

A configurational perspective on subsidiary top management team national diversity and performance

Top
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Received 8 October 2018
Revised 13 December 2018
9 January 2019
Accepted 22 February 2019

Abstract

Purpose – The purpose of this paper is to investigate what role national top management team diversity (TMTD) plays in foreign-owned subsidiary performance. The authors develop a conceptual framework based on the asset bundling model and the neo-configurational perspective to argue that the impact of TMTD on subsidiary performance depends on its conjunction with other assets.

Design/methodology/approach – The authors test our framework on a sample of subsidiaries located in the emerging economies of Thailand and Taiwan. The authors utilise structural equation modelling and fuzzy set qualitative comparative analysis techniques.

Findings – The results indicate that TMTD can contribute and hurt subsidiary performance depending on its bundling with other assets such as organisational network strength, competencies, as well as regional and cultural differences between the home and host country.

Originality/value – This is one of the first studies to empirically test the asset bundling model in the context of national TMTD in foreign-owned subsidiaries using a configurational approach.

Keywords Quantitative, Top management team, Advanced statistical, Structural equation modelling, Multinational enterprises, Fuzzy set, Diversity management, Multinational corporations

Paper type Research paper

1. Introduction

The link between top management team national diversity (TMTD) and performance of multinational enterprises (MNEs) as a whole and subsidiaries in particular is a highly contested topic in the field of international human resource management (Gong, 2006; Colakoglu and Caligiuri, 2008). While substantial progress has been made at the firm level (e.g. Masulis *et al.*, 2012; Nielsen and Nielsen, 2013; Van Veen *et al.*, 2014; Hooghiemstra *et al.*, 2019), at the subsidiary level, the link between TMTD and performance is still ambiguous (Sekiguchi *et al.*, 2011; Lakshman and Jiang, 2016; Tao *et al.*, 2017; Bai *et al.*, 2018). It is important to develop a better understanding of that issue because ill-fitting TMTD can lead to serious strategic consequences for the subsidiary as well as the MNE as a whole. For instance, a currently unresolved dilemma is that of subsidiary legitimacy in the host country. While greater national diversity can increase host country legitimisation and subsequent reduced external transaction costs, it might also lead to greater communication costs with other parts of the MNE network on which the subsidiary ultimately depends for survival (Tan and Mahoney, 2006; Hyun *et al.*, 2015; Muellner *et al.*, 2017). However, it also has a more direct impact on human resource management in the subsidiary and the rest of the MNE. Showing a tendency to have a nationally diverse top management team in the subsidiary also signals attractive career prospects to potential recruits from the host country (Ghemawat and Vantrappen, 2015). That has important implications in the global



search for talent in MNEs across the globe (Burbach and Royle, 2010), but especially so in emerging markets that are beginning to mature and therefore offer attractive positions in local companies as well (Schmidt, 2011). After all, subsidiaries can be a key source for managerial talent in MNEs (Mellahi and Collings, 2010). Given the importance of the topic for the field of international human resource management and current empirical ambiguity, we suggest to adapt a different conceptual and methodological stance to address the question of how TMTD affects subsidiary development and performance.

Much of the current literature argues that the impact of TMTD on performance depends on internal and external factors (Colakoglu *et al.*, 2009; Muellner *et al.*, 2017; Shin *et al.*, 2017). However, most studies tend to focus on either one or the other perspective. For example, a popular view taken by researchers is that TMTD can reduce external transactional costs in the host country due to the reduced liability of foreignness (Harzing, 2001; Tan and Mahoney, 2006; Hyun *et al.*, 2015). One argument goes that greater diversity at the subsidiary top management level increases its ability to localise its business practices, which in turn increases local legitimacy (Williams *et al.*, 2017). However, it has also been argued that TMTD itself influences the internal workings of the MNE and the position of the subsidiary within the MNE. For example, TMTD can contribute to knowledge dissipation within the multinational network due to potentially improved filtering and channelling of relevant knowledge across the MNE network (Harzing *et al.*, 2016). Others have started to combine the two angles. For instance, Shin *et al.* (2017) applied external cultural and internal transaction cost economic reasoning to identify subsidiary board staffing patterns. Muellner *et al.* (2017) argued more from an institutional perspective and found that greater subsidiary TMTD might also have negative consequences depending on the institutional nuances between home and host country. Interestingly, both articles suggest curvilinear rather than linear associations within their symmetric models. This presents considerable progress compared to earlier studies, which focused exclusively on linear associations between TMTD and outcome variables such as subsidiary performance (e.g. Gaur *et al.*, 2007; Colakoglu and Caligiuri, 2008). Therefore, given the ambiguous empirical evidence regarding internal and external factors, as well as the increasing methodological complexity applied in the field, we suspect that the underlying patterns in which TMTD influences performance outcomes in foreign-owned subsidiaries might be more difficult to disentangle than commonly acknowledged in the field. Consequently, our objective in this paper is to explain the role played by TMTD in the context of subsidiary level performance by expanding current conceptual and methodological discussions through asset bundling and neo-configurational perspectives.

The asset bundling model has been developed by Hennart (2009), and is used to predict entry mode strategies as well as subsequent subsidiary development (Verbeke and Hillemann, 2013). The two main arguments in the model that are crucial for our study are that asset bundling is required at the subsidiary, corporate and host country level to be successful and that local asset access carries non-zero transaction costs. In other words, the mere possession of assets such as research competencies, trademarks, highly skilled workforce or greater top management team diversity (TMTD) are not *per se* enough to determine high-performance outcomes (Rugman and Verbeke, 2001). That is because those assets need to fit in the subsidiary specific environment, which includes for instance access to local supplier networks or customers. Those complementary assets in the host location carry managerial costs to access and develop (Hennart, 2009; Hennart *et al.*, 2015). While the asset bundling model has found considerable resonance in the entry mode research (Verbeke and Hillemann, 2013), it has so far only sparingly applied elsewhere (Cavanagh *et al.*, 2017). This might be because only few methodologies can accommodate the underlying conceptual aspects of the asset bundling model such as complementarity and substitutability of assets. Here we believe that the neo-configurational perspective has much to contribute.

