Factors Affecting Subsidiary Staffing of Japanese Multinationals: A Panel Data Analysis

Gloria L. Ge*
Department of Business Strategy and Innovation
Griffith University
170 Kessels Road, Nathan QLD 4111, Australia
Fax: +61 7 373 55111
Email: gloria.ge@griffith.edu.au

Naoki Ando
Faculty of Business Administration,
Hosei University
2-17-1 Fujimi Chiyoda-ku
Tokyo 102-8160, Japan
Fax: +81 3 3264 9698
E-mail: nando@hosei.ac.jp

Daniel Z. Ding
University of South Australia Business School
Yungondi Building, 70 North Terrace, Adelaide SA 5000, Australia
E-mail: Daniel.Ding@unisa.edu.au

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*Corresponding author
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Abstract
Global staffing is a crucial factor for the success of the overseas operations of multinational corporations (MNCs). This study examines the contextual and organisational factors that affect the localisation of subsidiary staffing in the overseas operations of Japanese multinational companies. Using panel data containing more than 15,000 observations of Japanese overseas subsidiaries and a random-effects logit model, we found that the cultural distance between the home country and the host country has a significant impact on the localisation of subsidiary staffing. In addition, the strategic importance of subsidiaries, as well as the local market orientation and business experiences, but not research and development (R&D) intensity of Japanese parent firms in the host country, have a significant impact on the localisation of foreign subsidiary staffing. We discuss the theoretical and practical implications of these findings.

Key Points
1. Cultural distance between the host country and home country affects the localisation strategy of staffing.
2. In a strategically more important market, the parent firm will send more expatriates.
3. Transforming the acquired subsidiaries into Japanese-style firms is the priority of Japanese expatriates.
4. Japanese multinationals reduce their reliance on expatriates when they gain more international experience.
Introduction

Global staffing is an important issue for multinational corporations (MNCs), as effective staffing strategies are critical to the successful implementation of international business strategies (Collings, Scullion and Morley, 2007). Research on expatriation and localisation is pertinent because MNCs need to decide what expatriate staffing levels are appropriate for the operation of their subsidiaries (Bassino, Dovis and van der Eng, 2015). Appointing expatriates to overseas subsidiaries is often a primary means of control by headquarters (Edström and Galbraith, 1977). Localisation of subsidiary staffing refers to the extent to which key managerial positions in foreign subsidiaries originally held by expatriates are filled by competent local managers (Wong and Law, 1999). A local manager’s local knowledge and connections can help an MNC to overcome cultural barriers and to identify opportunities unique in the host country market (Edström and Galbraith, 1977). Localisation may also enhance the morale of subsidiary employees since it offers local employees opportunities for growth and career development (Harvey and Novicevic, 2000; Wong and Law, 1999).

Extensive research has been conducted into the potential advantages and disadvantages of employing expatriates rather than local managers (Collings, Scullion and Morley, 2007; Harzing, 2002). The impact of global staffing on subsidiary performance has also attracted considerable research attention. However, limited empirical research exists that explores the factors underlying the decisions of MNCs about localisation. To address this research gap, we focus on one research question: What are the contextual and organisational factors affecting the localisation of subsidiary staffing?

The contributions of this article are both theoretical and empirical. First, we adopt a pluralistic perspective of examining both contextual and organisational factors that impact the localisation of subsidiary staffing in host countries. Second, we conduct an empirical analysis of localisation in a large sample of Japanese MNCs, using a unique panel dataset with more than 15,000 observations of Japanese subsidiaries in different countries. Third, we capture the dynamic change rather than the temporal status of subsidiary staffing, and examine what triggers the replacement of expatriates with local managers. Fourth, the results of our analyses have both practical implications for the parent firm’s expatriate appointments and significant policy implications for human resource management in the host country.
In the remainder of this paper, we review the literature on Japanese overseas investment and human resource management, then develop our hypothesis. We then describe the research method and the major features of the dataset before reporting and discussing the empirical results. In the final section, we discuss the theoretical and empirical implications of our findings and offer recommendations for future research.

**Theoretical Background and Hypothesis Development**

**Japanese Overseas Investments and Human Resource Management**

Seeking reduced production costs and growth opportunities, Japanese MNCs continue to engage in overseas investment (Hong and Snell, 2015). Typically, Japanese MNCs undertake overseas investment in their core business and expand their operations if the initial investment performs well. The MNCs may later diversify into new business fields via acquisitions or joint ventures. Such development would not have been possible without the mobilisation of human resources (Schaaper et al., 2013).

Previous research has highlighted that international human resource management practices differ significantly, based on a firm’s culture of origin (Tungli and Peiperl, 2009). There are a number of possible underlying reasons for the dominance of Japanese expatriates in senior management positions within overseas subsidiaries, including: the specific human resource management practices in Japanese firms (Beechler and Yang, 1994; Tung, 1984); the unique Japanese management philosophy and corporate culture, as well as a trust-based internal labour market (Beechler and Yang, 1994); the tacit nature of knowledge and best practices transfer in Japanese firms, such as total quality control systems and just-in-time procedures (Rodgers and Wong, 1996); and the Japanese production method and work style (Itagaki, 2009).

