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Control of subsidiary HRM Policies by Multi-national Corporate Headquarters: The Role of Institutional Differences and Labor Unions[☆]

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ABSTRACT

There is a lack of clarity about the institutional sources of variation in the control of multi-national enterprise (MNE) subsidiaries by corporate headquarters (CHQ). Applying comparative institutional theory, we focus on the control of HRM policies by CHQ. First, we argue that when there are substantial home-host institutional differences in national employment protection regulation the dissimilarity in CHQ-subsidary mindsets increases the likelihood of CHQ control. Second, we argue that union influence within the subsidiary amplifies that effect. We analyze a sample of 708 MNE subsidiaries in 32 countries with CHQs distributed across 39 countries. Unlike some prior work on subsidiary autonomy, we account for the multi-level nature of country and firm-level data. The evidence for the first of our arguments is mixed. However, in that we find a significant three-way interaction effect of CHQ control on home country and host country employment protection regulation and union influence, the second argument finds support.

1. Introduction

Over the last fifty years many scholars have identified the nature of multinational enterprises (MNE) Corporate Headquarters (CHQ)–subsidiary relationships as at the core of the field of international management (Kostova et al., 2016:176). Human resource management (HRM) policies and practices are an important part of this picture. Personnel costs are typically a large and salient cost, and HRM policies and practices are increasingly identified as central to the development of competitive advantage (e.g., Ployhart, 2021).

One important focus for international management scholars has been the role of CHQ-subsidary relationships in managing and determining the trade-off between efficiency pressures for integration, and the need for local responsiveness to conditions in the host country of the subsidiary (e.g., Reichstein-Scholz et al., 2021; Meyer and Estrin, 2014). Subsidiaries experience dual embeddedness; in the local setting and in the MNE network (Kostova & Roth, 2002). On the one hand, local markets, regulatory and cultural institutional conditions, and mind-sets need to be considered, placing a premium on local knowledge in framing subsidiary specific HRM policies. On the other hand, MNEs will seek

global approaches to HRM to support their need to extend firm specific advantages across the MNE network via global integration of operations (Meyer et al., 2011; Bartlett & Ghoshal, 2002). Thus, MNEs may face pressures both for local adaptation and to integrate elements of HRM policy and practice globally. The question we address in this paper concerns the conditions in which CHQ delegates responsibility for HRM to the subsidiary rather than exercising centralized control.

In their overview of subsidiary autonomy research, Arregle et al. (2023) observe four streams, of which the fourth, to which we contribute, is the least established. Two streams span the bargaining activities of subsidiary managers, and the power subsidiary managers can negotiate (e.g., Dörrenbächer & Gammelgaard, 2011; Cuervo-Cazurra et al., 2019). The third stream considers the impact of the subsidiary's mandate on its autonomy (e.g., Garnier, 1982; Harzing, 2000; Martinez & Jarillo, 1991; Kostova et al., 2018). The fourth stream examines the role of the administrative heritage of CHQ, which at least partially "reflects the culture and institutional routines of the nation in which it was founded" (Arregle et al., 2023: 103).

Our contribution is to develop this fourth nascent stream in four respects. First, our theorizing goes beyond just considering either CHQ

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institutional embeddedness, or subsidiary embeddedness in the host country in isolation. Instead, in line with [Kostova et al. \(2018\)](#), we argue that variations in both the institutional context of the CHQ and the host country context of the subsidiary are important. The current under-theorization of the institutional context for the CHQ–subsidiary dyad is in part ascribable to “an under-theorization of host country (institutional) effects” ([Geary & Aguzzoli, 2016:970](#)). However, the CHQ home institutional context is also under-theorized. [Jackson and Deeg \(2008, 2019\)](#) contend that this under-theorization is a particular feature of quantitative studies that focus on simple measures of institutional distance. Significant institutional differences are masked by the notion of “simple linear” institutional distance ([Jackson & Deeg, 2008: 544](#)).

Second, we exploit data on MNE subsidiaries embedded in a wide range of institutional contexts whose CHQs are also embedded in diverse institutional contexts, but we do not use a measure of institutional distance. Like [Hall & Soskice \(2001\)](#) we prefer the notion of institutional differences to institutional distance in order to consider the ways in which home country and host country institutions interact with each other. Our focus is on a key salient indicator of institutional differences, formal “rules of the game” ([North, 1990](#)). These differences manifest themselves in nationally disparate “taken-for-granted” approaches to HRM ([Gooderham et al., 1999](#)). We take them to be an indicator of a broader complex of regulative, normative, and cultural-cognitive pressures faced by firms. This focus on differences, rather than a simplistic measure of distance, is important, since as we argue later, while low-regulation economies tend to be alike in their low levels of employment regulation, high-regulation economies may be quite dissimilar in the forms of regulation they enact and the cultural cognitive mind-sets and norms which this supports ([Stavrou et al., 2021](#)). Further, distance measures fail to account for the full range of potential interactions between home and host country institutional contexts.

A third feature of our contribution is an emphasis on the role active labor unions in subsidiaries play in ‘policing’ employment protection regulation. Rather than viewing differences in institutional context as having a uniform impact at the subsidiary level, the presence in the subsidiary of active labor unions has a significant constraining influence on management choices in relation to enacting employment protection regulation ([Gooderham et al., 2018](#)). Thus, in cases of significant home-host country institutional differences, we argue that, at the subsidiary level, active labor unions serve to amplify the effects of these differences thereby motivating CHQs to increase control.

Fourth, in light of the paucity of studies which use multi-level methods to address the combination of country level and firm level influences on determining CHQ control, ([Arregle, et al., 2023](#)), we respond to calls for appropriate use of multi-level methods in studies which implicate multi-level phenomena (e.g., [Peterson et al., 2012](#)).

The issue of what determines the extent of CHQ control of subsidiaries’ HRM policies is significant. It is important to MNE executives, since close control may support the extension of firm specific advantages across the MNE network but may come with critical implications for coordination and governance costs, including monitoring and enforcing of HRM policies. As [Oh and Contractor \(2014\)](#) argue, these costs escalate with increasing complexity and diversity of business environments faced by the MNE. Indeed, governance costs play a significant role in explaining the performance of foreign subsidiaries. In a study of 160 Norwegian headquartered MNEs, [Tomassen and Benito \(2009\)](#) particularly highlight the role of the costs of bargaining between CHQ and subsidiary, maladaptation costs arising from failures of communication and coordination between CHQ and subsidiary, monitoring costs of ensuring subsidiary compliance and the bonding costs of building secure relationships and mutual commitment that may obviate the need for close monitoring and control. They find these governance costs to jointly explain nearly 40 per cent of variation in subsidiary performance.

The issue of subsidiary autonomy is also of importance to policymakers, since MNEs, through their subsidiaries, may often actively seek

to evade, challenge or shape local institutions ([Regné & Edman, 2014; Oliver, 1991](#)). By understanding the conditions under which MNEs seek close local control of HRM policies, policymakers can achieve a richer understanding of the conditions in which MNEs are likely to attempt to evade, challenge or shape local institutions.

The question is also of importance to scholars of IM since CHQ–subsidiary relationships span different national institutional settings, and their study can illuminate the functioning and interaction of these institutions. This is of particular importance given the increasing realization that MNEs challenge scholars to reconsider some basic ideas of neo-institutional theory ([Kostova et al., 2008](#)).

To summarize, while considering the role of labor unions at the subsidiary level, our aim is to address the interactive effects of differences in home and host institutional regimes on the degree of CHQ control of core HRM policies. In the next section we develop our theoretical background and propose two hypotheses. Using an [OECD \(2013\)](#) scale of levels of employment protection regulation as a key indicator of national institutional approaches to the employment relationship, we test our hypotheses by employing a multi-level analysis of an international data set spanning over 700 MNE subsidiaries.

2. Theoretical background and hypotheses

2.1. Home-host country institutional differences

Because of the marked local embeddedness of management practice not only in regulatory institutions but also local norms and cognitive-cultural mindsets ([Edwards et al., 2019:533](#)), MNEs face significant challenges in adapting to the wide variety of institutional contexts they face ([Jackson & Deeg, 2008](#)). Given, differences in employment protection regulation, these challenges are particularly acute in relation to HRM ([Stavrou et al., 2021](#)). Further, MNEs may operate subsidiaries across host country environments that are significantly diverse in terms of institutional constraints and opportunities ([Kostova & Roth, 2002](#)), making a common approach to HRM problematic. Given that HRM policies are both an important cost driver, and a potential source of competitive advantage across the MNE, CHQ is only likely to relinquish control where it has confidence that subsidiary managers will understand and act on CHQ objectives and priorities effectively.

