

**HIGH PERFORMANCE WORK SYSTEM PRACTICES IN FOREIGN
SUBSIDIARIES OF AMERICAN MULTINATIONALS:
A MULTICOUNTRY STUDY**

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Abstract

This study focuses on the utilization of high performance work systems (HPWS) by subsidiaries of American multinational companies (MNCs). It is based on the premise that American MNCs have a preference for HPWS utilization. However, institutional influences at the host-country level may limit the likelihood of HPWS implementation. This study examines HPWS implementation in a sample of subsidiaries across fourteen host countries in Asia, Africa, and Europe. The research provides considerable variability in host-country institutional environments. The model we propose is largely supported in the case of rank-and-file workers, though some anomalies are found in the case of managerial employees.

The study of the diffusion of human resource management (HRM) practices across country borders has become increasingly important in international HRM research (Brewster, 2006). Research shows that the transfer of HRM practices from multinational corporations (MNCs) to their foreign subsidiaries may be contingent upon the country-of-origin of the MNC (Lau & Ngo, 2001), institutional distances between the local and parent country locations (Gaur, Delios, & Singh, 2007), and the institutional pressures embedded in the local environment (Björkman, Fey, & Park, 2007). Despite extensive evidence exists about the contextual factors related to the similarities or dissimilarities of MNC subsidiary HRM practices across country borders, it is still the case that “little is known about the extent to which high-performance HRM practices are found in foreign subsidiaries across countries” (Björkman et al., 2007: 431).

In a similar vein, the global integration–local responsiveness (GI-LR) framework articulated by various scholars (e.g., Hannon, Huang, & Jaw, 1995) tends to highlight the determinants of the tension between MNCs’ decision to integrate their HRM practices across different countries at the corporate level or to be more responsive to local conditions at the subsidiary level, abiding by laws and other institutional influences. Although this GI-LR approach examines the complexity of environmental influences on subsidiary HRM practices, much of the investigation has been centered on different nationalities of MNCs located in a single host country rather than multiple host countries (Hannon, et al., 1995; Ferner, Almond, and Colling, 2005; Rosenzweig and Nohria, 1994). In addition, much of the work has been focused on the perceived influence of the parent company over its subsidiary (e.g., Fenton-O’Creevy, Gooderham, & Nordhaug, 2008) rather than the specific HRM practices being transferred.

Another approach has taken the view from institutional theory (Björkman et al., 2007). Björkman et al. (2007) tested the degree of utilization of high performance work systems (HPWSs) by MNC subsidiaries operating in the U.S., Russia and Finland. They found subsidiary factors (i.e. the status of the HR department and the involvement of subsidiary in knowledge transfer) influenced the use of HPWSs. Although they examined subsidiaries in three host countries and addressed the significance of institutional pressures faced by the subsidiaries, they had not directly tested specific measures of various aspects of the institutional environment within host countries. The likely institutional factors include the favorableness of the political-legislative environment to business, the restrictiveness of labor legislation, professional norms, and aspects of the cultural-cognitive institutional environment. Scholars have yet to “disentangle the relative influence of MNC-internal and –external regulative, normative and cultural-cognitive processes” (Björkman et al., 2007: 444) in determining the adoption of HRM practices in the diverse context of subsidiaries.

Our study seeks to address the above call by investigating the tension between institutional pressures and the adoption of HRM practices in foreign subsidiaries of American MNCs operating in fourteen host countries dispersed throughout Europe, Africa, and Asia. We focused specifically on the extent of implementation of HPWSs, defined as including performance-based pay, extensive training, employee empowerment, extensive effort and care in recruitment and selection, and merit as a basis for organizational advancement, in foreign subsidiaries of American MNCs when confronted with host-country institutional challenges. Unlike previous studies examining data from only one host country (e.g., Hannon et al., 1995; Rosenzweig & Nohria, 1994) or a few host countries

(e.g., Björkman et al., 2007), our study involves a larger and more diverse set of host countries. Meanwhile, our study goes beyond the conventional perspectives that use host- or home-country dummy variables as proxies to represent influences from parent-country and host-country institutional environments. We argue that countries differ from one another on a whole range of social, economic, and political characteristics. Overall, our work makes for a robust and generalizable model of HPWS utilization in foreign subsidiaries from the institutional perspective.

The Institutional Perspective

Institutional theory occupies a central role in the study of organizations (DiMaggio & Powell, 1991; Meyer & Rowan, 1991; Scott, 1995). Scott (1995) defined the “three pillars” of the institutional environment as the regulative, normative, and cultural-cognitive systems. The *regulatory environment* refers to “the existing laws and rules in a particular national environment that promote certain types of behaviors and restrict others” (Kostova, 1999: 314). The *normative environment* represents internalized beliefs about proper and improper action. Beliefs about what is right and what is wrong drive action here, even though these beliefs do not fully align with the decision maker’s values and desires. Failure to abide by normative conventions can result in various social sanctions, thus possibly impeding the flow of crucial resources. The *cultural-cognitive environment* consists of common and relatively resilient ways of thinking that develop among members of a society and that are propagated through both formal and informal social interactions.

Institutional theory concerns how these significant environmental forces can promote isomorphism among organizations with regard to structure and process. Institutional theory argues that isomorphism derives from institutional pressures when

decision makers seek social legitimacy and to guarantee survival for their organizations by mimicking other organizations, conforming to laws and governmental regulations, and abiding by social norms. As we are concerned with foreign subsidiaries of MNCs, we need to take into account the dual pressures of the home-country and host-country institutional environments.

Kostova and Roth (2002) examined institutional and organizational influences on the transference of a quality management program of an American MNC to foreign subsidiaries of the company. They developed national institutional profiles for the host countries in their study, measuring the favorableness or unfavorableness of the of host-country regulatory, normative, and cognitive-cultural environments specifically to the implementation of quality management practices in subsidiaries. Their findings support the relevance of the three institutional dimensions to both the adoption and internalization of quality management practices by foreign subsidiaries.

In the field of international HRM, the institutional perspective has been applied extensively in previous studies and is seen as an important theoretical approach in this area (Björkman, 2006). However, scholars differ as to how extensively HRM practices are transferred to foreign subsidiaries. Rosenszweig and Nohria (1994: 230) noted that “the profile of management practices in an MNC is shaped by the interplay of opposing pressures for internal consistency and for isomorphism with the local institutional environment, with specific practices shaped by these opposing pressures to varying degrees.” More recently, Rosenszweig (2006) observes the tensions between global integration and local responsiveness in the HRM area is still among the key determinants of the degree of HRM conformity. Although not all authors explicitly apply institutional

theory in analyzing the similarities and differences between parent company and foreign subsidiary HRM policies, scholars indicated the pressures from the host-country environment may induce the parent company to respond to the local needs in order to gain legitimacy in the host environment (e.g., Hannon et al., 1995). In other words, the host-country institutional environment is highly relevant to the utilization of HPWS practices.

