The adoption of high performance work systems in foreign subsidiaries

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ARTICLE INFO

Keywords:
High performance work systems
Subsidiary performance
Strategic human resource management
Multinational corporations
Organizational climate

ABSTRACT

This study examines the determinants and outcomes of the adoption of high performance work systems (HPWS) in foreign subsidiaries of multinational corporations (MNCs). Region-of-origin of MNCs, headquarters (HQ) influence, and strategic human resource management (SHRM) orientation are expected to determine subsidiaries’ use of HPWS, which affects firm performance via organizational climate. We found that HQ influence, SHRM orientation, and HPWS adoption varied among foreign subsidiaries originating in different regions. HQ influence and SHRM orientation were positively related to the adoption of HPWS. HPWS had a positive effect on subsidiaries’ performance, and this positive effect was partially mediated by organizational climate.

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1. Introduction

Managers in multinational corporations (MNCs) operate in a dynamic global environment. They have developed sophisticated human resource management (HRM) systems to assist in managing their diverse workforce (Taylor, Beechler, & Napier, 1996). Subsidiary development and performance is beneficial to the corporate parent and the host country (Birkinshaw & Hood, 1997), thus subsidiaries, and their employees, are acquiring greater strategic importance in the MNC’s global success (Taylor, Levy, Boyacigiller, & Beechler, 2008). It is crucial to explore the relationship between a subsidiary’s HR practices and its organizational performance, as well as how this relationship varies under different conditions.

With the increasing use of high performance work systems (HPWS) in MNCs, more studies have been devoted to examining its determinants and outcomes (e.g., Guniggle, Murphy, Cleveland, Heraty, & Morley, 2002; Marchington & Grugulis, 2000; Yalabik, Chen, Lawler, & Kim, 2008). To extend this line of research, we argue that the relationship between headquarters (HQ) and its foreign subsidiary affects the decision making regarding the subsidiary’s adoption of HPWS. In particular, we expect strategic human resource management (SHRM) orientation, and internal control and resource allocation from HQ (HQ influence), to vary among MNCs of different regions-of-origin. Additionally, although the HRM performance relationship has been well documented in the existing literature, the processes underlying this relationship are still not fully understood (Bowen & Ostroff, 2004; Wright & Gardner, 2003).

We accomplish several objectives in our study. We test whether SHRM orientation and HQ influence are different in subsidiaries originating in different regions of the world, and we evaluate the effects of these factors on the adoption of HPWS in foreign subsidiaries. We also examine the linkage between the subsidiary’s use of HPWS and its performance, and the mediating role of the subsidiary’s organizational climate in this linkage. To control the impact of cultural, legal, and institutional factors, our study focuses on foreign subsidiaries of MNCs operating in one commercial center in Asia, Hong Kong. During the last decade, an increasing number of MNCs from different countries use Hong Kong as their Asian base to coordinate their business in the region (Meyer, 2008).

2. Hypothesis development

2.1. Relationship between region-of-origin and strategic human resource management (SHRM) orientation

The region-of-origin of MNCs represents the cultural and institutional influences from the home country on the strategic and operational decisions of foreign subsidiaries in a host country (Bae, Chen, & Lawler, 1998). When considering the region-of-origin effect on HRM, researchers often look at whether, and under what conditions, an MNC and its subsidiaries have adopted similar HR practices. This “forward diffusion” of HR practices from the MNC’s home country to its foreign operations (Edwards & Tempel, 2010,
p. 19) is a line of research that involves the debate between global integration and local responsiveness. The former refers to standardization of foreign subsidiaries HR practices towards HQ practices, regardless of the local norms and practices. The latter refers to the adoption by foreign subsidiaries of those HR practices commonly used by domestic firms in the respective host countries (Hannon, Huang, & Jaw, 1995; Rosenzweig & Nohria, 1994).

Much of the previous research has been written about American MNCs, that are in a strong position to influence HR practices among their foreign subsidiaries (Gunnigle et al., 2002). As pointed out by Fenton-O’Creevy, Gooberham, and Nordhaus (2008), decisions are largely made by American MNCs regarding the HRM of their subsidiaries are largely motivated by economic self-interest and the home country institutional setting. These MNCs often resist pressures to localize practices to accommodate host country norms and values. Instead they implement standardized sets of HR policies and practices in their overseas subsidiaries (Gunnigle et al., 2002). This orientation is consistent with an ‘ethnocentric’ approach to MNC management (Heenan & Perlmutter, 1979; Perlmutter, 1969).

Popular systems and practices within an American MNC may achieve a ‘dominant’ status in part because of their association with a successful economy (Edwards & Tempel, 2010, p. 20). American MNCs tend to adopt an ‘expatriate’ orientation in which they replicate in their overseas subsidiaries the HRM policies and practices used in their home country (Taylor et al., 1996). Thus, region-of-origin may be related to different aspects of the MNC–subsidiary relationship context.

