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Why a Multinational Firm Chooses Expatriates: Integrating Resource-Based, Agency and Transaction Costs Perspectives*

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ABSTRACT This paper develops an integrative organizational economics framework explaining and predicting multinational firms' managerial resource deployments based on resource-based, agency, and transaction costs theories. Our empirical findings suggest that the governance decision for managerial services of multinational firms is influenced not only by the comparative capabilities of managers, but also by the economic costs to the firm of influencing the behaviours of managers through managerial contracting.

INTRODUCTION

Over the past two decades in management studies, transaction costs economics has emerged as a predominant theoretical explanation of governance structure choices. While the transaction costs theory is noteworthy for its analytical rigour in explaining such governance choices, the theory is criticized by some for overemphasizing the influence of ex post contractual costs (e.g. emphasizing contractual hold-up problems due, in large part, to asset specificity) and for underemphasizing the influence of revenue creation on governance structure choices (e.g. Gong, 2003; Poppo and Zenger, 1998; White, 2000). Agency theory provides a conceptual lens for analysing *ex ante* contractual problems and thus provides a balance for the transaction costs theory (which emphasizes *ex post* contractual problems). The resource-based theory also complements the transaction costs theory by focusing on the role of resources in creating firm-level revenue and in shaping firm-level decisions. It is not surprising, therefore, that recently researchers have increasingly been integrating these three theories toward providing a more complete understanding of various corporate strategic management activities, such as vertical

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integration (Mahoney, 2005), equity joint ventures (Tsang, 2000), strategic alliances (Madhok, 1997), diversification (Silverman, 1999), and export performance (Peng and York, 2001),

The current paper develops an integrative organizational economics framework to both explain and predict an important business phenomenon in international strategic management – the deployment of human resources within a multinational firm – from the perspectives of resource-based, agency, and transaction costs theories. Human resources are strategic assets that influence the likelihood of generating and sustaining competitive advantages in a multinational firm. In this paper, we consider two types of human resources that a multinational firm can deploy to top managerial positions in its foreign operations – expatriates and host country nationals. Expatriates are home-country nationals (i.e. citizens of the country in which the multinational firm is headquartered) who are sent by the headquarters to the foreign positions. Host country nationals, or local managers, are citizens of the country in which they are working (Daniels et al., 2004).

The extant research literature regarding the deployment of expatriates poses a paradox. On the one hand, conceptual and empirical works concerning both expatriate utilization (e.g. Edström and Galbraith, 1977; Kobrin, 1988, 1991; Richards, 2001; Scullion, 1991) and control within multinational firms (e.g. Egelhoff, 1984; Gupta and Govindarajan, 1991; Mascarenhas, 1984) have convincingly argued that expatriates are a multinational firm's means of achieving control, coordination, and information processing within the multinational network and have shown that multinational firms rely more on expatriates when there is a greater need for control and coordination.[1] On the other hand, researchers have presented equally convincing evidence that there are many business problems that can arise with the use of expatriates. For example, expatriates are sometimes found to be incapable of completing their terms of assignment, especially for US multinationals (Ashmalla, 1998; Black and Gregersen, 1999; Daniels and Insch, 1998; Dolins, 1999; Prudential Relocation International, 1999; Shaffer et al., 1999; Tung, 1982). Expatriates are also questioned about their loyalty toward their multinational employers (Banai and Reisel, 1993; Black and Gregersen, 1992), and about their contributions to the total economic returns to the shareholders of the multinational firms (Groh and Allen, 1998).

This mixed empirical evidence concerning expatriates suggests the need for a more complete organizational economics framework to help to better explain and predict the use (or possible overuse) of expatriates: why are expatriates typically *expected* to improve a multinational firm's capability to control and to coordinate when in practice these expatriates do not always perform to the expectation of the multinational firm? Explaining this paradox will require more theoretical guidance than previous work on expatriates has provided.

In this paper, we both develop and empirically test an integrative organizational economics framework based on resource-based, agency, and transaction costs

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theories to explain and predict multinational firms' reliance on expatriates to provide managerial services in foreign subsidiaries. The three perspectives sometimes provide rival explanations for the same phenomena, but are often complementary in that they illuminate different issues and are potentially useful in addressing different aspects of the governance choice of foreign subsidiary managers.

Resource-based theory provides a theoretical underpinning for the discussion of how the comparative capabilities of expatriates and host country nationals influence a multinational firm's human resource deployment decision. However, to identify comparative capabilities as the sole factor that influences human resource deployment within multinational firms would be to overlook the impact of one distinct characteristic of human resources on this strategic decision – human resources are under only limited control by firms (Coff, 1997). When the firm has serious concerns as to whether particular employees are willing to do as they are required, firms may choose not to place these employees in particular managerial positions, even if they might be the more capable employees.

By facilitating discussion about how these concerns may influence the human resource deployment decision, agency and transaction costs theories complement resource-based theory. From the perspectives of agency and transaction costs theories, expatriates and host country nationals are two governance choices for providing managerial services in foreign operations, and this governance choice should be made with consideration for minimizing the economic costs of exercising *ex ante* and *ex post* control on managers of foreign operations.[2]

As we will see in the hypotheses section, the consideration for utilizing managerial capabilities does not always lead to the same managerial deployment choice as the consideration for reducing economic costs of exercising control on managers would lead. Thus, to provide a more complete explanation of the managerial deployment decision of multinational firms, both the resource-based perspective and the transaction costs/agency perspective should be taken together to facilitate the discussion about the implications of the two differing but yet complementary considerations for the governance choice.

The current paper is organized as follows. We next discuss predictions of the utilization of expatriates and host country managers from the perspectives of resource-based, agency, and transaction costs theories. We then describe the data and measures for empirical tests of the hypotheses and report and discuss the empirical results. Concluding remarks follow.

THEORETICAL BACKGROUNDS

Three theories form the building blocks for this paper. We start with resource-based theory to analyse the comparative capabilities of expatriates and host country nationals. We then turn to agency theory and transaction costs economics

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to gain theoretical insights into why multinational firms may not select the most capable managers in the human resource deployment decision under business conditions where there is a major concern about their limited control over managerial behaviours.

The Resource-Based Perspective on Managerial Resource Deployment

From the perspective of resource-based theory, a firm's resources affect how the firm behaves, and, consequently, how the firm performs economically (Barney, 1991; Lippman and Rumelt, 1982). Since managerial resources play an important role in obtaining, utilizing, and developing a firm's other productive resources (Penrose, 1959; Tan and Mahoney, 2005), the firm needs to deploy its managerial resources effectively.

