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RESEARCH ARTICLE

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Subsidiary Interdependencies and International Human Resource Management Practices in German MNCs

A Resource-Based View

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Abstract:

- Using the resource-based view, this paper links the degree of interdependence that exists between subsidiaries of multinational corporations (MNCs) to the use of various International Human Resource Management (IHRM) practices.
- We assume that in many MNCs this interdependence has increased the need for cross-border coordination.
- We analyze to what extent MNCs use IHRM practices in order to enhance their coordination capability across national borders.
- We present a framework that addresses these effects and empirically test it using data from a questionnaire survey among 142 majority-owned overseas subsidiaries of German MNCs.
- The findings show that the degree of interdependence is related to the level of international experience of staff employed in subsidiaries, the use of third-country nationals, the provision of training, the use of cross-cultural management teams, and the choice of employee evaluation and reward methods.
- We conclude by discussing the implications of our findings for IHRM practitioners and scholars as well as the limitations of our study.

Keywords: International human resource management · Resource-based view · Transnational networks · Expatriates · Global teams · Intercultural training · Remuneration

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Introduction

Multinational Corporations (MNCs) can no longer limit their attention to merely managing the growth of foreign activities. They also have to cope with rapidly changing economic, competitive, legal, political, and cultural conditions in the environments they operate in (Birkinshaw 2001; Doz and Prahalad 2005). Research on global strategic management has suggested a number of strategic options for MNCs that are characterized by differing degrees of global coordination or integration and local responsiveness. According to Bartlett and Ghoshal (2002), strategies that focus on only one of these dimensions, such as the global strategy (high coordination, low local responsiveness) or the multinational strategy (low coordination, high local responsiveness), are no longer adequate for maintaining or achieving global competitiveness, given the changes in technology, government policies and consumer preferences. Instead, they suggest that MNCs need to follow a transnational strategy in which MNCs not only try to achieve high levels of global coordination and local responsiveness at the same time, but also high levels of worldwide learning and knowledge transfer. Other authors have suggested similar models to replace the traditional uni-dimensional models of MNCs. These models include, for example, the 'differentiated network' (Nohria and Ghoshal 1997), the 'heterarchy' (Hedlund and Rolander 1990) or the 'metanational corporation' (Doz et al. 2001). Despite some differences in detail, the key idea of these concepts is the simultaneous exploitation of three main sources of competitive advantage: economies of scale, economies of scope, and arbitrage opportunities (Ghoshal 1987).

According to Bartlett and Ghoshal (2002), the implementation of a transnational strategy requires MNCs to establish an integrated transnational network. From a network perspective, subsidiaries are regarded as differentiated but integrated elements of a complex configuration of value creating activities across national borders (Porter 1986). They are differentiated in as far as not all subsidiaries need to carry out the full range of value-adding activities of the MNC, have the same resource configuration and competences, or produce/sell identical services or products (Ghoshal and Bartlett 2005). However, instead of being merely responsible for their position in their respective market, subsidiaries have to contribute to improving the performance of the MNC as a whole (e.g., Rosenzweig 2006). While the associated increase in the interdependence among subsidiaries as well as between them and the headquarters is a "key to competitive advantage" (Kostova and Roth 2003, p. 299), the higher level of interdependence also leads to a greater need for cross-border coordination of the subsidiaries' operations.

Given its proven usefulness in analyzing IHRM practices (see, for example, Morris et al. 2006; Park et al. 2003; Wright et al. 2001), we adopt a resource-based view (RBV) for our analysis of the association between interdependencies and IHRM practices in MNCs. The RBV suggests that firm resources, such as, for example, assets or capabilities, that are valuable, rare, inimitable and non-substitutable can be an important source for sustainable competitive advantages (Barney 1991; Barney et al. 2001). While a variety of such distinct resources have been discussed in research, a firm's capability to coordinate the activities of independent actors has been highlighted only rarely, usually in the context of combinative or dynamic capabilities (see, for example, Eisenhardt and Martin 2000; Kogut and Zander 1992; Teece et al. 1997). These capabilities allow firms to create value from the exploitation and combination of existing resources (Eisenhardt and Martin 2000). Among these combinative capabilities are coordination capabilities (Jansen et al. 2005) which allow firms to achieve and sustain competitive advantage by effectively coordinating and redeploying internal and external competences (Teece et al. 1997). Against the background of MNCs' adoption of integrated network structures, the capability to coordinate the activities and competences of a globally dispersed network of interdependent subsidiaries becomes crucial for the performance of the MNC.

We suggest that IHRM practices play a crucial role in developing and maintaining this coordination capability in MNCs. This is in line with existing research that has shown that IHRM practices, such as, staffing (e.g., Au and Fukuda 2002; Edstrom and Galbraith 1977; Harzing 2001), intercultural training (e.g., Earley and Peterson 2004; Mendenhall and Stahl 2000), the use of cross-cultural management teams (e.g., Gong 2006; Harvey and Novecevic 2002), and performance evaluation and reward systems (e.g., Bonache and Fernández 1997; Cascio 2006; O'Donnell 2000), can contribute to the coordination of globally dispersed activities of MNCs. Although the growing importance of IHRM and its role as a coordination mechanism in MNCs is widely recognized in international management literature (e.g., Milliman et al. 1991; Novecevic and Harvey 2001), prior research in this field is limited in three ways. First, a large number of existing studies analyses the various problems associated with the expatriation of employees (e.g. Baruch et al. 2002; Harzing 2001; Stahl et al. 2002; Wang et al. 2004) and their adjustment to host countries (e.g., Aycan 1997; Shay and Black 2004; Holtbrügge 2008), while other aspects of IHRM are discussed less frequently. Secondly, most extant research in IHRM is directed towards operative problems associated with the implementation of IHRM practices under different environmental conditions, whereas aspects of strategic human resource management (SHRM) have only recently received scholarly attention (e.g., Harris and Holden 2001; Wright and Boswell 2002; Wright et al. 2001). Thirdly, prior studies have focused on IHRM practices in certain countries or regions, such as Asia (e.g. Bae et al. 2003; De Cieri and Dowling 1997; Rowley et al. 2004; Warner 2005), Latin America (e.g., Gomez 2004; Paik and Teegarden 1995) or Europe (Brewster et al. 2004; Scholz and Böhm 2008). Global and MNC-wide issues, on the other hand, are addressed only rarely. As a consequence, De Cieri and Dowling (2006, p. 29) suggest that "[a]lthough research on SHRM in MNEs has made several important steps forward, inadequacies remain. The frameworks that have been developed […] tend to be broad and somewhat unspecified […]. It may be worthwhile to re-examine […] the relationships within and between the elements of SHRM in MNEs. In order to do so, researchers may choose to develop specific research propositions or hypotheses that operationalize their particular research focus."

Our study responds to this call by empirically analyzing how the strategic orientation of MNCs manifested in differing levels of interdependence of subsidiaries is related to IHRM practices. Our basic assumption is that the degree of interdependence between the subsidiaries of MNCs has increased over the last decade, as many firms have adopted integrated transnational networks (e.g., Brock and Birkinshaw 2004; Luo 2003; Mauri and Sambharya 2003; Yip 2003), and that this increase has been accompanied by changes in IHRM practices employed in MNCs. Since there is little known as to how this increased interdependence is related to IHRM practices, we use the RBV and the concept of coordination capabilities as a theoretical framework to analyze the associations between two types of interdependence and five IHRM practices related to recruitment/selection, training, the use of cross-cultural management teams, and performance evaluation. We control for the importance and the size of the subsidiary. We deem this analysis important because it (1) links research on global strategic management to the literature on IHRM using the RBV, and (2) contributes to on-going efforts aimed at providing theory-based operationalizations of integrated transnational networks. An additional contribution of the paper is the extension of the RBV view by considering the role of IHRM practices in the development of a firm's coordination capability.