The neo-configurational perspective emerged from the reinvigoration of qualitative comparative analysis methodology in the field of strategic management and elsewhere in the social sciences (Ragin, 2008; Misangyi *et al.*, 2017). At its heart stands the idea of causal complexity, which resonates especially with strategy scholars given that many performance outcomes can be caused by a multitude of configurations, hence, the importance of equifinality (Fiss, 2011). Equifinality refers to the existence of several asset bundles that cause the same outcome (Fiss, 2011; Misangyi *et al.*, 2017). This approach preserves complex causal conditions, and instead of testing explanatory variables competing in isolation to explain a certain phenomenon, it develops configurations of interconnected explanatory variables that jointly explain a certain phenomenon. The neo-configurational perspective therefore provides a conceptual foundation that resonates well with the asset bundling model and also provides with fuzzy set qualitative comparative analysis (fsQCA) a technique that allows to rigorously investigate bundles of conditions rather than the isolated impact of single variables, mediators or curve-shaped associations (Woodside, 2013). Furthermore, we argue that it addresses the crucial interrelationship between theory development and statistical methods. While symmetric analytical methods allow for the inclusion of interaction and mediation terms as widely practised in the field (e.g. Shin *et al.* 2017, Muellner *et al.* 2017) there are statistical limits such as that the number of terms that can be included in such models (Feurer *et al.*, 2016). This could imply that theory development is in danger of being driven by the statistical method rather than the other way around (Woodside, 2013). fsQCA allows for the simultaneous inclusion of all possible relationships between conditions, which reduces the risk to omit relevant relationships. This is of particular relevance to this research that which relies on constructs and conditions, which might be interrelated in numerous ways (Harzing, 2001; Tan and Mahoney, 2006; Shin *et al.* 2017; Muellner *et al.* 2017).

Therefore, we contribute to current literature on the link between TMTD and subsidiary performance by combining the asset bundling model and the neo-configurational perspective. The former is applied in order to understand the complementary and substitutive nature of asset combinations as well as the non-zero transaction costs that are involved to access and combine those assets in the subsidiary. The latter is used to empirically test the asset bundling model by moving beyond traditional symmetric regression-based methods.

Accordingly, on the conceptual level we contribute to the literature by interpreting TMTD as a firm-specific asset that requires bundling with other assets (Hennart, 2009; Sekiguch *et al.*, 2011) in order to drive subsidiary performance. This stance is often only implicitly taken in adjacent studies. For instance, Williams *et al.* (2017) found that an increase in locally hired managers affects performance when aligned with a conducive local environment and overall firm strategy. This idea of asset bundling and their contingent impact on performance is also in line with the conceptual work by Colakoglu *et al.* (2009), who argued that TMTD, seen as a unique knowledge set, depends on the internal as well as external environment surrounding the subsidiary in order to gauge any potential positive performance impact. Furthermore, the asset bundling model also avoids the pitfall of relying too much on one side of the argument compared to other conceptual frameworks. For instance, institutional perspectives sometimes seem to over-emphasise external contingencies (Kostova and Roth, 2002), whereas agency theory or the resource-based view of the firm might do the opposite for internal ones (Hennart, 2009; Harzing *et al.*, 2016). Our approach therefore also differs from the traditional resource-based view interpretation of expatriate managers (e.g. Holtbrügge and Mohr, 2011; Dutta and Beamish, 2013) because we explicitly incorporate the assumption that TMTD is only a performance-enhancing asset in combination with other assets.

Additionally, we contribute on the methodological dimension as well. Previous studies often assumed a linear relationship between TMTD and subsidiary performance (Gong, 2006)

mainly combined with a number of moderators (e.g. Gaur *et al.* 2007; Williams *et al.*, 2017). As indicated above, Muellner *et al.* (2017) somewhat depart from that tradition in identifying a number of curvilinear associations in how MNEs decide to employ host country managers. We aim to contribute to those findings by enriching the asset bundling model with the neo-configurational perspective, which allows us to go beyond traditional symmetric models (Woodside, 2013; Misangyi *et al.*, 2017; Verbeke *et al.*, in press). In particular, instead of looking for the independent effects of variables on the outcome, we aim to identify different configurations of asset bundles that lead to the desired outcome by employing fsQCA. The usage of configurations instead of isolated associations between single variables is at the center of the asset bundling model, which suggests that there could be a number of different asset bundles that lead to superior performance outcomes (Hennart, 2009). In addition, equifinality has so far not been systematically investigated in previous studies in the field.

Lastly, our study also contributes to sampling coverage in the literature, which has hitherto often focused on Japanese MNEs due to data availability (e.g. Gong, 2006; Widmier *et al.*, 2008; Cooke *et al.*, 2018). However, in order to test our framework we draw on a sample of foreign-owned subsidiaries with headquarters in a greater number of home countries located in the two emerging economies of Taiwan and Thailand. The two countries are also of interest because emerging markets in general become increasingly relevant for an ever-growing number of MNEs from East and West (Tao *et al.*, 2017; Liu *et al.*, 2017; Bai *et al.*, 2018).

2. Conceptual framework development

2.1 *Subsidiary top management team national diversity and performance*

Top-level managers of subsidiaries have a considerable influence on the performance of the subsidiary as well as its development in a broader sense (Colakoglu *et al.*, 2009). Accordingly, the use of home country expatriates in foreign-owned subsidiaries has traditionally been suggested to increase the integration of the subsidiary in the multinational network (Harzing, 2001), global adoption of organisational practices (Gong, 2006), transfer of corporate culture (Gaur *et al.*, 2007) and control (Lazarova *et al.*, 2017) among others. However, the broad consensus of those and subsequent studies is that the issue is not so straightforward and very often depends on a number of factors (Colakoglu *et al.*, 2009).

For instance, subsidiaries are no longer seen as passive receivers of knowledge from headquarters (Holtbrügge and Mohr, 2011; Edwards *et al.*, 2015). This has led to gradual changes across industries to support subsidiaries in their endeavour to tap into host country knowledge as well as fostering the exchange of knowledge between subsidiaries. This also required a change in the composition of top management teams from one that is predominantly ethnocentric to a much more balanced and inclusive one for top management team staffing models (Berg and Holtbrügge, 2010; Hyun, *et al.*, 2015). However, our point is that the national diversity within the top management team[1] alone is not the answer *per se*, with any impact dependent on the combination of assets including host country, MNE, as well as subsidiary specific factors (Rugman and Verbeke, 2001; Vahlne and Johanson, 2017).