Effective managerial resource deployment involves matching managers with the firm-level positions in which their abilities are likely to be most economically valuable (Taylor, 1999). A multinational firm may require the managers of foreign operations to obtain local resources and to implement the multinational firm's strategy. These managerial tasks may place differential values on various skills of managers. For example, obtaining local resources and capabilities may require that managers be equipped with local knowledge and local business connections. Implementing the multinational firm's strategy may require the managers to understand and to accept the subsidiary's role within the multinational firm.

Expatriates and host country nationals are two types of managerial resources that a multinational firm can deploy to the managerial positions of its foreign subsidiaries. Expatriates and host country nationals are expected to have different capabilities. Specifically, at the time when expatriates are offered international assignments, these expatriates have typically worked and have been socialized within the multinational headquarters for a substantial period of time (Laing, 1994; Naumann, 1992), and they may have been rotated to positions in other subunits within the multinational network. Consequently, expatriates are likely to have understood the corporate policy of the headquarters as well as individual subsidiaries' roles within the multinational network (Kuemmerle, 1997). Such knowledge should enhance expatriates' productivity in implementing the multinational firm's strategy in foreign subsidiaries.

In contrast, host country nationals typically have fewer working and socializing experiences within the multinational headquarters. While host country nationals may have long experience working in a particular local subsidiary, the number of host country nationals that have rich and frequent direct experience with the multinational headquarters is likely to be very limited. Thus, host country nationals' understanding of the strategic role of each individual subsidiary within the multinational network is likely to be incomplete. However, these host country

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nationals should have much greater local knowledge and local business connections, which allow the multinational firm to obtain economically valuable local resources and to adapt to local environments.

Therefore, from the perspective of the resource-based theory, while both expatriates and host country nationals are economically valuable managerial resources for the top managerial positions of a multinational firm's foreign subsidiaries, the two types of managerial resources have *different* capabilities at different managerial tasks. On the one hand, when the key managerial tasks are to implement the multinational headquarters' strategy, the skills of expatriates should better match these critical tasks and the firm is likely to place expatriates in the managerial positions of its subsidiaries. On the other hand, if obtaining local knowledge and making local adaptation are crucial managerial tasks, host country nationals should better fit these tasks and they are more likely to be assigned to the subsidiary managerial positions.

The Agency Perspective on Managerial Resource Deployment

While a multinational firm can better utilize their managers' talents by deploying them to positions where the managers can offer greater contributions, the comparative capabilities of managers are not likely to be the sole factor that influences the firm's human resource deployment decision. Specifically, unlike physical assets, human resources are under only limited organizational control, because employees can leave the firm, renegotiate employment contracts to their advantages; and can also shirk on the job and opportunistically withhold critical information (Coff, 1997). When the firm has serious concerns over whether particular employees are willing to do as they are required, the firm may choose not to place these employees in particular managerial positions even if their talents best match these positions. Thus, a multinational firm making managerial deployment decisions is likely to consider not only the potential economic *revenues* that expatriates and host country nationals could bring to the firm, but also the economic *costs* that a firm may incur in order to exert effective organizational control over expatriates and host country nationals.

From the perspective of agency theory, the potential misalignment of economic incentives between a principal and an agent adds to the economic costs of influencing the behaviours of managers (Jensen and Meckling, 1976). Specifically, the relationship between a multinational headquarters and the managers of its foreign subsidiary is a type of principal–agent relationship, in which the headquarters is the principal whose economic interests are influenced by the agents; i.e. the managers of its foreign subsidiary (O'Donnell, 2000).

The managers of the foreign subsidiary may not fully serve the headquarters' economic interests for at least two reasons. First, there may be an economic incentive misalignment problem between the headquarters and the managers of

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the foreign subsidiary because the managers may pursue sub-goals and may not be motivated to promote fully the economic interests of the foreign subsidiary, and the multinational firm may find it costly to monitor the self-seeking behaviours of the managers (Cyert and March, 1963; March and Simon, 1958; Mishra and Gobeli, 1998).

Second, even if the managers are willing and able to pursue the best economic interests of the foreign subsidiary, these managers do not necessarily promote the best economic interests for the multinational firm as a whole because the best economic interests of the foreign subsidiary and those of the multinational firm may not be identical (i.e. there is an economic incentive misalignment situation between the headquarters and the foreign subsidiary) (Hennart, 1991). One dramatic example of such a misalignment situation occurs when it is in the headquarters' economic interests to shut down a particular foreign operation in order to rationalize its worldwide production.

The economic incentive misalignment problem between the multinational headquarters and the managers of the foreign subsidiary is likely to increase the multinational firm's propensity for choosing expatriates over host country nationals, even when host country nationals may be more capable of serving the positions. Specifically, since relative to host country nationals, expatriates typically have more direct experience in working and being socialized within the multinational headquarters, these expatriates are *expected* to have a lower propensity for pursuing self-interests, to better understand and accept the role of the subsidiaries within the multinational network, and to better maintain the headquarters' economic interests than local personnel would (Eisenhardt, 1985; Ouchi, 1979). Therefore, the multinational firm expects to reduce economic incentive misalignment problems between the headquarters and the foreign subsidiary by assigning expatriates to important positions in the subsidiary.

The Transaction Costs Perspective on Managerial Resource Deployment

From the perspective of transaction costs theory, employment contracts provide the basis for the control that a firm can have *ex ante* over its employees by broadly defining (within a zone of acceptance) what the firm demands from the employees (Williamson, 1975). The economic costs associated with contracting include not only out-of-pocket costs such as compensation but also the economic transaction costs to the firm of specifying, adjusting, and enforcing the employment contracts, and any economic loss due to the (necessarily) incomplete contract.

Expatriates and host country nationals can be viewed as two discrete governance alternatives for providing managerial services in a foreign operation. When a multinational firm enters a foreign market, the firm can make managerial contracts with expatriates and host country nationals. Making managerial employment

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contracts with either governance alternative may potentially give rise to *ex ante* and *ex post* costs of incomplete contracting. Such economic costs increase the multinational firm's concerns for its limited organizational control over managers and hence these costs influence the firm's managerial resource deployment decision.

There are at least three sources of incomplete managerial employment contracting costs. First, a smaller-numbers bargaining condition may occur when qualified managerial candidates are scarce (Masters and Miles, 2002). Such a condition could occur in the managerial labour market for expatriates or in the managerial labour market for host country nationals. Second, there may be difficulties in specifying exhaustive criteria for recruiting the right managers for the foreign operation. For example, multinational firm may not be able to anticipate the required abilities, and thus the qualifications, that the managers of the foreign operation should possess. In this business situation, managers may have to adapt to tasks (e.g. restructuring) that these managers were unaware of prior to their assignments. As a result, the multinational firm may prefer to select managers who are expected to be more willing and able to adapt to various contingencies (Pearce, 1997). However, such individual characteristics are imperfectly observable and can only be fully known through experience over time.