The unique Japanese corporate culture and internal labour market have been identified as the core factors deciding Japanese human resource management practices (Odagiri, 1992). Trust, loyalty and group identity form the foundation of Japanese corporate culture, under which the performance of employees is not controlled explicitly by an external control system, but rather by shared values, norms and social obligations. This type of system is also referred to as cultural control (Jaeger and Baliga, 1985; Ouchi, 1980). The internal labour market is characterised by the tight selection and training of managerial staff, slow promotion, seniority-based pay and lifetime employment. Since cultural control and an internal labour market do not exist and
cannot easily be developed in the host country context, Japanese firms use expatriates extensively as a conduit between the headquarters and foreign subsidiaries (Belderbos and Heijltjes, 2005).

The Japanese production system that constitutes the competitive strength of Japanese manufacturing relies heavily on multi-skilled engineers and workers, continuous workplace quality improvements (*kaizen* activities), cross-section coordination within the firm, and cooperation between makers and suppliers of both components and equipment (Itagaki, 1997). For this system to be adopted effectively in overseas subsidiaries, the Japanese work style, incorporating low barriers between jobs and a long-term orientation toward business, employment and the trade relationship, is required (Itagaki, 2009).

An extensive review of the literature on MNC localisation revealed that the MNC’s decision to appoint expatriates versus local managers is influenced primarily by contextual and organisational factors (Beechler and Yang, 1994; Thompson and Keating, 2004). In the following sessions, hypotheses regarding the factors determining Japanese MNCs’ decision of expatriation or localisation are developed.

**Impact of Contextual Factors**

It has been argued that cross-country differences are one of the determinants behind the decision to appoint expatriate managers (Brock et al., 2008; Wilkinson et al., 2008; Xu, Pan and Beamish, 2004). In host countries where the culture is significantly different from that of the home country, effective control and transfer of knowledge can be a challenge (Xu and Shenkar, 2002). The large cultural distance leads to the need for more subsidiary adaptations in order to satisfy the requirements of the unique host country environment (O’Donnell, 2000). The larger the cultural distance, the more challenges are experienced by expatriate managers in terms of adjustment and the higher cost of adaptation (Kessapidou and Varsakelis, 2003). Organisational support is important if expatriates are to adjust successfully to different economic and cultural environments in the host country (Li and Jackson, 2015). The inability of expatriates to adjust to a host country culture can significantly increase the likelihood of assignment failure (Birdseye and Hill, 1995).

In host countries with substantially different cultures from that of the home country, there are circumstances where local employees are not accepting of, or receptive to, the knowledge
and/or management of expatriates (Harvey and Novicevic, 2000). In such cases, the assignment at the senior level of more local managers who are familiar with the local culture and unique economic, political and legal systems will greatly facilitate the handling of cultural controversies and reduce the tension caused by cultural dissimilarities. Therefore,

H1: The cultural distance between Japan and host countries is positively associated with localisation of senior managers of the subsidiary.

When the strategic importance of an overseas subsidiary has increased to a significant level in terms of size and the number of subsidiaries in the host country, and when the profits from the subsidiaries account for a significant portion of the firm’s total profits, or total sales in the host country account for an extensive share of global sales, then control by and coordination with the parent firm become critical. In such circumstances, the impact of the host country market becomes a significant consideration in the formulation of the firm’s global strategy (Galvin, Hexter and Hirt, 2010).

From the perspective of resource dependence (Pfeffer and Salancik, 1978), the division of power over critical resources between the parent firm and subsidiaries is determined by the level of dependence of one actor on the other. When the headquarters depends on the resources of subsidiaries to ensure that the subsidiary operations in the host country are successful, the subsidiaries have power over the headquarters. As such, asymmetric power distribution between the headquarters and subsidiaries appears. Under such circumstances, the need for greater control over subsidiaries and for the careful management of the headquarters and the subsidiary relationship arises. Such control by the headquarters is best assured through the appointment of expatriates from the headquarters, as such:

H2: The strategic importance of the host country market to the Japanese parent is negatively associated with localisation of senior managers of the subsidiary.

Impact of Organisational Factors

MNCs often set up subsidiaries to tap into the local sources of comparative advantage, such as selling to the host country market and favourable government policies and institutional environments for foreign direct investment. Local knowledge and expertise are critical for successful operations in the host country. To ensure the success of the subsidiaries in the host
country, the firm needs to build relationships with local distributors and suppliers, to gain insights into local markets and consumers, to become familiar with government regulations and policies, and to cultivate connections with officials of relevant government institutions and bureaux. There is therefore an increasing need for local managers who possess such knowledge and expertise.

According to agency theory, the decision regarding the assignment of expatriate managers from headquarters versus using local managers from the host country is based on the level of goal congruence and cost of monitoring and measuring of outcomes (Eisenhardt, 1985; Zajac, 1990). The assignment of managers from headquarters can maintain a high level of goal congruence, but it may take a long time to acquire and accumulate local knowledge and expertise.

When the sources of local competitive advantages are substantial and multiple, and the operations of the subsidiary rely heavily on local market insights and expertise, the local information and expertise required to supervise and monitor the foreign subsidiary’s operations may become too challenging for expatriate managers. In such a situation, the assignment of expatriate managers needs to be substituted by the assignment of local managers. Therefore,

H3: The local market orientation of Japanese foreign subsidiaries is positively associated with the localisation of senior managers of the subsidiary.