The dependent variable in previous studies has often been restricted to the perceived autonomy of foreign subsidiaries relative to parent companies in formulating subsidiary HRM practices rather than specific employment practices or systems. For example, Fenton-O’Creevy et al. (2008) analyzed subsidiary autonomy in determining HRM practices across subsidiaries of American MNCs in Australia and several European countries, specifically examining the role of institutional pressures. In contrast, Ferner et al. (2005) utilized institutional theory (along with business systems theory) to analyze the transfer of diversity programs from American MNCs to British subsidiaries. They found conditions under which subsidiaries may avoid full compliance with parent company expectations, leading to “resistive hybridization” or partial implementation of such programs at the subsidiary level, which is consistent with the Oliver’s (1991) arguments. Similar observations were made by Martin and Beaumont (1998).

Finally, two recent studies examined HRM practices from the institutional perspective. Gaur et al. (2007) demonstrated the importance of the host-country environment in affecting subsidiary staffing strategies. More broadly, Björkman et al. (2007) argued that the prevalence of HPWS practices in foreign subsidiaries depends on the host-country institutional environment to some extent. At the global level (i.e., parent company level), they assumed that HPWS practices were strongly institutionalized and

were viewed as representing “best practices” in the HR field. On the other hand, institutional influences at the host-country level were seen to vary regarding their supportiveness of the implementation of HPWS practices.

The Utilization of High Performance Work Systems in Foreign Subsidiaries

High Performance Work Systems

The term “HPWS practices” refers to the HRM approaches that originally emerged in the US especially in the early 1980s (Appelbaum and Batt, 1994). Core features of HPWS practices include performance-based pay, worker empowerment, teamwork, promotions based on merit rather than seniority, extensive training, and very careful recruitment and selection of employees (with a focus on the overall organizational fit of job candidates). We examine two separate groups of employees: managers and rank-and-file workers. HR systems in firms are typically not unitary (Lepak & Snell, 1999) and depend on a range of organizational and worker characteristics. Earlier work by Fey and Björkman (2001) suggests the extent of HRM practices applied to managerial and non-managerial employees may be different and that may further influence firm performance in a different ways. They therefore suggest future research to focus on the different bundles of HRM practices across employee groups. Among rank-and-file workers, we focus on full-time permanent workers, who are more apt to represent the core lower-level employees in the company. Lepak and Snell (1999) argued that HPWSs would be most apt to be implemented in situations where employee skills are quite valuable and not readily available in the external market, thus necessitating internal development, which would be more likely in core than peripheral employees. The use of HPWSs is also linked to the extent to which a particular group of employees is seen to constitute a basis for sustained

competitive advantage, as discussed in the literature dealing with the resource based view of the firm (Wright, Dunford, & Snell, 2001).

High Performance Work System as “Best Practice”

An important assumption of our study is that HPWSs are widely seen among professional managers, at least at the parent-company level, as constituting a set of “best practices” in the HRM domain for the firm’s core employees. Thus HPWS practices have acquired a “taken for granted” quality of institutionalized beliefs and practices. This point of view is consistent with one of the basic assumptions of Björkman et al. (2007). Brewster (2006) notes the preeminence of the “universalist” perspective on HRM systems in the US and this case is also made by Martin and Beaumont (1998). Ferner and Quintanilla (1998) discuss the significance of “Anglo-Saxonization” as an influence on MNCs in general. There is a huge body of research, mainly carried out in the US, that has generally found strong positive relationships between the utilization of HPWS practices and firm performance that supports the notion of HPWS approaches as “best practices.” A recent meta-analysis that used data from 92 different empirical studies concludes that HPWS practices “materially affect organizational performance” (Combs, Liu, to Hall, & Ketchen, 2006: 515).

Our argument here is very much consistent with the processes described by Smith and Meiksins (1995). The US may be seen as a “society-in-dominance” (i.e., a society “deemed to represent ‘modernity’ or the future, and act...as a measure of ‘progress’ and ‘development’” (Smith & Meiksins, 1995: 256)) which provides a model of employment practices that are viewed as “best practices” at the global level. Thus there would be reason for American MNC managers especially to believe in the efficacy and international

transferability of HPWS practices. Yet at the host-country level, local institutional forces may be at odds with this notion; host-country managers may have distinct views supported by local values and norms and the local regulatory environment may militate against the effective implementation of HPWSs (Ferner et al., 2005; Smith & Meiksins, 1995).

Host-Country Environment

Our discussion to this point indicates that the host-country environment of a foreign subsidiary may be less—or more—receptive to HPWS implementation than the MNC home country environment, in this case the US. In the following sections, we develop a series of hypotheses related to host-country institutional environment and HPWS utilization in an effort to understand which institutional factors might be the most important. However, for cross-national differences in institutional environment to have any effect, it is necessary that the probability of HPWS utilization differs across host countries. If there is little meaningful cross-national variation, then there is little point in exploring institutional environments in a more focused way:

Hypothesis 1: HPWS implementation by the foreign subsidiary of American-based MNC will vary across host countries in response to differences in host-country institutional environments.

Regulatory Institutional Influences

While the United States is an “employment-at-will” country, many other nations limit discharge at the employer’s discretion. Germany has strong laws protecting unions and providing for works councils and codetermination, as well as job protection. Similar policies, though not always as strong as Germany’s, are found in other European Union

(EU) countries. In India, lower-level permanent employees cannot be discharged at all except for cause or the failure of the company. Similar restrictions exist in Japan and were only abolished in Korea quite recently in the wake of the 1997 financial crisis. Ferner et al. (2005) discuss the differences related to equal employment opportunities in the US and UK, finding that US-based workforce diversity policies cannot be so readily transferred directly to UK subsidiaries by American MNCs; local managers in UK subsidiaries may endeavor to limit or alter the nature of diversity programs that they implement. The restrictiveness of laws and rules is particularly important to the recruitment and selection policies under HPWSs. American-based MNCs may need to adapt to local legislation, starting with recruitment advertisements (i.e., what can be specified in the advertisement based on the local legislation), recruitment sources, and recruitment strategies.

Child and Tsai (2005: 101) suggest that companies have “an opportunity to exercise leadership in environmental protection and enhancement” when institutional constraints are low. Correspondingly, in a relatively loose labor legislation context, American-based MNCs can probably play a more proactive role as a leader to introduce HPWSs into the host environment. Overall, restrictive regulations would be presumed to reduce the ability of management at the subsidiary level to implement changes and enforce policies consistent with a HPWS:

Hypothesis 2a: The propensity toward HPWS implementation by the foreign subsidiary of an American-based MNC will be negatively affected by the restrictiveness of the host country’s labor legislation.