Expatriates generally have established track records within the multinational headquarters and these expatriates have been typically put to work on various tasks so that the multinational headquarters has been able to assess their less easily observable abilities and characteristics (Bonache and Fernandez, 1999). In contrast, language and cultural barriers may make it difficult for the multinational headquarters to evaluate the characteristics of host country nationals. Thus, the firm can expect to be more informed about the characteristics of expatriates than of the characteristics of the workers in the local labour market.[3] The economic costs of exercising organizational control over managers due to difficulties in specifying exhaustive recruiting criteria should be lower for the case of expatriates than that of host country nationals.

A third source of incomplete managerial employment contractual costs arises from the difficulties of enforcing the managerial employment contracts. The difficulties of enforcing managerial employment contracts are expected to be particularly great when subsidiary managers have low economic incentives in cooperating with – and have greater economic bargaining powers against – the multinational headquarters (Milgrom and Roberts, 1992).

The economic incentives for subsidiary managers to cooperate with the multinational headquarters are higher when managers incur high costs of switching to other firms. For managers, firm-specific knowledge and relationships that have come through experience within the firm are irreversible investments that these managers have committed to the firm. If these managers leave for other firms, such knowledge and relationships would lose at least a part of their economic value (Becker, 1964; Williamson, 1975). *Firm-specific knowledge and relationships* that man-

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agers have developed within the firm therefore increase the switching costs of managers and thus increase the economic incentives for managers to cooperate with the multinational headquarters.

Relative to host country nationals, expatriates have typically accumulated more knowledge and relationships that are specific to the multinational firm. Specifically, expatriates have typically received more training from the multinational headquarters and have had more opportunities to rotate to positions in other subunits within the multinational firm than host country nationals. Hence, expatriates' skills and relationships are likely to be tailored to the firm to a greater extent. In addition, these expatriates are sometimes put on career development programs that allow them to have a better prospect within the firm than outside the firm (Selmer, 2000). As a result, expatriates have more to lose economically than host country nationals once their employment relationship with the firm is terminated (Liebeskind, 1996). Similarly, the multinational firm is also likely to have incurred high financial costs in training and maintaining expatriates (Yan et al., 2002). In other words, the firm typically makes more irreversible investments in expatriates than it does in host country nationals. Hence, the mutual economic interests for maintaining a long-term relationship are stronger between the multinational firm and expatriates than between the firm and host country nationals. Hence, the multinational firm may expect to mitigate potential bargaining problems by using expatriates.

While we submit that expatriates will lose the firm-specific knowledge and relationships that these expatriates have accumulated within the firm over time if they leave the firm, it does not immediately follow that expatriates would never leave the firm. In fact, some research studies find that primarily because many multinational headquarters do not provide appropriate assistance to repatriates and do not arrange proper positions for them, quite a few expatriates leave their firms within a few years after their return to the headquarters. We maintain, however, that typically both multinational firms and expatriates consider the turnover a loss of their economic investments in the mutual relationship (Stroh et al., 1998).

Integrating Resource-Based, Agency, and Transaction Costs Theories

In this paper, firms are posited as focusing on increasing economic value creation, and thus these firms will deploy their managerial resources to enhance their value. Resource-based theory suggests that a firm can increase its economic revenue by assigning managers to tasks in which they are more capable. Agency and transaction costs theories suggest that a firm can reduce economic costs by choosing managers that the firm incurs comparatively lower contractual costs in influencing managerial behaviours. In terms of governance choice, a *ceteris paribus* decrease in economic costs by definition increases economic value. Hence, a governance

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choice based on agency and transaction costs theories, like that based on resource-based theory, enhances the economic value of the firm.

However, in the business context of governance choice of managerial services within multinational firms, predictions based on resource-based theory (which focuses on revenue enhancements to increase economic value) can differ from those based on agency and transaction costs theories (which focus on costs reductions to increase economic value). The reason for this difference in predictions is that a person whose talent most fits a foreign position might also be one that the firm will incur substantial costs in controlling/influencing behaviours. Given that the basic resource-based framework is not readily used to analyse managerial contractual costs, we use agency and transaction costs theories to explain more fully the managerial resource deployment decision of multinational firms; namely, we use these theories to explain why multinational firms use expatriates even when these expatriates do not necessarily perform well. In particular, our review of agency and transaction costs theories suggests that when influencing the behaviour of local managers is subject to substantial economic incentive misalignment problems and incomplete contractual problems, the firm may choose not to place local managers in the foreign positions even if their capabilities match the positions better than expatriates.

It should be noted that it is possible that a more capable person may behave less opportunistically, in the sense that the person becomes capable because he/she has chosen to accumulate firm-specific knowledge/skills and that the accumulation of firm-specific knowledge/skills will constrain future choices of the person. The implication of this line of reasoning is that the transaction costs/agency analysis can be consistent with the resource-based analysis. However, in the context of the current paper, a host country manager becomes capable at positions that require substantial local knowledge/relationships primarily not because he/she has chosen to make more investment in learning local knowledge for the good of his/her firm than an expatriate does, but because he/she is more familiar with the local language and has greater experience in the local market. In addition, given that the economic value of local knowledge and relationships are not specific to the firm (i.e. local knowledge and relationships can be valuable in other multinational firms), accumulating more local knowledge/skills does not necessarily constrain the managers' future choices. Thus, in our business context, a manager that is capable of doing certain tasks is still likely to behave opportunistically. In other words, managerial deployment choices that are based on utilizing most capable managers can be different from the choices based on reducing contractual costs. As a result, both transaction cost/agency and resource-based perspectives should be taken together in order to provide a more complete understanding of the managerial deployment decision of multinational firms.

In the next section, we develop competing hypotheses that illustrate the differing perspectives from resource-based, agency and transaction costs theories. Before we

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develop hypotheses, it is useful to summarize the three propositions regarding the use of expatriates vs. host country nationals, which are based upon these three organizational economics theories. First, comparative capabilities of expatriates and host country nationals are likely to influence the managerial resource deployment decision of a multinational firm. Second, economic incentive misalignment between the multinational headquarters and its subsidiary is likely to increase the economic costs of the multinational headquarters in influencing the behaviours of the subsidiary manager, and hence will influence the international staffing decision. Third, comparative costs of incomplete contracting with expatriates and host country nationals should influence the economic costs of a firm exercising organizational control over managers and hence affect the firm's managerial resource deployment decision.