From the perspective of organisational learning, an important role of expatriate managers is to facilitate and implement the transfer of organisational learning from the headquarters to overseas subsidiaries where values and cultural expectations may differ considerably (Gaur, Delios and Singh, 2007; Gong, 2003). The task entails “arranging local access to, and opportunity to replicate, various types of knowledge repository that contained corporate values as well as technical expertise” (Hong, Easterby-Smith and Snell, 2006, 1027). However, when the Japanese parent firm has already accumulated experiences in the host country, the firm would have learned from these experiences and developed organisational routines, in order to develop a body of knowledge relevant to local operations (Belderbos and Heijltjes, 2005; Delios and Björkman, 2000). This reduces the need to send more expatriate managers to foreign subsidiaries as a means of knowledge transfer. Thus,
H4: The Japanese parent firm’s business experience in the host country is positively associated with localisation of senior managers of the subsidiary.

An important area of Japanese expatriate managers’ duties is to ensure the quality of products produced at the subsidiaries by successfully transferring advanced technology from the parent and training local engineers and technicians (Itagaki, 2009). According to Dunning’s (1993) OLI perspective, MNCs transfer and share their proprietary technologies, skills, and knowledge with their foreign subsidiaries to maximise profits and amortise the cost of R&D over a large number of products being sold (see also Tihanyi and Roath, 2002).

Previous research on technology transfer suggests that the technology transferred by MNCs to wholly owned subsidiaries is characterised by: (1) being new and at the frontier of the industry; (2) being sophisticated and hard to imitate and diffuse; and (3) requiring skills and competencies that are not available in the host countries (Lado and Vozikis, 1996). In high-tech industries, MNCs invest substantially in R&D to prevent product obsolescence and maintain a leading position in technology in order to gain market share. These proprietary technologies are better protected and transferred internally (Fang et al., 2010; Konopaske, Werner and Neupert, 2002). In addition, the need for the assignment of expatriate managers increases where the technology is not standardized and tacit in nature, and where it is difficult to codify and transmit through design, drawings and documentation (Siddharthan, 1992). Thus,

H5: The R&D intensity of the Japanese parent is negatively associated with localisation of senior managers of the subsidiary.

Mergers and acquisitions (M&A) have frequently been used by MNCs as a form of FDI in host countries and as an important strategy for developing new markets, or for increasing market dominance in old markets (Bratianu and Anagnoste, 2011). For local employees, M&A represent discontinuities in their business lives. They face substantial changes and adaptation, which can be problematic. It is therefore essential to provide transformational leadership to guide and supervise the transformational process after the acquisition. According to acculturation theory in the acquisition literature, M&A involves the combination of different organisational cultures (values, beliefs, or practices that define an organisation) or imposing one culture on another (Elsass and Veiga, 1994). The process of acculturation can take place in different forms,
depending on the relative need for organisational integration and the need for cultural differentiation.

According to a Harvard Business Review study (Martin, 2016), over 70% of acquisitions fail miserably. One of the major reasons for the failure of M&A is the clash of organisational culture (Gelfand et al., 2018). Because expatriates are familiar with the strategy and organisation of MNCs, and rooted in their MNC’s organisational culture (Bassino et al., 2015), MNCs tend to hire expatriates to manage locally acquired subsidiaries. These expatriate managers have a critical role to play in managing the process of acculturation to avoid conflict. New organisational routines and corporate cultures that are congruent with the parent firm’s culture and practices will be set up in the subsidiaries with a certain degree of integration and local adaptation. Therefore,

H6: The M&A by the Japanese parent firm in the host country is negatively associated with localisation of senior managers of the subsidiary.

Method

Sample and Dataset

The hypotheses were tested using a sample drawn from foreign subsidiaries of Japanese-listed firms. Previous studies have reported that Japanese MNCs extensively staff foreign subsidiaries with expatriates (Harzing, 2001; Tung, 1984; Tungli and Peiperl, 2009). Given the ethnocentric tendency of Japanese MNCs, they are considered an appropriate setting for studying determinants of localisation because the setting enables us to find factors that weaken an ethnocentric orientation.

The data for foreign subsidiaries were collected from a CD-ROM version of the Overseas Japanese Companies Data compiled by Toyo Keizai Shimposha. The database has been extensively used in international business studies (e.g. Gaur, Delios and Singh, 2007; Wilkinson et al., 2008; Xu, Pan and Beamish, 2004). Repeated use of the Overseas Japanese Companies Data is indicative of its reliability as a database for empirical studies and ensures the comparability of this study with previous studies. A panel dataset has been developed using 1997, 1999, 2001, 2003, 2005 and 2007 editions; the observation period is from 1999 to 2007. Both manufacturers and non-manufacturers were included in the sample. Because localisation is implemented after certain years of operation, foreign subsidiaries that have operated for over five
years are included in the sample. It is probable that MNCs send expatriates back to the headquarters when they close down subsidiaries. For this reason, subsidiaries exiting in the observation year \( t+2 \) were excluded from the observations of year \( t \). Removing the observations with missing data produced a final sample of 16,219 subsidiary-year observations, consisting of 6,165 subsidiaries in 59 countries.