At the core of strategic human resource management (SHRM) research is the notion of a linkage between a firm’s strategy and its HR practices, a notion developed in the West (Delery, 1998; McMahan, Virick, & Wright, 1999). The strategic orientation of SHRM represents a managerial mindset of aligning a firm’s HR policies and practices with its strategy (Burke, 2006; Gomez–Mejia, Balkin, & Cardy, 1995). With such an orientation, the HR function focuses on being a strategic partner within organizations and helps translate strategic decisions into HR priorities and realized organizational outcomes (Ulrich, 1996). In this example, American firms may be the early adopters of an SHRM orientation, while Asian subsidiaries are laggards. This can be explained theoretically by applying an innovation diffusion model (e.g., Rogers, 1995). Rogers (1995) proposed that an individual’s decision to adopt a new idea, or innovation, is based on his/her attitude toward the innovation’s characteristics (i.e., its relative advantage, compatibility, complexity, trialability, and observability). An SHRM orientation is compatible with Western managerial values and organizational cultures, and its relative advantage may be more easily perceived by managers in Western firms. Western firms may find it easier to implement SHRM, and its outcomes are likely to be more visible in Western firms. Thus, we would expect that American and European firms will have the highest levels of SHRM orientation compared to their Asian counterparts.

Hypothesis 1a. SHRM orientation is related to region-of-origin of MNCs. Specifically, North American firms will have the highest levels of SHRM orientation and Asian firms the lowest.

2.2. Relationship between region-of-origin and HQ influence

For MNCs, figuring out the best way to control foreign subsidiaries, who act as “agents,” is critically important, because subsidiaries function as a means of accessing local resources and gaining local legitimacy (Yu, Wong, & Chiao, 2006, p. 1239). Diverse methods of control have been used by the HQ management, such as appointing the board of directors, assigning expatriates, transferring corporate culture, developing job descriptions, and periodic reporting (Jaussaud & Schaaper, 2006; Welch & Welch, 2006). All of these activities involve a cost in terms of money, organizational resources, and time (Subramony, 2006). In particular, MNCs can exercise strong control over their foreign subsidiaries when the latter depends on the former for scarce or critical resources. The resource dependence perspective explains the relationship between parent and subsidiary firms in terms of inter-organizational interdependence (Hannon et al., 1995; Taylor et al., 1996).

The control of human resources is a key element of subsidiary management (Gomez & Sanchez, 2005), and MNCs closely monitor and discipline the managers of foreign subsidiaries (Kim, Prescott, & Kim, 2005). Since staffing, performance appraisal, compensation, and training and development can be used to direct and modify employee behaviors (Delery & Doty, 1996; Macky & Boxell, 2007), the HRM system represents an important control mechanism which can ensure that overseas employees act in the best interests of the parent firm (Taylor et al., 1996). This view of HRM as a control mechanism is consistent with the behavioral perspective that firms develop HR practices as a means of managing the behaviors of employees (Schuler & Jackson, 2005).

For MNCs, variations in their origins reflect various cultural, economic, and institutional influences that may pose different HQ–subsidiary relationships. American MNCs tend to adopt an ‘ethnocentric’ approach, and are likely to exert tighter control and closely monitor resource allocations (Edwards & Ferner, 2005; Gunnigle et al., 2002). It follows that HQ influence would be stronger in American MNCs than other MNCs (Yuen & Hui, 1993).

European MNCs take local norms into consideration. Therefore, their degree of localization is higher than that of American MNCs. Subject to less control and influence from HQ, subsidiaries of European MNCs would have more autonomy and power in designing and implementing management practices based on their own needs and local contingencies (Gunnigle et al., 2002). Another factor that may affect the degree of HQ influence is cultural distance. We expect that in the Hong Kong context, the influence from HQ will be stronger for American MNCs and weaker for Asian MNCs because there is a similar cultural heritage among Asian firms (smaller cultural distance). Based on our discussion regarding the possible effect of region-of-origin of MNCs, we develop the following hypothesis.

Hypothesis 1b. HQ influence is related to region-of-origin of MNCs. Specifically, North American firms will have the highest levels of HQ influence on their subsidiaries and Asian firms the lowest.

2.3. The relationship between region-of-origin and high performance work systems (HPWS)

There is a growing consensus that a system of HR practices, rather than HR practices in isolation, is a more appropriate focus for understanding how HRM impacts important organizational performance outcomes (Burke, 2006; Evans & Davis, 2005; Huselid, 1995; Lepak, Takeuchi, Erhardt, & Colakoglu, 2006). A HPWS consists of a group of separate but interconnected HR practices designed to enhance employees’ skills, effort (Huselid, 1995), and firm performance (Shih, Chiang, & Hsu, 2006). A HPWS generally includes selective hiring, extensive training, job design programs, performance appraisal, self-managed teams, incentive-based compensation, employment security, and internal promotion (Huselid, 1995). It is a potential source of competitive advantage for firms (Becker & Huselid, 1998).