A consistent finding of survey-based studies has been that MNEs exercise greater control of HRM policies in subsidiaries facing global markets or globally integrated into the MNE (e.g., [Fenton-O'Creivy et al., 2008; Ferner et al., 2011](#)). However, at least in part because of the limited range of host and/or home countries in most studies, findings on the role of home and host country institutions are less certain. For example, there is evidence in one quantitative study of US based MNEs imposing greater control over HRM policies on subsidiaries in more institutionally different countries ([Fenton-O'Creivy et al., 2008](#)), but evidence in a qualitative study of greater control being imposed by US based MNEs in the least institutionally distant country studied, Canada ([Ferner et al., 2013](#)). One possible explanation for this inconsistency may derive from the failure of much of the prior quantitative research to take a multi-level approach to analyze both country level and firm level effects, and hence over-inflating the statistical significance of findings.

In theorizing the impact of home-host country differences on CHQ control of HRM, we draw on [Oliver \(1991\)](#) who has argued, rather than simple compliance with institutional pressures, organizations’ responses range from acquiescence, through compromise, avoidance, and defiance to attempts to manipulate the institutional setting. Indeed, empirically, [Pudelko and Harzing \(2007\)](#) find, MNEs do have considerable latitude to ignore local isomorphic pressures and to impose control on HRM in their subsidiaries (see also [Geary et al., 2017; Kostova et al., 2008](#)). Thus, given the plausibility to defy host country isomorphic pressures, in cases of substantial CHQ–subsidiary differences in national institutions relevant to the employment relationship, including employment protection regulation, there is a substantial likelihood of CHQ asserting control of

subsidiary HRM policies.

One important effect of home-host country institutional differences is that CHQ perceives differences in cognitive frameworks and managerial mind-sets (Kostova et al., 2018: 2624). Thus, dissimilarity in employment protection regulation means that subsidiary managers will have differing normative beliefs and cultural-cognitive mind-sets about locally legitimate managerial action to those of CHQ managers (Fenton-O'Creedy et al., 2008). In this context CHQ managers may have significant doubts as to whether subsidiary managers can correctly interpret, understand, and act on CHQ objectives and priorities without close control. The implication is that CHQ will be more inclined to decentralize control of HRM policies to the subsidiary when home and host institutional differences are modest.

Thus, we argue that national institutional differences, as indicated by differences in national employment protection regulation systems, will increase the difficulties of exercising social control and thereby CHQ propensity to exert formal control over subsidiary HRM (Brenner & Ambos, 2013). However, we should note that the centralized control of HRM policies does not necessarily imply the transfer of HR approaches from the home to host country. As Pudelko and Harzing show, the international dominance of US business schools, US management consultancies, and US HRM research underlies a tendency for many non-US MNEs to impose US style calculative HRM practices on subsidiaries. For example, a study of a large cross-national sample of firms (Gooderham et al. (2018) show that foreign-owned firms are more likely to adopt US style pay-for-performance approaches than their domestically owned counterparts, regardless of the home country of the CHQ. Likewise, Geary et al. (2017) show how a Brazilian MNE, despite adopting an autocratic management style typical of the country of origin, transferred a distinctly US style HR model to its subsidiaries with the support of large US management consultancies.

Our focus on institutional 'difference' rather than 'distance' builds on the VoC literature (Hall & Soskice, 2001) and its distinction between the paradigmatic cases of liberal and coordinated market economies (LMEs v CMEs). In LMEs, firms coordinate their activities primarily via hierarchies and competitive market arrangements; regulation is low and firm behavior is driven by demand and supply conditions in competitive markets. The LME logic is characterized by short-term returns and maximizing shareholder value. Gooderham et al. (1999) observe that in such settings HRM is 'calculative' and focuses on individual performance and appraisal. In CMEs, firms operate under longer time horizons and can do so because of support from various nonmarket stakeholders such as banks and labor unions. Importantly, there is a high level of employment protection regulation which encourages long-term employment strategies. The outcome is one of strong norms of employer-employee collaboration that manifest themselves in significantly less use of calculative HRM practices (Gooderham, et al., 1999; Prince et al., 2022). Consequently, the shared understandings or available "strategies for action" (Hall & Soskice, 2001:13) of managers operating in low-regulation LME and high-regulation CME contexts are substantially different. Thus, for example, in CME host contexts, calculative HRM is not taken for granted but must be imposed (Geary & Aguzzoli, 2016).

VoC observes a particular institutional homogeneity between countries at the LME end of the spectrum, such as the US and the UK (Hall & Gingerich, 2009), not least the commonality of light employment regulation. However, among countries falling towards the CME end of the spectrum there are significant differences in the ways in which national strategic coordination is achieved, including major differences in forms of regulation and the role of labor organizations (Hall & Soskice, 2001: 34). Brookes et al. (2017) and Stavrou et al. (2021) have also considered the diversity of institutions in countries that are more characterized by coordinated markets. To give one example, while both Germany and France have high levels of employment protection regulation their regulations are constituted very differently (Barbieri, 2009; Palier & Thelen, 2010). In that sense, German managers may experience

France, with its pronounced but institutionally idiosyncratic employment protection regulation, and associated norms and mindsets, as just as normatively alien a setting as a country with relatively low employment protection regulation such as the US (Stavrou et al., 2021).

In this study our ambition has been to move beyond the limited number of countries included in many studies and include a much wider range of countries than is typical. We do so by focusing on a measure of national employment regulation, which is available for a wide range of national settings. Building on our discussion above, we argue that in cases where CHQ and subsidiaries are both located in contexts of low levels of employment protection regulation (low-low), as is the case for LME countries, common mind-sets mean that decentralizing control of HRM policies to the subsidiary is relatively unproblematic. Local managers are likely to be seen as competent to interpret CHQ goals and priorities in the context of local conditions. Thus, the benefits of local knowledge may be a deciding factor in delegating control of HRM policies to the subsidiary.

However, developing a sufficient understanding of "the rules of the game" (North, 1990), and the mindsets they generate, across multiple disparate employment regulatory regimes is demanding. In short, entering settings that present difficulties in terms of comprehending local normative mindsets as influenced by different modes of employment protection regulation increases the need of CHQ to exert control of subsidiary HRM policies if they are to have confidence in the alignment of HRM policies with CHQ objectives and priorities.

Thus, in cases of CHQs in contexts with relatively low levels of employment regulation and subsidiaries in host countries with relatively high levels of employment regulation, we would expect CHQ to be concerned about the ability of subsidiary managers to correctly interpret and act on CHQ goals and priorities and hence impose greater control than in the low-low case. Thus, we hypothesize: -

Hypothesis 1a. : For CHQs embedded in countries with low levels of employment protection regulation and subsidiaries in countries with high levels of employment protection regulation (low-high), CHQ control of subsidiary HRM will be higher than for the low-low case.

We should not assume that CHQs in high-regulation contexts will necessarily seek to export their HRM practices to subsidiaries in low regulation contexts. As we have discussed they may seek to impose 'best practice' USA style approaches. Nonetheless, the problems of developing sufficiently common mindsets across very different institutional regimes remain demanding. Thus, we also hypothesize that: -

Hypothesis 1b. : For CHQs embedded in countries with high levels of employment protection regulation and subsidiaries in countries with low levels of employment protection regulation (high-low), CHQ control of subsidiary HRM will be higher than for the low-low case.

As we have noted above, having equally high levels of regulation in two national contexts does not imply close similarity of institutional arrangements. Rather, there is evidence of great diversity in forms of regulation and related institutional configurations between such contexts. Hence, in cases of CHQs situated in countries with high levels of employment protection regulation and operating subsidiaries in countries with high (but idiosyncratically different) levels of employment protection regulation, developing common mindsets, will also be challenging. Thus, there will be a preference for the centralization of HRM control We therefore also hypothesize:

Hypothesis 1c. : For CHQs embedded in countries with high levels of employment protection regulation and subsidiaries in countries with high levels of employment regulation (high-high), CHQ control of subsidiary HRM will be higher than for the low-low case.

Taken together these hypotheses imply a two-way interactive effect of home and host country regulation, on CHQ control of HRM such that: for CHQs in low regulation contexts, CHQ control of HRM rises with the level of regulation in the subsidiary host country, whereas for CHQs in

high regulation contexts, control is likely to be high regardless of level of regulation in the subsidiary host country.

2.2. Labor union influence as an amplifier of institutional differences

Strong labor union influence within the subsidiary will often create CHQ concerns about personnel costs, including base pay, and the ease of introducing policies they see as strategically advantageous for the MNE (Festing & Tekieli, 2018). The issue is whether the response of CHQ is to tighten its control of subsidiary HRM policies or whether to rely on local subsidiary managers to engage with labor unions in ways consistent with CHQ goals, thereby decentralizing control of HRM policies.