**Measures**

The dependent variable is the implementation of localisation. Expatriates are typically assigned to middle or upper managerial positions of a subsidiary (Ando and Paik, 2013; Lam and Yeung, 2010). After a certain period, MNCs begin replacing expatriates assigned to a subsidiary with local managers to implement localisation. This suggests that localisation is accompanied by the repatriation of expatriates. Thus, by tracking changes in the number of expatriates, the implementation of localisation can be captured. Based on these arguments, the implementation of localisation was captured with a decrease in the number of expatriates in a subsidiary since the preceding period. However, the number of expatriates allocated to a subsidiary may depend on the subsidiary size. The replacement of one expatriate with a local manager may be more influential in smaller subsidiaries than in larger ones. This implies that the operationalisation of localisation needs to account for subsidiary size. Therefore, this study also captures localisation with a decrease in the ratio of expatriates to the total subsidiary employees (Gaur, Delios and Singh, 2007; Xu, Pan and Beamish, 2004).

Based on these arguments, two dichotomous variables were created. The first dependent variable takes a value of 1 when the count of expatriates decreased since the last observation period and a value of 0 when the count of expatriates was the same as or increased since the last period. The second dependent variable takes a value of 1 when the ratio of expatriates to the total subsidiary employees decreased since the last observation period and a value of 0 when the expatriate ratio was the same as or increased since the last period.

To operationalise cultural distance between the host country and the home country, Mahalanobis distance was calculated using the scores of four cultural dimensions developed by Hofstede (2001) and Hofstede, Hofstede and Minkov (2010). Mahalanobis distance is scale-invariant, using information of the variance-covariance matrix, and allows for correlation between four cultural dimensions (Berry, Guillen and Nan, 2010).
To operationalise the strategic importance of the host country, this study adopted a similar approach to that of Arregle and colleagues (2013). The strategic importance of the host country was calculated with the following formula:

\[
\frac{\text{Total number of foreign subsidiaries in the host country that are owned by the parent firm}}{\text{Total number of foreign subsidiaries in the world that are owned by the parent firm}}.
\]

Calculating the ratio of subsidiaries in the host country enables us to capture the degree of commitment by the parent firm to the host country based on the relative number of subsidiaries in the country (Arregle et al., 2013). This measure could reflect how important the parent firm considers the host country to be.

To operationalise the local market orientation of a foreign subsidiary, this study used purposes of establishing subsidiaries. The Overseas Japanese Companies Data classifies purposes to set up foreign subsidiaries into sixteen categories. Subsidiaries that were set up with the purpose of local market seeking, distribution network building and diversification into a new business need to commit themselves to local markets and operations in the host country. A dummy variable was therefore created, taking a value of 1 when the purpose of the subsidiary is classified into local market seeking, the establishment of a distribution network and diversification into a new business. Note that the purposes of a subsidiary may change while it is operated.

The business experience of the parent firm in the host country was measured by the sum of subsidiary age for all subsidiaries in the host country owned by the parent firm. The number of years since the establishment of subsidiaries in the host country was summed up (Gaur and Lu, 2007). The scores were log-transformed when they were incorporated into the analysis.

The R&D intensity of the parent firm was measured by the parent firm's R&D expenditure divided by the parent firm's total sales (Arregle et al., 2013). Entry by acquisition was operationalised by a dichotomous variable. The dichotomous variable takes a value of 1 when the foreign subsidiary was established through the acquisition of the existing local firm and a value of 0 when it is established through greenfield investment.
To control for the effects of factors that may affect MNCs’ decision about localisation, several control variables were included. When a subsidiary was established as a wholly owned subsidiary, it may experience pressure from locals due to its foreignness (Chan and Makino, 2007; Xu, Pan and Beamish, 2004), which may encourage MNCs to localise subsidiaries. In comparison, when a subsidiary was established as a joint venture, the parent firm may need to balance its power against that of the local partner over the subsidiary, which may encourage MNCs to place a certain number of expatriates in the joint venture. The entry mode of the subsidiary was operationalised as a dichotomous variable, which takes a value of 1 when the subsidiary is wholly owned and a value of 0 when it is a joint venture. As mentioned previously, localisation is implemented after a certain period of operation. Whether localisation occurs may thus depend on the age of subsidiaries. Subsidiary age is a count of years since its establishment. The scores were log-transformed. When subsidiaries are engaged in industries that are different from the parent firm, they may lack the critical resources required in the industry (Riaz, Glenn Rowe and Beamish, 2014). To fill a resource shortage, subsidiaries may demand the appointment of local managers who have knowledge and experience that are not accessible inside the MNC. A dummy variable was therefore created that represents the industry relatedness between a subsidiary and a parent firm. The dummy variable takes a value of 1 when a subsidiary is engaged in the same industry as the parent firm and a value of 0 when they are in different industries.

This study also incorporated a dummy variable that takes a value of 1 when the host country is a developed country and a value of 0 otherwise. A certain proportion of competent managers exist in emerging economies. The increase in the number of MNCs’ entries into emerging economies, however, may intensify competition for qualified local managers, which exacerbates a supply shortage of local managers with managerial skills (Fryxell, Butler and Choi, 2004; Selmer, 2004). The short supply of competent managers in emerging economies may reduce the likelihood of localisation. With reference to the classifications created by several institutions, such as the International Monetary Fund and the International Finance Corporation (Hoskisson et al., 2000), nineteen countries were classified as developed economies.