Prior empirical evidence provides support for the relationship between HPWS and organizational performance (Delaney & Huselid, 1996; Huselid, 1995; Wright, Gardner, Moynihan, & Allen, 2005; Youndt, Snell, Dean, & Lepak, 1996). During the past decade, HPWS has been increasingly used by MNCs in managing their foreign subsidiaries (Gunnigle et al., 2002; Marchington & Grugulis, 2000; Yalabik et al., 2008).
High performance work practices reflect the Western cultural values of low power distance, individualism, and achievement orientation (Sparrow, Brewster, & Harris, 2004). Given the cultural differences, these practices may not be as effective in Asian countries (Yalabik et al., 2008), and thus they would be least adopted by Asian MNCs (Ngo, Turban, Lau, & Lui, 1998). In other words, MNCs with origins outside of North America may be less likely to be using HPWS at headquarters, a reason for why their subsidiaries have not adopted HPWS. MNCs with origins outside of North America may be more respectful of local norms and practices, and thus may be less likely to adopt American-style HPWS in their foreign subsidiaries.

Hypothesis 1c. The adoption of HPWS in foreign subsidiaries is related to region-of-origin of MNCs. Specifically, North American firms will have the highest levels of adoption of HPWS in their subsidiaries and Asian firms the lowest.

2.4. Antecedents of HPWS

SHRM orientation refers to a managerial philosophy of aligning a firm’s HR policies and practices with its strategy (Burke, 2006; Gomez-Mejia et al., 1995). It represents a ‘horizontal fit’ between a firm’s HRM and its strategy. HPWS can be viewed as a ‘vertical fit’ since it requires the implementation of various HR practices in a coherent and consistent way to best support each other (Delery & Doty, 1996). Both SHRM orientation and HPWS can be viewed as critical for achieving the organization’s goals, contributing to organizational performance (Bowie & Ostroff, 2004; Green, Wu, Whitten, & Medlin, 2006), and leveraging a firm’s HR as a source of competitive advantage (Wright & Gardner, 2003).

The implementation of HPWS in the foreign subsidiary is constrained and enabled by ‘company-specific institutional settings’, such as the strategic decision-making approach of the MNC (Geppert & Williams, 2006). Top management beliefs about the existence and generalizability of the MNC’s HRM competence are expected to affect the transfer of HRM practices overseas (Bae et al., 1998; Taylor et al., 1996). Thus, the SHRM orientation would be a critical factor in the decision to adopt HPWS in foreign subsidiaries.

Huang (2000) examined the linkage of strategic decision-making and HR functions within 315 firms in Taiwan, and found that firms adopting a strategic approach to HRM yielded better performance. Based on Huang’s work, Lui, Lau, and Ngo (2004) developed a measure of SHRM orientation. Their study indicated that SHRM orientation leads to a higher level of adoption of HR best practices in organizations. Lepak, Bartol, and Erhardt (2005) also contended that a dominant HR orientation (such as an SHRM orientation) will influence the delivery of HR practices in organizations. Similarly, Kim and Gray (2005) suggested that top management strategic international HRM orientation affects the HR policies and practices of MNCs.

Hypothesis 2. The greater the SHRM orientation, the more likely that foreign subsidiaries will adopt HPWS.

MNCs often use various mechanisms to control their foreign subsidiaries. They need to ensure that overseas employees will act in the best interests of the HQ (Birkinshaw & Hood, 1997; Jaussaud & Schaaper, 2006). We argue that HPWS represents an important control mechanism. A desire for control by MNCs is likely to increase their chances of using HPWS in their foreign subsidiaries.

As highlighted by several researchers (e.g., Edwards & Ferner, 2005; Gunnigle et al., 2002; Rosenzweig & Novria, 1994), the HQ of MNCs vary in their levels of control over subsidiaries, which affects decision-making in major functions such as HRM. Subsidiaries with less autonomy are more likely to adopt a standardized set of HR practices transferred from HQ, while those with more autonomy tend to follow the local norms and adopt local practices. The adoption of HPWS requires substantial financial resources and commitment from the HQ (Subramony, 2006), which implies that greater HQ influence is conducive to HPWS adoption.

Hypothesis 3. The greater the HQ influence, the more likely foreign subsidiaries will adopt HPWS.

2.5. Organizational climate: the “black box” between HPWS and subsidiary performance

The relationship between HPWS and firm performance is well established in the literature (Delaney & Huselid, 1996; Huselid, 1995; Shih et al., 2006; Wright et al., 2005; Youndt et al., 1996). First, HPWS can enhance the knowledge, skills, and competence of employees via selective recruitment, job design, and extensive training (Huselid, 1995). It creates a competitive advantage for the firm (Wright, Smart, & McMahan, 1995). Second, employees are motivated and empowered by the decentralization of managerial decision-making, employee participation mechanisms, and the provision of proper rewards (Tsai, 2006), and thus work more effectively. Third, HPWS may foster a commitment-based organizational culture that reduces the loss of talent (Huselid, 1995; Khatiri, 2000). In line with previous research, we expect that HPWS is positively related to the performance of foreign subsidiaries in our study.

Organizational climate, defined as the perception of formal and informal organizational policies, practices, and processes held by organizational members, affects the perceived beliefs and values of the organization (Reichers & Schneider, 1990; Schneider, Brief, & Guzzo, 1996). It can also be seen as the interface between an organization’s strategy and its HRM architecture, and provides guidance for the work behaviors of employees (Bowie & Ostroff, 2004; Ferris, Hall, Royle, & Martocchio, 2004; Kepes & Delery, 2006).