The remainder of this paper is organized as follows: In the next section, we present our conceptual framework and develop our hypotheses based on a review of the relevant literature. We then outline the measurement of our variables and the sample used for testing our hypotheses. Subsequently, the results of our study are presented and discussed. A conclusion summarizes the contributions and limitations of our study and discusses its implications for future research.

Framework and Hypotheses

One of the main characteristics of integrated transnational networks is the high interdependence between differentiated units of the MNC, as activities and resources are integrated regionally or globally (Bartlett and Ghoshal 2002). We therefore regard the level of interdependence as an indicator of the degree to which MNCs have adopted an integrated transnational network. Mauri and Phatak (2001) distinguish between input and output interdependence: Whereas input interdependence relates to a subsidiary's reliance on inputs from other units of the MNC, output interdependence refers to the extent to which the subsidiary's output is used within the MNC network rather than sold off to third parties. We suggest that high input and output interdependence will be associated with an intensive use of those IHRM practices that contribute to the improvement of MNCs' coordination capabilities required to manage these interdependencies efficiently.

Recruitment and Selection of Subsidiary Managers

An increase in subsidiaries' interdependence caused by MNCs' adopting integrated transnational networks is likely to lead to changes in the recruitment and selection practices employed by MNCs. More specifically, we argue that high levels of interdependence of subsidiaries will be associated with an intensive use of (1) internationally experienced managers, and (2) third country nationals at the subsidiary level.

In situations of complex interdependencies among the various national subsidiaries of MNCs, managers are required to coordinate their subsidiary's operations with those in other countries and thus need to interact closely with managers with different cultural and organizational backgrounds. The more intensive these interactions, the more important it is for managers to be able to minimize the frictions in these interactions that can be caused by cultural, political, technological and legal differences between the countries in which the respective subsidiaries are located. In order to increase the coordination capabilities within MNCs such frictions should thus be minimized. A manager's ability to minimize such difficulties and to promote mutual understanding, trust and commitment in the relationships with other subsidiary managers increases with his/her international experience (e.g., Kamoche 1996; Harvey et al. 2000). Given this role of international experience for managing interdependence, we argue that employing internationally experienced managers at subsidiary level facilitates the coordination of MNCs and the development of coordination capabilities. We also believe that managers with international experience have a better understanding of the interdependencies that exist among the various national subsidiaries, which is conducive to the coordination in integrated transnational networks. Such managers are better able to take into account the simultaneous requirements for global integration, local responsiveness and worldwide learning and knowledge transfer when managing their subsidiary's input and output interdependence with other subsidiaries. Given these abilities of internationally experienced managers, we suggest that:

Hypotheses 1a: The higher the level of input interdependence of a foreign subsidiary, the greater will be the international experience of the subsidiary manager.
Hypotheses 1b: The higher the level of output interdependence of a foreign subsidiary, the greater will be the international experience of the subsidiary manager.

Our second argument builds on the fact that top management positions in foreign subsidiaries do not necessarily have to be filled with nationals from the MNC's home country (ethnocentric policy) or with nationals from the host country (polycentric policy), but may also be staffed with third-country nationals (regiocentric or geocentric policies) (Perlmutter 1969). Coming from neither the cultural background of the parent company nor from that of the subsidiary, we expect third-country nationals to be more sensitive, more flexible, and more creative than either parent- or host-country nationals in dealing with the complex interdependencies created by the adoption of an integrated transnational network (Harzing 2001). Third-country nationals can also be assumed to have a lower level of loyalty to either the home country or the host country organization as compared to home or host country nationals respectively (Banai and Sama 2000). We therefore expect TCNs to be better able to contribute to the capability to exploit existing competences, as they are less likely to take decisions that merely benefit either the headquarters or individual subsidiaries. As the negative consequences of taking decisions geared towards particular objectives of individual subsidiaries increase with the level of their interdependence, we suggest that the use of third-country nationals as subsidiary managers will grow with the level of a subsidiary's interdependence. This view is supported by Daniels and Insch (2006) who found that firms pursuing a transnational strategy (i.e. those that are characterized by a high degree of interdependence among the subsidiaries) have a higher number of third-country nationals than firms following alternative strategies. Thus, we formulate the following hypotheses.

Hypotheses 2a: The higher the input interdependence of a foreign subsidiary, the greater will be the use of third-country nationals as subsidiary managers.
Hypotheses 2b: The higher the output interdependence of a foreign subsidiary, the greater will be the use of third-country nationals as subsidiary managers.

Training of Subsidiary Managers

As argued above, integrated transnational networks are characterized by a high degree of interdependence between the various geographical dispersed units and the managers of these units have to balance the needs for local responsiveness, global efficiency, and worldwide learning and knowledge transfer. For example, subsidiary managers may be expected to take decisions that are sub-optimal on the subsidiary level but enhance the global efficiency of the integrated transnational network (Rosenzweig 2006). Thus, in order for MNCs to increase their coordination capabilities, managers have to overcome their predominant orientation towards local conditions and develop a holistic perspective of the objectives and conditions of the entire MNC (Pucik 1992).

These are new challenges and not part of the traditional job descriptions of subsidiary managers. Consequently, additional training is required to enable managers to take into account the needs of the subsidiaries as well as the overall objectives of the MNCs (Mendenhall and Stahl 2000). In addition to their knowledge of the political, economic and cultural conditions of other countries, we suggest that strong interdependencies among MNC units increase the importance of managers' skills to interact efficiently across borders. Thus, the MNC's capability to coordinate activities of its geographically dispersed, yet interdependent units requires managers to have high levels of intercultural competence (e.g., Kamoche 1997; Bartel-Radic 2006). A number of authors have stressed the role of experiential intercultural training for reducing individuals' cognitive and emotional barriers in cross-border interactions (Cushner and Brislin 1997; Gudykunst et al. 1996; Landis and Bhagat 1996). As such, interactions are the norm in integrated transnational networks we expect the need for such training to be high among highly interdependent MNC units. However, as opposed to culture-specific training for managers assigned to a particular country, we suggest that the implementation of an integrated transnational network requires culture-general training. The latter provides general knowledge about cultural values, potential differences in values, and ways to deal with intercultural conflict-situations (Brislin and Yoshida 1994; Gudykunst and Hammer 1983). It aims to enhance managers' ability to effectively deal with people from various cultures (e.g., in cross-cultural management teams) instead of providing knowledge about the values of a specific culture (Bhawuk 1998). The need for providing this type of training increases with the level to which a subsidiary is interdependent with units in other countries and with the degree to which interactions with managers from different cultural backgrounds are required. Thus, we hypothesize:

Hypotheses 3a: The higher the input interdependence of the subsidiary, the higher will be the intensity of culture-general training provided to the subsidiary manager.

Hypotheses 3b: The higher the output interdependence of the subsidiary, the higher will be the intensity of culture-general training provided to the subsidiary manager.

Use of Cross-cultural Management Teams at Subsidiary Level

According to Bartlett and Ghoshal (2002), the requirements of integrated transnational networks cannot be met by individual managers. Rather, managers have to work together in cross-cultural management teams to achieve high levels of global efficiency, local responsiveness, and worldwide learning and knowledge transfer. Therefore, the development and maintenance of MNCs' coordination capability requires the use of cross-cultural management teams. While empirical findings on the performance of culturally diverse teams remains ambiguous (see, for example, Maznevski 1994; Gibson 1999), within the literature on the coordination of MNC networks, culturally diverse teams are regularly seen to enhance the ability of MNC units to coordinate their activities without relying on directions from the headquarters (Gong 2006; Govindarajan and Gupta 2001; Harvey and Novecevic 2002). By combining the unique individual perspectives of their members, culturally heterogeneous teams are able to deal with greater organizational complexity and diversity (Berg and Holtbrügge 2010). At the same time, however, cross-cultural teams may increase the ambiguity and complexity of decision-making processes, the likelihood of misunderstandings and the required time to reach consensus (Brett et al. 2006; Shapiro et al. 2005; Halverson and Tirmizi 2008).