HYPOTHESES DEVELOPMENT

As discussed earlier, resource-based theory suggests that a multinational firm is likely to deploy host country managers to the local positions when obtaining local knowledge and making local adaptation are crucial managerial tasks. Local knowledge and relationships should prove more crucial in industries where products must be customized for local customers than in industries where products are standardized. In industries with a high level of product customization, a multinational firm will need to maintain clear and frequent communication with local customers, and to understand the unique preferences of local customers (DuBois et al., 1993). Given that host country national managers share the same culture and languages with local customers, the use of host country nationals should allow the multinational firm to make product customization more effectively, which should increase economic value by enhancing revenues.

Transaction costs theory yields an alternative prediction for this managerial resource deployment decision. Transaction costs theory suggests that multinational firms should rely more on expatriates in the case of incomplete contracting. Given that operating in industries characterized by a high degree of product customization requires substantial idiosyncratic local knowledge that is beyond the firms' repertoire, multinational firms may be less familiar with the requirements from such industries (Luo and Peng, 1999) and hence are likely to have difficulties in specifying exhaustive criteria for recruiting managers. The concern for incomplete managerial contracting is likely to lead the multinational firms to rely more on expatriates to reduce transaction costs as a means for creating economic value. Given that the predictions from resource-based theory (which emphasizes increasing revenues) and transaction costs theory (which emphasizes decreasing transactions costs) lead to opposite predictions in this business context, we test alternative hypotheses:

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Hypothesis 1a: In industries characterized by a high level of product customization, a multinational firm is likely to *decrease* its utilization of expatriates in the foreign subsidiary. (RBV)

Hypothesis 1b: In industries characterized by a high level of product customization, a multinational firm is likely to *increase* its utilization of expatriates in the foreign subsidiary. (TCE)

Local knowledge and relationships are also crucial in markets that are characterized by a high level of uncertainty because such knowledge and relationships allow the multinational firm to adapt to contingencies and to buffer risks (Miller, 1992). Thus, from the perspective of resource-based theory, multinational firms are likely to rely more on host country nationals than expatriates in uncertain markets because host country nationals have more local knowledge business connections to deal with uncertainty.

However, from the perspective of transaction costs theory, uncertainty leads to the difficulties of the multinational firm in specifying exhaustive criteria for recruiting managers. Specifically, uncertainty makes it difficult for the multinational firm to anticipate the required abilities (and thus the qualifications) that the managers of the foreign operation should possess. In such business contexts the multinational firm may prefer to select managers who are expected to be more willing and more able to adapt to various contingencies (Pearce, 1997). Since such individual characteristics could only be fully known through experience over time, the firm may prefer expatriates over host country nationals because the firm is better informed of the characteristics of expatriates through their established track records (MacLeod and Malcomson, 1988) while language and cultural barriers make it difficult for the multinational headquarters to access the characteristics of host country nationals. Given that the predictions from resource-based theory and transaction costs theory contradict in this business context, we test alternative hypotheses:

Hypothesis 2a: In industries characterized by a high level of uncertainty, a multinational firm is likely to *decrease* its utilization of expatriates in the foreign subsidiary. (RBV)

Hypothesis 2b: In industries characterized by a high level of uncertainty, a multinational firm is likely to *increase* its utilization of expatriates in the foreign subsidiary. (TCE)

Resource-based theory suggests that a multinational firm is likely to rely more on host country nationals when there is a greater need to obtain local knowledge and relationships. Firms with no or little prior local experience should have limited local capabilities and therefore should have a greater need for learning how to do

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business in the local environment (Eriksson et al., 1997; Erramilli, 1991). As a result, these firms will value more highly the potential contributions from host country nationals and hence are likely to rely more on them for operating in the host market. In contrast, firms with greater prior local experience are likely to have developed some local capabilities. Hence these firms are likely to rely less on host country nationals and may utilize more expatriates.

From the perspective of transaction costs theory, a firm with no or little local experience should incur greater incomplete contracting costs with the use of host country nationals because it has had few opportunities to interact with host country nationals and to learn about their characteristics. Such incomplete contracting problems should be lower for a firm with greater prior local experience, because such experience improves the firm's understanding of host country nationals' behaviours (Luo and Peng, 1999), allowing the firm to overcome language and cultural barriers and to make a more effective evaluation of host country nationals' characteristics. In addition, such a firm may also have invested in training and socializing host country nationals from its prior investments in the local market, further reducing the potential incomplete contractual problems with the use of local managers.

In summary, based on the transaction costs theory, the incomplete contracting problem associated with the use of host country nationals should be less serious for multinational firms with greater prior local experience, and hence such firms are likely to utilize more host country nationals. Given that the predictions from resource-based theory and transaction costs theory contradict in this business context, we test alternative hypotheses:

Hypothesis 3a: A multinational firm that has had greater prior US experience is likely to *increase* its utilization of expatriates in the foreign subsidiary. (RBV)

Hypothesis 3b: A multinational firm that has had greater prior US experience is likely to *decrease* its utilization of expatriates in the foreign subsidiary. (TCE)

Firms that locate a substantial part of production activities abroad are likely to find it more crucial to maintain smooth foreign production and hence should have a greater need to develop local capabilities. For example, these firms need to learn how to manage local workers and to deal with local unions effectively. These firms also need to learn to take advantage of the local logistic system, and to have a good understanding of local regulations. From the perspective of resource-based theory, these firms are likely to value the potential contribution of host country managers and rely more on these host country managers.

On the other hand, firms that locate a substantial part of production activities abroad are more likely to be characterized by frequent intra-firm transfer (Bartlett et al., 2003). Specifically, in such firms, products made in one foreign location may be shipped to the home country or other foreign locations for sales. Parts produced

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at the home plant may be sent to another foreign plant for assembly. Production process technologies may also be transferred among production facilities across different locations. In addition to frequent intra-firm transfer, firms that locate a substantial part of production facilities abroad are also more likely to engage in rationalization and coordination of their worldwide production activities in attempts to take advantage of production factor differentials across locations (Flaherty, 1992).

From the perspective of agency theory, the frequent intra-firm transfer within multinational firms that have a high percentage of overseas production facilities is likely to lead to economic incentive misalignment problems between the headquarters and the subsidiary. Specifically, frequent intra-firm transfer makes it difficult for firms to implement output control on individual subsidiaries, thus increasing the cost of monitoring subsidiary managers (O'Donnell, 2000). In addition, the coordination and rationalization processes that are often accompanied by intra-firm transfer are likely to create conflicts of economic interests between the multinational headquarters and individual subsidiaries (Hennart, 1991). As argued earlier, the use of expatriates may lessen such an economic incentive misalignment problem and hence may lower the agency costs of the firm in influencing the behaviours of subsidiary managers. Hence agency theory predicts that such firms are likely to rely more on expatriates.