A second component we examine under regulatory processes is “state efficiency.” State efficiency includes such elements as government transparency and the honesty of

government officials, along with the general openness of the political and legal environments to business and competitiveness. Yiu and Makino (2002) use a similar concept to argue that strong and formal government in the host country reduces the risk and uncertainty of business operations. Oxley and Yeung (2001) found that the rule of law is an important predictor, for example, of e-commerce readiness across borders. Firms are often attracted to a country in part because of sound political institutions. Governmental efficiency is generally conducive to investment in a country by foreign firms (Clague, 1997). For example, if the host-country legal system and government agencies are incomplete and corrupt, risks would consequently increase and we might anticipate that a subsidiary would respond by imposing more control on most aspects of the organization, including employment relations. The firm would presumably want to insulate itself from the uncertainties of the external business environment. The opposite would be expected to occur where state efficiency is relatively high. This would suggest a positive relationship between HPWS implementation propensity and state efficiency. There is, however, a persuasive counter-argument.

Consider the findings in the Björkman et al. (2007) paper. What is perhaps most surprising is that they found that foreign subsidiaries operating in Russia made *greater* use of HPWS practices than foreign subsidiaries operating in the US. This seems counterintuitive. Russia generally scores lower on many of the state efficiency measures than many more developed economies (see *World Competitiveness Yearbook 2004*). From our initial argument, we would anticipate that subsidiaries in Russia would be less apt to implement HPWSs. Björkman et al. (2007) justify their hypotheses regarding US-Russian differences by arguing specifically that the deinstitutionalization of the Soviet-era

personnel system left a vacuum in employment management in Russia. They argued that these deficits would give rise to a host-country institutional environment supportive of HPWSs because of major deficits in the extant labor systems. But there may be a more general argument that could be applied here that would extend beyond Russia (as well as other transitional economies).

When MNCs enter economies of low state efficiency, they face unclear regulatory frameworks, unresponsive bureaucracies, and corruption that impede their ability to fully integrate into the local market. While these conditions may discourage firms from entering such markets to begin with, once committed the firm may need intraorganizational mechanisms to help cope with significant uncertainties. HPWSs may be such a mechanism, as HPWSs are designed to facilitate organizations handling significant environmental turbulence and uncertainty. Employees may necessarily become important sources of value creation, as suggested by the resource based view of the firm applied to HR (Wright, et al., 2001). Firms would need to be quite careful as to who they hire in such circumstances, they would need to provide considerable internal training and development, they would need to have more autonomous employees in order to respond to ambiguity, and they would need a reward system to help ensure that the actions of more autonomous employees are in line with organizational objectives. Following Smith and Meiksins (1995), host-country managers in these sorts of environments may be searching for viable HR system and be prepared to emulate and even, as in the Russian case, go beyond the dominant “best practices” model. So we are able to move from a specific argument concerning HR systems in Russia to a more general proposition:

Hypothesis 2b: The propensity toward HPWS implementation by the foreign subsidiary of an American-based MNC will be negatively affected by state efficiency in the host country.

Normative Institutional Influences

The institutional literature emphasizes professional training and the transmission of professional standards of conduct as a principal mechanism in the propagation of normative controls through organizations and groups of related organizations (Scott, 1995). Much of the professional HR training and education that occurs around the world is rooted in the standard American curriculum. The ratio of HR professionals in an affiliate serves as an indicator of the level of professionalization of the HR function within the affiliate. As the relative number of HR professionals increases within a subsidiary, there is apt to be greater knowledge of, willingness to use, and greater interest in promoting what are widely viewed as HR “best practices,” including use of various HPWS practices. A greater proportion of HR professionals should also serve to facilitate more effective HPWS implementation:

Hypothesis 3a: The propensity toward HPWS implementation by the foreign subsidiary of an American-based MNC will be positively affected by the ratio of HR professionals to total employees in the subsidiary.

Labor union involvement in a subsidiary is another institutional force that could affect beliefs and norms within a subsidiary. In general, we would expect unions to promote policies that support employment stability and more egalitarian compensation practices. Unions are often suspicious of merit-based employment systems and support employment practices that allocate opportunities and rewards based on seniority. A union presence might also be indicative of a greater likelihood of conflict if the affiliate pursues

HPWS implementation, thus precluding or undermining effective HPWS implementation. And a greater union presence in the workplace may decrease the propensity of local managers to regard HPWSs as beneficial to the company (given normative beliefs that could be propagated by union members and officials). Fenton-O’Creevy et al. (2008) also found that unionization strongly promoted local autonomy in subsidiary HR system development:

Hypothesis 3b: The propensity for HPWS implementation by the subsidiary of an American-based MNC will be negatively affect by the ratio of union members to total employees in the subsidiary.

Finally, expatriate employees from a parent company’s home country may serve as conduits for enhancing and expanding HPWS practices in foreign subsidiaries. If pressures for HPWS adoption are coming to a large extent from the American parent company, then the greater the proportion of American expatriates working in the affiliate, the more likely normative expectations will evolve in the affiliate favoring HPWS practices. Björkman et al. (2007) found certain HPWS practices within foreign subsidiaries to be positively influenced by the degree to which expatriates were present in the subsidiary:

Hypothesis 3c: The propensity for HPWS implementation by the subsidiary of an American-based MNC will be positively affected by the ratio of expatriate employees to total employees in the subsidiary.

Cultural-Cognitive Institutional Influences

Cultural-cognitive influences are often taken to refer to mimetic forces within the society promoting organizational isomorphism. Imitation is one mechanism leading to isomorphism. However, there are other aspects of what Scott (1995) terms the cognitive-

cultural pillar in institutional theory. This dimension is reflected in what Scott identifies as its basic indicators: common beliefs and shared logics of action. He also points to societal culture as providing legitimacy for action driven by mimetic behavior. Cultural-cognitive influences provide common thought patterns within a group that support particular ways of viewing and understanding the world. Thus common cognitive schemas give rise to common ways of social interaction.

Scott's (1995) view of culture as a foundation of a society's institutional environment is complemented by the work of cross-cultural psychologists (Triandis, 1994; Hofstede, 1980). However, there is significant debate in the management and HRM fields among those who argue there are important and persistent differences in HRM practices and organizational structures across countries (Brewster, 2006). One group posits that these variations primarily result from cross-cultural differences, while others focus on more readily observable social structures, such as a country's archetypal business system. Some scholars are quite critical of the culturalist perspective in this field (Ferner et al., 2005) while others (e.g., Brewster, 2006; Wu, Lawler, & Yi, in press) have specifically addressed these concerns and support cultural influences as part of an institutional framework.