From a coordination capabilities perspective it can be argued that multiple perspectives of team members are more likely to reflect the multiple perspectives needed to ensure responsiveness, efficiency, and worldwide learning and knowledge transfer (e.g., Harvey and Novecevic 2002; Bartel-Radic 2006). This allows for the combination and synthesis of geographically dispersed resources and competences in line with the RBV and the concept of dynamic capabilities (Eisenhardt and Martin 2000). Moreover, cross-cultural management teams foster global learning and the sharing of best practices across the MNC since they enhance the transfer of managerial and technical knowledge and its synergetic combination and socialization across national borders (Holtbrügge and Berg 2004; Nonaka and Takeuchi 1995). Similarly, cross-cultural teams are often suggested as important mechanisms for transferring and deploying tacit knowledge across national borders (Athanassiou and Nigh 2000; Subramaniam and Venkatraman 2001).

Thus, in addition to the contribution that individual managers can make to manage subsidiary interdependence, it is argued that the implementation of integrated transnational networks and the development of coordination capabilities require the intensive collaboration of managers in cross-cultural decision and coordination teams. We thus formulate the following hypotheses:

Hypotheses 4a: The higher the level of input interdependence of a foreign subsidiary, the greater the likelihood that cross-cultural management teams are used at subsidiary level.

Hypotheses 4b: The higher the level of output interdependence of a foreign subsidiary, the greater the likelihood that cross-cultural management teams are used at subsidiary level.

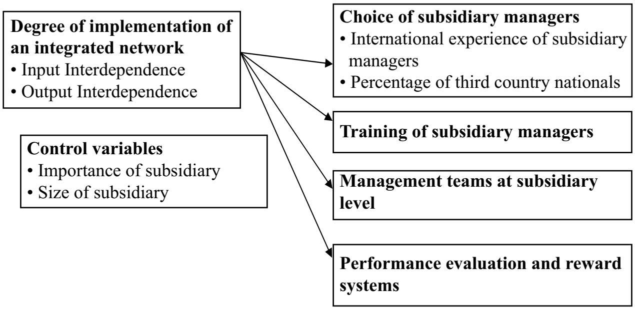
Performance Evaluation and Reward Systems

Performance evaluation and reward systems are important mechanisms for successfully implementing strategies (see, for instance, Stredwick 2000). According to the RBV, incentives that encourage cooperation between the different units of an organization are important mechanisms of coordination (e.g., Zenger and Hesterly 1997; Tsai 2002) and thus enhance the coordination capability of MNCs. Given that the goals of subsidiary managers are not necessarily compatible with the strategic goals of the entire MNC, the former may take decisions that are not congruent with the MNC's overall goals (Cascio 2006; O'Donnell 2000; Paik et al. 2002). Attempts to align these goals are made difficult by the information asymmetry between headquarters and subsidiaries (Yan et al. 2002). Direct monitoring of subsidiary managers with the aim of bringing their objectives in line with the MNC's overall objectives, for instance, is difficult given the geographical distance, national boundaries, differences in language and culture, as well as potential national allegiances (Milliman et al. 1991). Alternatively, subsidiary managers' interests and the MNCs' overall objectives can be aligned by designing and implementing appropriate systems that evaluate and reward managers' performance and contribution to achieving organizational goals rather than their behaviour (Aycan 1997). Thus, systems that link compensation to the achievement of corporate objectives can be expected to direct the subsidiary managers' efforts towards achieving the objectives of a firm (Roth and O'Donnell 1996). While the traditional way of linking managers' performance to company performance has been to use the subsidiary's performance as an evaluation criterion, this is no longer sufficient in MNCs moving towards an integrated transnational network. Rather, in integrated transnational networks subsidiary managers are not only responsible for the performance of their subsidiary, but are also expected to contribute to the performance and competitive position of the entire MNC (Bonache and Fernández 1997; Watson and Roth 2003). Therefore, in addition to traditional subsidiary-based criteria, such as the subsidiary's profit, MNC-wide criteria are more likely to be used. These MNC-wide criteria may include, for example, the extent of knowledge transfer, the regional/global performance of the MNC, the exploitation of cross-border synergies, or the support of other MNC units (Björkman et al. 2004; Gupta and Govindarajan 2000; O'Donnell 1999; Roth and O'Donnell 1996). We expect that the use of such MNC-wide criteria for evaluating subsidiary managers' performance is more likely among highly interdependent subsidiaries.

Hypotheses 5a: The higher the level of input interdependence of a foreign subsidiary, the larger will be the share of subsidiary managers' remuneration that depends on the MNC's overall performance.

Hypotheses 5b: The higher the level of output interdependence of a foreign subsidiary, the larger will be the share of subsidiary managers' remuneration that depends on the MNC's overall performance.

Fig. 1: Conceptual framework



Control Variables

Based on suggestions in extant research (e.g., Gomez 2004), we expect the importance of the subsidiary for the entire MNC to be associated with the IHRM practices addressed in our hypotheses. Important subsidiaries play a particular role for the overall strategy of the MNC. They can be worldwide leaders for specific functional areas, coordinate the activities in specific geographical areas, or take on global leadership responsibility for specific product groups (e.g., Birkinshaw 2001). We assume that this variation in the importance among subsidiaries will affect the use and design of the IHRM practices presented above. We also control for the size of the subsidiary as a number of researchers have emphasized the relevance of this variable for IHRM practices (Boyacigiller 1990; Richards 2001).

Figure 1 shows our conceptual framework, which includes the link between subsidiary interdependence and IHRM practices as well as our control variables.

Methods

Sample

In a first step, using the Hoppenstedt Directory of German firms, we have selected the largest 200 German companies in terms of financial turnover. We have eliminated companies from this group that were owned by a non-German parent firm in order to avoid home-country effects on our findings. We then deleted firms with less than eight foreign subsidiaries and a foreign share in financial turnover of less than 30% of overall turnover. After applying these criteria, 60 out of the 200 companies remained on our list. For each of these 60 MNCs we then identified the largest 8–12 majority-owned overseas subsidiaries using company reports and information published on the companies' websites. We limited our sample to majority-owned subsidiaries in order to increase the likelihood that the German MNCs rather than a local partner firm decided over IHRM practices at subsidiary level. This resulted in a list of 600 subsidiaries. A three-page questionnaire in German language was mailed to the highest-ranking German manager in each of the subsidiaries. German managers were employed in all of the subsidiaries and there was thus no bias against subsidiaries that were run by TCNs. We required respondents to have management experience at the headquarters and in one or more of the firm's subsidiar-

Table 1: Sample characteristics

	Location							
Industry	Western Europe	Asia	North America	Eastern Europe	South America	Africa	Australia	Total
Chemicals	15	11	7	6	2	0	0	41
Automobiles	9	5	3	3	1	1	0	22
Capital goods	4	5	5	3	1	0	0	18
Pharmaceuticals	2	5	2	4	0	0	0	13
Construction	4	2	2	4	0	0	0	12
Services	4	1	1	0	3	0	1	10
Publishing	5	1	2	1	0	0	0	9
Electronics	5	2	1	0	0	0	0	8
Others	2	3	1	0	1	0	0	7
Transport	1	1	0	0	0	0	0	2
Total	51	36	24	21	8	1	1	142

ies to ensure that they were knowledgeable about the issues addressed in this study. The mailing yielded 147 responses and 142 completed questionnaires. Given that the questionnaires were sent to senior-level managers, the response rate of 24.5% is acceptable according to the recommendation made by Baruch (1999) based on his investigation of response rates in academic studies. The majority of respondents (69.7%) held the position of CEOs while the remainder held senior management positions, such as CFO.