While it is the case that the influence of labor unions is significantly higher in countries marked by high employment protection regulation, at the firm level there are considerable variations. For example, in the case of Germany, since the late 1980s, there have been significant falls in labor union membership and bargaining coverage (Fitzzenberger et al., 2011). As a result, in German subsidiaries of MNEs, there will be instances of weak labor union influence. Conversely, in low employment protection regulation settings, particularly among subsidiaries in older manufacturing industries, there will be cases of strong local labor union influence (Bryson et al., 2005; Western & Rosenfeld, 2011). Indeed, Lamare et al. (2013: 707) find a significant proportion of MNE subsidiaries in the UK, Ireland, and Canada with formal labor union presence that managers must engage with.

We may expect that such variation in local labor union influence interacts with the institutional context. For example, Gooderham et al. (2018) have shown that labor unions can intensify the effects of employment protection labor regulation on HRM policies through the policing role they play in relation to firms' legal obligations. They argue that labor unions influence firms' adherence to employment regulations in two principal ways. First, they raise the visibility of salient laws and regulations, and second, they actively monitor for deviations from laws and regulations which protect employee interests and may deploy coercive power to compel compliance. They offer evidence that "labor unions exercise a "watchdog" role on behalf of a country's labor regulation" (p1501). Law scholars have also paid attention to this policing role of labor unions. For example, in a cross-national review of legal and social science research on the impact of labor unions, Morantz (2017) highlights research showing that the presence of labor unions increases levels of regulatory enforcement, self-regulation aimed at regulatory compliance, and increases the realization of the intended outcomes of regulations. She concludes that labor unions not only strengthen firms' adherence to regulatory mandates, but also promote achievement of the outcomes that regulations are intended to achieve, including through strengthening firm's self-regulation.

This interaction between the micro-political influence of subsidiary labor unions and the wider host country institutional setting is also a feature of Geary and Aguzzoli's (2016) qualitative analysis of the influence of various actors in the subsidiaries of a Brazilian MNE that challenged host country HRM norms. Adopting a dynamic multi-level institutional framework that combines both institutional and micro-level forces, they observe that in each of the subsidiaries the nature of the micro-political contest between CHQ and labor unions varied according to the host country macro-political terrain. Thus, for example the labor union in the Norwegian subsidiary was able to exert significantly greater influence on the CHQ's HR-agenda than was the case in the Canadian subsidiary where union power and influence was much weaker. Their study implies that the effect of labor union influence interacts with host country legislation. As such, this interaction reinforces differences in mindsets between CHQ and the subsidiary and thus amplifies concerns of CHQ managers about the competence of local managers to understand and act on CHQ goals and priorities, increasing the motivation for close CHQ control of HRM in the subsidiary.

Ferner et al.'s (2004) observation that subsidiary managers often deploy arguments about the importance of local institutional knowledge

in the face of strong labor unions to argue for local control provides an insight into the mechanism underlying this interaction. They discuss the scepticism often displayed by CHQ managers in response to such claims, and local managers careful crafting of 'legitimatory rhetoric' to overcome CHQ scepticism. Given that common mind-sets are more readily achieved when CHQ and subsidiary are embedded in institutionally similar contexts, it is reasonable to expect that CHQ concerns about local managers' claims about the benefits of local knowledge will be lower where there are shared assumptions about HRM goals. Thus, CHQ will be more willing to provide discretion to subsidiary managers to negotiate with local labor unions about HRM policies, when both CHQ and subsidiary are in low employment protection regulation contexts. However, in all other cases, given different mind-sets rooted in institutional differences, CHQ is more likely to reject these arguments and seek to exercise higher levels of control of HRM policies.

Thus, in cases of CHQs embedded in countries with low levels of employment protection regulation with subsidiaries in similar settings, common managerial mind-sets mean that the arguments for the value of local knowledge will weigh more heavily. Thus, subsidiary labor union influence will result in an even greater likelihood of decentralized control of HRM. In this case we would expect that CHQ concede greater autonomy the stronger the local labor union presence.

In the other three cases, the significant mind-set differences between CHQ and local managers mean greater union influence will reinforce pressures on local managers to adhere to local regulations and practice. Thus, union influence will accentuate CHQ concerns about the competence of local managers to correctly interpret and act on CHQ goals and priorities for HRM. This implies an increased likelihood of CHQ exerting direct control over subsidiary HRM and thereby a three-way interaction between CHQ country employment protection regulation, host country employment protection regulation and subsidiary level union influence. Given these arguments, that the effects that are mapped out in Hypotheses 1a -1c are reinforced by labor union influence, we hypothesize:

Hypothesis 2. There will be a three-way interactive effect of home and host country regulation and labor union influence on CHQ control, such that labor union influence in the subsidiary amplifies each of the effects hypothesized in Hypothesis 1a-H1c.

Thus, the extent to which CHQ control of HRM is lower, where employment regulation is low in both CHQ and subsidiary will increase with the level of labor union influence.

3. Sample and methods

We draw on two sources of data. At the country level we use the costs imposed by employment regulation as an indicator of the nature of national institutions salient to the employment relationship. We source this data from an OECD dataset (2013). At the firm level, we draw on data from the CRANET 2014/2015 survey of HRM practices and policies. First launched in 1989, CRANET is a network-based collaboration of over 40 universities and business schools around the world which conducts a survey of organizations across Europe and beyond on HRM policies and practices. The sample design seeks to balance methodological rigor and local relevance and has a primary focus on collecting factual (as opposed to attitudinal) data (for full details see: Parry et al., 2021).

The CRANET dataset contains data on 6800 organizations located in 35 countries. Within this overall sample we identified 846 subsidiaries of foreign MNEs. Each subsidiary provides information on the home country of its CHQ. Limiting our sample to those subsidiaries providing usable data on our dependent variable, and those with OECD employment protection regulation data in the subsidiary (host) and CHQ (home) countries resulted in a usable sample of 708 subsidiaries in 32 countries. Their CHQs were distributed across 39 countries. Tables showing the distribution of firms by home and host country may be found in the appendix.

3.1. Dependent variable

CHQ control (mean 1.35, s.d. 1.67). Our focus is on measuring CHQ control in terms of whether decision making on HRM policies is primarily located at CHQ as opposed to shared decision making or devolution of decision making to the subsidiary. We operationalize CHQ control as a count of whether generic HRM policies are mainly determined by CHQ on each of six HRM policies. We derive five of these HRM policies from two seminal texts, [Fombrun et al. \(1984\)](#) and [Beer et al. \(1985\)](#): pay and benefits; recruitment and selection; workforce expansion/reduction, training and development and management development. The sixth, industrial relations, stems from [Brewster \(1995\)](#).

The CHQ control variable is a simple count of the number of these six HRM policies that are subject to CHQ control, as opposed to locally determined (0 to 6). Thus, the CHQ control variable has a distribution that is typical of count variables; highly non-normal and zero-inflated (around 47 per cent of the subsidiaries have none of the six HR policies controlled directly by CHQ).

We use Mokken analysis to establish if this scale was well formed ([van Schuur, 2003](#)). The Mokken H (.71) and reliability (.87) are in excess of the benchmarks of .3 and .7 proposed by [Sijtsma and Molenaar \(2002\)](#).

3.2. Independent variables (Firm Level)

Labor union influence (mean 1.26, s.d. 1.28). In preference to indirect measures of labor union influence at the subsidiary level, such as union membership within the subsidiary or host country union density, we choose a direct measure of labor union influence within the subsidiary. Respondents were asked to characterize "The extent to which labor unions influence the organization" on a scale from 0 "not at all" to 4 "to a great extent". We choose this variable in preference to a measure of proportion of employees in a labor union also available in the same data set. This is because of the potentially misleading nature of union density measures in cross-national research. First, some countries make it illegal for firms to collect union membership data, meaning that there is a significant level of missing data that is not 'missing at random' but with missingness systematically related to variables of interest. This presents severe challenges to analysis. Second, the level of union membership has differential effects on union influence in different regimes. For example, in France unions with low levels of membership are still able to mobilize a high proportion of the workforce. Whilst we use a single item for this key variable, we can have some confidence that the informant for each subsidiary (the most senior HR manager in the subsidiary) is well placed to make an effective judgement.