Empirical evidence demonstrates that organizational climate is positively related to favorable organizational outcomes, such as administrative efficiency, productivity, job and financial performance, low turnover rate, and workforce morale (Evans & Davis, 2005; Ostroff & Schmitt, 1993; Ostroff, Kinicki, & Tamkins, 2003; Riordan, Vandenberg, & Richardson, 2005; Schulte, Ostroff, & Kinicki, 2006). Bowen and Ostroff (2004) argued that a strong organizational climate reflects employees’ common interpretation of what behaviors and attitudes are expected and rewarded, and hence a situation is created for better organizational performance.

As proposed by Ostroff and Bowen (2000), psychological and collective climate may serve as a mediating variable between the HRM system and firm performance. In their study, Evans and Davis (2005) developed a theoretical framework illustrating how the internal social structure of the organization can mediate the HPWS–performance relationship. In line with the above studies, it is plausible that organizational climate acts a potential mediator between HPWS and subsidiary performance.

The existing HRM literature assumes a causal link flowing from bundled HR practices to organizational performance via the perceptions and responses of employees (Macky & Boxall, 2007). According to Macky and Boxall (2007), high performance work practices may change employee behaviors in ways that add value to critical organizational processes, by increasing job satisfaction, organizational commitment, and trust in management. Collins and Smith (2006) suggested that organizational social climate conditions (i.e., trust, cooperation, and shared codes and language) mediate the relationship between commitment-based HR practices and firm performance. HPWS leads to higher performance when it develops the organizational social climate and employee-based capabilities that are critical for firm performance (Bowen & Ostroff, 2004). Based on the perspective just presented, we hypothesize a mediating effect of organizational climate on the relationship between HPWS and performance.
Hypothesis 4. The relationship between HPWS and subsidiary performance is mediated by organizational climate. Specifically, the higher the level of HPWS, the more positive the organizational climate of the subsidiary, and hence the better the subsidiary performance.

3. Method

3.1. Samples

The data for this study were collected through a survey administered to HR directors/managers of foreign subsidiaries of MNCs operating in Hong Kong. Dun and Bradstreet provided the names and addresses of the target respondents. A self-administered questionnaire in English was mailed to 1400 potential respondents, together with a cover letter that explained the purpose of the survey and assured the anonymity and confidentiality of their responses. Respondents were asked to return the completed questionnaire to the researchers in a postage-paid return addressed envelope. Two weeks after the initial mailing, a follow-up mailing was done in which respondents received another copy of the survey. A total of 182 completed questionnaires were finally returned, representing a response rate of 13.0%. Although it is desirable to have a higher response rate, the response rate for company surveys in Hong Kong is typically lower than in the West (Harzing, 1997; Ngo et al., 1998).

A key issue of mailed surveys is the possible non-response bias which may affect the generalizability of the findings to the whole population (Fowler, 1993). We used two procedures (Dooley & Lindner, 2003) to tackle this issue. First, we compared our sample to the population on some characteristics known a priori (based on information in Dun and Bradstreet's (2006) directory of foreign firms in Hong Kong). No significant differences were found between the two regarding the distribution of industry and region-of-origin. Second, we also compared early (i.e., those who returned the questionnaires to us within two weeks) and late respondents (i.e., those who replied after the second mailing) on some organization-level variables, since late respondents are expected to be similar to non-respondents (Armstrong & Overton, 1977). Early respondents comprised 56.4% of our sample. Using chi-square tests and t-tests, we found no significant differences between the two groups with respect to number of employees, industry, location of headquarters, and firm age, evidencing that non-response bias should not pose a serious threat in this study.

Of our sample firms, 60 (33%) are from North America, 53 (29.1%) are from the European Union (EU), and 50 (27.5%) are from Asian countries. In terms of industrial distribution, 16.0% are in manufacturing, 11.0% in transportation and logistics, 21.0% in trading, 16.6% in marketing and sales, 12.7% in financial services, and 13.3% in professional services. The average number of employee is 315.91 (s.d. = 956.14) and the average number of years in business is 24.66 (s.d. = 20.66).

3.2. Measures

3.2.1. Region-of-origin

Respondents were asked to indicate the location of their company's headquarters. Based on the classification scheme of the Dun and Bradstreet (2006) directory, four responses were provided (i.e., United States, EU, Asia, and others.) We then recoded and measured region-of-origin of MNCs by three dummy variables, namely, North American, EU, and Asian.

3.2.2. SHRM orientation

We used a three-item scale to measure SHRM orientation adopted from Lui et al. (2004). The respondents were asked to indicate (on a six-point Likert-type scale with 1 = 'strongly disagree' and 6 = 'strongly agree') to what extent the HR function was involved in major strategic decisions, how closely it was linked to business strategy, and whether it was influenced by long-term rather than short-term considerations. The alpha coefficient of this scale was $\alpha = 0.91$ in this study.