The subsidiaries' distribution in terms of industry and geographical location is shown in Table 1. A comparison of responding and non-responding firms concerning industry, corporate parent, and size revealed no significant differences thus minimizing a potential non-response bias. However, regarding the location of the subsidiaries, Asia was slightly over-represented and Africa as well as Australia were underrepresented.

Measures

The different IHRM practices as the dependent variables in our study were measured as follows. Respondents were asked to indicate the number of previous overseas assignments, lasting over one year, for their current employer as well as for other companies as well as the percentage of third-country nationals in the top management team of the respective subsidiary. In order to check for the use of cross-cultural management teams we provided respondents with a short definition of such teams in line with existing research (Athanassiou and Nigh 2000; Elron 1997; Gong 2006). In order to be classified as cross-cultural in our study, top-management teams had to contain members from at least two different nationalities. A value of one was assigned in cases where there was a senior management team that showed these characteristics. If an individual or a team consisting of members from fewer than two different nationalities ran the subsidiary we assigned a value of zero. Respondents were also provided with a short description of the nature of culture-general training and then asked to state the degree to which they underwent such training on a 5-point Likert-type rating scale. In order to gather information on remuneration practices, we asked respondents to state the percentage of their remuneration that was based on the overall performance of the MNC (Barner-Rasmussen 2003).

Similar to Mauri and Phatak (2001), we measured subsidiary interdependence using the percentage of the subsidiary's total cost that can be attributed to imports from, and the percentage of the subsidiary's revenues stemming from exports to other units of the MNC. These percentages were estimated by the respondents. The importance of the subsidiary for the entire MNC as our first control variable was measured by asking respondents to evaluate the importance of the subsidiary for the overall MNC on a 5-point Likert-type scale from 1 (very low importance) to 5 (very high importance). The size of the subsidiary was measured using the number of employees of the subsidiary, which was provided by the respondents.

In order to minimize a potential common-method bias, we took into account the recommendations given in the literature (e.g., Podsakoff et al. 2003). We tried to avoid subjective perceptions and used objective measures as far as possible. For example, we measured interdependence not as the respondents' subjective perception but as the percentage of the subsidiary's total cost that can be attributed to imports from, and the percentage of the subsidiary's revenues stemming from exports to other units of the MNC.

Findings

Table 2 shows the means, standard deviations, and correlations among the variables used in this study. A first finding is the differentiated use of IHRM practices. On average,

Table 2: Means, standard deviations and correlations

Variables	Mean	SD	1	2	3	4	5	6	7	8
1 International experience	1.75	1.04								
2 Third-country nationals	4.08	7.35	0.14							
3 Training	2.39	1.66	0.15	0.06						
4 Cross-cultural teams	0.73	0.45	0.10	0.21	0.14					
5 Performance evaluation	13.58	7.10	0.26*	0.13	0.22	0.14				
6 Input interdependence	20.60	12.52	0.20	0.22	0.25*	0.28*	0.27*			
7 Output interdependence	18.23	10.47	−0.22	−0.02	0.02	−0.24*	−0.07	−0.02		
8 Importance of subsidiary	2.74	1.55	0.31**	0.13	0.35**	0.43***	0.15	0.09	−0.01	
9 Size of subsidiary	2,465	4,435	−0.12	−0.16	−0.32**	−0.19	0.15	−0.14	0.06	−0.19

N = 142; *p < 0.05; **p < 0.01; ***p < 0.001

the respondents had completed 1.75 previous foreign assignments prior to their current assignment. In contrast to the substantial attention, this aspect receives in the literature on average only 4% of the subsidiaries' top management members were third-country nationals. The high degree of international experience may explain the fact that the intensity of culture-general training was very low (mean = 2.39). In over two thirds of the subsidiaries, cross-cultural management teams were used. The average percentage of managers' remuneration that was based on MNC-wide criteria, was 13.6% with a minimum of 0 and a maximum of 50%. This result is slightly higher than the 10.4% that Barner-Rasmussen (2003) found in his study of foreign subsidiaries in Finland. The lack of a statistically significant correlation between input and output interdependence of a subsidiary supports the distinction between these two facets of interdependence suggested by Mauri and Phatak (2001). Similarly, it is worth noting that there is no correlation between the size of a subsidiary and its importance. There are no statistically significant correlations between any of the other independent and control variables, which indicates a low likelihood of multicollinearity in the regression analyses we use to test our hypotheses.

We used the different IHRM practices as dependent variables and the regression models thus show how these IHRM practices are associated with the level of a subsidiaries' interdependence. For the dependent variables that were measured using Likert-type rating scales, we used linear regression models. The respective Durbin-Watson statistics support our previous diagnosis with regard to multicollinearity (see Table 3). The R^2 values for these models are between 10 and 40%, although it has to be borne in mind that the purpose of our analysis is to investigate the relationships of a number of variables with IHRM practices rather than finding a set of factors that fully explains the variance of our dependent variables. For the model with a dichotomous dependent variable "Use of

Table 3: Linear and logistic regression analyses

	IHRM practices				
	Recruitment/selection		Training	Teams[1]	Evaluation
	Experience	TCNs			
Integrated network					
Input interdependence	0.202*	0.271**	0.315**	1.070*	0.264**
Output interdependence	−0.200	0.072	0.007	0.931*	−0.054
Control variables					
Subsidiary importance	0.319**	0.213**	0.287**	2.286**	0.227**
Size	−0.017	−0.046	−0.077	–	0.114
R^2	0.173	0.138	0.209	–	0.122
R^2 adjusted	0.136	0.113	0.186	–	0.097
F	4.615**	5.493**	9.055**	–	4.781**
Durbin-Watson	1.705	1.766	1.704	–	1.730
Nagelkerke R^2	–	–	–	0.400	–
Chi square	–	–	–	29.267***	–

[1]Logistic Regression. Values for independent and control variables are odds ratios

N = 142; *p < 0.05; **p < 0.01; ***p < 0.001

cross-cultural management teams", we used a logistic regression model. R^2 values are considered of limited value in such models and we thus computed Nagelkerke-R^2 instead (Gujarati 2003). The values for the independent variables in the logistic regression model shown in Table 3 are odds ratios. All our models were statistically significant as shown by the F values for the linear regression models and the Chi square statistic for the logistic regression model.

With regard to our first set of hypotheses focussing on the recruitment and selection of managers for overseas subsidiaries, the findings support two of the four hypotheses. The first regression model shows that there is a statistically significant relationship between the level of a subsidiary's input interdependence and the international experience of subsidiary managers as measured by the number of previous international assignments (0.202, $p \leq 0.05$). The level of subsidiaries' output interdependence, however, is not associated with the international experience of managers (−0.200, n.s). Our results lend support for hypothesis 1a but not for hypothesis 1b. From among the control variables in our first model, only the importance of the subsidiary enters significantly into the regression (0.319, $p \leq 0.01$), while the coefficient for the size of the subsidiary was not statistically significant (−0.017, n.s.).

The second model shown in Table 3 shows that the relationship between subsidiary interdependence and the use of third country nationals is statistically significant only with regard to the input interdependence of a subsidiary (0.271, $p \leq 0.01$). The association between the level of output interdependence and the use of TCNs, on the other hand, is not statistically significant (0.072, n.s.). These findings lend support for hypothesis 2a but not for hypothesis 2b. With regard to the control variables, the results highlight the importance of the subsidiary which shows a statistically significant, positive association with the use of TCNs (0.213, $p \leq 0.01$) while subsidiary size is not related to the use of TCNs in overseas subsidiaries (−0.046, n.s.).