We focus on two cultural dimensions adapted from the GLOBE project (House, Hanges, Javidan, Dorfman, & Gupta, 2004)—power distance and performance orientation—which are embedded in the host-country environments and are likely to influence HPWS implementation. Some institutionalist studies have used the Euclidean distance between of the home-country and host-country cultural profiles as a cultural distance measure (e.g., Yiu & Makino, 2002). This makes sense when the issue is the uncertainty that might result as a consequence only of degree of difference between host and home countries. We

believe that the direction any cultural difference will matter in conditioning the openness of a host country to HPWS implementation. Therefore, we use the actual value of cultural measures as independent variables here (the difference between home and host countries would be unnecessary to calculate as there is only one home country (US) in this study).

Hofstede (1980) identified *power distance* as a cultural dimension that refers to the degree members of a society legitimize social hierarchy and entrenched differences in power relationships. We argue that power distance is relevant to HPWS implementation because a defining feature of HPWSs is increased employee autonomy and empowerment. In high power-distance cultures, managers would very much resist relinquishing authority and lower level workers would feel uncomfortable accepting more responsibility, thus having to become less deferential to those viewed as socially superior. Previous studies have demonstrated that empowerment has a stronger effect on job satisfaction in low power-distance cultures such as Canada than in high power-distance cultures such as China (Hui, Au, & Fock, 2004) and suggest empowerment maybe incompatible with high power-distance nations. Low power-distance cultures are more egalitarian and more receptive to power sharing (Kirkman & Shapiro, 1997). House et al. (2004) noted that in high power-distance cultures, workers tend to rely on their supervisors to make work-related decisions. As a result, it is more difficult to apply effectively egalitarian power-sharing practices in such workforces:

Hypothesis 4a: The propensity for HPWS implementation by the subsidiary of an American-based MNC will be negatively affected by power distance values prevalent in the host-country.

Another cultural dimension that we consider is *performance orientation* (House et al., 2004), defined as the extent to which a society encourages and rewards people for performance improvement and excellence. Since high performance work systems reward employees based on merit and performance, this cultural dimension could be important in successfully implementing HPWS across different host countries. In a society where performance orientation is high, the workforces are more likely to abide by the HPWS practices and to be motivated by such an achievement driven system:

Hypothesis 4b: The propensity for HPWS implementation by the subsidiary of an American-based MNC will be positively affected by performance orientation values prevalent in the host-country.

Research Methods

Sampling Procedures

Our empirical analysis utilized both survey and archival data. The survey data came from questionnaires given to both a senior HR manager and a senior business manager in a sample of foreign subsidiaries of American MNCs. Surveys were conducted by local collaborators in the host countries, who distributed and collected the questionnaires. Responses were obtained from a total of 234 subsidiaries in the fourteen host countries distributed across six geographical regions (Table 1). These countries are quite diverse in terms of cultures, institutional systems, and levels of economic development. Our principal sampling frame in this study was the set of S&P 100 companies. For each country in our sample, we randomly selected a set of companies drawn from the S&P list. We then identified any subsidiaries of that company by reference to the *Directory of American Firms Operating in Foreign Countries (2003)*, which lists

most foreign subsidiaries of American MNCs. If more than one subsidiary for a particular MNC existed in the country, we randomly chose one of them.

Insert Table 1 Here.

We planned to survey around twenty subsidiaries in each country. However, response rates varied considerably by country. In general, our response rates were quite high in Asia and Africa. Except for Japan, Vietnam, South Africa, our response rates were 50% or higher in the Asian and African countries. Responses rates were lower (around 20%) in the other Asian and African countries. Most difficult was obtaining data from subsidiaries operating in Europe, where our response rate was typically around only 10%.

Data Collection

One questionnaire in each subsidiary was completed by the subsidiary's senior HR manager and focused on some general characteristics of the subsidiary's workforce, along with a range of different HR practices. These questions were based on similar items tested and validity by Bae, Chen, and Lawler (1998). The second survey was completed by a senior business manager in the subsidiary and included questions dealing with subsidiary characteristics, business strategy, information flows, etc. Data on HPWS practices focused on two separate groups of employees: middle and upper managers and rank-and-file workers. There were separate sections dealing with training and development, staffing, compensation, and workplace empowerment.

Dependent Variables

There have been several approaches employed in operationalizing HR strategy, including factor analysis, the *ex ante* definition of strategy typologies, and cluster analysis. The first two methods seem to be more popular and widely used. However, Guest,

Conway, and Dewe (2004) maintain that cluster analysis is perhaps best suited to identifying HR strategies, especially as these are defined as bundles of complementary HRM practices. Therefore, the dependent variables in this study are the use of HPWSs within such subsidiaries developed with the help of cluster analysis. Separate analyses were done for rank-and-file workers and managers.

We clustered items from the HR manager questionnaire designed to assess the extent of utilization of a range of HPWS practices within the subsidiary (i.e., “Practice X is used extensively in your subsidiary.”). The specific items we used, all pre-coded with five-point Likert response categories (1 = “strongly disagree” to 5 = “strongly agree”), are provided in Tables 4 and 5 in the results section. The items were scored for the cluster analysis so that higher values were more consistent with a HPWS. Some items were reverse coded, as noted in these tables. Each set of items (those for managers and those for rank-and-file workers) was used in separate cluster analyses to classify the employment system for each employee group.

We utilized two step cluster analysis (Zhang, Ramakrishnon, & Livny, 1996). Unlike other clustering techniques, this method works with multi-categorical, ordinal items, as used in our survey. Also, there are methods within two step cluster analysis that allow a relatively objective way of defining the number of clusters in a set of cases. The approach we used is based on the Akaike coefficient. In two step clustering, the Akaike coefficient is an increasing function of the internal heterogeneity of the clusters and the total number of clusters, as described by Zhang, et al. (1996). Increasing the number of clusters leads to higher levels of cluster internal heterogeneity, but at the cost of a less

parsimonious solution (i.e., as there are more clusters). The optimal solution is the number of clusters that minimizes the Akaike coefficient.

Independent Variables

There are two variables in our study related to the host-country regulatory environment: restrictiveness of labor legislation and state efficiency. The state efficiency variable (Hypothesis 2b) was a summated scale composed of five items taken from the *World Competitiveness Yearbook (WCY)* for the host countries in the study for 2004 (the year of the survey). These items are similar to ones used by Yiu and Makino (2002). Specific items, scored on a ten-point scale, included “the host-country legal framework encourages the competitiveness of enterprises,” “the adaptability of host-country government policy to changes in the economy is high,” “the transparency of host-country government policy is satisfactory,” “the host-country bureaucracy does not hinder business activity,” and “bribing and corruption do not exist in the host-country economy.” The alpha coefficient for the state efficiency variable for the countries used in this study was .89. The restrictiveness of the host-country labor legislation (Hypothesis 2a) was a summated rating scale composed of four items taken from the *WCY*. These items measure the difficulty of hiring in the host country, the difficulty of firing in the host country, the rigidity of hiring, and the rigidity of firing. The alpha coefficient for the state efficiency variable for the countries used in this study was .79.