3.2.3. Influence from headquarters

Based on previous research (e.g., Gomez & Sanchez, 2005; Jaw & Liu, 2004; Myloni, Harzing, & Mirza, 2007), we developed a six-item scale to measure this variable. The construct taps the degree of formal and informal control, centralization of decision making, and allocation of resources from headquarters to the local subsidiary. The respondents used a 6-point Likert-type scale to respond to the items. A factor analysis using principal component analysis indicated that all items loaded on a single factor. This new scale had an acceptable alpha coefficient of $\alpha = 0.80$.

3.2.4. High performance work systems

We employed an index consisting of eighteen items on a six-point Likert-type scale to measure high performance work systems. The items cover various functions of HRM such as recruitment and selection, training, compensation, performance appraisal, job design, employee participation, and career development. Most of the items were adopted from Bhattacharya, Gibson, and Doty (2005) and Lui et al. (2004).

3.2.5. Organizational climate

This variable was measured by a seven-item scale developed by Burton, Lauridsen, and Obel (2004). The scale captures various aspects of employees' perceptions about their organizations, including trust, morale, rewards equity, leader credibility, conflict, scapegoating, and resistance to change. The items were measured on a six-point Likert-type scale. In the present study, this scale had an alpha coefficient of $\alpha = 0.82$.

3.2.6. Subsidiary performance

Respondents were asked to evaluate their organization's performance over the last two years as compared to the industry's average in Hong Kong in the areas of (1) sales/turnover, (2) net profit, (3) new product development, (4) morale of employees, (5) retention of employees, and (6) employment relations. Responses were scored on a five-point Likert-type scale, ranging from 1 (very poor) to 5 (very good). The alpha coefficient of the scale was $\alpha = 0.82$ in this study.

3.2.7. Control variables

Two control variables are included, as previous studies indicated that they affect the adoption of HRM practices (Huselid, 1995; Youndt et al., 1996) and firm performance (Bhattacharya et al., 2005; Delaney & Huselid, 1996). First, firm size is measured by the logarithm of the total number of employees in the local subsidiary. Second, industry is a dummy variable with manufacturing firms coded as 1 and others coded as 0.

Since the same respondents provide all the information about the independent and dependent variables, we acknowledge that our study might be affected by common method bias. To tackle this issue, we applied Harman’s single-factor test to all the relevant variables. The results revealed that, using the criterion of eigenvalue greater than one, eleven factors were identified which together accounted for 70.47% of the variance of the data. The first and largest factor explains 27.19% of the variance, suggesting no single factor emerges. We thus believe that common method bias should not pose a serious threat in this study.
3.3. Analysis

To show the differences in SHRM orientation, HQ influence, and HPWS among MNCs of different regions-of-origin, multivariate analysis of covariance (MANCOVA) was employed. We treated region-of-origin as an independent variable, SHRM orientation, HQ influence, and HPWS as dependent variables, and size and industry as covariates. By doing so, we partitioned out variance in the dependent variables that is attributable to size and industry. To test the hypotheses regarding the antecedents and outcomes of the adoption of HPWS in our sample firms, a series of regression analyses were conducted. The three-step procedure suggested by Baron and Kenny (1986) was used to test the mediation hypothesis. Specifically, the following conditions must be fulfilled to support a mediating relationship. First, the independent variable must be significantly related to the mediator. Second, the independent variable must be significantly related to the dependent variable. Third, after the mediator is entered into the regression model, the original relationship between the independent and dependent variables would either disappear (i.e., full mediation) or diminish (i.e., partial mediation).

4. Results

The means, standard deviations, and inter-correlations among study variables are reported in Table 1. The mean value of HPWS was 4.04 (on a six-point scale), suggesting that this type of system was popular among our sample firms. This variable was strongly correlated with SHRM orientation and HQ influence (r = 0.60 and 0.42, respectively). In addition, it also had a significant and positive correlation with both organizational climate and subsidiary performance (r = 0.62 and 0.46, respectively).

Before testing the hypotheses, we employed structural equation modeling (SEM) to conduct confirmatory factor analysis (CFA) using LISREL 8.71. Overall model fit was assessed by fit indices including comparative fit index (CFI), incremental fit index (IFI), and standardized root mean square residual (SRMR). These indices are suggested to be relatively resistant to distortions caused by small sample size. A reasonable model fit is indicated when the CFI and IFI are above 0.90 and the SRMR is below 0.08 (Hu & Bentler, 1998). Since a large sample size is needed to estimate SEM measurement models that carry many observed indicators, we reduced the number of indicators in each construct to three, following the procedures suggested by Brooke, Russell, & Price (1988). Based on the factor loadings of each construct, we averaged the items with the highest and lowest loadings to form the first indicator. Items with the next highest and lowest loadings were then combined and so forth, until all items were assigned to one of the three combined indicators for each construct. The five-factor measurement model (including HPWS, organizational climate, SHRM orientation, HQ influence, and subsidiary performance) had a model chi-square of 221.77 (p < 0.001) with 80 degrees of freedom. The CFI was 0.96, the IFI was 0.95, and the SRMR was 0.058. All factor loadings in the model were significant (p < 0.01). In comparing the five-factor model with the one-factor model (i.e., loading all items together on one factor), a significant chi-square difference was noted (Δχ²(10) = 781.83, p < 0.001). These results suggest that the respondents could distinguish the constructs under study.