In our third model, we tested the relationship between interdependence and the level of subsidiary managers' culture-general training. In the respective hypotheses 3a and 3b, we suggested a positive association between these variables. As can be seen from Table 3, the coefficients for the level of input interdependence are positive and statistically significant (0.315, $p \leq 0.01$), lending support for hypothesis 3a. Similar to our previous findings, however, the coefficient for subsidiaries' output interdependence is not statistically significant (0.007, n.s.). Table 3 also shows that from among the control variables, only the importance of a subsidiary enters significantly into our model (0.287, $p \leq 0.01$) while the size of a subsidiary has no statistically significant effect.

The results regarding hypothesis 4a and 4b, which suggested positive relationships between input and output interdependence on the one hand and the use of cross-cultural management teams on the other hand, are not conclusive. Although both odds ratios are statistically significant, only the odds ratio for the input interdependence implies a positive association between interdependence and the use of cross-cultural management teams (1.070, $p \leq 0.05$). This finding lends support for hypothesis 4a. Yet, the odds ratio for the output interdependence indicates that with increasing levels of output interdependence, firms become less likely to use such teams (0.931, $p \leq 0.05$). Both odds ratios, however, are close to 1 suggesting weak relationships. With regard to the control variables, Table 3 highlights the importance of a subsidiary as it shows a statistically significant odds ratio above 2, which implies a positive association between importance and the use of cross-cultural management teams (2.286, $p \leq 0.01$). The odds ratio for the size of the subsidiary is not statistically significant.

Our final model tested the relationship between input and output interdependence of subsidiaries and the degree to which MNC-wide performance criteria are used when evaluating and rewarding the subsidiary managers' performance, as suggested in hypotheses 5a and 5b. The results of the regression analysis again show that a subsidiary's input interdependence and the extent to which rewards are based on MNC-wide criteria are positively associated (0.264, $p \leq 0.01$). The coefficient for the relationship between the level of output interdependence and the use of MNC-wide criteria is not statistically significant (−0.054, n.s.). Similar to the results for our previous hypotheses, only H5a is supported by our data. From among our two control variables, only the importance of the subsidiary enters statistically significant into our model (0.227, $p \leq 0.01$).

Discussion

The study confirms a strong relationship between the establishment of integrated transnational networks as manifested in high levels of subsidiary interdependence and IHRM practices used in the MNC subsidiaries. However, the results are ambiguous in as far as they show positive associations between input interdependence and IHRM practices, but fail to support the hypothesized relationships between IHRM practices and output interdependence. More specifically, there appears to be a link between a subsidiary's level of input interdependence and the level of subsidiary managers' international experience. This is in line with our argument that higher levels of interdependence require greater abilities of managers to coordinate their subsidiary's activities with other internationally dispersed operations. Internationally experienced managers would thus be more suitable for senior management positions in such subsidiaries. Our results also show that the level of input interdependence of a subsidiary has a positive effect on the use of third country nationals, reflecting a more regiocentric or geocentric staffing policy. With regard to the level of culture-general training, our findings suggest that the intensity to which subsidiary managers receive this type of training varies with the level of subsidiary interdependence in line with our expectations. A number of authors have suggested that the organizational challenges faced by highly integrated MNCs require a re-thinking of the design of training programs (e.g., O'Keeffe 2003). This has been supported by our data, although there is a clear link only between the level of input interdependence of a subsidiary and the level of training received by the subsidiary managers. The lack of a statistically significant positive relationship between output interdependence and cross-cultural training may be explained by the fact that the output interdependence of subsidiaries is associated with a comparatively lower degree of exposure to the local cultural idiosyncrasies and cross-cultural skills are thus not as important. Our results show that input interdependence is also associated with the use of cross-cultural management teams for managing subsidiaries. This finding is in line with the suggestions of proponents of the transnational strategy and its recommended organizational implementation via integrated transnational networks. Bartlett and Ghoshal (2002), for instance, recommend the use of cross-cultural management teams as individual managers would not be able to simultaneously take into account all three dimensions included in the ‘transnational solution’ when making decisions. Finally, our results show that the degree to which the MNCs in our sample make use of MNC-wide criteria in evaluating and rewarding subsidiary managers’ performance is related to the level of subsidiaries’ input interdependence.

Overall, our study reveals that input interdependence is associated with all of our IHRM practices while the level of output interdependence shows a significant association only for the level to which subsidiary managers are provided with culture-general training. Managing input and output interdependence seems to require different IHRM practices. Whereas international experience may be helpful in managing input interdependence, it may be of less use when dealing with output interdependence. One explanation for this finding may be that, as shown in the correlation analysis, input and output interdependencies are largely independent. It is possible that our sample consists of two distinct groups of subsidiaries. A first group of subsidiaries is characterized by a high degree of input interdependence. These subsidiaries could be labelled ‘importers’ and mainly act as distribution channels for the products of the headquarters. With reference to the role typology of D’Cruz (1986), subsidiaries assuming this role have a greater need for experienced managers, cross-cultural management teams, and for MNC-wide performance and reward systems. A second group of subsidiaries, characterized by a high degree of output interdependence, may primarily act as providers of cheap inputs to the headquarters and other subsidiaries. For this second group of subsidiaries low costs are very important. Procurement, as an upstream activity with typically much lower technological requirements than production and distribution, might predominantly require managers with knowledge of the local conditions (Ferdows 1997). As a result, sophisticated HRM practices are needed less than in the first group of subsidiaries with a high degree of input interdependence.

The importance of a subsidiary, included as a control variable, was associated with IHRM practices in all of our models. This underlines the relevance of this variable for IHRM and is in line with previous studies that stress the influence of subsidiary importance on the use and design of IHRM practices in MNCs (Gomez 2004; McGraw 2004). The coefficients for subsidiary size were not statistically significant. This may be because our sample consisted only of subsidiaries of large MNCs and that the subsidiaries in our sample were thus relatively homogenous in terms of size. It would therefore be interesting for future studies to compare our results to findings of studies on small and medium-sized MNCs with smaller subsidiaries.

Contributions, Limitations and Implications for Future Research

The findings of this study have underlined the relationship between global strategic management and IHRM practices. The basic argument behind this relationship was the insight that IHRM can enhance the coordination between interdependent subsidiaries. Our results have shown that the level of input interdependence of overseas subsidiaries is related to a number of IHRM practices. The empirical data however has failed to support the hypothesized relationship between the level of a subsidiary’s output interdependence and these practices. Our results show that, with the exception of the use of cross-cultural management teams at subsidiary level, input interdependence seems to be the more important when analyzing determinants of IHRM practices. Given these results, future research should differentiate between different types of subsidiary interdependence; for instance, by taking into account the different roles that subsidiaries play within MNCs when analyzing the link between strategy and IHRM practices (e.g., Bonache and Fernández 1997).

An important theoretical contribution of our study is the combination of Bartlett and Ghoshal's (2002) concept of transnational networks and the RBV of IHRM. The latter proved to be an adequate theoretical framework for analyzing the relationships between MNCs' strategies and their IHRM practices. While the RBV has been applied in several other fields of IHRM, our study is one of the first to use the RBV for analyzing IHRM practices' and relating them to the development of MNC's dynamic capabilities, in particular their coordination capability.