We believe that TMTD at the subsidiary level is a specific asset, which only has a positive impact on performance in combination with other assets that characterize the subsidiary, its host country environment, and the MNE. However, while the merits of the asset bundling model have been discussed (Hennart, 2012; Vahlne and Johanson, 2017), it has so far been rarely empirically tested beyond entry mode studies (e.g. Hennart *et al.*, 2015). This lack of systematic investigation of asset bundles could be due to a lack of appropriate methodological framing to find conclusive answers. This is reinforced by an overreliance on symmetric models in the field (Fiss, 2011; Woodside, 2013). We therefore suggest that the neo-configurational perspective can meaningfully complement the asset bundling model as discussed next.

2.2 Top management team national diversity and configurational considerations

The neo-configurational perspective is a recent addition to the theoretical frameworks used in the broader management literature (Ragin, 2008; Fiss, 2011; Su *et al.*, 2017). Its applicability is underpinned by new realities prevalent in subsidiaries of modern MNEs. For example, subsidiary top management teams are increasingly asked to develop their entities from humble knowledge receivers to knowledge senders within the MNE network (Doz *et al.*, 2001; Hutzschenreuter and Matt, 2017). This requires a rethink at the headquarters as well as subsidiary level of what constitutes firm-, subsidiary- and location-specific advantages (Rugman and Verbeke, 2001). For instance, a nationally diverse top management team might contribute to subsidiary performance only if the subsidiary also has strong network links to other parts of the MNE as well as being located in a culturally distant host country. This could be because the nationally diverse management team might only be able to utilise its communication and knowledge screening advantage conducive to subsidiary performance in combination with having relevant receivers inside the MNE network and only if the knowledge requires overcoming cultural barriers. On the other hand, a nationally diverse top management team might not be considered an asset if it lacks those internal network linkages or being located in a culturally close host country in which national diversity might be rather seen as hampering internal communications.

We believe that the neo-configurational perspective, which consists of the following three main features, allows incorporating such new realities in a coherent manner. Each feature will help us in expanding the asset bundling model in the context of TMTD and subsidiary performance. The first feature is conjunction. Conjunction refers to the existence of asset bundles, rather than individual assets, with which TMTD affects subsidiary performance. Equifinality is the second feature. It allows for the possibility of having a number of different asset bundle configurations that can lead to the same outcome. In our case, there can be a number of configurational combinations of conditions[2] in which TMTD affects performance. The third and final feature is causal asymmetry. This implies that the configurations in which TMTD is part of high-performance subsidiaries might be different from those that cause the absence of high performance. Beyond those features, the thinking framework of the neo-configurational perspective also provides a different methodological understanding.

Misangyi *et al.* (2017) highlight that the neo-configurational perspective also distinguishes itself from the more commonly applied symmetric correlation based approaches in the following four ways. First, foreign-owned subsidiaries are seen as cases of set-theoretic configurations. As a result, subsidiary characteristics are configured as belonging to certain theoretical sets. For instance, some subsidiaries might be strongly integrated into inter-organisational networks; others more in intra-organisational networks, and a third set might have strong relationships with both. Hence, set-theoretical configurations allow for equifinality in a sense that TMTD might be part of high-performance subsidiaries in a number of different configurations. Second, subsidiaries will be calibrated and assigned set membership based on certain theoretical considerations or the particularities of the subsidiaries in the sample. Third, there can exist necessary and sufficient relations between sets, which implies that some conditions might be crucial (i.e. necessary) while others can be sufficient (i.e. contributing only in some configurations). Finally, the neo-configurational perspective provides a counterfactual analysis of unobserved configurations, which means that the analysis allows for the consideration of all plausible configurations, even those that are not actually observed in the data set itself. This provides a more inclusive view on the problem rather than only focussing on particular external institutional factors for instance (e.g. Gaur *et al.*, 2007; Muellner *et al.*, 2017). Along those conceptual arguments, we will now review the existing literature and develop our research questions. The selection of themes followed the mainstream subsidiary development literature, which identified network

strength, competences and macro-locational factors such as home region and cultural differences, as key structural factors (e.g. Bai *et al.*, 2018).

Networks. In order to access local knowledge and exploit this knowledge across the MNE, subsidiaries need to develop network relationships with actors inside and outside the MNE network (Bartlett and Ghoshal, 2002). However, access to such local networks is not free for the multinational (Hennart, 2009; Vahlne and Johanson, 2017). Hence, greater TMTD has been argued to positively influence the development of local linkages since a more diverse management team is often seen as a means of gaining easier access to local networks due to their broader international experience for instance (Colakoglu *et al.*, 2009; Edwards *et al.*, 2015). On the other hand, greater TMTD might also increase communication costs inside the multinational (Holtbrügge and Mohr, 2011) and can in the worst-case even lead to the isolation of the subsidiary within the MNE network (ul Haq *et al.*, 2017). This could be amplified by strong inter-organisational network relationship development that can pull the subsidiary strategically away from the goals of the headquarters (Schotter and Beamish, 2011). On the other hand, the exposure to new knowledge might be of use in adjacent subsidiaries located in similar markets, rather than the headquarters (Doz *et al.*, 2001; Hutzschenreuter and Matt, 2017). Greater TMTD could facilitate this knowledge transfer and therefore increase the standing of the subsidiary in the MNE network eventually leading to performance-enhancing reinvestments by the headquarters or mandate expansions (Tippmann *et al.*, 2018). Hence, the effect of TMTD in combination with network conditions is clear-cut.

Competencies. Expatriates are considered a key factor in transferring knowledge and other intangibles within the MNE (Gong, 2006; Harzing *et al.*, 2016). Subsidiaries with a strong competence base can take on an exalted position within the MNE network (Birkinshaw *et al.*, 1998; Holtbrügge and Mohr, 2011). Furthermore, subsidiaries with higher competence levels might benefit from TMTD in that a deeper knowledge pool might allow for knowledge dissipation into the far reaches of the MNE network (Colakoglu *et al.*, 2009). For instance, a nationally diverse top management team might be more likely to identify opportunities for knowledge application within the MNE, which in turn might increase overall performance. However, others argued that such key subsidiaries are likely to be more tightly controlled by the headquarters (Holm *et al.*, 2000), which might indicate that higher performance might be achieved through reduced TMTD. On the other hand, knowledge dissipated from nationally diverse management teams might be also looked upon with suspicion from other parts of the network due to the potential lack of internal legitimacy (Edwards *et al.*, 2015). Hyun *et al.* (2015) even suggest balanced approach to TMTD as a rule of thumb based on tasks and competencies in Korean subsidiaries. Hence, the impact TMTD and competencies on subsidiary performance is far from settled.