3.3. Independent variables (Country Level)

We avoid using a simple linear measure of institutional distance between home and host country (as e.g., [Fenton-O'Creedy, Gooderham & Nordhaug, 2008](#)) in this study for two reasons. First, because, as argued above, it can obscure differences between different forms of CME. Second because, since such a measure discards information (including the direction of differences) it prevents the observation of more complex interactive effects between host and home country systems. Rather, we use a measure of institutional context (employment protection regulation) in both the CHQ and subsidiary country and examine their interactive effects on HRM control. It is important to note that, in identifying the contrast between national systems high versus low levels of employment protection regulation neither Hall and Soskice, nor we, see all national systems as necessarily falling into one or other of these categories. Rather, national institutional systems may fall on a continuum between these two paradigms. In the present study, this is operationalized as levels of national employment regulation on a continuous scale.

Employment protection regulation. To measure employment protection

regulation, we employ the OECD indicators of permanent employment protection for both host country and country of CHQ. These indicators measure the "procedures and costs involved in dismissing individuals or groups of workers" ([OECD, 2013](#)). As the indicators are not compiled in the same year for every country, we use the country indicator compiled in the year closest to the date of the CRANET survey (2014/2015). Date of measurement thus ranged from 2012 to 2015. Our analysis contains two measures:

Host country employment regulation (firm level mean 2.33, s.d. 0.39). OECD permanent employment protection indicator for host country of subsidiary (ranges from 1.37 to 3.22 in sample).

CHQ country employment regulation (firm level mean 2.18, s.d. 0.68). OECD permanent employment protection indicator for country of CHQ (ranges from 1.01 to 3.22 in sample).

As noted above, our analytical approach does not draw on measures of institutional distance. Rather, we first examine the effects of CHQ home and host country employment protection regulation on CHQ control of HRM policies. Second, we examine the effects of CHQ home and host country employment protection regulation in interaction with each other and in interaction with subsidiary level union influence.

3.4. Control variables

Global market scope. In line with prior research emphasizing the impact of subsidiary mandate on CHQ control (particularly global market scope: see [Garnier, 1982](#); [Harzing, 2000](#); [Martinez & Jarillo, 1991](#); [Kostova et al., 2018](#)), we control for global market scope. We operationalize the global market scope of the subsidiary as: Scope of primary market: 1 = domestic (35.8 %); 2 = continental (13.2 %); 3 = worldwide (50.9 %).

Subsidiary size (median size for sample was 385 employees). As some studies have found that subsidiary size positively influences subsidiary autonomy ([Hedlund, 1981](#); [Arregle et al., 2023](#)), we control for subsidiary size. We employ Logn of the total number of subsidiary employees.

Subsidiary age (median age of firms was 28 years). [Harzing \(1999\)](#) and [Foss and Pedersen \(2002\)](#) suggest that because older subsidiaries are more established, they may possess more autonomy than young subsidiaries. To control for the age of the subsidiary we use Logn of (2014 – year of founding + 1).

Finally, to control for any effects deriving from industry, we control for *Subsidiary industry*. This is a categorical variable with separate codes for: financial and insurance (22.2 %); manufacturing (38.0 %); services (9.2 %); and other (30.6 %).

4. Analysis

MNE subsidiaries are clustered within host countries, and their CHQs are clustered within another set of countries. Using a single-level regression analysis approach would lead to misestimated parameters and standard errors, as independence assumptions are violated. It could also lead to erroneous estimates of the relationship of country level variables to the firm level measure of international control ([Raudenbush & Bryk, 2002](#)). Hence, a multi-level cross-classified approach is justified, with firms being at level 1 embedded within a cross classification of host country and HQ country at level 2.

The independent variable has a non-normal distribution typical of count data, with a high proportion of firms scored at zero. Thus, we use a Poisson regression approach within a Generalized Linear Multilevel Model (GLMM) using a cross-classified model (both CHQ country and subsidiary country are level 2 variables). We use MLWin which employs Markov Chain Monte Carlo methods to iteratively estimate and fit models ([Browne, 2015](#)).

We first set up the null model with international control at the firm level dependent on a fixed intercept and intercepts for each CHQ country and host country as random variables. Both CHQ home country, and

host country explained significant variance; thus, suggesting the need for a full multi-level cross-classified model.

There are modest levels of missing variables with 17 per cent of cases having at least one missing variable. Thus, we follow best practice and combine our analysis with multiple imputation of missing data, which imputes missing values in multiple data sets (10 in our study), combining estimates of parameters across all imputations and adjusting standard errors for error of imputation (Allison, 2001). As an additional robustness check we also compared results with an analysis where we drop firm age and size (control variables with non-significant parameters in our analysis and most of the missing values) and analyze using listwise deletion of the remaining missing values. The results were closely comparable.

5. Results

Table 1 shows the analysis of main effects (before introducing interactions). The change in the deviance information criterion (DIC) from the null model (33.08) indicates a substantive improvement in explanatory power of the main effects model over the null model.

The DIC is a parsimony-adjusted Bayesian measure of model fit with reductions in the measure indicating improvement in fit adjusting for reductions in model parsimony. The significant parameters for host and CHQ country intercept variance indicate significant unexplained variance remaining at the host country and CHQ country levels, respectively. The control variables of firm size, age and sector have non-significant parameters (at $p < 0.05$).

The parameter for global market scope (0.26) is significant ($p = 0.000$). The effect size can be judged by the $\exp(B)$ value (1.30) indicating that a unit increase in global market scope (e.g., from domestic to continental) is associated with a 30 % increase in the value of the CHQ control variable.

The parameter for subsidiary-level labor union influence (0.06) is

Table 1
Main effects model.

| Parameters | B (Pooled parameter) | Z | p | exp (B) |
|---|----------------------|-------|--------------------|---------|
| <i>Fixed Part</i> | | | | |
| Level 1 intercept | 0.27 | 1.61 | 0.108 | 1.31 |
| Ln(No. Employees) ^a | -0.01 | -0.47 | 0.637 | 0.99 |
| Ln(Subsidiary Age) ^a | 0.00 | 0.03 | 0.979 | 1.00 |
| Global market scope ^a | 0.26 | 6.40 | 0.000 ^e | 1.30 |
| Union influence ^a | 0.06 | 1.86 | 0.031 ^e | 1.06 |
| Manufacturing ^b | -0.22 | -1.74 | 0.082 | 0.80 |
| Services ^b | -0.07 | -0.59 | 0.558 | 0.93 |
| other ^b | -0.21 | -1.54 | 0.123 | 0.81 |
| Host country employment regulation ^c | 0.26 | 1.20 | 0.116 ^e | 1.29 |
| CHQ home country employment regulation ^d | 0.01 | 0.07 | 0.473 ^e | 1.01 |
| <i>Random Part</i> | | | | |
| Level: Host Country Intercept variance | 0.18 | 2.41 | 0.008 ^f | |
| Level: CHQ Country Intercept variance | 0.17 | 2.00 | 0.023 ^f | |
| Units: Host Country | 32 | | | |
| Units: CHQ Country | 39 | | | |
| Units: firm | 708 | | | |
| Deviance information criterion (DIC) | 2321.04 | | | |
| Reduction in DIC from null model | 33.08 | | | |
| Effective no. parameters estimated | 49.72 | | | |

^a Grand mean centered at firm level;
^b reference category = finance and insurance activities;
^c Grand mean centered at host country level;
^d Grand mean centered at home country level;
^e 1-tailed since hypothesis is directional;
^f 1-tailed p since variance constrained to be positive.

significant ($p = 0.031$) and positive, although, as we will see, this result is qualified by our next analysis. The effects of the parameters for home and host country employment regulation are non-significant.

To examine Hypotheses 1a-1c we add an interaction term between employment protection regulation in host and CHQ home country. We report these results in Table 2.

Neither the main effects of CHQ and subsidiary country employment regulation, nor the interaction between them, have significant parameters (at $p < 0.05$), and there is no substantive improvement in model fit over the main effects model (DIC also increases rather than reducing suggesting no model improvement and a deterioration in fit relative to parsimony). Thus, Hypotheses 1a-1c are not supported by this analysis.

To test Hypothesis 2, we add a three way, cross-level, interaction between home and host country employment regulation and union influence. To effectively test the three-way interaction, we also include the two-way interactions between each of the three variables and the main effects. These results are reported in Table 3.

The model in Table 3 shows a substantive improvement in fit (a common heuristic for substantive improvement is that reduction in DIC > 3) over the main effects model in Table 1 (DIC reduction = 21.69). The results show a significant three-way interactive effect of subsidiary-level labor union influence, host-country employment protection regulation and CHQ-country employment protection regulation on CHQ control.