For practitioners, our findings provide some useful insights into the relationship between MNCs' strategies and IHRM. For example, our findings imply that high levels of interdependence are associated with a higher number of third-country nationals and cross-cultural management teams. This has important consequences for the demands on managers with regard to their international mobility and their ability to work together with colleagues with different cultural and national backgrounds. Thus, it could be argued that interdependence increases the need for company managers instead of country managers. Moreover, subsidiary managers in highly integrated MNCs must be willing and able to consider not only local, but also MNC-wide outcomes of their actions. This may require changes in the incentive system and a more profound knowledge of the entire MNC and its worldwide activities, which will have consequences for the career-paths of managers in MNCs.

There are a number of limitations that need to be taken into account, when interpreting the results of this study. A first set of limitations relates to a range of additional factors that may have an influence on the relationships investigated in this study. All subsidiaries in our sample are subsidiaries of German MNCs. The relationships between the implementation of an integrated transnational network and the various IHRM practices discussed may be different for MNCs from other countries. For example, MNCs based in smaller countries may be more inclined than German MNCs to use cross-cultural management teams or TCNs to manage overseas subsidiaries. Similarly, there may be a range of factors that may lead to differences in the use and design of IHRM practices that could have been controlled. One such factor may be the size of the MNC and/or specific subsidiaries. The MNCs and subsidiaries in our study were all quite large. Previous studies suggest that IHRM practices might be different in small and medium-sized enterprises (e.g., Baruch et al. 2002). It could also be argued that the age of the subsidiary may influence the use of IHRM practices and that, for example, expatriates may be used more widely in start-up than in more mature subsidiaries (Holtbrügge and Wessely 2009). Our sample composition did not allow us to control for industry effects. However, it is possible that industry characteristics affect firms' preferences for specific IHRM practices for coordinating globally dispersed operations. For example, it can be assumed that MNCs in knowledge-intensive industries have a stronger preference for cross-cultural management teams while MNC-wide performance evaluation and reward systems are more common in MNCs in labour-intensive industries (Schuler et al. 2002; Gomez and Sanchez 2005; Shen 2005). Similarly, future research on this subject should control for cultural differences between not only the home country of the MNC and the host country of the respective subsidiary abroad, but also take into account the cultural distance between the host countries of subsidiaries that depend on each other. Measures of cultural distance, such as the Kogut/Singh-Index (Kogut and Singh 1998), would have to be calculated separately for each dyadic relationship among MNC units. Yet, given the criticism levelled at the work of Hofstede (1980, 2001), on which the above index is based (see, for example, McSweeney 2002) more appropriate ways of taking into account cultural differences in empirical studies are needed.

A second set of limitations concerns the measurement of our variables. We used the degree of input and output interdependence of subsidiaries as proxies for the implementation of integrated transnational networks. We used two single items which were suggested in extant research and which reflect the interdependence of subsidiaries with other MNC units. Although a high level of interdependence is one of the main elements ascribed to integrated transnational networks in literature, future research is needed to develop additional ways of measuring MNCs' implementation of integrated transnational networks. At the same time, our results suggest that a more detailed conceptualization of subsidiary interdependence is warranted, which could then be used alongside other indicators of MNCs' adoption of integrated transnational networks. This could include evaluations of interdependence with regard to different types of resources (e.g. knowledge, capital, intermediate products). With regard to data collection, including managers from all units involved in a specific exchange relationship would allow for more objective assessments of the degree of interdependence between units. Furthermore, all variables were measured by asking the subsidiary managers for their evaluation. In addition to a common-method bias, this may have led to an inflation of some of the variables, in particular, with regard to the assessment of the importance of the subsidiaries. Moreover, the relevance of IHRM practices such as international experience, the intensity of culture-general training and the degree of MNC-wide remuneration criteria were measured on the individual and not the organizational level. Thus, we assume that the respondents are representative of the entire management level.

Finally, it could be argued that our model is limited in terms of the choice and number of variables included. There are further variables that could be expected to be associated with the use and design of IHRM practices in overseas subsidiaries of MNCs. For example, managers can gain foreign experience not only through long-term foreign assignments but also through short-term delegations, international commuter arrangements, frequent flyer assignments and virtual delegations (Collings et al. 2007; Holtbrügge and Schillo 2008; Mayerhofer et al. 2004). As the focus of our study was to analyze the relationship between subsidiary interdependence and IHRM practices rather than explaining the largest possible amount of variation in our dependent variables, we had to limit the number of independent and control variables included. Future studies should extend the range of variables included to shed further light on the link between global strategic management and IHRM practices.

References

Athanassiou, N., & Nigh, D. (2000). Internationalization, tacit knowledge and the top management teams of MNCs. *Journal of International Business Studies, 31*(3), 471–487.

Au, K. Y., & Fukuda, J. (2002). Boundary spanning behaviors of expatriates. *Journal of World Business, 37*(4), 285–296.

Aycan, Z. (1997). Expatriate adjustment as a multifaceted phenomenon: Individual and organizational level predictors. *International Journal of Human Resource Management, 8*(4), 434–456.

Bae, J., Chen, S., Wan, T. W. D., Lawler, J. J., & Walumbwa, F. O. (2003). Human resource strategy and firm performance in Pacific Rim countries. *International Journal of Human Resource Management, 14*(8), 1308–1332.

Banai, M., & Sama, L. M. (2000). Ethical dilemmas in MNCs' international staffing policies. A conceptual framework. *Journal of Business Ethics, 25*(3), 221–235.

Barner-Rasmussen, W. (2003). Determinants of the feedback-seeking behaviour of subsidiary top managers in multinational corporations. *International Business Review, 12*(1), 41–60.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99–120.

Barney, J., Wright, M., & Ketchen, D. J. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management, 27*(6), 625–641.

Bartel-Radic, A. (2006). Intercultural learning in global teams. *Management International Review, 46*(6), 647–678.

Bartlett, C. A., & Ghoshal, S. (2002). *Managing across borders: The transnational solution* (2nd ed.). Boston: Harvard Business School Press.

Baruch, Y. (1999). Response rate in academic studies. A comparative analysis. *Human Relations, 52*(4), 421–438.

Baruch, Y., Steele, D. J., & Quantrill, G. A. (2002). Management of expatriation and repatriation for novice global player. *International Journal of Manpower, 23*(7), 659–671.

Berg, N., & Holtbrügge, D. (2010). Global teams: A network analysis. *Team Performance Management, 16*(3/4), 187–211.

Bhawuk, D. P. S. (1998). The role of culture theory in cross-cultural training. A multimethod study of culture-specific, culture-general, and culture theory-based assimilators. *Journal of Cross-Cultural Psychology, 29*(5), 630–655.

Birkinshaw, J. (2001). Strategy and management in MNE subsidiaries. In A. M. Rugman & T. L. Brewer (Eds.), *Oxford handbook of international business* (pp. 380–410). Oxford: Oxford University Press.

Björkman, I., Barner-Rasmussen, W., & Li, L. (2004). Managing knowledge transfer in MNCs: The impact of headquarters control mechanisms. *Journal of International Business Studies, 35*(5), 443–455.

Bonache, J., & Fernández, Z. (1997). Expatriate compensation and its link to the subsidiary strategic role: A theoretical analysis. *International Journal of Human Resource Management, 8*(4), 457–475.

Boyacigiller, N. (1990). The role of expatriates in the management of interdependence, complexity and risk in multinational corporations. *Journal of International Business Studies, 21*(3), 357–381.

Brett, J., Behfar, K., & Kern, M. C. (2006). Managing multicultural teams. *Harvard Business Review, 84*, 84–91.

Brewster, C., Mayrhofer, W., & Morley, M. (Eds.). (2004). *Human resource management in Europe: Evidence of convergence?* Oxford: Butterworth-Heinemann.

Brislin, R. W., & Yoshida, T. (1994). *Intercultural communication training. An introduction*. Thousand Oaks: Sage.

Brock, D. M., & Birkinshaw, J. (2004). Multinational strategy and structure: A review and research agenda. *Management International Review, 44*(Special Issue 1), 5–14.