Culture and region. Being located in a culturally different host country can be a decisive asset for the subsidiary since it might have exclusive access to novel ideas, which are not easily accessible for other parts of the MNE network (Doz *et al.*, 2001; Shin *et al.*, 2017; Liu *et al.*, 2017). Gaur *et al.* (2007) showed that greater cultural and institutional differences between home and host country might increase the headquarters desire for control over the subsidiary. This might indicate a preference for a less diverse top management team. Colakoglu and Caligiuri (2008) found that less TMTD could positively influence performance in such a setting, while Shin *et al.* (2017) identified curvilinear effects. However, all three studies were based on a sample of Japanese MNEs. In addition to this, knowledge that is embedded in the local environment of the subsidiary might be a double-edged sword for the MNE. On the one hand, it is most likely not easily transferable across the whole of the MNE network (Kostova and Roth, 2002), while on the other hand, it might be only accessible through a diverse top management team that is more familiar with the local cultural setting that is asymmetric to

the one in the home country (Williams *et al.*, 2017). This leaves the question open as to what extent TMTD can contribute to performance in combination with other conditions in culturally different settings.

Furthermore, since Rugman and Verbeke's insights on the regional nature of most MNEs (Rugman and Verbeke, 2004), it has also been indicated that business environmental differences matter not only between countries, but also between regions. Van Veen *et al.* (2014), for instance, indicated at the firm level that companies prefer international board members from their home regions. In line with that, Muellner *et al.* (2017) suggest that the positive performance impact of a nationally diverse subsidiary management team diminishes in light of larger cultural and other specific differences between the home and host region. At the same time, others suggested that the knowledge seeking desire and return expectations might outweigh such considerations (Doz *et al.*, 2001; Hutzschenreuter and Matt, 2017).

From the reviewed evidence, we derive the first research question:

RQ1. What are the characteristics of TMTD causal asset bundles that cause high subsidiary performance outcomes?

However, it is important to recognise that understanding the presence of certain asset bundles might be only half of the story. Otherwise, there is a danger of creating a bias in that many studies focus on the most successful subsidiaries only and consequently on their characteristics. In neo-configurational thinking, however, it is also important to understand the other side of the argument. For example, some studies indicated that in the presence of exalted competencies in the subsidiary, a more diverse top management team might be conducive to subsidiary performance (Colakoglu *et al.*, 2009). However, that does not automatically imply that the absence of exalted competencies also leads to the absence of high performance. In other words, we expect there to be causal asymmetry in the configurational combinations. That means the absence of certain conditions does not necessary lead to the absence of the outcome (Misangyi *et al.*, 2017). This leads to our second research question:

RQ2. Is the absence of certain TMTD asset bundles also causing low subsidiary performance?

3. Research design

In order to answer our research questions, we surveyed managing directors of foreign-owned subsidiaries located in Thailand and Taiwan. There are two main reasons why we deemed Thailand and Taiwan as suitable host countries for our study. First, both countries are important trading hubs in the region and have a comparatively long foreign direct investment history. Second, the Greater South East Asian region appears seldom discussed in the extant literature, in which the focus is still very much on advanced economies like Japan (e.g. Gong, 2006; Widmier *et al.*, 2008; Shin *et al.*, 2017).

We constructed the sample universe based on a Dun and Bradstreet database in Taiwan and the Department of Business Development database published by the Ministry of Commerce in Thailand. In each country, we focussed on subsidiaries with more than 50 per cent foreign ownership. The survey instrument has been pilot tested using a panel of academics and professionals. We also applied forward and backward translation techniques in order to deal with language differences (Chidlow *et al.*, 2015). The survey design largely followed the guidelines of the World Enterprise Survey conducted by the World Bank in a number of emerging and advanced economies (World Bank, 2011). Accordingly, in each university, a team of research assistants had been trained to collect the data. The survey

was personalised and addressed directly to the managing director of each subsidiary to increase the response rate. The establishment of direct contact is seen as important to increase response rates in cross-national surveys, to develop trust between researcher and respondents, as well as to provide explanations of the research process if necessary (Harzing, 2000; Harzing *et al.*, 2013). Eventually, the questionnaire was sent out via e-mail and postal survey, or the data were collected directly in a separate phone call. After several contact attempts, we obtained 101 responses from Taiwan and 102 from Thailand. The response rates were 13.1 per cent in Taiwan and 7 per cent in Thailand. The companies are headquartered in 17 different home countries[3]. Further sample characteristics are provided in Table I and details of the manager nationalities in the Appendix.

3.1 Measurements

We relied on well-established survey constructs in order to increase the comparability and rigour of our study (Chidlow *et al.*, 2015; Dahms, 2019). Where necessary, the Likert scales have been changed from 1 to 5 into 1 to 7 to take into consideration any cultural perception differences that may exist among the respondents (Harzing *et al.*, 2009; Kingkaew and Dahms, 2019).

The dependent variable was subsidiary performance. We measured performance subjectively for several reasons. First, accounting data are relatively difficult to obtain from respondents and might not be insightful from subsidiaries due to transfer pricing policies. Furthermore, some managers might be reluctant to share this kind of information, which might reduce response rates. Second, subjective and objective performance data have been shown to show similar results (Singh *et al.*, 2016). Last, performance has also been measured subjectively in relevant adjacent studies (e.g. Williams *et al.*, 2017) and can therefore be seen as a well-accepted way to gain a holistic understanding of subsidiary performance.

With TMTD, we want to understand how the variety of top managers national background influences subsidiary development. For the TMTD measure, we followed Harzing and Noorderhaven (2006) and Harzing *et al.* (2016) and asked respondents to indicate the use of expatriates in each value added function of the subsidiary. The managers could be from the host country, home country, or third country and we distinguished between five different functions including managing director, head of R&D, head of production, head of marketing, head of human resources and head of finance. We then followed Nielsen and Nielsen (2013) and converted those scores in a standardized Blau (1977) diversity index. The index measure is appropriate since the categories are qualitative in nature, which would make other measures such as Euclidean distance unsuitable (Harrison and Klein, 2007). Additionally, we assume “within units, members differ from one another qualitatively” (Harrison and Klein, 2007, p. 4). In our case, the nationality