The level of risk of the host country may also affect the implementation of localisation. When the risk is high, the parent firm needs to increase the level of control over foreign operations because the risk of loss of assets might be substantial (Harzing, 2001). To enhance
control under uncertainty, the parent firm may assign more expatriates to the subsidiary (Gong, 2003; Harzing, 2001). This study used the composite risk rating calculated by the International Country Risk Guide, which incorporates political, financial and economic risk. We note that a higher score represents low risk and a lower score represents high risk. In addition, in order to control for effects of industries in which subsidiaries are engaged, industry dummy variables were included; these were based on two-digit ISIC. Finally, to control for effects specific to an observation year, four dummy variables that represent each observation year were included, with 1999 as a base year.

Results
Table 1 shows the descriptive statistics and correlation coefficients of the variables. The means of subsidiary age and number of employees were 16.6 years and 269.8 employees respectively. Wholly owned subsidiaries account for 45.1% of observations. Subsidiaries in the sample operate in Asia (55.4%), North America (20.3%), and Europe (17.9%). In the sample, 10.3% of subsidiary employees were expatriates. Localisation was implemented in 22.6% of the observations when operationalised on the basis of a reduction in the number of expatriates. It was implemented in 42.7% of the observations when operationalised on the basis of a reduction in the ratio of expatriates. The correlation coefficients between the independent variables were low overall, which indicates that multicollinearity is not a serious concern.

[Insert Table 1 about here]

This study used a panel dataset and the dependent variables were dichotomous. Because one of the primary predictors – cultural distance – is a time-invariant variable, a fixed-effects logit model, which cannot incorporate time invariant regressors, does not fit the model. In addition, because a fixed-effects logit model is based on the conditional logit approach, subsidiaries with no variation in the dependent variable over time would be dropped (Cameron and Trivedi, 2010; Song, 2002). For example, when the dependent variable of the subsidiary was 0 for all observation years, the subsidiary would be dropped from the analysis. To maintain data integrity, this study therefore employed a random-effects logit model with robust standard errors. For the two dependent variables, a Hausman test was conducted to compare fixed-effects and a random-effects models.
The null hypothesis could not be rejected, which means that a random-effects logit model is preferred.

As shown in Table 2, Models 1 and 2 employed the dummy variable based on the number of expatriates as a dependent variable while Models 3 and 4 employed the dummy variable based on the ratio of expatriates. Models 1 and 3 included only control variables, while predictors in the hypotheses were added in Models 2 and 4.

[Insert Table 2 about here]

Model 2 showed that cultural distance is positively and significantly associated with localisation ($b = 0.143, p<0.001$) while Model 4 showed that the coefficient has a positive sign but is marginally significant ($b = 0.053, p<0.10$). Hypothesis 1 that predicted the positive effect of cultural distance on localisation was weakly supported. Hypothesis 2 predicted that the strategic importance of the host country is negatively associated with localisation. The results of Models 2 and 4 indicated that the strategic importance of the host country has a negative and significant impact on localisation ($b = -0.510, p<0.001$ and $b = -0.824, p<0.001$), which lends support to Hypothesis 2.

Hypothesis 3 predicted that when a subsidiary is local market-oriented, localisation is more likely to be implemented. Models 2 and 4 showed that the coefficient of local orientation is positive and significant ($b = 0.232, p<0.001$ and $b = 0.204, p<0.001$, respectively). The result supports Hypothesis 3. Hypothesis 4 expected a positive relationship between the parent firm's business experience in the host country and the implementation of localisation. In Models 2 and 4, the coefficient of business experience in the host country was positive and significant ($b = 0.264, p<0.001$ and $b = 0.197, p<0.001$, respectively), which supported Hypothesis 4.

Hypothesis 6 expected the negative impact of entry through acquisition on the implementation of localisation. Models 2 and 4 showed that entry by acquisition has a negative and significant impact on localisation ($b = -0.406, p<0.05$ and $b = -0.475, p<0.01$, respectively). The results support the prediction of Hypothesis 6. Finally, Models 2 and 4 showed that the coefficients of the R&D intensity were not statistically significant. Hypothesis 5, which predicted a negative relationship between the R&D intensity and the implementation of localisation, was not supported.
Regarding the control variables, the results showed that localisation tends to be implemented in wholly owned subsidiaries compared with joint ventures. Subsidiary age has a positive effect on a decrease in the number of expatriates and a negative effect on a decrease in the ratio of expatriates. In addition, localisation based on the number of expatriates is more likely to be implemented in developed economies while localisation based on the ratio of expatriates is more likely to be implemented in countries with higher risk.

We conducted robustness checks in several ways. Previous studies have sometimes excluded small operations such as small sales subsidiaries from their analysis samples (e.g. Beamish and Inkpen, 1998). We excluded subsidiaries with less than 20 employees and ran fixed-effects logit models. The only change to the results after we excluded small subsidiaries was a change in the significance level of cultural distance when localisation was operationalised by using ratios. This implies that larger subsidiaries tend to increase the number of local managers to address cultural distance, but do not change the ratio of expatriates. Parent firms may need to maintain a certain ratio of expatriates because larger subsidiaries need to interact with the parent firms more often.