The independent variables used to measure normative influences (Hypothesis 3a-3c) included the percent of the subsidiary’s workforce belonging to a union, the proportion of HR professionals relative to total employment within the subsidiary, and the proportion of expatriate employees relative to total employment within the subsidiary.

Finally, we used national culture scales developed by House et al. (2004) as measures of host-country cultural-cognitive influences. We used two of these scales that were measured at the host-country level: performance orientation and power distance (for Hypotheses 4a and 4b). House et al. (2004) created two different scales for each cultural dimension; one set of questions focused on values (the way respondents felt things should be done in their society) and the other set focused on the way respondents perceived things in actuality. We used the second form of these two scales both for power distance and performance orientation. This form of the scale gets more directly at the behavioral propensities of members of the society and is more closely related to the cognitive-cultural dimension as described by Scott (1995).

The host-country specific values for the two regulatory variables and the two cultural variables discussed in this section are presented in Table 1. In some cases the values are missing. We used mean substitution to impute missing values. We recognize the limitations of this approach, especially for these key variables, which are not randomly missing. We discuss an alternative way of handling this problem below.

Control Variables

We included several control variables in the analysis. One of these was the logarithm of the number of employees in the subsidiary as a measure of organizational size. Although they used a somewhat different measure of subsidiary size than we do, Björkman et al. (2007) argued subsidiary size is a proxy for the importance of a subsidiary and the more important the subsidiary, the more likely the parent company would exercise control over the firm (thus increasing the probability of HPWS utilization). Another control variable was the logarithm of the subsidiary's years in operation in the host country. We

felt that more newly established subsidiaries might have higher probabilities of HPWS utilization as HPWS practices are a relatively recent development and older organizations would be more apt to have legacy HR systems that might be difficult to change (thus we expected a negative relations between subsidiary age and the probability of HPWS utilization). A second structural feature of the subsidiary relating to the issue of a legacy HR system is whether or not the subsidiary was a “greenfield” site. If so, the MNC parent company would have more flexibility in adapting the subsidiary HR system to a HPWS standard. Greenfield site is measured by dummy variable (which was expected to be positively related to the probability of HPWS utilization).

The strategic orientation of the company (cost leader vs. differentiator) is often argued in the literature to be related to HPWS utilization (Chen, Lawler, and Bae, 2005). That is, HPWSs are seen to complement use of a differentiation strategy as it requires more flexibility to respond to the uncertainty of customer demands. We asked the business managers two questions regarding business strategy at the subsidiary level (importance of “differentiating our products or services from competitors based on quality” and importance of “providing customers with a variety of different products or services”). These measures, which were Likert-type items, had an alpha coefficient of .57. This value is somewhat lower than what is normally considered an acceptable alpha level, but we still retained this variable in the model; we feel it is conceptually quite important and, as our study is largely exploratory this lower value would be considered more acceptable.

Knowledge exchange from and to subsidiaries was included as a control variable. The information for this scale was obtained from the business manager questionnaire. Unlike Björkman et al. (2007), we had two separate Likert scales. Information inflow was measured as the sum of four items (strongly agree to strongly disagree) that measured the flow of knowledge in different areas (technology, marketing, etc.) into the subsidiary from other subsidiaries and from the parent company (alpha = .75). Information outflow was measured in a similar way, but focused on the flow of information from the subsidiary to other subsidiaries and the parent company (alpha = .86). Finally there were several dummy variables included to control for the major industrial groups in the sample: information technology, services, banking, electronics, and heavy manufacturing. Descriptive statistics for all independent and control variables in the analysis are presented in Table 2 and the correlation matrix for these variables is given Table 3.

Insert Tables 2 & 3 Here.

Results

Clusters Analysis

Rank-and-File Workers. Applying the Akaike coefficient criterion to the set of items related to HPWS practices for rank-and-file workers, we extracted three meaningful clusters. After the exclusion of outliers, there were 214 cases in this analysis. Here we report within-cluster median values (since each item is measured on an ordinal scale) and the chi-square values for the cross-tabulation of each item with cluster membership (Table 4). All of the cross-tabulations were statistically significant, indicating that there was meaningful variation in the frequency distributions of responses across cluster membership for all of the HR policies and practices used. We considered the average values of the medians for each cluster as at least a heuristic device for interpreting the clusters. Further understanding of the differences among the clusters is gained by examining the pattern of median values for HR policies and practices in the different clusters in order to determine where the clusters are similar and where they are different.

Table 4 Here

The average median for Cluster RF-A was 2.71, indicating the scores for the HR policies and practices within this cluster tended to be in the lower-middle end of the HPWS practices scales we used. Lower in value than the medians for the other two clusters, this indicates that the cluster is not strongly consistent with a high performance work system. The midpoint of each item was 3.0, so RF-A has an average median value slightly below the mean (and thus slightly outside HPWS territory). Cluster RF-C and Cluster RF-B had higher average medians, with Cluster RF-C having an average of 4.1 and Cluster RF-B having an average of 3.57. Based on these numbers, Cluster RF-C would clearly fall in the

HPWS category, with Cluster RF-B a borderline HPWS. The three clusters then can be ranked with regard to HPWS consistency, from Cluster RF-A (non-HPWS) to Cluster RF-B (nascent HPWS) to Cluster RF-C (HPWS).

Managers. Applying the Akaike coefficient criterion to the set of items relating to HR policies and practices for managers, we extracted two meaningful clusters in the case of managerial employees. After the exclusion of outliers, there were 206 cases in this analysis. As with the rank-and-file clusters, each of the HR policies and practices was cross-tabulated with cluster membership. Within cluster medians and the cross-tabulation chi-square values are reported in Table 5.

Table 5 Here

Two different clusters of approximately equal size resulted from this analysis. Both clusters had average medians above the scale midpoint (3.0), with Cluster M-B having generally higher median values than Cluster M-A (4.22 versus 3.61). This difference is somewhat similar to the relationship of Cluster RF-C to Cluster RF-B, with M-A in this case being more of a nascent HPWS and Cluster M-B being relatively more strongly situated at the upper (HPWS) end of the set of response categories. In general, however, it appears that there is less range in HR system design in the case of managerial employees than in the case of rank-and-file workers.