Cascio, W. F. (2006). Global performance management systems. In G. K. Stahl & J. Björkman (Eds.), *Handbook of research in international human resource management* (pp. 176–196) Cheltenham: Edward Elgar.

Collings, D. G., Scullion, H., & Morley, M. J. (2007). Changing patterns of global staffing in the multinational enterprise: Challenges to the conventional expatriate assignment and emerging alternatives. *Journal of World Business, 42*(2), 198–213.

Cushner, K., & Brislin, R. W. (Eds.). (1997). *Improving intercultural interactions. Modules for cross-cultural training programs*. Thousand Oaks: Sage.

Daniels, J. D., & Insch, G. S. (2006). The relationship between foreign transfers and U.S. companies' international strategies. *Multinational Business Review, 14*(1), 1–19.

D'Cruz, J. (1986). Strategic Management of Subsidiaries. In H. Etemad & L. S. Dulude (Eds.), *Managing the multinational subsidiary. Response to environment changes and to host nation R&D policies* (pp. 75–89). London: Croom Helm.

De Cieri, H., & Dowling, P. J. (1997). Strategic international human resource management: An Asia-Pacific perspective. *Management International Review, 37*(1), 21–42.

De Cieri, H., & Dowling, P. J. (2006). Strategic international human resource management in multinational enterprises: Developments and directions. In G. K. Stahl & J. Björkman (Eds.), *Handbook of research in international human resource management* (pp. 15–35). Cheltenham: Edward Elgar.

Doz, Y. L., & Prahalad, C. K. (2005). Managing MNCs: A search for a new paradigm. In S. Ghoshal & D. E. Westney (Eds.), *Organization theory and the multinational corporation* (2nd ed, pp. 20–44). Basingstoke: McMillan.

Doz, Y. L, Santos, P., & Williamson, P. (2001). *From global to metanational: How companies win in the knowledge economy*. Boston: Harvard Business School Press.

Earley, P. C., & Peterson, R. S. (2004). The elusive cultural chameleon: Cultural intelligence as a new approach to intercultural training for the global manager. *Academy of Management Learning & Education, 3*(1), 100–116.

Edstrom, A., & Galbraith, J. R. (1977). Transfer of managers as a coordination and control strategy in multinational organizations. *Administrative Science Quarterly, 22*(2), 248–263.

Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal, 21*(10–11), 1105–1121.

Elron, E. (1997). Top management teams within multinational corporations: effects of cultural heterogeneity. *Leadership Quarterly, 8*(4), 393–412.

Ferdows, K. (1997). Making the most of foreign factories. *Harvard Business Review, 75*(2), 73–88.

Ghoshal, S. (1987). Global strategy: An organizing framework. *Strategic Management Journal, 8*(5), 425–440.

Ghoshal, S., & Bartlett, C. (2005). The multinational corporation as an inter-organizational network. In D. E. Westney & S. Ghoshal (Eds.), *Organization theory and the multinational corporation* (2nd ed., pp. 69–92). Houndmills: Palgrave.

Gibson, C. B. (1999). Do they do what they believe they can? Group efficacy and group effectiveness across tasks and cultures. *Academy of Management Journal, 42*(2), 138–152.

Gomez, C. (2004). The influence of environmental, organizational, and HRM factors on employee behaviors in subsidiaries: A Mexican case study of organizational learning. *Journal of World Business, 39*(1), 1–11.

Gomez, C., & Sanchez, J. I. (2005). Human resource control in MNCs: A study of the factors influencing the use of formal and informal control mechanisms. *International Journal of Human Resource Management, 16*(10), 1847–1861.

Gong, Y. (2006). The impact of subsidiary top management team national diversity on subsidiary performance: Knowledge and legitimacy perspectives. *Management International Review, 46*(6), 771–789.

Govindarajan, V., & Gupta, A. K. (2001). Building an effective global business team. *Sloan Management Review, 43*(2), 63–71.

Gudykunst, W. B., & Hammer, M. (1983). Basic training design. Approaches to inter-cultural training. In D. Landis & R. Brislin (Eds.), *Handbook of intercultural training,* (Vol. 1, pp. 121–143). New York: Pergamon Press.

Gudykunst, W. B., Guzley, R. M., & Hammer, M. R. (1996). Designing intercultural training. In D. Landis & R.S. Bhagat (Eds.), *Handbook of intercultural training* (2nd ed., pp. 61–80). Thousand Oaks: Sage.

Gujarati, D. N. (2003). *Basic econometrics* (4th ed.). Boston: McGraw-Hill.

Gupta, A. K., & Govindarajan, V. (2000). Knowledge flows within multinational corporations. *Strategic Management Journal, 21*(4), 473–496.

Halverson, C., & Tirmizi, S. (2008). *Effective multicultural teams: Theory and practice*. Berlin: Springer.

Harris, H., & Holden, L. (2001). Between autonomy and control: Expatriate managers and strategic IHRM in SMEs. *Thunderbird International Business Review, 43*(1), 77–101.

Harvey, M., & Novecevic, M. M. (2002) The co-ordination of strategic initiatives within global organizations: The role of global teams. *International Journal of Human Resource Management, 13*(4), 660–677.

Harvey, M., Speier, C., & Novecevic, M. M. (2000). A theory-based framework for strategic global human resource staffing policies and practices. *International Journal of Human Resource Management, 12*(6), 898–915.

Harzing, A.-W. (2001). Who's in charge? An empirical study of executive staffing practices in foreign subsidiaries. *Human Resource Management, 40*(2), 139–158.

Hedlund, G., Rolander, D. (1990). Action in heterarchies. New approaches to managing the MNC. In C. A. Bartlett, Y. Doz, & G. Hedlund (Eds.), *Managing the global firm* (pp. 15–46). London: Routledge.

Hofstede, G. (1980). *Culture's consequences: International differences in work related values*. London: Sage.

Hofstede, G. (2001). *Culture's consequences. Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Thousand Oaks: Sage.

Holtbrügge, D. (Ed.). (2008). *Cultural adjustment of expatriates. Theoretical concepts and empirical studies*. München: Hampp.

Holtbrügge, D., & Berg, N. (2004). Knowledge management in multinational corporations. Results of an empirical study among German firms. *Management International Review, 44*(Special Issue 3), 129–145.

Holtbrügge, D., & Schillo, K. (2008). Managing from a distance: Virtual delegation to India. In A. Hendel, W. Messner, & F. Thun (Eds.), *Rightshore! Successfully industrialize SAP® projects offshore* (pp. 121–144). Berlin: Springer.

Holtbrügge, D., & Wessely, B. (2009). Initiating forces and success factors of born global firms. *European Journal of International Management, 3*(2), 232–260.

Jansen, J. J. P., Van Den Bosch, F. A. J., & Volberda, H. W. (2005). Managing potential and realized absorptive capacity: How do organizational antecedents matter? *Academy of Management Journal, 48*(6), 999–1015.

Kamoche, K. (1996). The integration-differentiation puzzle: A resource-capability perspective in international human resource management. *International Journal of Human Resource Management, 7*(1), 230–244

Kamoche, K. (1997). Knowledge creation and learning in international HRM. *International Journal of Human Resource Management, 8*(3), 213–225.