Table I.
Sample characteristics

Size (number of employees)			Years in foreign ownership		
Employees	Freq.	%	Years in FO	Freq.	%
< 20	59	29	< 9years	50	25
21–70	62	31	10–19 years	91	45
> 71	82	40	> 20 years	62	30
Total	203	100	Total	203	100
Entry mode			Industry		
	Freq.	%		Freq.	%
Greenfield	136	67	Manufacturing	131	65
Acquisition	25	12	Service	72	35
Joint venture	42	21	Total	203	100
Total	203	100			

backgrounds of subsidiary top managers. It has been suggested in the general group variety literature (Williams and O'Reilly, 1998; Homberg and Bui, 2013), that this kind of variety is to produce two kinds of effects. On the one hand, the information-decision-making perspective highlights the advantages of having a heterogeneous management team with greater information processing capability or an increased legitimacy in the host country. On the other hand, the similarity-attraction perspective emphasises the shortcomings of team heterogeneity concerning decision consensus finding ability, difficulties in communication or conflict potential (Williams and O'Reilly, 1998; Homberg and Bui, 2013). Accordingly, scholars struggle with developing consensus on the effects of TMTD on subsidiary development conceptually (e.g. Gong, 2006; Colakoglu *et al.*, 2009) as well as empirically (e.g. Sekiguchi *et al.*, 2011; Hyun *et al.*, 2015). The Blau index allows us to capture this variety and in combination with our neo-configurational research methodology, to test the variety effect without having to predetermine directionality. The Blau index is interpreted as follows, the closer the value is to "0" the more nationally homogenous is the top management team, the closer the value is to "1" the greater the diversity. For example, a subsidiary from a Spanish MNE located in Thailand, with a total of five functional management positions (in that instance, no head of R&D), consisting of a managing director and a head of production from Spain, and as head of marketing, head of human resources and head of finance all from China would have a normalised Blau score of 0.72.

The measurement of intra- and inter-organisational network relationships consist of a ten-item construct, adapted from Gammelgaard *et al.* (2012), which included vertical relationship strength with suppliers within the MNE, as well as horizontal ones such as with local competitors. The competencies construct has been adapted from Birkinshaw *et al.* (1998) and Dahms (2015). The following question has been asked: "Please indicate the capability or distinctive expertise of your site in the following areas relative to other units in the corporation e.g. headquarters and/or other subsidiaries (1 = far below average, 7 = far above average)". The categories included were: sales/marketing, production of goods or services, logistics/distribution, purchasing, research and development, human resource management, other administrative functions (e.g. Legal, Financial, etc.). Whereas the first three are the traditional activities carried out in foreign-owned subsidiaries, the later ones have been more recently identified as a general upgrade across MNEs in their subsidiaries abroad (Moore, 2001). The activities are seen as well known by subsidiary managers, which is important for the reliability of the data (Fratocchi and Holm, 1998). Details of the constructs are provided in Table II.

We also employed variables from secondary data sources. For instance, the home region variable was derived from the company homepages and the cultural distance measure is based on the World Value Survey (e.g. Inglehart *et al.*, 2004) for each country and calculated by using the Kogut and Singh (1988) formula.

We also controlled for a number of confounding factors in our structural equation model such as size and age of the subsidiary, its industry and establishment mode.

In order to minimise common method bias threats, we included secondary data (e.g. home region and cultural distance) as well as objective measures (e.g. number of employees, years in foreign ownership, industry) (Chang *et al.*, 2010). Further to that, the constructs have not been placed on the questionnaire in a specific order. For instance, the performance construct has been placed in the middle of the questionnaire in order to reduce issues with social desirability bias (Christmann and Taylor, 2001; Mudambi *et al.*, 2014). We also conducted post-hoc statistical tests such as Harman's one-factor test, which showed the highest loading factor only at 19.9 per cent, which indicates little evidence of common method bias in our data set (Podsakoff and Organ, 1986). Additionally, in line with the recommendations by Hair *et al.* (2012), we also assessed common method bias through the variance inflation factors (VIF). In particular, following Kock (2015) we used a full collinearity assessment approach.

Table II.
Measurement

	Convergent validity	Composite reliability	Cronbach's α	AVE
<i>Subsidiary performance</i>				
Relative to your competitors in your industry, how would you rate your subsidiary's performance on each of the following over the last 5 years?				
Our profitability has been much better than our competitors	0.914	0.943	0.909	0.847
Our sales growth has been higher than our competitors	0.949			
Our market share has been much higher than our competitors	0.897			
<i>Subsidiary competencies</i>				
Please indicate the capability or distinctive expertise of your site in the following areas relative to other units in the corporation e.g. headquarters and/or other subsidiaries (1 = far below average, 7 = far above average)				
Sales/marketing	0.739	0.912	0.887	0.597
Production of goods or services	0.752			
Logistics/distribution	0.809			
Purchasing	0.693			
Research and development	0.810			
Human resource management	0.816			
Other administrative functions (e.g. Legal, Financial, etc.)	0.779			
<i>Inter-organisational network strength</i>				
Indicate the strength of relationships you have with each of the following actors (please note: Local stands for businesses and other organisations in Thailand/Taiwan)				
Local customers	0.742	0.865	0.803	0.564
Local suppliers	0.793			
Local competitors	0.739			
Governmental Institutions in Thailand	0.713			
Science Centres, Universities in Thailand	0.656			
Intra-organisational network strength				
Buyers within your corporation	0.784	0.850	0.780	0.533
Suppliers within your corporation	0.836			
R&D and innovation centres	0.597			
Headquarters	0.755			
Other units within the corporation	0.762			

The average block VIF was 1.233, and the average full collinearity VIF was 1.331. Both well below the conservative threshold of 3.3, and well below the more common threshold of 5. Hence, common method bias is not seen as a severe threat to the interpretation of our results.

4. Analysis

Our analysis will proceed in two main steps. The first contains the descriptive statistics, a confirmatory factor analysis, and the structural equation model-partial least squares (SEM-PLS). The second step contains the fsQCA. This two-step method has been adapted from Jackson and Ni (2013). From the first step we will obtain the z-scores which we will later use to calibrate our fsQCA in step two. The method is particularly relevant when, as in our case, constructs are used which lack conclusive theoretical reasons that could inform our calibration cut-off points (e.g. Ragin, 2008).

4.1 Descriptive statistics, confirmatory factor analysis and SEM-PLS

In order to ensure construct reliability and validity, we conducted a confirmatory factor analysis. Overall, the indicators for the measurement model were satisfactory. All but one-factor loadings exceeded the benchmark of 0.6. The convergent factor validity reached from 0.597 to 0.949. Hence, the only exception was in the intra-organisational network

strength construct the R&D and innovation centres measure. However, the composite reliability and Cronbach's α values were above 0.7, while the average variance extracted (AVE) was above 0.5 as shown in Table II (Hair *et al.*, 2012). Therefore, the measure has been kept in the subsequent analysis.