Evaluation of Hypotheses

To evaluate Hypothesis 1, we cross-tabulated the two cluster membership variables with host country (Tables 6 and 7). Each row of this table shows the proportion of cases within the corresponding host country that fall within each of the clusters. The results of a

chi-squared analysis indicated strong relationships between host country and the clusters generated for rank-and-file workers (chi-square(26) = 102.33, $p < .001$) and for managers (chi-square(13) = 36.51, $p < .001$). This suggests that conditions at the host-country level likely could matter a great deal in influencing HPWS utilization within subsidiaries.

Insert Tables 6 & 7 Here.

Rank-and-File Workers. As the dependent variables in this study are ordinal variables, we used logit analysis to estimate the parameters of our model (Table 8). There are three clusters in the case of rank-and-file workers and these can be rank ordered in terms of the degree to which they represent HPWSs (with RF-A at the lower end of the scale, RF-B in the middle, and RF-C at the higher end of the scale). We used ordered logit to estimate and evaluate this model (Greene, 2007). This procedure as used here involves estimating a set of parameters that relate the variables in the model to an underlying propensity of the subsidiary to utilize HPWSs. A positive coefficient for a given variable indicates that the propensity of the subsidiary toward use of HPWSs in the case of rank-and-file workers increases with the value of the variable; a negative coefficient indicates a negative relationship between the variable and the subsidiary's propensity to utilize HPWSs in the case of rank-and-file workers.

Insert Table 8 Here.

None of the industry dummy variables had a significant impact on HPWS propensity. Knowledge inflow was statistically significant at the .10 level and the coefficient was negative in value, indicating the situations characterized by greater levels of knowledge movement from the parent company or other subsidiaries reduce HPWS propensity. This seems reasonable as the parent company is providing considerable

structure to the foreign subsidiary under those circumstances; it would presumably wish to ensure some level of control over the subsidiary perhaps in the form of less subsidiary flexibility. Perhaps less ambiguous is the impact of the subsidiary's use of a differentiation business strategy, which was positive and significant at the .01 level. The effect is very much as was expected. The same holds true in the case of the number of employees in the subsidiary. None of the other control variables was statistically significant in this equation.

Turning to our specific hypotheses, labor law restrictiveness was negative in sign (as expected), but not statistically significant. Consequently, Hypothesis 2a is rejected in the case of HPWS propensity for rank-and-file workers. In contrast, state efficiency was negative in sign and statistically significant at the .01 level, thus supporting Hypothesis 2b in the case of rank-and-file workers. In regard to the normative institutional influences, there is strong support for Hypothesis 3a in the case of rank-and-file workers given the positive and statistically significant ($p < .01$) coefficient associated with the percent of HR professionals in the subsidiary. And subsidiary unionization rate had a negative and statistically significant ($p < .10$) effect, which is consistent with Hypothesis 3b as relates to rank-and-file workers. Although the sign of the percent of expatriate employees was positive, the coefficient is not statistically significant, thus failing to support Hypothesis 3c in the case of rank-and-file workers. Finally in regard to rank-and-file workers, Hypothesis 4a was not supported, as power distance had a statistically insignificant effect (although it is negative as expected). On the other hand Hypothesis 4b was supported by the positive impact of performance orientation ($p < .01$).

Managers. Since there are only two clusters in the case of managers, we could have estimated the model using binary logit. However, we used the ordered logit approach for

consistency. Although the results for rank-and-file workers were generally consistent with theoretical expectations, the results for managers deviated substantially from what we hypothesized. As for the controls, There was one industry effects in the case of service companies, which had a lower HPWS propensity than the other industrial categories. Neither of the knowledge flow variables was significant, although the organizational size and subsidiary use of a differentiator business strategy were both positive and significant at the .05 level. These findings are compatible with the findings rank-and-file workers. Unlike the results for rank-and-file workers, subsidiary age was significant ($p < .05$) and positive. We had thought age would be more apt to have a negative relationship with HPWS propensity, so this finding was unexpected.

Only two of the independent variables associated with principal hypotheses were significant. The unionization rate was negative and significant ($p < .10$), which is supportive of Hypothesis 3b and consistent with our findings for rank-and-file workers. However, the effect for performance orientation was negative (contrary to Hypothesis 4b), though statistically significant ($p < .01$).

Discussion

Apart from work by Björkman et al. (2007), there are few studies dealing specifically with the transference of HPWS practices to foreign subsidiaries. No existing research on this topic has focused on more than one or two host countries. Many of the studies that do exist in this field are case analyses set in a single host country. These studies provide important insights concerning the specific mechanics by which the transference of HRM practices are effected. However, they are not so useful in assessing the applicability of a given framework across a wide range of contexts.

Our model focused primarily on the impact of regulatory, normative, and cultural-cognitive institutional influences on HPWS utilization in a larger number of host countries. These factors were measured at the host-country and subsidiary levels and our concern was whether or not these factors impacted HPWS utilization, serving to foil isomorphic pressures favoring HPWS utilization presumed to emanate at the American parent-company level. The results for the rank-and-file workers were relatively consistent with theoretical expectations. Our hypothesis regarding state efficiency, which might seem counter-intuitive, was motivated in part by findings in the Björkman et al. (2007) study regarding differences in use of HPWS practices in the US versus Russia as MNC host countries. Utilization of HPWS practices was greater in the case of Russia. The impact of the state efficiency measure seems to indicate that this effect is more widespread in the case rank-and-file workers. We maintain that this is related in part to a more turbulent and unpredictable legal-political environment for businesses in low state efficiency host countries.

The results of our analysis of HPWS utilization in the case of managers were more disappointing in that the proposed model was not well supported. One possible explanation is that managers, likely viewed as a more significant group by the parent company, would be subject to more concern at the parent company level and thus the parent company would take a more active role in HR system design. This could result in less HR system variability and more reliance on HPWSs. In fact, the results of the cluster analysis were skewed more in the direction of HPWSs for managers than for rank-and-file workers. This suggests perhaps a completely different model could be appropriate for managerial employees, a model that incorporated more in the way of parent company characteristics, if

it is at the parent-company level that these decisions are more likely to occur. However, we did find considerable cross-country variation in manager HPWS utilization, so this suggests a need still to focus on host-country characteristics for managers, including other possible institutional influences and perhaps more in the way of host-country labor and product market conditions. One interesting finding is that host-country performance orientation was negatively related to HPWS propensity in the case of managers, which is opposite the effect found in the case of rank-and-file workers. Perhaps performance orientation does work very differently in these two situations. In high performance orientation cultures, it would seem to be easier to implement HPWSs in the case of rank-and-file workers given their motivational orientation. This could mean that companies delegate more discretion to lower level workers and the design of the employment systems for managers is not as important. In contrast, in low performance orientation cultures managers may need to take more initiative and certainly rank-and-file workers would have less discretion, leading to larger concentration of HPWS practices in the case of managerial HR systems in such settings.