Given that the predictions from resource-based theory and transaction costs theory contradict in this business context, we test alternative hypotheses:

Hypothesis 4a: A multinational firm that has a greater foreign production ratio is likely to *decrease* its utilization of expatriates in the foreign subsidiary. (RBV)

Hypothesis 4b: A multinational firm that has a greater foreign production ratio is likely to *increase* its utilization of expatriates in the foreign subsidiary. (AT)

Multinational firms utilizing marketing capabilities abroad are likely to value more the potential contributions of host country managers. Specifically, marketing capabilities often need to be adapted before being applied successfully to the local market (Simonin, 1999). Advertising and other communication strategies are also highly sensitive to cultural differences (Hewett et al., 2003), thus their implementation requires the firms to acquire idiosyncratic local knowledge. Hence, from the perspective of resource-based theory, firms utilizing marketing capabilities have a greater need for local knowledge and are likely to use more host country managers.

On the other hand, multinational firms transferring marketing capabilities to foreign operations may find it more crucial to have effective organizational control over the subsidiary managers (Teece, 1998). From the perspective of transaction costs theory, the international staffing decision must be made in a way that allows the firm to protect its core competency. There are at least two conditions under

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which a firm's marketing competency can be at risk. First, the subsidiary managers might take marketing knowledge and leave for other firms. Second, the subsidiary managers might endanger the multinational firm's reputation and brand value by delivering products or services of poor quality to the local market (Hennart, 1982).

Since the cooperative relationship between the multinational headquarters and expatriate managers is likely to be stronger than that between the headquarters and host country nationals, the use of expatriates is more likely to reduce the transaction costs of the firm in influencing the behaviours of subsidiary managers, and hence the use of expatriates allows the firm to protect its marketing capabilities better. Thus, based on transaction costs theory, firms that utilize market capabilities abroad are likely to use more expatriates. Given that the predictions from resource-based theory and transaction costs theory contradict in this business context, we test alternative hypotheses:

Hypothesis 5a: A multinational firm that transfers marketing capabilities to its foreign operation is likely to *decrease* the utilization of expatriates. (RBV)

Hypothesis 5b: A multinational firm that transfers marketing capabilities to its foreign operation is likely to *increase* the utilization of expatriates. (TCE)

METHODOLOGY

Our hypotheses identify a set of target industry characteristics and firm-level characteristics, which may influence the managerial deployment decisions. To test these hypotheses, we limited our sample to one target market (the United States) so that the data on industry characteristics can be comparable. As the world's largest foreign direct investment (FDI) inflow receiver, the United States market is an exemplar of a competitive environment with well-defined property rights. For the purposes of data accessibility and control, we also limit our sample to the subsidiaries from multinational firms of the same nationality (Japan).

Our initial sample consists of all 790 United States manufacturing subsidiaries (with employment over 20 people) as of 2001 of Japanese firms that were listed in the first and second sections of the Japanese stock exchange, and that are not trading companies. We restricted the sample to listed firms to ensure availability of data. Japanese trading companies were excluded because the purpose of these trading companies' overseas investments is often different from that of other Japanese firms (Yoshino and Lifson, 1986). Many investments by trading companies were to secure the rights to goods from manufacturing subsidiaries. And trading companies often acted as an intermediary between Japan and foreign markets by providing various services to Japanese manufacturers that expand overseas (Miyashita and Russell, 1994). As a result, Japanese trading companies may have been different from other Japanese firms in terms of the desired level of control and coordination over foreign

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subsidiaries and of how they use expatriates. We therefore dropped the subsidiaries from these trading companies to avoid potential disturbance.

The list of Japanese subsidiaries comes from the 2001 issue of *Kaigai Shinshutsu Kigyo Soran*, a census of Japanese investments in the United States undertaken by the Toyo Keizai Publication. In addition to the names of the subsidiaries, the census also provides information on the parent name(s), entry year, employment, mode of entry, and products. The source also gives the number of expatriates for some of the subsidiaries. As will be described in detail, all firm and industry variables are collected from secondary sources. Lack of data on subsidiary products, the number of expatriates, and firm and industry variables reduced our final sample to 284 subsidiaries. A t-test on the number of employees showed no significant differences in the sizes of subsidiaries in our sample and those that were not included in the sample.

This sample is appropriate to the current empirical paper for the following reasons. First, although Japanese multinationals in general had a higher tendency toward expatriate utilization[4] (Harzing, 2001), this tendency does not invalidate our analyses because what we are interested in is *not* the extent to which a firm utilizes expatriates; instead, we are to explain the variation of firms' propensities toward expatriation, and our hypotheses make predictions about what industry and firm-level characteristics may affect a firm's propensity toward expatriation. As long as there are meaningful variations in the propensity of the sample firms to use expatriates, as shown later in our empirical paper, our sample provides a good basis for testing our hypotheses.[5] Second, Japanese multinationals play an important role in the world economy. Studying how these multinationals manage overseas operations can provide valuable contributions to both academic research and business practice (Beamish and Delios, 2001; Beechler and Bird, 1999; Johansson and Yip, 1994).

The dependent variable is the utilization of expatriates in a subsidiary. Following Boyacigiller (1990), we measure our dependent variable by the ratio of the number of expatriates to the number of employees in the subsidiary. Since the standardized normal probability plot and the Kolmogorov–Smirnov test suggested that the ratio of expatriates did not follow a normal distribution, the Box–Cox transformation was performed on the dependent variable. After the transformation, the residual of our OLS regression follows a normal distribution.

Explanatory Variables

Our explanatory variables of interests include the following: product customization in a given US industry, market uncertainty, parent firm's prior United States experience, parent firm's foreign production ratio, and parent firm's market capabilities. We follow Sashi and Stern (1995) and measure the degree of product customization in a United States industry by the relative importance of

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goods made to order compared with goods made for inventory in the industry. Goods made to order are more likely to be goods that are customized to buyers, while goods made for inventory are more likely to be standardized. In industries where the level of work-in-process inventory exceeds that of finished goods inventory, goods made to order are likely to be important since production is postponed until orders are received. In contrast, goods made for inventory should be important in industries where the level of finished good inventory exceeds that of the work-in-process inventory as producers are making standardized goods for stock. Hence, the log of the ratio of the level of work-in-process inventory over the level of finished goods inventory is used to measure the importance of product customization. The data were taken from 1996 US *Annual Survey of Manufactures*.