Interpreting a regression equation that includes a three-way interaction (the sum of main effects, two-way interactive effects and a three-way interaction) is not particularly straightforward. Hence, to aid interpretation, we chart the three-way interaction between host country labor regulation, CHQ home country labor regulation and union influence (see Fig. 1). The figure charts the relationship between subsidiary-level labor union influence and CHQ control for four combinations of

Table 2
Two-way Interaction Model: Main effects of interaction of host and CHQ home country employment protection regulation.

| Parameters | B (Pooled parameter) | Z | p | exp (B) |
|---|----------------------|-------|--------------------|---------|
| <i>Fixed Part</i> | | | | |
| Level 1 intercept | 0.27 | 1.60 | 0.110 | 1.30 |
| Ln(No. Employees) ^a | -0.01 | -0.46 | 0.648 | 0.99 |
| Ln(Subsidiary Age) ^a | 0.00 | -0.02 | 0.987 | 1.00 |
| Global market scope ^a | 0.27 | 6.44 | 0.000 ^e | 1.30 |
| Union influence ^a | 0.06 | 1.92 | 0.028 ^e | 1.06 |
| Manufacturing ^b | -0.22 | -1.76 | 0.078 | 0.80 |
| Services ^b | -0.07 | -0.57 | 0.570 | 0.93 |
| other ^b | -0.21 | -1.53 | 0.126 | 0.81 |
| Host country employment regulation (H-CER) ^c | 0.24 | 1.10 | 0.270 | 1.27 |
| CHQ home country employment regulation (CHQ-CER) ^d | 0.02 | 0.09 | 0.126 | 1.02 |
| H-CER x CHQ-CER | -0.11 | -0.80 | 0.422 | 0.90 |
| <i>Random Part</i> | | | | |
| Level: Host Country Intercept variance | 0.18 | 2.42 | 0.008 ^f | |
| Level: CHQ Country Intercept variance | 0.17 | 1.98 | 0.024 ^f | |
| Units: Host Country | 32 | | | |
| Units: CHQ Country | 39 | | | |
| Units: firm | 708 | | | |
| Deviance information criterion (DIC) | 2321.86 | | | |
| Reduction in DIC from null model | 32.36 | | | |
| Reduction in DIC from main effects model | -0.82 | | | |
| Effective no. parameters estimated | 50.75 | | | |

^a Grand mean centered at firm level;
^b reference category = finance and insurance activities;
^c Grand mean centered at host country level;
^d Grand mean centered at home country level;
^e 1-tailed since hypothesis is directional;
^f 1-tailed p since variance constrained to be positive.

Table 3
Three-Way Interaction Model.

| | B (pooled) | Z | p | Exp (B) |
|---|---------------|-------|--------------------|------------|
| <i>Fixed Part</i> | | | | |
| Firm level intercept | 0.24 | 1.40 | 0.161 | 1.27 |
| Ln(No. Employees) ^a | 0.00 | 0.16 | 0.871 | 1.00 |
| Ln(Subsidiary Age) ^a | -0.01 | -0.10 | 0.917 | 0.99 |
| Global market scope ^a | 0.26 | 6.26 | 0.000 ^c | 1.30 |
| Union influence ^a | 0.05 | 1.39 | 0.082 ^e | 1.05 |
| Manufacturing ^b | -0.18 | -1.43 | 0.154 | 0.83 |
| Services ^b | -0.06 | -0.47 | 0.637 | 0.94 |
| other ^b | -0.21 | -1.51 | 0.131 | 0.81 |
| Host country employment regulation (H-CER) ^c | 0.22 | 1.00 | 0.315 | 1.25 |
| CHQ home country employment regulation (CHQER) ^d | 0.01 | 0.07 | 0.941 | 1.01 |
| H-CER x CHQ-CER | -0.22 | -1.58 | 0.115 | 0.80 |
| H-CER x Union influence | 0.19 | 2.27 | 0.023 | 1.21 |
| CHQ -CER x Union influence | 0.16 | 4.02 | 0.000 | 1.17 |
| H-CER x CHQ-CER x Union influence | -0.24 | -2.58 | 0.010 | 0.78 |
| <i>Random Part</i> | | | | |
| Level: Host Country | | | | |
| Intercept Variance | 0.18 | 2.38 | 0.009 ^f | |
| Level: Home Country | | | | |
| Intercept Variance | 0.18 | 2.04 | 0.041 ^f | |
| Deviance information criterion DIC | 2299.35 | | | |
| Reduction in DIC from main effects model | 21.69 | | | |

^a Grand mean centered at firm level;
^b reference category = finance and insurance activities;
^c Grand mean centered at host country level;
^d Grand mean centered at home country level;
^e 1-tailed since hypothesis is directional;
^f 1-tailed p since variance constrained to be positive.

high/low employment protection regulation for host and CHQ home country (fixing other variables at their grand mean values). High/ low is grand mean + /- 1 standard deviation. The chart covers the observed range of the subsidiary-level labor union influence variable. The lines are non-linear due to the nature of Poisson regression.

In making sense of the regression parameters, it is important to first note that, since mean centering is used, low levels of variables take on negative values and high levels take on positive values. Second, Poisson regression uses the natural log of the dependent variable. Hence to

recover effects on CHQ control, the exponential of the regression equation is taken. The figure is based on taking the exponential of the regression equation. In the regression the parameters for the main effects of union influence, and both host and CHQ country employment regulation are non-significant. However, in interpreting an interaction it is important to examine the joint effects of main effects, two-way interactions, and the three-way interaction, regardless of whether some of them have non-significant parameters, since there are, of necessity, collinearities between terms in the interaction. It is the test of the improved fit when the interaction is added that is important.

The results suggest that the interaction between home and host country employment regulation explains increasing variation in CHQ control as union influence rises. At low levels of union influence (average and below) the differences in CHQ control between different configurations of home and host country employment regulation are small. However, as levels of union influence increase, these differences are amplified. In particular, we see that where home and host country levels of employment regulation are similarly low, as union influence increases CHQ control becomes increasingly lower than in the other cases.

Fig. 1, thus, reveals that the three-way interaction between host and CHQ home country employment protection regulation and subsidiary-level labor union influence is such that:

- a) for low levels of union influence, different configurations of home and host country employment protection are associated with very similar levels of CHQ control;
- b) in contrast, for high levels of union influence, lower levels of both home and host country employment protection are associated with lower levels of CHQ control.

Or, to put this another mathematically equivalent way: There is, in general, an increase in CHQ control with increasing union influence. However, as employment protection decreases in both home and host country, the reverse becomes the case.

Thus, given this interactive effect of labor union influence, Hypothesis 2 is supported. Further, while the analysis, summarized in Table 2, does not support Hypotheses 1a to 1c, the three-way interaction model in Table 3 and Fig. 1 shows partial support for 1a to 1c in that the hypothesized effects of employment protection regulation differences become apparent at higher levels of subsidiary-level labor union

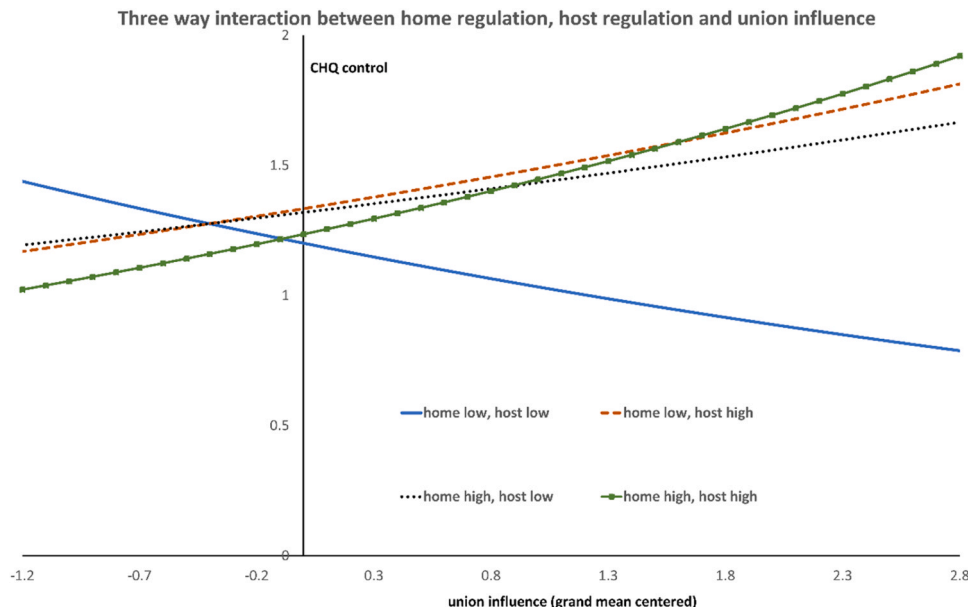


Fig. 1. Chart of three-way interaction between home country regulation, host country regulation and labor union influence.

influence.