Next, the sample included subsidiaries that had been operating for more than five years. The random-effects logit models were run moving the cut-off points for the subsidiary age from more than two years to more than ten years. The change in the cut-off point did not affect the results except with regard to cultural distance. For models of the ratio of expatriates, cultural distance turned insignificant after the cut-off point reached seven years. This may imply that older subsidiaries have overcome uncertainty caused by cultural distance. Subsidiaries that exited at year $t+2$ were excluded from the observation at year $t$. The inclusion of these dropped observations did not change the results. The propensity to implement localisation may differ among parent firms. To account for the possible non-independence nature of observations, a multilevel mixed-effects logit regression with a random intercept was run (Rabe-Hesketh and Skrondal, 2012), using parent firms as the level 2 group. The likelihood that localisation is implemented may also vary among host countries. Thus, using host countries as the level 2 group, the multilevel mixed-effects logit regression was conducted. The results were consistent with those in Models 2 and 4 after accounting for the hierarchical structure of the dataset, except that cultural distance became insignificant for the model with the dummy variable based on the ratio of expatriates that employed host countries as the level 2 group.
Discussion

Previous studies on foreign subsidiary staffing have treated staffing in terms of static constructs, such as the ratio of expatriates or the nationality of the subsidiary’s top manager (Gaur, Delios, and Singh, 2007; Gong, 2003). The expatriate ratio, for example, indicates a combination of expatriates and local managers at a particular point in time, and reflects the degree of reliance on expatriates at that moment. Previous studies have therefore explored determinants of subsidiary staffing at a particular moment in time. In comparison, localisation is a dynamic construct that captures a change in the combination of expatriates and local managers and the degree of reliance on expatriates (Law et al., 2009; Selmer, 2004). This study attempted to introduce a dynamic change in staffing into the framework of subsidiary staffing studies by examining what initiates changes in subsidiary staffing thereby promoting the replacement of expatriates with local managers. By addressing the dynamic change in staffing and examining determinants of localisation, this study filled a research gap in studies on subsidiary staffing.

Our study supports the hypothesis that when the cultural distance between the host country and the home country is significant, localisation is more likely to be implemented. This finding is consistent with the myriad evidence in the literature that the cultural dissimilarity between the home and host countries makes the adjustment of expatriates more complex and difficult (e.g. Thompson and Keating, 2004; Widmier, Brouthers and Beamish, 2008). Expatriate cross-cultural adjustment is a multidimensional concept, including not just adjustment to work and general non-work environments, but also an adjustment to interacting with host country nationals. Unfamiliarity with the host nation’s culture on the part of expatriates leads to adjustment problems. The greater the cultural distance, the greater the need for the employment of local managers. As the robustness checks revealed, however, the effect of cultural distance on the implementation of localisation may be more complex than this. In some robustness checks, cultural distance became insignificant for the models with the dependent variable based on the ratio of expatriates while the effect of cultural distance on localisation in terms of the number of expatriates was robust. This may imply that Japanese firms use localisation in terms of the number of expatriates as a primary tool to address cultural distance while localisation in terms of the ratio of expatriates is used as an additional means.

This study found evidence that when the strategic importance of the host country market increases, more expatriate assignments have been used to strengthen the supervision and
coordination of subsidiary operations. The rapidly growing emerging markets, such as China and India, are the preferred investment destinations for MNCs. These economies have been maintaining an annual growth rate higher than the world average and have huge market potential. They are treated by many MNCs as manufacturing bases and sources for global sourcing. When the host country market becomes a fiercely competitive battlefield where global winners are determined, firms that succeed in the market will create competitive advantages that they can exploit in other markets (Galvin, Hexter and Hirt, 2010). The significant volume of sales and profits obtained from the host market will warrant more management attention from headquarters, treating it as important as the second home market.

Our study found that when Japanese MNCs pursue a local market-oriented strategy in the host country, localisation of subsidiary staffing is more likely to occur. In the case of subsidiaries whose main objective is to manufacture products for export to Japan or third countries, less discretionary power was delegated at the subsidiary level, although there was still a need to use expatriates to transfer technical and functional knowledge that was not available in the host country. This phenomenon is similar to many Japanese subsidiaries abroad, the function of which is almost the same as domestic assembly plants in Japan (Itagaki, 1997). However, “if the main mission of an affiliate is to produce and sell products to the Chinese market, strategic thinking appropriate to the Chinese environment is essential. Accompanying the expansion of investment that targets the Chinese domestic market and an increase in the significance of R&D activities in China, Japanese-affiliated firms will be forced to attract more talented resources locally” (Itagaki, 2009, 457). If an R&D centre had been established locally, talented Chinese engineers were recruited, since they were required to coordinate and negotiate with local suppliers – a difficult task that was beyond the expertise of Japanese engineers. This finding has important practical implications for MNCs targeting a host country market, where local knowledge and expertise are essential to attain subsidiary business objectives. The localisation of subsidiary staffing not only brings substantial cost savings, but also has great potential to create value through a system of multiple benefits.

The results of Hypothesis 4 demonstrate a significantly positive linkage between the parent firm’s business experience in the host country and the localisation of subsidiary staffing. This is also supported by the findings of Belderbos and Heijltjes’ (2005) study on Japanese affiliates in Asia. As leading Japanese firms are gaining experience, they focus more on
recruiting and training local talent, and thus reduce their reliance on expatriates. The adoption of localisation staffing policy also creates a positive perception that the firm will attract, retain and motivate competent local managers.