We construct the level of uncertainty in a United States industry by using Levy's (1985) measure. Specifically, we regress the logarithm of the real shipments of the given four-digit SIC United States industry entered by the Japanese parent firm from 1991 to 2000 on t where t ranges from 1 to 10 (source: United States *Bureau of Economic Analysis*). The variance of the error term is used as the measure for industry uncertainty.

We measure the parent firm's prior United States experience by the logarithm of the years between the foundation of the firm's first operation in the United States and the establishment of the focal venture.

The parent firm's foreign production ratio is measured by the ratio of the firm's overseas production to its total production. The data were taken from *Kaigai Shinshutsu Kigyo Soran* (Toyo Keizai, 2001). The advertising intensities of the Japanese parent firms served as the proxy for the firms' marketing capabilities (Caves, 1996). Advertising intensity is measured by advertising expenditure divided by sales of the parent firm in 2000. Data were obtained from the COMPUSTAT-GLOBAL database.

In addition to the variables identified in the hypotheses, there are other variables that may potentially influence the decision of a firm using expatriates. We control for the entry modes of the subsidiary. JV is a dummy that is equal to one if the subsidiary is a joint venture of the Japanese firm, and zero otherwise. ACQ is a dummy that is equal to one if the entry is an acquisition, and zero otherwise. We also control for the ages and employment sizes of the parent firm and the subsidiary. Age and employment size are converted to logarithmic form in order to remove the skewness in the variables. Finally, to take account for the industry difference in expatriate utilization, we include the two-digit SIC dummies in the regression.

RESULTS AND DISCUSSION

Table I provides descriptive statistics and a correlation matrix. Although some of the variables were subject to transformation in the estimation, we report means and

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Table I. Descriptive statistics and correlations

Variable	*Mean*	*Std. Dev.*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1. Expat ratio	0.04	0.04	1.00										
2. Subsidiary size	805.92	3,609.41	–0.13*	1.00									
3. Subsidiary age	13.04	5.13	0.11	0.00	1.00								
4. Parent size	6,704.5	11,371.3	–0.07	0.05	0.02	1.00							
5. Parent age	64.39	17.22	0.05	0.08	–0.05	0.34*	1.00						
6. Joint venture	0.29	0.46	–0.18*	0.08	–0.15*	0.07	–0.01	1.00					
7. Acquisition entry	0.29	0.45	–0.20*	0.00	0.13*	–0.02	0.03	–0.15*	1.00				
8. Product customization	1.05	0.90	0.07	0.00	0.11	0.07	0.02	–0.08	0.12*	1.00			
9. Industry uncertainty	1.1E–3	1.3E–3	0.02	–0.05	0.01	0.23*	0.06	–0.03	0.11	0.29*	1.00		
10. Prior local experience	5.58	7.16	–0.14*	0.04	–0.39*	0.32*	0.15*	0.06	0.03	0.06	0.11	1.00	
11. Foreign production ratio	0.19	0.16	–0.08	0.11	0.14*	0.07	–0.04	0.01	0.12*	0.14*	0.13*	0.13*	1.00
12. Advertising intensity	0.18	0.09	0.03	0.00	–0.02	0.04	0.10	–0.20*	0.11	–0.16*	–0.05	–0.05	0.12

Note: N = 284; * $p < 0.05$.

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Table II. Regression results

	Dependent variable: Expat ratio	
Control variables		
Subsidiary size	−0.323	(0.018)***
Subsidiary age	0.067	(0.048)†
Parent size	0.047	(0.021)*
Parent age	0.178	(0.081)*
Joint venture	−0.210	(0.046)***
Acquisition entry	−0.298	(0.046)***
Constant	−1.863	(0.340)***
H1: Product customization	0.050	(0.022)*
H2: Industry uncertainty	−13.921	(16.441)
H3: Prior local experience	−0.037	(0.021)*
H4: Parent foreign production ratio	0.043	(0.025)*
H5: Parent advertising intensity	−0.373	(0.248)†
F	43.84***	
R-squared	0.639	
Adjusted R-squared	0.625	

Note: N = 284; † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$ (one-tailed).

standard deviations based on raw data in the table to simplify interpretation. Despite the fact that correlation coefficients between several independent variables are significant at the 0.05 level, when industry dummies are not included in the regression, the largest variance inflation factor (VIF) in the model (1.64) is far below 10, and the mean VIF value (1.29) is close to 1, suggesting that collinearity is not a substantial problem (Neter et al., 1999). However, when industry dummies are included in the model, the largest VIF (45.85) goes over 10 and the mean VIF value (11.05) is much greater than 1, prompting concerns over the collinearity problem. We therefore report our empirical results based on the model excluding industry dummies, and for the most part our empirical results are robust.

In our sample, 15 out of 284 subsidiaries had no expatriates on staff. The average number of expatriates in the sample subsidiaries is 8.3.

Table II presents the empirical results. A positive coefficient indicates an increase in the likelihood of expatriate utilization. As shown in Table II, the empirical model provides good fits, with the significance level under 0.005. We first discuss the control variables. The coefficient of subsidiary size is negative and significant in Table II, indicating that the ratio of expatriates is lower for larger United States subsidiaries of Japanese firms. Such an empirical result is consistent with the findings of Rosenzweig and Nohria (1994). Larger subsidiaries may have needed more resources from the local environment and hence tended to hire more local employees.

The coefficient of subsidiary age is not significant, suggesting that the utilization of expatriates was no different for old and young Japanese subsidiaries.

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While the research literature has generally established that expatriates are more highly favoured in the early stages of internationalization to introduce local staff to the corporate culture and to establish control, the empirical result of the current paper suggests that Japanese multinational firms did not seem to decrease their reliance on expatriates to manage their US subsidiaries over time. Such an empirical result is consistent with the evidence from previous research studies that early Japanese investors had a greater tendency to rely on expatriates (Pucik, 1999).

Our empirical results also indicate that the coefficient of parent firm size is positive and significant. Larger Japanese multinational firms may have had excess managerial resources available for allocation to foreign positions than smaller firms. The coefficient of parent age is positive and significant, indicating that the propensity toward expatriate utilization was higher for older Japanese multinational firms. The coefficient of acquisition is negative and significant. Japanese firms may have relied less on expatriates in acquired subsidiary in order to avoid potential resistance from employees of the acquired companies and hostility from local people (Olie, 1990). Finally, Japanese multinationals employed fewer expatriates in their United States joint ventures (the coefficient of joint venture is negative and significant). Perhaps Japanese firms had less control over the appointment of managers in their United States joint ventures.