The main results of MANCOVA are summarized in Table 2. Significant differences in SHRM orientation, HQ influence and the adoption of HPWS were found among firms from different regions, as indicated by the F-statistic and Hotelling’s Trace Test (value = 0.121, p < 0.05). Compared with others, subsidiaries originating in North America had higher levels of SHRM orientation, HQ influence, and HPWS adoption. On the other hand, subsidiaries originating in Asia had the lowest mean values in these variables. EU-origin subsidiaries were in the middle between the two groups in terms of SHRM orientation, HQ influence, and the adoption of HPWS. Given these findings, hypotheses 1a and 1c were supported.

Table 3 reports the results of regression analyses on the adoption of HPWS. In Model 1, we included the control variables and the region-of-origin dummy variables. Only one variable, American origin, was significant in the model. In Model 2, we added the two predictors and this model improved substantially over the previous one, as indicated by a change of adjusted R-square from 0.03 to 0.37. Both SHRM orientation and HQ influence

### Table 1
Means, standard deviation, and correlations of study variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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<tbody>
<tr>
<td>1. Industry</td>
<td>0.18</td>
<td>0.38</td>
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<td></td>
<td></td>
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<tr>
<td>2. Firm size</td>
<td>4.46</td>
<td>1.45</td>
<td>0.35</td>
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<td></td>
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<td>3. American origin</td>
<td>0.37</td>
<td>0.48</td>
<td>0.01</td>
<td>0.03</td>
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<td>4. EU origin</td>
<td>0.33</td>
<td>0.47</td>
<td>0.10</td>
<td>0.03</td>
<td>0.53</td>
<td></td>
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<tr>
<td>5. Asian origin</td>
<td>0.31</td>
<td>0.46</td>
<td>0.11</td>
<td>0.00</td>
<td>0.51</td>
<td>0.46</td>
<td></td>
<td></td>
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<td>6. SHRM orientation</td>
<td>4.34</td>
<td>1.01</td>
<td>0.04</td>
<td>0.05</td>
<td>0.18</td>
<td>0.07</td>
<td>0.26</td>
<td>0.91</td>
<td></td>
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<td>7. HQ influence</td>
<td>4.09</td>
<td>0.91</td>
<td>0.07</td>
<td>0.23</td>
<td>0.28</td>
<td>0.13</td>
<td>0.17</td>
<td>0.43</td>
<td>0.80</td>
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<td>8. HPWS</td>
<td>4.04</td>
<td>0.61</td>
<td>0.10</td>
<td>0.11</td>
<td>0.17</td>
<td>0.02</td>
<td>0.20</td>
<td>0.60</td>
<td>0.42</td>
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<td>9. Organizational climate</td>
<td>4.07</td>
<td>0.67</td>
<td>0.04</td>
<td>0.03</td>
<td>0.22</td>
<td>0.04</td>
<td>0.27</td>
<td>0.61</td>
<td>0.28</td>
<td>0.62</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>10. Subsidiary performance</td>
<td>3.44</td>
<td>0.57</td>
<td>0.04</td>
<td>0.01</td>
<td>0.16</td>
<td>0.05</td>
<td>0.22</td>
<td>0.40</td>
<td>0.24</td>
<td>0.46</td>
<td>0.54</td>
<td>(0.82)</td>
</tr>
</tbody>
</table>

Notes: N ranges from 145 to 182. The number in parentheses is the value of Cronbach's alpha.

- p ≤ 0.05
- # p ≤ 0.1

### Table 2
MANCOVA results.

<table>
<thead>
<tr>
<th>Variables</th>
<th>American</th>
<th>EU</th>
<th>Asian</th>
<th>F-statistic</th>
<th>Model R-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHRM orientation</td>
<td>4.60 (0.90)</td>
<td>4.44 (0.83)</td>
<td>4.02 (1.18)</td>
<td>4.45 **</td>
<td>0.062</td>
</tr>
<tr>
<td>HQ influence</td>
<td>4.38 (0.90)</td>
<td>3.90 (0.87)</td>
<td>3.81 (0.86)</td>
<td>5.37 **</td>
<td>0.136</td>
</tr>
<tr>
<td>HPWS</td>
<td>4.18 (0.65)</td>
<td>4.03 (0.49)</td>
<td>3.90 (0.58)</td>
<td>2.67 *</td>
<td>0.054</td>
</tr>
</tbody>
</table>

Mean values are reported with standard deviations in parentheses.

- p ≤ 0.05
- # p ≤ 0.1
- * p ≤ 0.01
were found to have significant and positive effects on the outcome variable ($\beta = 0.46, p < 0.001$ and $0.26, p < 0.001$, respectively). This provides strong support for Hypotheses 2 and 3.

Table 4 shows the results of hierarchical regression analyses on subsidiary performance. Model 2 is the baseline model in which we include the control variables, region-of-origin dummy variables, SHRM orientation, and HQ influence as predictors. Only SHRM orientation had a significant effect ($\beta = 0.35, p < 0.001$) on the outcome variable. In Model 3, we added HPWS as an additional predictor. As expected, this variable exerted a strong and positive effect on subsidiary performance ($\beta = 0.42, p < 0.001$).