As with any study, there are limitations here. We have made a fairly strong assumption regarding a prevalent view of HPWSs as “best practices” in American MNCs. Further refinement of this model might include incorporating measures that in some way control for the variability in these beliefs that might occur at the parent company level. We mentioned missing data issues earlier. While we used imputed values for missing values we also did analysis, not reported here, on the subset of cases that had values on all of the major independent variables. This reduced the sample size substantially. However, the results for institutional measures, especially the regulatory and cultural-cognitive measures,

were similar to what we obtained in the larger sample with imputed values. So we do not think the missing cases problem is a serious limitation.

The set of institutional variables we have used is partial and future studies might work on expanding this set, or perhaps looking at completely different institutional variables (especially in the case of managers). Of course, more attention should be paid to the differences in processes related to HPWS implementation for rank-and-file workers vs. managers as our results for the latter group were not very strong. As in other multi-country studies (e.g., Fenton-O’Creevy, 2008; Kostova & Roth, 2002), there was variability in the representativeness of host countries in our study which resulted from variations in response rates, which is a limitation of this study. Future research on this topic might also be concerned with expanding the number of MNC home countries in order to see what variations in HPWS utilization may occur as a function of country-of-origin.

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Table 1
Regulatory and Cognitive-Cultural Measures by Host Country

<u>Host Country</u>	<u>Cases</u>	<u>State Efficiency</u>	<u>Restrictive Labor Legislation</u>	<u>Power Distance</u>	<u>Performance Orientation</u>
<i>East Asia</i>					
China	18	3.54	30.25	5.04	4.45
Korea	43	4.00	33.75	5.61	4.55
Japan	12	4.14	24.25	5.11	4.22
Taiwan	28	4.98	50.25	5.18	4.56
<i>Southeast Asia</i>					
Vietnam	11	<i>missing</i>	55.25	5.04	4.45
Thailand	18	4.75	42.25	5.63	3.93
Singapore	26	7.84	1.00	4.99	4.90
<i>South Asia</i>					
India	18	3.69	47.75	5.47	4.25
<i>Africa</i>					
Kenya	17	<i>missing</i>	24.00	4.11	4.66
South Africa	9	4.00	52.00	4.64	4.39
<i>Western Europe</i>					
Italy	10	2.70	50.25	5.43	3.58
Germany	9	3.66	54.75	5.25	4.25
<i>Eastern Europe</i>					
Romania	9	2.61	<i>missing</i>	<i>missing</i>	<i>missing</i>
Russia	6	1.90	26.75	5.52	3.39

Table 2
Descriptive Statistic for Independent and Control Variables

<u>Variable</u>	<u>Mean</u>	<u>SD</u>
Information Technology	0.14	0.35
Electronics	0.13	0.34
Heavy Manufacturing	0.15	0.36
Banking and Finance	0.06	0.24
Services	0.14	0.34
Greenfield Site	0.63	0.48
Differentiation Strategy	4.12	0.73
Number of Employees (log)	5.63	1.43
Age (log)	2.84	0.83
Knowledge Inflow	3.43	0.99
Knowledge Outflow	2.33	0.96
State Efficiency	4.57	1.36
Labor Law Restrictiveness	35.46	15.73
% Union Members (subsidiary)	0.13	0.25
% HR Professionals (subsidiary)	0.02	0.07
% Expatriate Employees(subsidiary)	0.03	0.08
Power Distance	5.21	0.41
Performance Orientation	4.40	0.35

Table 3
Correlation Matrix

Information Technology	1.00																	
Electronics	-0.16	1.00																
Heavy Manufacturing	-0.17	-0.16	1.00															
Banking and Finance	-0.10	-0.10	-0.11	1.00														
Services	-0.16	-0.16	-0.17	-0.10	1.00													
Greenfield Site	0.10	-0.01	-0.01	0.01	-0.03	1.00												
Knowledge Inflow	0.04	-0.03	-0.07	-0.05	-0.11	-0.03	1.00											
Knowledge Outflow	0.12	0.08	-0.02	-0.04	-0.03	-0.02	0.22	1.00										
Differentiation Strategy	0.16	-0.03	-0.04	-0.06	-0.10	-0.03	0.21	0.25	1.00									
Number of Employees (log)	0.09	0.10	-0.06	0.09	-0.17	-0.08	0.20	0.18	0.22	1.00								
Age (log)	-0.06	-0.02	0.07	0.10	-0.16	0.09	0.00	0.02	0.05	0.24	1.00							
Labor Law Restrictiveness	0.08	-0.11	-0.06	0.00	-0.02	-0.01	0.14	0.01	-0.01	0.15	0.03	1.00						
State Efficiency	-0.04	0.11	0.13	-0.05	-0.03	0.07	-0.14	-0.12	0.01	-0.12	0.02	-0.60	1.00					
% HR Professionals (subsidiary)	0.09	-0.03	-0.01	-0.07	0.06	0.05	0.08	-0.16	-0.04	-0.47	-0.10	0.02	0.06	1.00				
% Union Members (subsidiary)	-0.10	0.04	0.03	0.01	-0.13	-0.30	0.16	0.04	-0.03	0.26	0.15	0.07	-0.10	-0.13	1.00			
% Expatriate Employees(subsidiary)	-0.03	0.04	0.05	0.18	-0.07	-0.02	-0.05	0.00	-0.02	-0.18	-0.02	-0.04	0.05	0.14	-0.08	1.00		
Power Distance	0.01	-0.03	0.08	0.05	-0.01	0.08	-0.04	-0.08	-0.16	0.15	-0.10	0.30	-0.24	-0.13	-0.12	0.02	1.00	
Performance Orientation	-0.02	0.10	0.02	-0.12	-0.09	-0.08	-0.09	0.00	0.06	-0.23	-0.08	-0.48	0.67	0.12	-0.03	0.08	-0.41	1.00