In terms of control variables, whereas subsidiary size, age and industry have no discernible impact on CHQ control of subsidiary HRM policies, in line with extant theorizing and previous studies we observe a significant role for the global market scope of the subsidiary.

6. Discussion and conclusions

This study contributes to debates about the conditions in which CHQ seek to directly control the subsidiaries (Arregle et al., 2023), in particular, CHQ control of subsidiary HRM (Geary, J. & Aguzzoli, R., 2016; Ferner et al., 2013; Ferner et al., 2011; Fenton-O'Creedy et al., 2008). Our findings shed light on the interactive role of home and host country institutional settings and the importance of labor union influence in moderating their relationship with CHQ control of subsidiary HRM approaches.

The principal finding of our multi-level analysis is that the interactive effect of CHQ and subsidiary institutional context is dependent on the level of influence of labor unions at the subsidiary level. In identifying this crucial role of labor unions, our findings underline that what Scott (2001) has described as the first (regulative) pillar of institutions, 'coercive control', is not the sole prerogative of state actors. Our findings support arguments that other institutional actors such as labor unions may play a key role in enforcing local institutions (Morantz, 2017; Gooderham et al., 2018) and show that this interacts with the nature of home and host country institutions to affect CHQ willingness to delegate decision-making on key HRM policies.

We go beyond prior research in four key ways. First, while there are a number of single home country studies of CHQ control of subsidiary HRM, (e.g., Fenton-O'Creedy et al., 2008; Ferner et al., 2004; Almond & Ferner, 2006), our study design involves a significantly greater range of home countries as well as a considerably wider span of host countries. Being able to draw on a relatively large dataset allows us to consider institutional diversity in both subsidiary settings and in CHQ settings.

Second, we do not rely on the construct of institutional distance, which discards information and can obscure other forms of interaction between home and host country institutions that are captured in distance measures. As Jackson and Deeg (2008: 541) note, much international business research "...sees institutions as producing generic sets of constraints related to broad constructs such as 'distance', in fact MNE strategies are shaped by the nature and interactions between particular home and host country institutions studied in the [comparative capitalisms] approach". Our analytical approach enables us to consider the interaction between home and host country settings. It also permits us to conduct analysis that accounts for the greater similarity of context between host and CHQ home countries with low employment regulation as opposed to host and home countries with high employment regulation, where the nature of regulation systems may vary markedly.

Third, rather than regarding differences in institutional context as having a uniform impact at the firm level, we theorise them as moderated by the (policing) role of labor unions (Gooderham et al., 2018). This intensifies the effects of local regulatory regimes, thus amplifying CHQ concerns about local managers' capability and motivation to understand and implement CHQ strategic priorities and goals in relation to HRM.

Fourth, we respond to calls for studies to use appropriate multi-level methods to address multi-level phenomena such as CHQ control of subsidiaries (Arregle, et al., 2023; Peterson et al., 2012). This is of particular importance since, as Wright and van de Voorde (2009) show, country level effects in HRM studies are frequently overstated due to a failure to use appropriate multi-level methods. Further, they argue for the importance of considering moderators of country level effects. In this context, our failure to support our initial hypothesis (H1) about the effects of home and host country institutions, despite using multi-level methods and a larger than typical sample, is important. As is our finding that this hypothesis is supported in conditions of high union influence on the subsidiary (evidenced by the moderating role of union

influence on this relationship). This is not simply a narrow technical point about good practice, but rather a reason for viewing prior research which has not used appropriate multi-level approaches as likely to have reached mistaken conclusions about the effects of national institutions on firm behavior.

Our aim has been to contribute to clarifying the role of home and host institutional differences on the degree of CHQ control of core HRM policies at the subsidiary level. In addition, our study views labor union influence at the subsidiary level as salient to determining where control is located. This calls for a multi-level analysis. However, previous studies of CHQ control have typically been single level (e.g., Ferner et al., 2013; Fenton-O'Creedy, Gooderham & Nordhaug, 2008). By using appropriate multi-level methods, we improve on much prior work on predictors of CHQ control. When using data with a multi-level structure this is critical, as failure to use multi-level analysis systematically underestimates standard errors and hence risks erroneously identifying findings as statistically significant (Wright & van de Voorde, 2009). For example, had some prior studies (e.g., Fenton-O'Creedy et al., 2008) used multi-level methods to account for the multi-level nature of country and firm level variables studied, it is likely that country level effects would have achieved a much lower level of significance in the analysis.

With a good range of CHQ home and host countries, and accounting for subsidiary-level labor union influence, our results appropriately account for the multi-level nature of the data. However, we acknowledge that given the cross-sectional nature of the data, it is not possible to draw firm conclusions about causal direction. Nor is it possible to track developments in CHQ control over time. Future research could usefully seek to adopt longitudinal approaches to examine the evolution of CHQ control over time. Whilst achieving longitudinal quantitative data in this research area presents significant difficulties, longitudinal qualitative research may be easier to achieve and provide important insights.

We acknowledge our reliance on several measures derived from single informants. However, by using the most senior HR manager in each subsidiary our respondents are especially able to assess levels of labor union influence as well as to make judgements regarding the locus of decision making on HRM policies. Arguably, they are also able to make reasonable assessments of the subsidiary's overall role in the MNE. Thus, our approach is in line with Wright et al. (2001) who recommend data collection focused on using the most knowledgeable raters (in our case, the most senior HR manager) as an alternative to using multiple raters, where knowledge is likely to vary.

Finally, in considering the scope for further research, we suggest that future research seeks to examine whether the effects of institutions and union influence on CHQ control are mediated by trust relations between CHQ and subsidiary managers (Vahlne & Johanson, 2021). One explanation for our findings that could form the basis for future research is to be found in micro-politics case-based studies. Ferner et al. (2004) find that whilst subsidiary managers often deploy arguments about the importance of local knowledge in managing HRM policies when faced with strong labor unions, these arguments are often limited in impact due to distrust between CHQ and subsidiary managers. Thus, for example, in the case of CHQs in high employment protection regulation countries operating subsidiaries in low employment protection regulation countries, or CHQs in low regulation countries operating subsidiaries in countries with high employment protection regulation, as unionization increases institutional differences are more keenly felt, trust is depressed and therefore CHQ is more inclined to directly control HRM policies. Our findings in relation to labor union influence at the firm level suggest that future research should pay particular attention to this factor. As such our findings suggest the value of multi-level approaches that simultaneously consider not just national level variables but also firm level variables.

Finally, let us briefly consider the managerial implications of our observation that CHQ control of subsidiary HRM policies – except for the low regulation/low regulation CHQ-subsidiary configuration - increases with labor union influence. We ascribe this to labor union presence

accentuating differences in mindsets, across institutional interfaces. Although we cannot estimate the magnitude of the governance costs involved in increased CHQ control of HRM, it is likely that they are significant and that they therefore have a negative effect on overall subsidiary performance (Tomassen & Benito, 2009). However, as Tomassen and Benito (2009: 300) argue, MNE managers should be aiming to reduce mindset differences (and the distrust they can engender) to a minimum by investing in “bonding activities”. Our findings imply that these activities need to involve a pronounced focus on inter-institutional understanding between CHQ and subsidiary managers. The evidence we present of CHQ acting on their perception of the influence of active subsidiary labor unions as reinforcing national regulatory systems should also be of interest to host state policymakers when considering the likelihood of MNEs choosing to control HRM approaches in their subsidiaries.

Appendix

Distribution of subsidiary firms by CHQ country.

| Country of CHQ | frequency | percent |
|----------------|-----------|---------|
| Austria | 24 | 3.4 |
| Belgium | 7 | 1.0 |
| Czech Republic | 5 | 0.7 |
| Denmark | 12 | 1.7 |
| Estonia | 2 | 0.3 |
| Finland | 18 | 2.5 |
| France | 76 | 10.7 |
| Germany | 102 | 14.4 |
| Greece | 2 | 0.3 |
| Hungary | 4 | 0.6 |
| Ireland | 5 | 0.7 |
| Italy | 20 | 2.8 |
| Latvia | 2 | 0.3 |
| Luxembourg | 3 | 0.4 |
| Netherlands | 31 | 4.4 |
| Poland | 4 | 0.6 |
| Slovakia | 1 | 0.1 |
| Slovenia | 4 | 0.6 |
| Spain | 7 | 1.0 |
| Sweden | 40 | 5.6 |
| United Kingdom | 53 | 7.5 |
| Croatia | 1 | 0.1 |
| Norway | 14 | 2.0 |
| Russia | 2 | 0.3 |
| Switzerland | 39 | 5.5 |
| China | 3 | 0.4 |
| India | 1 | 0.1 |
| Israel | 1 | 0.1 |
| Japan | 38 | 5.4 |
| South Korea | 5 | 0.7 |
| Malaysia | 3 | 0.4 |
| Thailand | 1 | 0.1 |
| Canada | 15 | 2.1 |
| Mexico | 1 | 0.1 |
| USA | 155 | 21.9 |
| Argentina | 4 | 0.6 |
| Chile | 1 | 0.1 |
| Australia | 1 | 0.1 |
| New Zealand | 1 | 0.1 |
| Total | 708 | 100.0 |

Distribution of subsidiary firms by host country.