We tested for discriminant validity by ensuring that the square root of the AVE is higher than the correlation between the constructs (Fornell and Larcker, 1981). This is the case for all constructs as shown in Table III. We can also report that the block VIF were below the 2.5 benchmark and hence multicollinearity is not deemed a threat. Hence, we proceeded with the structural model.

We chose a stable path coefficient estimation method for the structural model (Kock, 2014). The result of the path coefficients and their statistical significance are presented in Table IV. We use the ensuing z -scores to calibrate the fsQCA conditions. In order to avoid the common issues with high-level interactions in symmetric analysis techniques (cf. Feurer *et al.*, 2016); we only provide the direct associations as results for the SEM-PLS analysis.

4.2 Fuzzy set qualitative comparative analysis

fsQCA is currently experiencing a revival in the broader management and social sciences literature mainly because of new advancements in software development (Ragin, 2008; Jackson and Ni, 2013; Su *et al.*, 2017) and a more coherent theoretical grounding in the neo-configurational perspective (Misangyi *et al.*, 2017; Verbeke *et al.*, in press). It distinguishes itself from traditional symmetric methods not only from a methodological perspective (by using Boolean algebra for instance) but also through its terminology.

For instance, configurations can be seen as outcome variables, and conditions somewhat resemble explanatory variables found in typical regression analysis. One key advantage of fsQCA is that it allows conditions to be part of several configurations, i.e. outcomes. This is especially relevant in the field of management where outcomes, such as high subsidiary performance, can have multiple causes (Fiss, 2011; Dahms, 2017, 2018). However, in order to test such configurations, the variables need to be calibrated into a relevant set of conditions.

Following Jackson and Ni (2013), during the first step of our analysis we obtained z -scores through the SEM-PLS analysis. In the second step, we convert those into conditions suitable for fsQCA. We chose a z -score of 1 as being fully in, -1 of being fully out and 0 as 0.5 cut-off point. For example, in terms of performance, the view taken here is that if a subsidiary shows the expected performance i.e. a z -score of 0, it is considered as neither in nor out of a set. This is because our goal is to identify high-performance subsidiaries relative to their TMTD, network relationship strength, competencies, cultural and regional conditions.

Once we calibrated all the conditions, i.e. transformed the variables into conditions, we can start our analysis. First, we test for necessary conditions. Those are conditions, which by themselves can cause the desired outcome, in our case, high subsidiary performance. The results are provided in Table V. None of the conditions reach a consistency value of > 0.9 , which indicates that none of the conditions is by itself necessary to explain high subsidiary performance.

From the necessary condition analysis, we shift our focus to the sufficient conditions. fsQCA provides truth tables according to which causal combinations are evaluated along their consistency level. In our particular sample, due to the relatively large number of cases, we chose a consistency level of around 0.80 and a frequency threshold of 4 as cut-off points (Ragin, 2008; Fiss, 2011).

Once we have eliminated configurations that fell below our given thresholds, we then assess the intermediate solutions that emerge from the Boolean algorithm (Ragin, 2008). For our models, the solution coverage and consistency values are well within the range of usual thresholds as shown in Table VI. The solutions with the highest raw coverage are

Table III.
Correlation matrix

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. Performance	4.7	1.4	0.920										
2. TMFD	0.4	0.3	0.096	<i>I</i>									
3. Intra-organisational	5.1	1.2	0.347**	-0.058	0.751								
4. Inter-organisational	4.4	1.2	0.411**	-0.025	0.652**	0.730							
5. Competencies	4.6	1.2	0.344**	0.031	0.340**	0.424**	0.772						
6. Host Region	0.4	0.5	0.057	-0.106	-0.086	-0.135	-0.144*	<i>I</i>					
7. Cultural Distance	3.5	2.1	-0.057	0.270**	-0.065	-0.031	-0.184**	-0.054	<i>I</i>				
8. Age	17.8	12.7	0.092	-0.147*	0.087	0.067	0.217**	0.105	-0.191**	<i>I</i>			
9. Size	207.7	652.6	-0.035	0.184**	-0.044	0.006	-0.009	-0.058	0.106	0.05	<i>I</i>		
10. Entry Mode	0.3	0.5	0.086	0.028	0.134	0.171*	0.049	0.099	0.002	-0.049	0.114	<i>I</i>	
11. Industry	0	0.5	-0.11	-0.281**	-0.091	-0.023	-0.004	0.227**	-0.211**	0.124	-0.162*	0.027	<i>I</i>

Note: **Significant at the 0.01 level (two-tailed)

			Performance	Top management team national diversity
	Path coefficients	<i>p</i> -value		
TMTD	0.11	0.06	1519	
Intra-organisational	0.14	0.02		
Inter-organisational	0.26	< 0.001		
Competencies	0.22	< 0.001		
Host region	0.12	0.05		
Cultural distance	−0.04	0.27		
Age	0.04	0.31		
Size	−0.13	0.03		
Entry mode	0.01	0.46		
Industry	0.11	0.06		

Table IV.
SEM-PLS results

Table IV.
SEM-PLS results

Conditions	Performance		
	Consistency		Coverage
TMTD	0.596		0.552
~TMTD	0.540		0.603
Intra-organisational	0.712		0.683
~Intra-organisational	0.475		0.510
Inter-organisational	0.743		0.697
~Inter-organisational	0.438		0.483
Competencies	0.692		0.687
~Competencies	0.492		0.508
Cultural distance	0.561		0.539
~Cultural distance	0.559		0.599
Host region	0.494		0.585
~Host region	0.602		0.533

Table V.
Necessary conditions

Table V.
Necessary conditions

Condition	Solution											
	High performance				Low performance							
	1	2	3	4	5	6	7	8	9	10	11	12
TMTD		⊗	●	●	●		●	●	⊗	●	●	●
Intra-organisational	●		●	●	⊗	⊗			⊗	⊗	⊗	⊗
Inter-organisational	●	●	●		⊗	⊗	●	⊗	⊗		⊗	⊗
Competencies		●		●	⊗		⊗	●		⊗		⊗
Cultural distance	●	⊗	⊗	●		●	●	●	⊗	●	●	●
Host region	●	⊗	⊗	●	●	●	⊗	⊗	⊗	⊗	⊗	
Raw coverage	0.23	0.16	0.14	0.13	0.18	0.21	0.17	0.16	0.11	0.21	0.22	0.24
Unique coverage	0.11	0.08	0.06	0.01	0.03	0.07	0.03	0.02	0.05	0.01	0.00	0.00
Consistency	0.85	0.76	0.86	0.85	0.82	0.91	0.81	0.88	0.88	0.84	0.88	0.88
Solution consistency		0.791						0.822				
Solution coverage		0.430						0.535				
Frequency cutoff		4						4				
Consistency cutoff		0.793						0.811				

Notes: ● means the condition is present, ⊗ means the condition is absent and “blank space” means do not care

Table VI.
fsQCA results

commonly interpreted as the most relevant. Coverage in fsQCA can be seen as equivalent to the “R” value in traditional regression models. Adopting the conventions by Fiss (2011), ● means the condition is present, ⊗ means the condition is absent and “blank space” means do not care.