Table 4
Cluster Medians and Chi-Square Statistics for Rank-and-File Workers

HPWS Practices	Cluster			Chi-Square
	RF-A (n = 26)	RF-B (n= 125)	RF-C (n = 63)	
<i>Training and Development:</i>				
b1) Extensive Training Resources	4	4	5	65.15 ^a
2) Emphasis on Interpersonal Skill Training	3	4	5	128.77 ^a
3) Extensive Orientations	3	4	5	56.35 ^a
4) Skill Training Emphasized Relative to General Training (r)	1	2	2	41.22 ^a
5) Extensive Use of Job Rotation	2	3	4	75.87 ^a
6) Training Viewed as Short Term Cost (r)	3	4	4	112.21 ^a
7) Extensive Cross-Functional Training	3	3	3	53.08 ^a
<i>Staffing:</i>				
8) Emphasis on Internal Promotion	3	3	4	48.08 ^a
9) Extensive Use of Career Planning	2	4	4	102.08 ^a
10) Employees Use Multiple Skills	3	4	4	63.58 ^a
11) Seniority Important in Promotions (r)	3	4	4	45.36 ^a
12) Rigorous Selection Process	3	4	4	76.09 ^a
13) Employees Hired Based on Current Skills rather than Potential (r)	2	3	3	75.63 ^a
<i>Compensation:</i>				
14) Goal Achievement Emphasized in Appraisals	3	4	5	106.85 ^a
15) Large Pay Differentials between High and Low Performers	3	3	4	58.61 ^a
16) Emphasis on Performance-based Pay	3	4	5	87.47 ^a
17) Seniority Important in Pay Decisions (r)	3	4	4	55.24 ^a
18) Extensive Financial Participation (Incentives, Gain-sharing, etc.)	3	2	4	73.24 ^a
<i>Workplace Empowerment:</i>				
Employees Use Extensive Initiative and Judgment	3	4	4	62.66 ^a
Extensive Use of Teams	1	4	4	101.15 ^a
Organizational Performance Data Shared with Employees	3	4	5	118.47 ^a
<i>Average of Cluster Medians</i>	2.71	3.57	4.10	

^aSignificant at the .01 level in cross-tabulation of HR policy or practice with cluster assignment (after elimination of outlier cases).

(r) Items have been reverse coded for cluster analysis.

Table 5
Cluster Medians and Chi-Square Statistics for Managerial Employees

HPWS Practices	Cluster		Chi-Square
	M-A (n = 115)	M-B (n = 91)	
<i>Training Development:</i>			
1) Extensive Training Resources	4	5	67.45 ^a
2) Emphasis on Interpersonal Skill Training	4	5	54.75 ^a
3) Extensive Orientations	4	5	31.16 ^a
4) Skill Training Emphasized Relative to General Training (r)	2	2	21.88 ^a
5) Extensive Use of Job Rotation	3	4	35.62 ^a
6) Training Viewed as Short Term Cost (r)	4	4	56.07 ^a
7) Extensive Cross-Functional Training	3	3	32.16 ^a
<i>Staffing:</i>			
8) Emphasis on Internal Promotion	3	4	36.52 ^a
9) Extensive Use of Career Planning	4	5	68.77 ^a
10) Employees Use Multiple Skills	4	5	50.35 ^a
11) Seniority Important in Promotions (r)	4	4	42.56 ^a
12) Rigorous Selection Process	4	4	18.75 ^a
13) Employees Hired Based on Current Skills rather than Potential (r)	3	4	32.68 ^a
<i>Compensation:</i>			
14) Goal Achievement Emphasized in Appraisals	4	5	59.75 ^a
15) Large Pay Differentials between High and Low Performers	4	4	38.20 ^a
16) Emphasis on Performance-based Pay	4	5	54.40 ^a
17) Seniority Important in Pay Decisions (r)	4	4	43.53 ^a
18) Extensive Financial Participation (Incentives, Gain-sharing, etc.)	3	4	53.92 ^a
<i>Average of Cluster Medians</i>	3.61	4.22	

^aSignificant at the .01 level in cross-tabulation of HR policy or practice with cluster assignment (after elimination of outlier cases).

(r) Items have been reverse coded for cluster analysis.

Table 6
Relative Frequencies of Cluster Membership within
Host Countries for Rank-and-File Workers

<u>Host Country</u>	<u>Cluster</u>		
	<u>RF-A</u>	<u>RF-B</u>	<u>RF-C</u>
China	0.0%	58.8%	41.2%
Germany	28.6%	28.6%	42.9%
India	12.5%	50.0%	37.5%
Italy	62.5%	0.0%	37.5%
Japan	0.0%	90.9%	9.1%
Kenya	6.3%	68.8%	25.0%
Korea	5.1%	71.8%	23.1%
Romania	0.0%	44.4%	55.6%
Russia	0.0%	80.0%	20.0%
Singapore	0.0%	79.2%	20.8%
South Africa	0.0%	62.5%	37.5%
Taiwan	7.7%	50.0%	42.3%
Thailand	64.7%	5.9%	29.4%
Vietnam	9.1%	90.9%	0.0%
TOTAL	12.15%	58.4%	29.4%

Chi-Square

Table 7
Relative Frequencies of Cluster Membership within
Host Countries for Rank-and-File Workers

<u>Host Country</u>	<u>M-A</u>	<u>M-B</u>
China	56.3%	43.8%
Germany	42.9%	57.1%
India	53.3%	46.7%
Italy	0.0%	100.0%
Japan	63.6%	36.4%
Kenya	73.3%	26.7%
Korea	65.0%	35.0%
Romania	33.3%	66.7%
Russia	40.0%	60.0%
Singapore	70.8%	29.2%
South Africa	25.0%	75.0%
Taiwan	53.9%	46.2%
Thailand	14.3%	85.7%
Vietnam	100.0%	0.0%
<hr/> TOTAL	55.8%	44.2%

Table 8
Results of Ordered Logit Analysis

<u>Variable</u>	<u>Rank-and-File</u>		<u>Managers</u>	
	<u>B</u>	<u>z-value</u>	<u>B</u>	<u>z-value</u>
Information Technology	0.09	0.21	-0.67	-1.26
Electronics	-0.43	-0.92	-0.89	-1.60
Heavy Manufacturing	0.17	0.38	-0.14	-0.29
Banking and Finance	-0.51	-0.79	0.17	0.20
Services	-0.48	-1.00	-1.42	-2.28 ^b
Greenfield Site	-0.06	-0.19	-0.29	-0.78
Knowledge Inflow	-0.25	-1.60 ^c	0.07	0.41
Knowledge Outflow	0.18	1.15	-0.03	-0.17
Differentiation Strategy	0.49	3.02 ^a	0.45	2.24 ^b
Number of Employees (log)	0.05	2.64 ^a	0.06	2.49 ^a
Age (log)	-0.03	-0.21	0.38	1.96 ^b
Labor Law Restrictiveness	-0.18	-0.97	-0.02	-0.10
State Efficiency	-0.68	-3.00 ^a	0.13	0.52
% HR Professionals (subsidiary)	203.37	2.36 ^a	58.76	0.62
% Union Members (subsidiary)	-0.26	-1.68 ^c	-0.33	-1.72 ^c
% Expatriate Employees(subsidiary)	0.13	0.94	-0.04	-0.25
Power Distance	-0.06	-0.41	0.03	0.19
Performance Orientation	1.88	3.12 ^a	-1.95	-2.82 ^a
N	214		206	
Chi-Square(18)	48.47 ^a		55.20 ^a	
Pseudo R ²	.12		.19	

^ap<.01

^bp<.05

^cp<.10