In terms of our hypotheses, our models estimate the effects of the theoretical covariates on the utilization of expatriates in Japanese subsidiaries in the United States. The five sets of competing hypotheses are derived from two perspectives. One is the resource-based theory that concerns matching managers with the most appropriate positions; the other is from the perspective of agency and transaction costs theories, which predict that the international staffing decision will be made in a way to reduce the agency and transaction costs to the multinational firm of influencing managerial behaviours.

The first set of hypotheses concerns the relationship between the extent of product customization of an industry and the utilization of expatriates. Hypothesis 1a expects this relationship to be negative, while Hypothesis 1b predicts this relationship to be positive. The empirical result shown in Table II indicates that the coefficient is positive and significant at the 0.1 level, suggesting that Japanese multinational firms tended to utilize more expatriates in industries that are characterized by high product customization. Hypothesis 1b, based on the logic of transaction costs theory, is thus supported. In other words, in industries with high product customization, Japanese multinational firms may have relied more on expatriates to reduce transaction costs.

The second set of hypotheses investigates the relationship between industry uncertainty and expatriate utilization. Hypothesis 2a suggests that industry uncertainty and expatriate utilization are negatively related, while Hypothesis 2b predicts that the two should be positively related. As shown in Table II, the coefficient

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of industry uncertainty is not significant, leading us to conjecture that the two perspectives may have cancelled each other out.[6]

The third set of hypotheses examines the relationship between prior local experience and expatriate utilization. Hypothesis 3a suggests that firms with greater prior local experience are likely to use more expatriates, while Hypothesis 3b suggests the opposite. The empirical result in Table II indicates a significant and negative relationship between prior local experience and the use of expatriates, once again supporting the transaction costs logic of Hypothesis 3b. Our empirical result suggests that Japanese firms with no or little prior United States experience may have been unfamiliar with the characteristics of host country nationals and may have utilized more expatriates to reduce the transaction costs under conditions of relatively higher incomplete managerial contracting.

The next set of hypotheses concerns the relationship between a firm's foreign production ratio and its use of expatriates. Hypothesis 4a predicts this relationship to be negative while Hypothesis 4b expects this relationship to be positive. The empirical result shown in Table II indicates that the coefficient of foreign production ratio is positive and significant, providing support to Hypothesis 4b, which is based on agency theory logic. Our empirical result suggests that the concerns for economic incentive misalignment problems of Japanese firms that located a high percentage of production abroad may have led them to use more expatriates.

The final set of hypotheses examines the relationship between a firm's advertising intensity and its tendency of utilizing expatriates. Hypothesis 5a argues that firms with greater advertising intensities tend to rely less on expatriates, while Hypothesis 5b predicts the opposite. The coefficient of advertising intensity is negative and significant, which is consistent with resource-based logic. Perhaps Japanese firms' reputation and brand names were mostly location-specific and not easily transferred across national borders (Hennart and Park, 1994). Therefore for these firms, the need to protect reputation through expatriation may have been low; instead, these firms may have relied more on host country nationals to adapt their marketing skills to local conditions (Simonin, 1999).

CONCLUSIONS

This paper has developed an integrative organizational economics framework to explain multinational firms' deployment of managerial resources in foreign operations based on resource-based, agency, and transaction costs theories. From the perspective of the resource-based theory, a firm can enhance economic revenue by matching managers to positions where they can make greater contributions. However, a person whose talent most fits a foreign position might also be one that the firm will incur substantial agency and transaction costs in controlling/influencing behaviours. Given that the basic resource-based frame-

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work is not readily used to analyse a firm's economic costs of influencing managerial behaviours, we use agency and transaction costs theories to explain more fully the managerial resource deployment decision of multinational firms (Mahoney, 2005).

Our discussion based on agency and transaction costs theories suggest that the economic costs of influencing managerial behaviours through managerial contracting are often lower when the multinational firm chooses expatriates over host country nationals as the governance for providing managerial services in foreign operations. In particular, the use of managerial expatriates may improve contractual efficiencies in at least three ways. First, the use of expatriates helps align the economic incentives between the headquarters and the foreign subsidiaries. Second, the use of expatriates reduces the headquarters' uncertainty concerning manager recruitment and mitigates the incomplete managerial contracting problem. Third, expatriates bear higher economic costs of switching to other firms than host country nationals. The high switching costs support their cooperative relationships with the multinational firm and mitigate potential bargaining problems in employment contracting. Accordingly, using expatriates even when expatriates do not necessarily perform to the expectation of the multinational firm may be seen as a case when the concern of influencing managerial behaviours is greater than the concern of utilizing managerial capabilities in the managerial resource deployment decision.

Given that the managerial deployment decisions of multinational firms are influenced by both concerns of increasing economic revenue and of reducing economic costs, and that the two concerns do not always reach identical prescriptions on the use of expatriates/host country managers, both resource-based theory (that focuses on enhancing revenues as a means of creating economic value) and transaction cost/agency perspective (which is concerned with reducing transaction and agency costs as a means of creating economic value) are needed to explain more fully the managerial deployment decision of multinational firms. To illustrate that a single perspective is insufficient in explaining/predicting the managerial deployment decision, the current paper identifies five conditions under which the international staffing choice based on increasing economic revenue by utilizing more capable managers is likely to be at odds with the choice based on reducing agency and transaction costs. Our empirical findings on a sample of Japanese affiliates in the United States indicate that under these conditions, Japanese firms' staffing decisions were influenced, and sometimes were dominated, by the concern of reducing the incomplete contracting (agency and transaction) costs. In particular, when the incomplete contracting problems are likely to be serious, such as when Japanese firms entered in industries with a high extent of production customization, when they had little local experience, and when they had substantial overseas production activities, Japanese multinational firms are found to have utilized more expatriates in their United States subsidiaries, even when in these conditions the services of local managers may have been more likely to enhance revenues.

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By providing analytic tools for discussing the comparative economic revenues and economic costs of different governance modes for managerial resource deployment, resource-based, agency, and transaction costs theories present a rational-actor account of international staffing decisions. However, it should be noted that while such a rational perspective contributes to our understanding of managerial deployment decisions within multinational firms, it only offers a partial view of this complex strategic decision (Brewster and Harris, 1999; Mayrhofer and Brewster, 1996). Our analyses indicate that our control variables, such as the size and age of parent firm and subsidiary, also affect the international staffing decision. It is likely that non-economic factors, such as firm histories or institutional pressures, may also influence or even dominate the essences of this governance choice. Discussing these factors is beyond the scope of the current empirical study. Future research studies can further explore the relative importance of different factors in influencing international staffing decisions.