Endnote

The Poisson equation uses \log_n of the dependent variable expressed as a linear combination of independent variables. Taking the exponential of each side recovers the original form of the dependent variable but means the right-hand side of the equation consists of terms which are multiplied. Thus, the interpretation of $\exp(B)$ is the amount by which the base ($\exp(\text{intercept})$) level of the DV is multiplied for a unit increase in the IV, when other variables are fixed at their grand mean.

Declaration of Competing Interest

None.

Data availability

Data will be made available on request.

| Subsidiary host country | Frequency | Percent |
|-------------------------|-----------|---------|
| Austria | 23 | 3.2 |
| Belgium | 33 | 4.7 |
| Denmark | 22 | 3.1 |
| Estonia | 21 | 3.0 |
| Finland | 19 | 2.7 |
| France | 21 | 3.0 |
| Germany | 15 | 2.1 |
| Greece | 35 | 4.9 |
| Hungary | 74 | 10.5 |
| Italy | 26 | 3.7 |
| Latvia | 6 | 0.8 |
| Lithuania | 19 | 2.7 |
| Netherlands | 24 | 3.4 |
| Slovakia | 65 | 9.2 |
| Slovenia | 7 | 1.0 |
| Spain | 29 | 4.1 |
| Sweden | 23 | 3.2 |
| United Kingdom | 18 | 2.5 |
| Croatia | 17 | 2.4 |
| Iceland | 3 | 0.4 |
| Norway | 27 | 3.8 |
| Russia | 7 | 1.0 |
| Serbia | 30 | 4.2 |
| Switzerland | 11 | 1.6 |
| Turkey | 21 | 3.0 |
| China | 11 | 1.6 |
| Indonesia | 7 | 1.0 |
| Israel | 1 | 0.1 |
| USA | 12 | 1.7 |
| Brazil | 26 | 3.7 |
| Australia | 53 | 7.5 |
| South Africa | 2 | 0.3 |
| Total | 708 | 100.0 |

References

- Allison, P. D. (2001). *Missing Data*. Sage Publications, Inc.,
- Almond, P., & Ferner, A. (Eds.). (2006). *American Multinationals in Europe: Managing Employment Relations Across National Borders*. Oxford University Press.
- Arregle, J. L., Dattée, B., Hitt, M. A., & Bergh, D. (2023). Organizational autonomy: A review and agenda for future research. *Journal of Management*, 49(1), 85–124. <https://doi.org/10.1177/01492063221123264>
- Barbieri, P. (2009). Flexible employment and inequality in Europe. *European Sociological Review*, 25(6), 621–628. <https://doi.org/10.1093/esr/jcp020>
- Bartlett, C. A., & Ghoshal, S. (2002). *Managing Across Borders: The Transnational Solution*. Harvard Business Press.
- Beer, M., Walton, R. E., Spector, B., Lawrence, P. R., & Mills, D. Q. (1985). *Human resource management: A general manager's perspective: Text and cases*. New York: Free Press.
- Brenner, B., & Ambos, B. (2013). A question of legitimacy? A dynamic perspective on multinational firm control. *Organization Science*, 24(3), 773–795. <https://doi.org/10.1287/orsc.1120.0760>
- Brewster, C. (1995). Towards a 'European' model of human resource management. *Journal of International Business Studies*, 26(1), 1–21. <https://doi.org/10.1057/palgrave.jibs.8490163>
- Brookes, M., Brewster, C., & Wood, G. (2017). Are MNCs norm entrepreneurs or followers? The changing relationship between host country institutions and MNC HRM practices. *The International Journal of Human Resource Management*, 28(12), 1690–1711. <https://doi.org/10.1080/09585192.2016.1277365>
- Browne, W.J. (2015). *MCMC estimation in MLwiN*. Centre for Multilevel Modelling, University of Bristol. (<http://www.bristol.ac.uk/cmm/media/software/mlwin/downloads/manuals/3-01/mcmc-web.pdf>).
- Bryson, A., Forth, J., & Kirby, S. (2005). High-involvement management practices, trade union representation and workplace performance in Britain. *Scottish Journal of Political Economy*, 52(3), 451–491. <https://doi.org/10.1111/j.0036-9292.2005.00352.x>
- Cuervo-Cazurra, A., Mudambi, R., & Pedersen, T. (2019). Subsidiary power: Loaned or owned? The lenses of agency theory and resource dependence theory. *Global Strategy Journal*, 9(4), 491–501. <https://doi.org/10.1002/gsj.1362>
- Dörrenbächer, C., & Gammelgaard, J. (2011). Subsidiary power in multinational corporations: the subtle role of micro-political bargaining power. *Critical Perspectives on International Business*, 7(1), 30–47. <https://doi.org/10.1108/17422041111103822>
- Edwards, T., Schnyder, G., & Fortwengel, J. (2019). Mapping the impact of home-and host-country institutions on human resource management in emerging market multinational companies: A conceptual framework. *Thunderbird International Business Review*, 61(3), 531–544. <https://doi.org/10.1002/tie.22036>
- Fenton-O'Creevy, M., Gooderham, P., & Nordhaug, O. (2008). Human resource management in US subsidiaries in Europe and Australia: centralisation or autonomy? *Journal of International Business Studies*, 39, 151–166. <https://doi.org/10.1057/palgrave.jibs.8400313>
- Ferner, A., Almond, P., Clark, I., Colling, T., Edwards, T., Holden, L., & Muller-Camen, M. (2004). Dynamics of central control and subsidiary autonomy in the management of human resources: Case-study evidence from US MNCs in the UK. *Organization Studies*, 25(3), 363–391. <https://doi.org/10.1177/017084060404004>
- Ferner, A., Tregaskis, O., Edwards, P., Edwards, T., Marginson, P., Adam, D., & Meyer, M. (2011). HRM structures and subsidiary discretion in foreign multinationals in the UK. *The International Journal of Human Resource Management*, 22(03), 483–509. <https://doi.org/10.1080/09585192.2011.543628>
- Ferner, A., Bélanger, J., Tregaskis, O., Morley, M., & Quintanilla, J. (2013). US multinationals and the control of subsidiary employment policies. *ILR Review*, 66(3), 645–669. <https://doi.org/10.1177/001979391306600304>
- Festing, M., & Tekieli, M. (2018). Global alignment or localization? An empirical examination of global reward management in MNEs from a subsidiary perspective. *The International Journal of Human Resource Management: 1-39*. <https://doi.org/10.1080/09585192.2018.1504107>
- Fitzenberger, B., Kohn, K., & Wang, Q. (2011). The erosion of union membership in Germany: determinants, densities, decompositions. *Journal of Population Economics*, 24(1), 141–165. <https://doi.org/10.1007/s00148-009-0299-7>
- Fombrun, C. J., Tichy, N. M., & Devanna, M. A. (1984). *Strategic Human Resource Management*. New York: Wiley.
- Foss, N. J., & Pedersen, T. (2002). Transferring knowledge in MNCs: The role of sources of subsidiary knowledge and organizational context. *Journal of International Management*, 8(1), 49–67. [https://doi.org/10.1016/S1075-4253\(01\)00054-0](https://doi.org/10.1016/S1075-4253(01)00054-0)
- Garnier, G. H. (1982). Context and decision-making autonomy in the foreign affiliates of US multinational corporations. *Academy of Management Journal*, 25(4), 893–908. <https://doi.org/10.5465/256105>
- Geary, J., Aguzzoli, R., & Lengler, J. (2017). The transfer of 'international best practice' in a Brazilian MNC: A consideration of the convergence and contingency perspectives. *Journal of International Management*, 23(2), 194–207.
- Geary, J., & Aguzzoli, R. (2016). Miners, politics and institutional caryatids: Accounting for HRM practices in the Brazilian multinational enterprise. *Journal of International Business Studies*, 47(8). <https://doi.org/10.1016/j.intman.2016.09.003>
- Gooderham, P., Fenton-O'Creevy, M., Croucher, R., & Brookes, M. (2018). A multilevel analysis of the use of individual pay-for-performance systems. *Journal of Management*, 44(4), 1479–1504. <https://doi.org/10.1177/0149206315612666960>
- Gooderham, P. N., Nordhaug, O., & Ringdal, K. (1999). Institutional and rational determinants of organizational practices: Human resource management in European firms. *Administrative Science Quarterly*, 44(3), 507–531. <https://doi.org/10.2307/2666960>