Concerning the overall results, the fsQCA indicates that TMTD can play a crucial role for high-performance subsidiaries in combination with a range of other assets. TMTD in its presence or absence matters in predicting subsidiary performance in three out of the four configurations. This also extends the results from the SEM-PLS analysis in which TMTD only played a somewhat marginal role given a statistical significance of the path coefficient of 6 per cent and no indication on how and in which circumstances TMTD matters for high performing subsidiaries.

The two strongest configurations for high-performance subsidiaries are Solutions 1 and 2. They show the highest raw coverage scores. Solution 1 suggests that subsidiaries with strong inter- and intra-organisational network relationships and being located in countries at a larger cultural distance and outside the home region; perform high in the presence and absence of TMTD. Solution 2 suggests that a nationally homogenous top management team is a determinant for high subsidiary performance in conjunction with strong inter-organisational relationships, high levels of competencies and being located in the home region in a culturally similar host country. Solutions 3 and 4, while showing a lower raw coverage, both contain high TMTD as a key contributing condition to high subsidiary performance. Interestingly, both solutions also indicate strong intra-organisational network relationships. Configuration 3 shows a constellation of conditions for subsidiaries located in the home region in culturally close host countries with strong inter-organisational network relationships. This suggests that the tapping into local knowledge sources might be facilitated by a nationally diverse top management team only when it is located within the vicinity of the headquarters. Solution 4 suggests that TMTD contributes to performance when located outside the host region, in a culturally dissimilar environment in conjunction with high subsidiary competence levels. This might suggest a corporate focus on competence exploitation and intra-organisational network dissipation of knowledge.

We also aimed to identify the impact TMTD has on low performing subsidiaries. The two solutions with the highest raw score both contain high TMTD (Solutions 11 and 12). While the absence of strong intra- and inter-organisational network relationships is eye catching, it seems also noteworthy to point out that both solutions include the presence of large cultural differences between home and host country. That means that TMTD does not *per se* reduce the liability of foreignness and is not a universal fix. Instead, it might even lead to low performance as suggested in our results. This will be further elaborated on in the discussion section.

4.3 Robustness tests: Thailand and Taiwan

In order to gain a deeper understanding of the role played by TMTD in high performing subsidiaries we split the sample by looking at subsidiaries located in Thailand and Taiwan separately. Solutions 1 and 2 show the configurations that lead to high performance of subsidiaries located in Thailand. We find a similar picture as in the whole sample, TMTD seems not to be a universal cure to overcome cultural and regional differences, and a homogenous team might be a more promising way to overcome stark cultural differences within the home regions as suggested in Solution 2. This could possibly suggest support for the control desire argument (Gaur *et al.*, 2007). In Solutions 3–5 for the Taiwanese subsample, a nationally homogenous top management team is a prerequisite for high performance in all three configurations. The result will be discussed in the light of our initial research questions and findings of previous studies in the next section (Table VII).

Condition	Solution					Top management team national diversity
	Thailand high performance 1	2	3	Taiwan high performance 4	5	
TMTD	●	⊗	⊗	⊗	⊗	1521
Intra-organisational	●	●	●	●		
Inter-organisational	●	●	●		●	
Competencies	●	●		●	●	
Cultural distance	⊗	●	⊗	⊗	⊗	
Host region	⊗	⊗	⊗	⊗	⊗	
Raw coverage	0.10	0.18	0.30	0.13	0.17	
Unique coverage	0.05	0.12	0.27	0.08	0.12	
Consistency	0.84	0.89	0.83	0.85	0.90	
Solution consistency		0.852		0.838		
Solution coverage		0.224		0.522		Table VII. Split-sample robustness tests
Frequency cutoff		3		3		
Consistency cutoff		0.842		0.800		

5. Discussion and conclusions

This research set out to shed some new light on the matter of asset bundles in the context of TMTD and subsidiary performance. We developed a conceptual framework based on the asset bundling model and the neo-configurational perspective. We tried to answer two research questions by utilising empirical data collected from a sample of foreign-owned subsidiaries located in Taiwan and Thailand.

Our first research question asked: what are the characteristics of TMTD asset bundles that determine high subsidiary performance? The results imply that for subsidiaries located outside the home region and in countries at a larger cultural distance, the presence of TMTD only matters for subsidiaries with strong intra-organisational network relationships and high competence levels. This indicates that TMTD might be used as a driver for knowledge dissipation within the MNE network (Gaur *et al.*, 2007). For subsidiaries with high inter- and intra-organisational network relationships in such locations, TMTD does not matter. This could suggest that the network forces in this configuration outweigh TMTD impact. This is also in line with adjacent network literature, which suggests that such positioned subsidiaries might have certain mandates that dominate their strategic development (Mudambi *et al.*, 2014; Kostova *et al.*, 2016).

In the second configurations set, the asset bundles for subsidiaries located culturally close and in the home region, we found that the presence of high TMTD only contributes to high performance for cases of subsidiaries with strong intra- and inter-organisational relationships. While that makes sense from an information dissipation point of view, it is somewhat surprising to find that to be the case only for subsidiaries that are not actually exposed to tremendous communication costs and liability of foreignness due to their location. This is somewhat contrary to previous studies such as Widmier *et al.* (2008) who found that in culturally close countries, Japanese MNEs prefer a more homogenous parent country staffed management team. In our case, however, it might be that headquarters feel more comfortable in managing a nationally diverse top management team in subsidiaries that are located closer to home. This is somewhat in line with Shin *et al.* (2017) who suggested the use of a heterogeneous management team could be u-shaped, depending on cultural differentials between home and host countries. Conversely, our findings indicate that a homogenous solution to top management nationality seems to be preferable in the case of strong inter-organisational network relationships and high competence levels. This suggests that in such cases knowledge protection might dominate management staffing decision-making (Harzing, 2001; Williams *et al.*, 2017). Furthermore, in cases where intra- and

inter-organisational network relationships are strong, the presence of a heterogeneous top management team is conducive to performance. This might imply a corporate focus that is more tailored towards knowledge dissemination and activities that focus on the downward end of the value chain in the multinational network (Doz *et al.*, 2001; Harzing *et al.*, 2016; Hutzschenreuter and Matt, 2017).