Kogut, B., & Singh, H. (1998). The effect of national culture on the choice of entry mode. *Journal of International Business Studies, 19*(3), 411–432.
Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science, 3*(3), 383–397.
Kostova, T., & Roth, K. (2003). Social capital in multinational corporations and a micro-macro model of its formation. *Academy of Management Review, 28*(2), 297–317.
Landis, D., & Bhagat, R. S. (Eds.). (1996). *Handbook of intercultural training* (2nd ed.). Thousand Oaks: Sage.
Luo, Y. (2003). Market-seeking MNEs in an emerging market: How parent-subsidiary links shape overseas success. *Journal of International Business Studies, 34*(3), 290–310.
Mauri, A. J., & Phatak, A. V. (2001). Global integration as inter-area product flows: The internalization of ownership and location factors influencing product flows across MNC units. *Management International Review, 41*(3), 233–249.
Mauri, A. J., & Sambharya, R. B. (2003). The performance implications of a global integration strategy in global industries: An empirical investigation using inter-area product flows. *Management International Review, 43*(Special Issue 2), 27–45.
Mayerhofer, H., Hartmann, L. C., & Herbert, A. (2004). Career management issues for flexpatriate international staff. *Thunderbird International Review, 46*(6), 647–666.
Maznevski, M. L. (1994). Understanding our differences: performance in decision-making groups with diverse members. *Human Relations, 47*(5), 531–552.
McGraw, P. (2004). Influences on HRM practices in MNCs: A qualitative study in the Australian context. *International Journal of Manpower, 25*(6), 535–547.
McSweeney, B. (2002). Hofstede's model of national cultural differences and their consequences: A triumph of faith—a failure of analysis. *Human Relations, 55*(1), 89–118.
Mendenhall, M. E., & Stahl, G. K. (2000). Expatriate Training and development: Where do we go from here? *Human Resource Management, 39*(2–3), 251–265.
Milliman, J., von Glinow, M. A., & Nathan, M. (1991). Organizational life cycles and strategic international human resource management in multinational companies: implications for congruence theory. *Academy of Management Review, 16*(2), 318–339.
Morris, S. S., Snell, S. A., & Wright, P. M. (2006). A resource-based view of international human resources: Toward a framework of integrative and creative capabilities. In G. K. Stahl & J. Björkman (Eds.), *Handbook of research in international human resource management* (pp. 433–448). Cheltenham: Edward Elgar.
Nohria, N., & Ghoshal, S. (1997). *The differentiated network. Organizing multinational corporations for value creation*. San Francisco: Jossey-Bass.
Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company. How Japanese companies create the dynamics of innovation*. New York: Oxford University Press.
Novecevic, M., & Harvey, M. (2001). The changing role of the corporate HR function in global organizations of the twenty-first century. *International Journal of Human Resource Management, 12*(8), 1251–1269.
O'Donnell, S. (1999). Compensation design as a tool for implementing foreign subsidiary strategy. *Management International Review, 39*(2), 149–165.
O'Donnell, S. W. (2000). Managing foreign subsidiaries: Agents of headquarters, or an interdependent network? *Strategic Management Journal, 21*(5), 525–548.
O'Keeffe, T. (2003). Preparing expatriate managers of multinational organisations for the cultural and learning imperatives of their job in dynamic knowledge-based environments. *Journal of European Industrial Training, 27*(5), 233–244.
Paik, Y., Segaud, B., & Malinowski, C. (2002). How to Improve repatriation management. *International Journal of Manpower, 23*(7), 635–649.

Paik, Y., & Teegarden, M. B. (1995). Strategic international human resource management approaches in the maquiladora industry: A comparison of Japanese, Korean and U.S. firms. *International Journal of Human Resource Management, 6*(3), 568–587.

Park, H. J., Mitsuhashi, H., Fey, C. F., & Björkman, I. (2003). The effect of human resource management practices on Japanese MNC subsidiary performance: A partial mediating model. *International Journal of Human Resource Management, 14*(8), 1391–1406.

Perlmutter, H. V. (1969). The tortuous evolution of the multinational corporation. *Columbia Journal of World Business, 4*(1), 9–18.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903.

Porter, M. E. (1986). Competition in global industries: A Conceptual framework. In M. E. Porter (Ed.), *Competition in global industries*. Boston: Business School Press.

Pucik, V. (1992). Globalization and human resource management. In V. Pucik, N. M. Tichy, & C. K. Barnett (Eds.), *Globalizing management. Creating and leading the competitive organization* (pp. 61–81). New York: Wiley.

Richards, M. (2001). U.S. multinational staffing practices and implications for subsidiary performance in the U.K. and Thailand. *Thunderbird International Business Review, 43*(2), 225–242.

Rosenzweig, P. M. (2006). The dual logic behind international human resource management: Pressures for global integration and local responsibility. In G. K. Stahl & J. Björkman (Eds.), *Handbook of research in international human resource management* (pp. 36–48). Cheltenham: Edward Elgar.

Roth, K., & O'Donnell, S. (1996). Foreign subsidiary compensation strategy: An agency theory perspective. *Academy of Management Journal, 39*(3), 678–703.

Rowley, C., Benson, J., & Warner, M. (2004). Towards an Asian model of human resource management? A comparative analysis of China, Japan and South Korea. *International Journal of Human Resource Management, 15*(4–5), 917–933.

Scholz, C., & Böhm, H. (2008). *Human resource management in Europe. Comparative analysis and contextual understanding*. London: Routledge.

Schuler, R. S., Budhwar, P. S., & Florkowski, G. W. (2002). International human resource management: Review and critique. *International Journal of Management Reviews, 4*(1), 41–70.

Shapiro, D., von Glinow, M., & Cheng, J. (Eds.). (2005). Managing multinational teams: Global perspectives. *Advances in International Management, 18,* Amsterdam et al.: Elsevier.

Shay, J. P., & Black, S. A. (2004). Expatriate assignment, adjustment and effectiveness: An empirical examination of the big picture. *Journal of International Business Studies, 35*(3), 216–232.

Shen, J. (2005). Towards a generic International Human Resource Management (IHRM) model. *Organisational Transformation and Social Change, 2*(2), 83–102.

Stahl, G. K., Miller, E. L., & Tung, R. L. (2002). Toward the boundaryless career: A closer look at the expatriate career concept and the perceived implications of an international assignment. *Journal of World Business, 37*(3), 216–227.

Stredwick, J. (2000). Aligning rewards to organisational goals. A multinational's experience. *European Business Review, 12*(1), 9–18.

Subramaniam, M., & Venkatraman, N. (2001). Determinants of transnational new product development capability: Testing the influence of transferring and deploying tacit overseas knowledge. *Strategic Management Journal, 22*(4), 359–378.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18*(7), 509–533.

Tsai, W. (2002). Social structure of "Coopetition" within a multiunit organization: Coordination, competition, and intraorganizational knowledge sharing. *Organization Science, 13*(2), 179–190.

Warner, M. (2005). *Human resource management in China Revisited*. London: Routledge.
Wang, K. D, Wong, C.-S., & Law, K. S. (2004). An empirical test of the model on managing the localization of human resources in the people's Republic of China. *International Journal of Human Resource Management, 15*(4–5), 635–649.
Watson, S., & Roth, K. (2003). Implementing Lateral Centralization at the Foreign Subsidiary. In B. McKern (Ed.), *Managing the global network corporation* (pp. 135–151). London: Routledge.
Wright, P. M., & Boswell, W. R. (2002). Desegregating HRM: A review and synthesis of micro and macro human resource management research. *Journal of Management, 28*(3), 247–276.
Wright, P. M., Dunford, B. B., & Snell, S. A. (2001). Human resources and the resource based view of the firm. *Journal of Management, 27*(6), 701–721.
Yan, A., Zhu, G., & Hall, D. T. (2002). International assignment for career building: a model of agency relationships and psychological contracts. *Academy of Management Review, 27*(3), 373–391.
Yip, G. S. (2003). *Total global strategy*. Upper Saddle River: Prentice Hall.
Zenger, T. R., & Hesterly, W. S. (1997). The disaggregation of corporations: selective intervention, high-powered incentives, and molecular units. *Organization Science, 8*(3), 209–222.