Hypothesis 4 states that the HPWS–performance relationship is mediated by organizational climate. To confirm this hypothesis, three conditions have to be met (Baron & Kenny, 1986). First, as shown in Model 1, HPWS significantly predicted organizational climate ($\beta = 0.41, p < 0.001$), the mediator in our study. Second, in Model 3, it is clear that HPWS had a positive effect on subsidiary performance. Lastly, the original effect of HPWS was reduced after organizational climate was added to Model 4. We found that the effects of organizational climate ($\beta = 0.25, p < 0.05$) and HPWS ($\beta = 0.33, p < 0.01$) were significant in that model. This finding suggests that organizational climate acts as a partial mediator, rather than a full mediator, in the relationship between HPWS and subsidiary performance. We also conducted a Sobel test to assess such a mediation effect. The result provided evidence of the mediating effect of organizational climate ($Z = 2.20, p < 0.05$). Based on these findings, hypothesis 4 was partially supported.

### Table 3
Regression results of antecedents of HPWS.

<table>
<thead>
<tr>
<th>Variables</th>
<th>HPWS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
</tr>
<tr>
<td>Industry</td>
<td>0.08</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.08</td>
</tr>
<tr>
<td>American origin</td>
<td>0.23</td>
</tr>
<tr>
<td>EU origin</td>
<td>0.09</td>
</tr>
<tr>
<td>SHRM orientation</td>
<td>0.46</td>
</tr>
<tr>
<td>HQ influence</td>
<td>0.03</td>
</tr>
<tr>
<td>Adj. $\bar{R}^2$</td>
<td>1.95</td>
</tr>
<tr>
<td>$N$</td>
<td>140.0</td>
</tr>
</tbody>
</table>

---

$p < 0.05$.

$** p < 0.01.$

$*** p < 0.001.$

### Table 4
Regression results of mediating effect of organizational climate on the HPWS–performance relationship.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Organizational climate</th>
<th>Firm performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Industry</td>
<td>0.03</td>
<td>-0.03</td>
</tr>
<tr>
<td>Firm size</td>
<td>-0.10</td>
<td>-0.10</td>
</tr>
<tr>
<td>American origin</td>
<td>0.13</td>
<td>0.16</td>
</tr>
<tr>
<td>EU origin</td>
<td>-0.06</td>
<td>0.10</td>
</tr>
<tr>
<td>SHRM orientation</td>
<td>0.38***</td>
<td>0.35***</td>
</tr>
<tr>
<td>HQ influence</td>
<td>-0.09</td>
<td>0.02</td>
</tr>
<tr>
<td>HPWS</td>
<td>0.41***</td>
<td>0.42***</td>
</tr>
<tr>
<td>Organizational climate</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>Adj. $\bar{R}^2$</td>
<td>0.44</td>
<td>0.15</td>
</tr>
<tr>
<td>$F$</td>
<td>16.70**</td>
<td>4.95**</td>
</tr>
<tr>
<td>$\Delta Adj. R^2$</td>
<td>0.11</td>
<td>0.03</td>
</tr>
<tr>
<td>$N$</td>
<td>140.0</td>
<td>138.0</td>
</tr>
</tbody>
</table>

---

$p < 0.05$.

$** p < 0.01.$

$*** p < 0.001.$

### 5. Discussion and conclusions

In this study, we investigated the determinants and outcomes of the adoption of HPWS in Hong Kong subsidiaries using data collected from HR managers. We proposed that variations in the region-of-origin pose different HQ–subsidiary relationship contexts, which subsequently affect HPWS adoption in foreign subsidiaries. Hence, the relationships between MNC region-of-origin, HQ influence, SHRM orientation, and the adoption of HPWS were explored. Additionally, we also examined the effect of the adoption of HPWS on subsidiary performance and how this effect is mediated by organizational climate.

We found significant differences in SHRM orientation, HQ influence, and adoption of HPWS across region-of-origin of MNCs, with subsidiaries of American origin having the highest levels. Those originating from the EU had the next highest levels, followed by Asian-origin subsidiaries. In other words, the ways of managing HR are remarkably different among MNCs originating from different regions. Consistent with previous studies, we found that American MNCs tend to exercise greater control over their foreign subsidiaries, adopt a strategic orientation in managing the workforce, and employ HPWS in these subsidiaries. Regarding the findings for Asian MNCs, we suggest that, given the lower cultural difference between Asian countries, more trust and fewer formal control mechanisms are used in Hong Kong subsidiaries. Asian HQ may use other methods to manage and monitor the operation of the Hong Kong subsidiary, such as appointing the CEO and other senior managers. In addition, similar management systems (that emphasize paternalistic authority, strong management, and internal stability and harmony) are likely to be used in both Asian HQ and Hong Kong subsidiaries. Thus, in these Asian firms HRM is less strategy-oriented and high performance work practices are used the least.

