptive HRMS or adopts a parent’s HRMS. Therefore, we hypothesise that:

Hypothesis 5: The degree of similarity between the subsidiary’s national culture and headquarters’ national culture will moderate the relationship between diffusion of an HRMS and adaptation of a locally designed HRMS.

Discussion

The research on cross-border transfer of management practices has been traditionally focused on some specific contents such as total quality management (e.g., Purcell et al, 1999), strategic organisational practices (Kostova, 1999; Kostova and Roth, 2002), or individualized components of HRM practices (e.g., Bjorkman and Lu, 1999; Tayeb, 1998; Dedoussis, 1995). In this article, we proposed that the real competitive advantage to an MNC arises when an HRMS as a bundle can be transferred across countries and suggested that such a phenomenon can be conceived of as an innovation. We also proposed that the four organisational attributes—slack resources, local autonomy, normative integration, and patterns of communication between headquarters and subsidiaries—which could, following Ghoshal and Bartlett’s (1988) and Nohria and Ghoshal’s (1997) suggestions, most influence the innovation. Finally, we proposed that the cultural similarity could moderate the strategic choice process.

Some scholars have explored the cross-border transfer of successful management practices from an institutional perspective (e.g., Gooderham et al, 2002; Kostova, 1999; Kostova and Roth, 2002). Our contribution in this paper lies in linking the issue to innovation, knowledge management and organisational contexts. This approach significantly broadens the research perspective on International Human Resource Management (IHRM) in which the ability to effectively transfer knowledge has been extensively seen as a key characteristic of the successful MNC (e.g., Bartlett and Ghoshal, 1997; Nohria and Ghoshal, 1997).

Ours was one of the first investigations to explore the adaptation-diffusion problem from a combined organisational attributes/cultural perspective. In doing so we permit the MNC to have a true choice in diffusion vs. local adaptation or a combination thereof. While our model may be more appropriate to Greenfield developments, we do feel that the model may also be applicable to joint ventures and acquisitions (Flood, O’ Donnell and Mac Curtin, 2000). We would like to point out that in acquisitions, the focus of interest might be more on the transformation of the subsidiary from local adaptation to diffusion. For example, how long does it take for a target subsidiary to move away from existing local practices to conformance to the parent company practices? How does slack resources and the extent of autonomy granted to the subsidiary
influence such transformation? Does the performance (successful vs. unsuccessful) of the acquired subsidiary make any difference in the diffusion-adaptation transformation? These are potential areas for future research to possibly identify and clarify these issues.

The second issue that we would like to highlight is that we examined a simple one-on-one relationship between the parent and subsidiary but the MNC can be conceived as an organisational network, even a differentiated network (Nohria and Ghoshal, 1997). The patterns of communication in an MNC involve not only the headquarters and subsidiaries but also inter-subsidiaries and intra-subsidiaries. Such patterns of network communication may help or impede the local adaptation or diffusion. Analysing the option issue for a subsidiary conceived as a node in the network of an MNC is also worthy of further consideration. Finally, when an HRMS is introduced to the subsidiary of an MNC, there could also exist a third option, which is the hybrid of local adaptation and diffusion, which can satisfy both the institutional environment of the host country and the isomorphic needs of the MNC.

Concluding Comment

Our paper presents one of the first attempts to integrate the innovation literature with the transfer of human resource management practices from a parent to a subsidiary in an international context. Recently, considerable interest has been shown in knowledge management and knowledge characteristics. By taking a holistic approach of viewing the HRMS as an interrelated and complementary bundle, and examining its transfer across MNCs and their subsidiaries, we believe that the firms can create and sustain a competitive advantage. Finally, in developing this model, we showed the utility of integrating organizational theory literature with the innovation literature. The field of IHRM is still in its infancy in terms of theoretical development. We believe that there is much to be gained from the integration of key concepts from strategic management, knowledge management and organisation theory to the understanding of important phenomenon such as the diffusion of human resource management systems within the MNC network. We invite empirical tests of the propositions advanced in this paper and look forward to the further development of the theorising of international human resource management.

References


**Notes**

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