- Hall, P. A., & Gingerich, D. W. (2009). Varieties of capitalism and institutional complementarities in the political economy: An empirical analysis. *British Journal of Political Science*, 44(4), 449–482. <https://doi.org/10.1017/S0007123409000672>
- Hall, P. A., & Soskice, D. W. (2001). *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. USA: Oxford University Press.
- Harzing, A.-W. (1999). *Managing the Multinationals: An International Study of Control Mechanisms*. Cheltenham: Edward Elgar.
- Harzing, A. W. (2000). An empirical analysis and extension of the Bartlett and Ghoshal typology of multinational companies. *Journal of International Business Studies*, 31(1), 101–120. <https://doi.org/10.1057/palgrave.jibs.8490891>
- Hedlund, G. (1981). Autonomy of subsidiaries and formalization of headquarters: Subsidiary relationships in Swedish MNCs. In L. Otterbeck (Ed.), *The Management of Headquarters: Subsidiary Relationships in Multinational Corporations* (pp. 25–78). UK: Gower (: Aldershot).
- Jackson, G., & Deeg, R. (2008). Comparing capitalisms: Understanding institutional diversity and its implications for international business. *Journal of International Business Studies*, 39(4), 540–561. <https://doi.org/10.1057/palgrave.jibs.8400375>
- Jackson, G., & Deeg, R. (2019). Comparing capitalisms and taking institutional context seriously. *Journal of International Business Studies*, 50(1), 4–19. <https://doi.org/10.1057/s41267-018-0206-0>
- Kostova, T., Marano, V., & Tallman, S. (2016). Headquarters–subsidiary relationships in MNCs: Fifty years of evolving research. *Journal of World Business*, 51(1), 176–184. <https://doi.org/10.1016/j.jwb.2015.09.003>
- Kostova, T., Nell, P. C., & Hoenen, A. K. (2018). Understanding agency problems in headquarters–subsidiary relationships in multinational corporations: A contextualized model. *Journal of Management*, 44(7), 2611–2637. <https://doi.org/10.1177/01492063166648>
- Kostova, T., & Roth, K. (2002). Adoption of an organizational practice by subsidiaries of multinational corporations: institutional and relational effects. *Academy of Management Journal*, 45(1), 215–233. <https://doi.org/10.5465/3069293>
- Kostova, T., Roth, K., & Dacin, M. T. (2008). Institutional theory in the study of multinational corporations: A critique and new directions. *Academy of Management Review*, 33(4), 994–1006. <https://doi.org/10.5465/amr.2008.34422026>
- Lamare, J. R., Gunnigle, P., Marginson, P., & Murray, G. (2013). Union status and double-breasting at multinational companies in three liberal market economies. *ILR Review*, 66(3), 696–722. <https://doi.org/10.1177/001979391306600306>
- Martinez, J. I., & Jarillo, J. C. (1991). Coordination demands of international strategies. *Journal of International Business Studies*, 22(3), 429–444. <https://doi.org/10.1057/palgrave.jibs.8490309>
- Meyer, K. E., & Estrin, S. (2014). Local context and global strategy: Extending the integration responsiveness framework to subsidiary strategy. *Global Strategy Journal*, 4(1), 1–19. <https://doi.org/10.1111/j.2042-5805.2013.01071.x>
- Meyer, K. E., Mudambi, R., & Narula, R. (2011). Multinational enterprises and local contexts: The opportunities and challenges of multiple embeddedness. *Journal of Management Studies*, 48(2), 235–252. <https://doi.org/10.1111/j.1467-6486.2010.00968.x>
- Morantz, A. D. (2017). What unions do for regulation. *Annual Review of Law and Social Science*, 13(1), 515–534.
- North, D. C. (1990). *Institutions, Institutional Change, and Economic Performance*. Cambridge: New York: Cambridge University Press.
- OECD. (2013). Strictness of employment protection legislation: regular contracts. (https://stats.oecd.org/Index.aspx?DataSetCode=EPL_OV).
- Oh, C. H., & Contractor, F. (2014). A regional perspective on multinational expansion strategies: Reconsidering the three-stage paradigm. *British Journal of Management*, 25, S42–S59.
- Oliver, C. (1991). Strategic responses to institutional processes. *Academy of Management Review*, 16(1), 145–179. <https://doi.org/10.5465/amr.1991.4279002>
- Palier, B., & Thelen, K. (2010). Institutionalizing dualism: Complementarities and change in France and Germany. *Politics & Society*, 38(1), 119–148. <https://doi.org/10.1177/00323292093357>
- Parry, E., Farndale, E., Brewster, C., & Morley, M. J. (2021). Balancing rigour and relevance: The case for methodological pragmatism in conducting large-scale, multi-country and comparative management studies. *British Journal of Management*, 32(2), 273–282. <https://doi.org/10.1111/1467-8551.12405>
- Peterson, M. F., Arregle, J. L., & Martin, X. (2012). Multilevel models in international business research. *Journal of International Business Studies*, 43, 451–457. <https://doi.org/10.1057/jibs.2011.59>
- Ployhart, R. E. (2021). Resources for what? Understanding performance in the resource-based view and strategic human capital resource literatures (vol) *Journal of Management*, 47(7), 1771–1786. <https://doi.org/10.1177/014920632110031>
- Prince, N. R., Krebs, B., Prince, J. B., & Kabst, R. (2022). Revisiting Gooderham et al. (1999) “Institutional and rational determinants of organizational practices: Human resource management in European firms”. *Journal of World Business*, 57(6), Article 101316. <https://doi.org/10.1016/j.jwb.2022.101316>
- Pudelko, M., & Harzing, A.-W. (2007). HRM practices in subsidiaries of US, Japanese and German MNCs: Country-of-origin, localization or dominance effect? *Human Resource Management*, 46(4), 535–559. <https://doi.org/libezproxy.open.ac.uk/10.1177/01492063211003137>
- Raudenbush, S.W. & Bryk, A.S. (2002). *Hierarchical linear models: Applications and data analysis methods*: Sage: Thousand Oaks, CA.
- Regnér, P., & Edman, J. (2014). MNE institutional advantage: How subunits shape, transpose and evade host country institutions. *Journal of International Business Studies*, 45, 275–302. <https://doi.org/10.1057/jibs.2013.66>
- Reichstein-Scholz, H., Giroud, A., Yamin, M., & Andersson, U. (2021). Sales to centre stage! Determinants of the division in strategic sales decisions within the MNE. *International Business Review*, 30(6), Article 101859. <https://doi.org/10.1016/j.ibusrev.2021.101859>
- Sijtsma, K. & Molenaar, I.W. (2002). *Introduction to nonparametric item response theory*: Sage: Thousand Oaks, CA.
- Stavrou, E., Parry, E., Gooderham, P., Morley, M., & Lazarova, M. (2021). Institutional duality and human resource management practice in foreign subsidiaries of multinationals. *Human Resource Management Journal*. <https://doi.org/10.1111/1748-8583.12357>
- Tomassen, S., & Benito, G. R. (2009). The costs of governance in international companies. *International Business Review*, 18(3), 292–304. <https://doi.org/10.1016/j.ibusrev.2009.02.005>
- Vahlne, J. E., & Johanson, J. (2021). Coping with complexity by making trust an important dimension in governance and coordination. *International Business Review*, 30(2), Article 101798. <https://doi.org/10.1016/j.ibusrev.2021.101798>
- van Schuur, W. H. (2003). Mokken Scale Analysis: Between the Guttman Scale and Parametric Item Response Theory. *Political Analysis*, 11(2), 139–163. <https://doi.org/10.1093/pan/mpg002>
- Western, B., & Rosenfeld, J. (2011). Unions, norms, and the rise in US wage inequality. *American Sociological Review*, 76(4), 513–537. <https://doi.org/10.1177/000312241141414>
- Wright, P. & van de Voorde, K. 2009. Multilevel issues in IHRM: Mean differences, explained variance, and moderated relationships. In Sparrow, Paul, (Ed.), *Handbook of international human resource management: Integrating people, process, and context*. Chichester: Wiley.
- Wright, P. M., Gardner, T. M., Moynihan, L. M., Park, H. J., Gerhart, B., & Delery, J. E. (2001). Measurement error in research on human resources and firm performance: Additional data and suggestions for future research. *Personnel Psychology*, 54(4), 875–901. <https://doi.org/10.1111/j.1744-6570.2001.tb00235.x>