Our investigation did not find support for the prediction that the R&D intensity of the Japanese parent is negatively associated with localisation of subsidiary staffing. One probable explanation is that the effective transfer of complex technology does not depend on the expertise of expatriates alone, but also on the absorptive capacity of local engineers and technicians. This capacity is influenced by the extent of related prior knowledge and the degree to which the parent and the subsidiary are similar with respect to certain attributes (Gupta and Govindarajan, 2000). There are many circumstances where a local manager is essential to help expatriate engineers to overcome language barriers and various hurdles faced in technology transfer. It is a common practice in many Japanese foreign subsidiaries to send local engineers and technicians to Japan to learn the latest technology. Another possible reason is that the high R&D intensity of Japanese parents is often accompanied by substantial R&D activities at the subsidiaries to meet the demand for adaptation for host markets, which needs the involvement of local engineers.

Finally, our study provided support for Hypothesis 6, which predicted that the establishment of the subsidiary by M&A has a negative impact on the occurrence of localisation. Transforming the acquired subsidiaries into Japanese-styled organisations by developing operation routines and enterprise contexts that reflect the corporate values of the parent firm is the priority of Japanese expatriates. This will facilitate the transfer of various kinds of Japanese methods, such as just-in-time techniques, total quality control (TQC), total productive maintenance (TPM) and other techniques, to subsidiaries to achieve better performance. The parent firm has to send a relatively large number of expatriates to accomplish this arduous task in order to maintain a competitive edge at foreign subsidiaries.

[Insert Table 3 about here]

As a post hoc analysis, we divided the full sample into the two sub-samples: the sample of subsidiaries located in developed markets and the sample of subsidiaries located in emerging markets. Determinants of localisation may vary between the two markets, since they may constitute fundamentally different institutional and business environments. Except for cultural
distance and M&A, the same results were maintained as for the full sample. Cultural distance between the host country and the home country was not significant for the sub-sample of developed markets. In developed markets, MNCs may perceive a lesser degree of environmental uncertainty because of well-developed formal institutions (North, 1990; Peng, 2003). Well-developed formal institutions in developed markets may offset uncertainty caused by cultural distance. The results imply that cultural distance is more important and relevant in emerging markets when MNCs make staffing decisions. Next, the establishment of subsidiaries by M&A turned to be insignificant for the sub-sample of emerging markets. A possible reason is the fact that fewer subsidiaries were established through acquisitions in emerging markets: only 0.2% of observations were established by M&A. In developed markets, the coefficient of the M&A dummy was significant and negative only for the ratio of expatriates. This may suggest that Japanese MNCs tend to control acquired local firms by carefully manipulating the ratio of expatriates. A possible reason is that sending a large number of expatriates may deteriorate the workplace morale of local managers who have worked for the acquired firms and internalised the firms’ organisational knowledge (Gaur, Delios and Singh, 2007). The host hoc analysis implies differences in MNCs’ localisation decisions between emerging and developed markets, which need to be investigated further in future research.

Global staffing is a complicated issue faced by MNCs in their overseas operations. As demonstrated in our study, localisation of subsidiary staffing is affected by both contextual and organisational factors. Adopting a pluralistic perspective, our study offers a more holistic approach to examining the impacts of different factors. It also offers practical guidance to MNCs regarding what factors to consider when they make the decision regarding localisation.

Limitations and Future Research

While this study sheds some light on the major determinants of Japanese MNCs’ decisions about localisation, we acknowledge that it has limitations.

First, the dataset contains MNCs from a single home country, which may limit the generalisability of the findings. Future research may consider using MNCs from other countries or multiple countries (different areas of the world) for a meaningful comparison.

Second, this study did not consider third-country nationals (TCNs) as a staffing option for MNCs and how their availability affects the decisions made by headquarters about localisation.
TCNs can have different expertise from expatriates and local managers. They may be more socialised into the parent firm than local managers and better informed about local knowledge regarding the host country than expatriates (Collings et al., 2010).

Finally, this study adopted Mahalanobis distance to operationalise cultural distance. The criticism of composite cultural distance measures, along with Hofstede’s (2001) cultural dimensions, suggests that Hofstede’s (2001) study does not account for heterogeneity of corporate cultures and regional differences in culture within a country (Shenkar, 2001). A composite measure approach has also been criticised because it does not account for the relative importance among cultural dimensions (Shenkar, 2001). Future studies may approach the operationalisation of cultural distance in a different way.
References
Cameron AC, and PK Trivedi (2010) Microeconometrics using stata. Stata Press, College Station, TX.