We found that SHRM orientation was positively related to adoption of HPWS. An SHRM orientation is consistent with the use of HPWS in organizations, as both target the leveraging of a firm’s HR as a source of competitive advantage (Wright & Gardner, 2003). Thus, it is natural to find an empirical linkage between these two constructs. In addition, we also found HQ influence had a significant and positive relationship with HPWS adoption. This finding supports the argument that the implementation of HPWS in foreign subsidiaries requires substantial financial resources, effort, and commitment provided by HQ. When the HQ closely monitors the development of foreign subsidiaries, a sophisticated HRM system such as HPWS is likely to be adopted.

Turning to the outcomes, we found that the adoption of HPWS was positively related to subsidiary performance. To shed light on the ‘black box’ of the processes that link HRM with firm performance (Legge, 2005; Wright & Gardner, 2003), we further tested whether organizational climate acts as an intervening variable. Our findings revealed that HPWS exerts an indirect effect through fostering a positive organizational climate, which in turn improves the performance of subsidiaries. This mediating effect, however, was only a partial one. As the relationship between HPWS and firm performance is more complicated than typically thought (Schuler & Jackson, 2005), more research is called for, particularly in the MNC context.

### 5.1. Managerial relevance

Our study contributes to a better understanding of the management of foreign subsidiaries in several ways. First, it provides a framework to help the HQ of MNCs appropriately design HPWS for their subsidiaries. Some organizational contextual factors (e.g., SHRM orientation and HQ influence) have been identified to affect the adoption of such systems. Second, our
findings illustrate the importance of treating the foreign subsidiary as a unit of analysis in studying HRM and its outcomes. In particular, we shed light on how, within the MNC, the use of HPWS in a foreign subsidiary can lead to higher performance. Our study also highlights that each HQ–subsidiary relationship presents different constraints, opportunities, and outcomes for HRM, and thus should be managed in a differentiated manner. Third, by focusing on organizational climate, this study promotes our understanding regarding the dynamics of firm performance in MNCs. Lastly, our findings indicated that nationally established patterns of managing human resources have not disappeared in the face of globalization. The differences between American-based and Asian-based subsidiaries lend support for this notion. Even as firms become multinational, their orientation and strategies continue to be shaped by their origins.

There are some practical implications that can be drawn for HRM practitioners, especially those in foreign firms operating or planning to operate in Hong Kong or other Asian cities. For any organization wanting to improve the processes of HRM, it is important to identify the intervening variables that lie between HRM and organizational outcomes. To improve firm performance, management should use HPWS to generate a positive organizational climate. Managers can do this by creating important linkages, such as between employee training and desirable organizational values, the reward system and cooperation, or the performance appraisal system and fairness. HPWS supports the development of “relational coordination” (i.e., shared goals and knowledge, and mutual respect) and internal communication (Gittell, Seidner, & Wimbush, 2010, p. 491), which helps to create a positive organizational climate. In addition, managers should also pay attention to the HQ–subsidiary relationship when designing the HR system in foreign subsidiaries. For example, HR managers in Asian-based subsidiaries should keep in mind that subsidiaries of Asian-origin, in general, use fewer HPWS, thus they are likely competing with subsidiaries originating from other regions that employ more HPWS. Asian-based subsidiaries may be operating at a lower baseline, and their HR managers should consider adding more HPWS to effectively compete.

5.2. Limitations

Despite its contributions, several limitations of the present study should be acknowledged. First of all, only HR managers at the Hong Kong subsidiaries were included in this study—the perspectives of the HQ, line managers, and the employees were not measured. All information was provided by the same respondents and thus our study may be subject to common method bias. In addition, the measure of subsidiary performance was perceptual whereas objective performance data is more desirable. Second, our theoretical framework did not incorporate variables exogenous to the MNC–subsidiary relationship. Thus, we did not consider the possible impact of the external environment, particularly economic and cultural conditions. Third, this study is cross-sectional in nature. Thus our findings hold at a given point in time across foreign subsidiaries, but do not address the dynamic nature of HPWS adoption. A longitudinal study design is more desirable, particularly because HRM orientation and the HQ–subsidiary relationship may evolve over time (Gooderham & Nordhaug, 2006). In addition, our data were collected in 2006, before the global financial crisis, thus potentially limiting their relevance for managers today. Fourth, we used the macro categories of “Asia” and “EU” for our region-of-origin variable, thus precluding the investigation of within category differences. Lastly, our response rate was low. The advantage of postal questionnaires is that they can be designed around a specific research question, and as such, they are a valuable research device, well suited for quantitative statistical analysis, however, return rates in an international context are often low (Jaussaud & Schaeper, 2006).

5.3. Concluding remarks

This article builds upon recent work investigating the MNC–subsidiary relationship (e.g., Kim et al. 2005; Taylor et al., 1996; Yu et al., 2006) by integrating characteristics of the MNC–subsidiary relationship in a theoretical model of the determinants and consequences of HPWS in foreign subsidiaries. We addressed Schuler and Jackson’s (2005) call for analyzing and interpreting the impact of context in global HRM research, and the use of data and theory for research advancements and contributions. In conclusion, our study advances theoretical understanding of the linkages between organizational contextual variables and HPWS, as well as between HPWS and subsidiary performance.

References