The second research question asked if the absence of certain TMTD asset bundles also causes low subsidiary performance. Overall, we found that there exists a greater variety of configurations causing low performance than high performance. One aspect that is eye catching is that the strongest configurations (i.e. the ones with the highest raw coverage score) indicate that TMTD in culturally distant countries does cause low performance. This is somewhat counterintuitive, but it is good evidence for indicating the complexity that underpins the issue. This finding therefore expands on studies such as Hyun *et al.* (2015) who suggested for their Korean sample that a balanced approach might be best for TMTD. Our findings add to that in showing that many subsidiaries might rather struggle with that task and if in doubt tend to opt for higher diversity, which might not lead to the desired outcome.

Our results contribute to theory development as follows. First, we expand current theoretical debates in suggesting that instead of focussing on a particular asset only such as corporate strategy and expatriates (Williams *et al.*, 2017) or cultural distance and expatriates (Shin *et al.*, 2017), it is more likely that the existence of asset bundles helps to explain the impact of TMTD on subsidiary performance and its strategic development in general. We are one of the first studies to test this assertion outside of the entry mode literature (Hennart *et al.*, 2015). We also contribute by suggesting a conceptual extension of Hennart's asset bundling model with the inclusion of the neo-configurational perspective. This allows for the testing of associations between variables that go beyond symmetric relationships (Gong, 2006; Shin *et al.*, 2017) and allows for the inclusion of the equifinality concept, which is crucial for understanding firm performance (Fiss, 2011; Misangyi *et al.*, 2017). We therefore believe that our framework is a consequential and theoretically consistent expansion of the contingency perspective suggested by Colakoglu *et al.* (2009).

5.1 Managerial implications

From a managerial perspective, our framework and method uncovers new nuances to cost-benefit analysis in the context of top management staffing decisions in foreign-owned subsidiaries. Our results show that national TMTD does not unconditionally lead to high performance and can even have the opposite effect in culturally distant locations. We argued that TMTD is an asset, which only achieves its full potential when used in combination with other assets and does not provide a blanket solution *per se*. For instance, while institutionalists might argue for greater TMTD in culturally distant host countries (Gong, 2006; Gaur *et al.*, 2007), our results suggest that this only contributes to performance in conjunction with competence and certain network assets. That implies for managers at the headquarters to take a multilevel approach in decision-making. For instance, it might seem tempting at first from a headquarters perspective to establish a more nationally heterogeneous top management team in a subsidiary located in a country with an unfamiliar cultural environment. However, the key to high-performance outcomes seems to lie in not only to consider the macro institutional differences, the network position and competence level of the subsidiary within the MNE, but also in the context of its local network relationship strength. While this appears a challenging task to do, headquarters will have to engage at one point with the local context of the subsidiary when staffing decisions are meant to have a positive performance impact. That is also to be seen in the light of the higher recruitment costs of host country managers, especially in the early stages of the subsidiary establishment. Human resource manager's struggle with the candidate selection

process in institutionally distant locations, hence, increased search and screening costs add to the hurdles human resource manager's and MNEs in general face in this context (Ghemawat and Vantrappen, 2015). In addition to that, another aspect to be considered by human resource managers is that a nationally diverse subsidiary top management team might face internal barriers to communicate their needs to a potentially homogenous top management team at the headquarters (Mellahi and Collings, 2010). In combination with our results, we suggest that human resource management is required to conduct a holistic and multilevel assessment before decisions on national TMTD are being taken.

5.2 Limitations and future research

Our study also has limitations and offers avenues for future research. For instance, we used as locations two emerging host economies. This was justified given that we intended to overcome some of the one home country only studies such as Gong (2006) or Hyun *et al.* (2015). However, our study provided only limited insights into headquarter issues as suggested in Greve *et al.* (2015). Future multilevel studies may therefore allow for a more detailed portrayal of the matter (Chung and Dahms, 2016, 2018; Shen *et al.*, 2018). Further to that, cultural aspects are not static and might change over time (Inglehart *et al.*, 2004). As such, it would be of value to investigate how cultural changes affect the impact of TMTD over a prolonged period of time (Fan and Harzing, 2017).

Notes

1. While diversity in gender, age, race, religion and other dimensions exist as well, we follow the arguments by Gong (2006), Hambrick *et al.* (1998) and Salk and Shenkar (2001), who argue that in multinational teams, the nationality is a trait of exalted importance.
2. Conditions can be seen as the equivalent to variables in symmetric methods.
3. Australia, Canada, China, Finland, France, Germany, Hong Kong, Japan, Malaysia, the Netherlands, Singapore, South Korea, Spain, Switzerland, Taiwan, UK, USA.

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Appendix

Top
management
team national
diversity

1529

Table AI.
Manager nationality

<i>Managing director</i>			<i>Head of marketing</i>		
	Frequency	Per cent		Frequency	Per cent
Home country	74	36.5	Home country	116	57.1
Host country	109	53.7	Host country	48	23.6
Third country	20	9.9	Third country	15	7.4
Total	203	100.0	Total	179	88.2
			No such position	24	11.8
			Total	203	100.0
<i>Head of R&D</i>			<i>Head of HR</i>		
	Frequency	Per cent		Frequency	Per cent
Home country	62	30.5	Home country	157	77.3
Host country	37	18.2	Host country	20	9.9
Third country	10	4.9	Third country	7	3.4
Total	109	53.7	Total	184	90.6
No such position	94	46.3	No such position	19	9.4
Total	203	100.0	Total	203	100.0
<i>Head of production</i>			<i>Head of finance</i>		
	Frequency	Per cent		Frequency	Per cent
Home country	112	55.2	Home country	160	78.8
Host country	38	18.7	Host country	24	11.8
Third country	12	5.9	Third country	8	3.9
Total	162	79.8	Total	192	94.6
No such position	41	20.2	No such position	11	5.4
Total	203	100.0	Total	203	100.0

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