22


Table 1. Descriptive statistics and correlation coefficients

<table>
<thead>
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<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
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<th>4</th>
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<th>6</th>
<th>7</th>
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<td>0.029</td>
<td>-0.010</td>
<td>0.042</td>
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<td>0.022</td>
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<td>0.025</td>
<td>-0.139</td>
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<td>-0.014</td>
<td>-0.014</td>
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<td>-0.001</td>
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<tr>
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Note: Correlation coefficients equal to or greater than |0.016| are significant at p<0.05.
<table>
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<th>Model 1</th>
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<th>Model 3</th>
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<td></td>
<td>Count of expatriates</td>
<td>Count of expatriates</td>
<td>Ratio of expatriates</td>
</tr>
<tr>
<td>Cultural distance</td>
<td>0.143 *** (0.029)</td>
<td>0.053 † (0.028)</td>
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<tr>
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<td>-0.510 *** (0.115)</td>
<td>-0.824 *** (0.101)</td>
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<tr>
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<td>0.232 *** (0.050)</td>
<td>0.204 *** (0.045)</td>
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<tr>
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<td>0.264 *** (0.029)</td>
<td>0.197 *** (0.028)</td>
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<td>0.701 (0.713)</td>
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<td>Entry by acquisition</td>
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<td>-0.475 ** (0.167)</td>
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<td>0.161 *** (0.043)</td>
<td>0.166 *** (0.040)</td>
</tr>
<tr>
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<td>0.071 † (0.041)</td>
<td>-0.111 ** (0.035)</td>
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<tr>
<td>Industry relatedness</td>
<td>0.092 (0.056)</td>
<td>0.131 * (0.056)</td>
<td>0.030 (0.051)</td>
</tr>
<tr>
<td>Developed country</td>
<td>0.097 * (0.045)</td>
<td>0.153 ** (0.048)</td>
<td>-0.057 (0.042)</td>
</tr>
<tr>
<td>Country risk</td>
<td>0.002 (0.003)</td>
<td>-0.002 (0.003)</td>
<td>-0.007 * (0.003)</td>
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<td>0.124 † (0.070)</td>
<td>0.131 † (0.070)</td>
<td>0.024 (0.063)</td>
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<tr>
<td>Year dummy 2</td>
<td>0.010 (0.070)</td>
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<td>-0.008 (0.070)</td>
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<td>0.038 (0.075)</td>
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<td></td>
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<td>Constant</td>
<td>-1.353 *** (0.381)</td>
<td>-2.174 *** (0.392)</td>
<td>0.531 (0.375)</td>
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</table>

Wald chi squared | 177.529 *** | 318.874 *** | 239.738 *** | 359.419 *** |
Observations | 16219 | 16219 | 16099 | 16099 |

*** p<.001; ** p<.01; * p<.05; †p<.10

Note: Standard errors are in parentheses.
Table 3. Difference between emerging and developed markets

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<tr>
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<th>Developed markets</th>
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<th>Developed markets</th>
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<td>Coef.</td>
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<td>(0.046)</td>
<td>0.099 **</td>
<td>(0.036)</td>
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<tr>
<td>Cultural distance</td>
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</tr>
<tr>
<td>Strategic importance of the country</td>
<td>-0.363 †</td>
<td>(0.196)</td>
<td>-0.627 ***</td>
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<td>-0.921 ***</td>
<td>(0.181)</td>
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<td>(0.123)</td>
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<td>(0.081)</td>
<td>0.198 **</td>
<td>(0.063)</td>
<td>0.298 ***</td>
<td>(0.075)</td>
<td>0.173 **</td>
<td>(0.057)</td>
</tr>
<tr>
<td>Business experience in the country</td>
<td>0.247 ***</td>
<td>(0.046)</td>
<td>0.249 ***</td>
<td>(0.039)</td>
<td>0.225 ***</td>
<td>(0.043)</td>
<td>0.174 ***</td>
<td>(0.037)</td>
</tr>
<tr>
<td>R&amp;D intensity</td>
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<td>(1.074)</td>
<td>1.511</td>
<td>(0.932)</td>
<td>0.249</td>
<td>(1.048)</td>
<td>0.048</td>
<td>(0.892)</td>
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<tr>
<td>Entry by acquisition</td>
<td>-0.317</td>
<td>(0.200)</td>
<td>-1.170</td>
<td>(0.759)</td>
<td>-0.431 *</td>
<td>(0.183)</td>
<td>-0.449</td>
<td>(0.462)</td>
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<td>Wholly owned subsidiary</td>
<td>0.021</td>
<td>(0.070)</td>
<td>0.219 ***</td>
<td>(0.055)</td>
<td>0.186 **</td>
<td>(0.066)</td>
<td>0.175 **</td>
<td>(0.051)</td>
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<td>Subsidiary age</td>
<td>0.198 **</td>
<td>(0.070)</td>
<td>0.029</td>
<td>(0.053)</td>
<td>-0.019</td>
<td>(0.066)</td>
<td>-0.386 ***</td>
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<td>(0.100)</td>
<td>0.115 †</td>
<td>(0.068)</td>
<td>0.151</td>
<td>(0.092)</td>
<td>0.027</td>
<td>(0.060)</td>
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<td>0.250 *</td>
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<td>(0.093)</td>
<td>0.143</td>
<td>(0.087)</td>
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<td>(0.115)</td>
<td>0.105</td>
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<td>0.043</td>
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<td>Year dummy 4</td>
<td>-0.016</td>
<td>(0.124)</td>
<td>0.032</td>
<td>(0.105)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-1.191</td>
<td>(1.454)</td>
<td>-2.092 ***</td>
<td>(0.421)</td>
<td>-1.022</td>
<td>(1.484)</td>
<td>0.751 †</td>
<td>(0.416)</td>
</tr>
<tr>
<td>Wald chi squared</td>
<td>163.453 ***</td>
<td></td>
<td>266.852 ***</td>
<td></td>
<td>196.347 ***</td>
<td></td>
<td>238.297 ***</td>
<td></td>
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<tr>
<td>Observations</td>
<td>6503</td>
<td></td>
<td>9716</td>
<td></td>
<td>6445</td>
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<td>9654</td>
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*** p<.001; ** p<.01; * p<.05; † p<.10

Note: Standard errors are in parentheses.