Compared to United States and European multinationals, Japanese firms were found to have a greater tendency to rely on expatriates to manage their overseas subsidiaries, although recent evidence showed that this tendency has been declining. Despite the overall high tendency to rely on expatriates, our empirical findings indicate that there were considerable variations in expatriate utilization among Japanese multinationals and the integrative organizational economics framework developed in the current paper explains a part of these variations. Future research studies could examine whether the empirical results in the current paper can be generalized to other international business contexts.

This paper sheds new light and provides new empirical evidence on the factors influencing managerial resource deployment in multinational firms. Additionally, this empirical paper contributes to the research literature in the following ways. First, recent research studies suggest that the perspective of resource-based theory and that of agency and transaction costs theories sometimes place different influences on strategic choices. This paper advances this issue in the business context of a multinational firm's managerial deployment decision and provides empirical evidence for such differing influences.

Second, the integrative organizational economics framework developed in this paper advances our understanding of international managerial transfer. Specifically, the extant research literature has primarily focused on the impact of the comparative contributions of expatriates and host country nationals on the managerial resource deployment, and has generally overlooked a crucial characteristic of human assets: they are under only limited control. The current paper fills this research gap by taking into account this characteristic in the strategic decision, showing empirically that when a multinational firm's control concern over local managers is high, expatriates may be chosen even when the firm has high demand for local knowledge and local managers may be more able to enhance revenues.

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Third, this paper contributes to the internalization theory of multinational firms by addressing an important source of organization (hierarchy) costs – managerial contracting costs. The internalization theory of multinational firms (Buckley and Casson, 1976; Hennart, 1982; Rugman, 1981) suggests that foreign direct investment allows a firm to reduce input or product market transaction costs by replacing contractual relationships with foreign transaction parties of inputs or products with employment relationships. The current paper adds to the research literature by identifying potential problems of managerial employment contracting.

Finally, by addressing how a firm influences its overseas managerial actions *ex ante* by making the right governance choice (via its managerial resource deployment decisions), the integrative organizational economics framework in the current paper complements previous research studies on human resource control that have primarily focused on *ex post* courses of action in which a multinational firm can exert control over the chosen governance (e.g. selecting and training expatriates) (e.g. Snell, 1992).

While the discussion of international human resources deployment has been primarily limited to human resource management scholars, given that human resources are important strategic assets for multinational firms, we maintain that this issue deserves more attention from a wider audience, particularly from international strategy researchers. We have presented the issue of international human resource deployment in the framework of well-established strategy theories such as resource-based, agency, and transaction costs theories in the hope that doing so may stimulate more diverse efforts in studying this strategic issue.

This empirical study can serve as a basis for future research in several directions. Our results indicate that the considerations for (contractual) agency and transaction costs minimization indeed played an important role in influencing the international staffing decision of Japanese multinational firms. Multinational firms that seek to develop localization strategies should try to reduce the contractual costs of host country nationals. In particular, the empirical findings of this paper indicate that Japanese multinational firms seem to have continued their reliance on expatriates in their US subsidiaries after the subsidiaries have gone beyond their initial development stages. Such reliance on expatriates may carry negative effects for firms because it discourages host country talent from pursuing careers within the firms. The detailed discussion in the current paper of the sources of contractual concerns for international employment could serve as a starting platform for exploring the development of mechanisms to reduce the agency and transaction costs of influencing the behaviours of subsidiary managers. For example, to reduce the uncertainty of the headquarters about the characteristics of host country nationals, the headquarters could develop an information system that collects and transmits information about host country nationals. The headquarters could also include host country nationals in its managerial development programme.

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In addition, while theoretically the cooperative relationship between multinational headquarters and expatriate managers should be stronger than that between multinational headquarters and host country nationals, research studies have shown that expatriates are sometimes questioned about their loyalty. From our preliminary interviews with a number of multinational headquarters, it seems that the existence of management development programmes have a strong influence on the loyalty of expatriates during and after their international assignments. The management development programme represents the headquarters' credible (sunk-cost) commitment in developing the careers of its expatriates, while at the same time it improves the career opportunities of expatriates within (as opposed to outside) the firm, increasing the costs to the expatriate of switching to other firms. Further discussion of this issue is beyond the scope of this empirical paper; future research may fruitfully examine the mechanisms that enhance the cooperative relationship between multinational headquarters and expatriate managers.

NOTES

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[1] While this paper emphasizes an economic logic for both explaining and predicting why a multinational firm chooses expatriates, it should be noted that in addition to control and coordination, the research literature identifies at least three other main strategic reasons for sending employees on international assignments: professional development; knowledge transfer; and transfer of scarce skills (Black et al., 1999; Evans et al., 2002; Sparrow et al., 2004).

[2] It should be noted that this paper does not explicitly discuss a third option of multinational human resource deployment: third country nationals. Third country nationals are citizens of neither the country that they are working in, nor the headquarters country. Third country nationals may be viewed as a 'hybrid' choice that resides between expatriates and host country nationals as a governance mode for providing managerial services (Stonehouse et al., 2000) in the sense that the use of third country nationals combines the advantages and disadvantages of the use of expatriates and host country nationals. In particular, third country nationals may have more local knowledge than home country nationals and yet have less local knowledge than host country nationals (Phatak, 1997). Third country nationals may have a deeper understanding of corporate policies than host country nationals, but may be less familiar with the parent's business practice than expatriates (Reynolds, 1997).

[3] It should be noted that some empirical studies indicate that roughly 10–20 per cent of expatriates are free agents and have not had much experience with the firm prior to their assignment (e.g. Suutari and Brewster, 2000). Within our organizational economics framework, one concern that a multinational firm may have regarding its managerial candidates is that it has incomplete knowledge about the characteristics and abilities of the candidates. It is likely that cultural and language differences existing between headquarters and local employees amplify such concerns. On the other hand, the common language and cultural background of free agents make it easier for the multinational headquarters to assess their characteristics through interviews and/or information from the home managerial labour market.

[4] However, some recent research studies indicate that the tendency of Japanese multinationals in using expatriates has been declining (e.g. Beamish and Inkpen, 1998).

[5] In fact, the potential restricted variance in the sample, if anything, would bias the empirical results in a conservative way (against detecting statistically significant effects). We thank the editors of *JMS* for bringing this point to our attention.

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[6] Since we find both theoretical arguments persuasive, it should not be surprising that the non-significant empirical finding is attributed to (implicitly significant) off-setting results. An alternative explanation would be that neither theory predicts the relationship between uncertainty and expatriates. We thank the editors of *JMS* for bringing this alternative explanation to our attention.

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