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Institutional duality and human resource management practice in foreign subsidiaries of multinationals

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Abstract

We examine how institutional context affects the decisions that subsidiaries of multinational corporations (MNCs) make in pursuing particular human resource management (HRM) practices in response to institutional duality. Drawing on Varieties of Capitalism, along with the concept of intermediate conformity, we argue that the use of particular HRM practices by MNC subsidiaries will differ depending on both the combination of home and host institutional contexts, and on the nature of the particular practice under consideration. Using data from a survey of HRM practices in 1196 firms across 10 countries, we compare HRM practices in subsidiaries located and headquartered in different combinations of liberal and/or coordinated market economies. Our study suggests MNC subsidiaries conform only to the most persuasive norms, while exercising their agency to take advantage of the opportunities presented by institutional duality to adopt practices that distinguish them from indigenous competitors.

Abbreviations: CME, Coordinated Market Economy; HLM, Hierarchical Linear Modelling; HRM, Human Resource Management; LME, Liberal Market Economy; MNC, Multi-National Corporation; NGD-CME, Nordic-Germanic-Dutch Coordinated Market Economy; PCA, Principal Components Analysis; US, United States; VoC, Varieties of Capitalism.

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KEYWORDS

HRM practices, MNCs, intermediate conformity, institutional duality, varieties of capitalism

1 | INTRODUCTION

Scholars are increasingly calling attention to the explanatory power of institutional context in accounting for variations in the use of Human Resource Management (HRM) practices within organisations operating across a variety of settings (e.g. Paauwe & Farndale, 2017; Schuler & Jackson, 2014). In particular, institutional factors, commonly referred to as the contextual rules that operate in different settings, enable or constrain the choices available to organisations regarding HRM (Farndale et al., 2017; Gooderham et al., 2019; Gooderham et al., 2006). In multinational corporations (MNCs) that operate across diverse 'home' and 'host' institutional settings and therefore face compliance pressures from multiple contexts, the need to understand what governs HRM practice is particularly acute (Poutsma et al., 2006). Referred to as institutional duality, this requirement for MNCs to follow institutional requirements operating in divergent settings can often generate 'competing and potentially incompatible prescriptions' (Saka-Helmhout et al., 2016, pp. 2).

Scholars have offered four key accounts of how MNCs handle institutional duality. First, MNCs may pursue a localisation or *host country approach* by choosing practices that are similar to those used by indigenous firms in their host countries (Brewster, Woods & Brookes, 2008; Brookes et al., 2017; Rosenzweig & Nohria, 1994). Opting for such an approach may confer legitimacy on the subsidiary within the host location with that legitimacy referring to 'the extent to which an entity is appropriate for its social context' (Tost, 2011, pp. 688–689). Second, MNCs may opt for standardisation or a *country of origin approach* where they seek to retain as many of the practices from their headquarters as possible (Ferner et al., 2013). Such standardisation is pursued in the belief that competitive forces resulting from markets, industrialisation and technology obviate the influence of varying national cultures (Tregaskis et al., 2001). Third, MNC practices might converge on the dominant US model of management, the so called *best practice approach*, regardless of whether these practices are especially common in the home or host country (Edwards, et al., 2013; Pudelko & Harzing, 2007). According to Pudelko and Harzing (2007:540), the pressure to adapt to the dominant model is so strong that MNCs 'strive to standardise their practices (across their foreign subsidiaries)...toward the management model, which represents perceived best practices (dominance effect)' rather than those of their home countries. Finally, in what can be characterised as a *mixed approach*, practices within MNC subsidiaries sometimes converge and sometimes diverge from the host and home country context depending on the specific practice in question. For example, Poutsma et al. (2006) find that both host and home country influence the use of particular bundles of HRM practices depending on the latter's nature. More recently, Farndale, et al. (2017) extend this view by clarifying that certain HRM practices are more institutionally constrained, relative to others, and that the choice of HRM practices is less constrained when operating in liberal rather than coordinated market economies, as they generally have fewer regulations in place.

The cumulative insights from these accounts provide the point of departure for our study. As has been noted 'significant shortcomings' remain in our understanding of how MNCs operating across different environments respond to the institutional duality that they face, so that we still only have a partial understanding of what determines their choices (Saka-Helmhout, et al., 2016, p. 2). We explore the ways in which MNCs respond to competing institutional demands when deciding which HRM practices to implement. This is important in order to understand how the mix of constraints and opportunities that arise for the MNC from its home and host institutional contexts generate a range of options when it comes to the adoption of particular HRM practices.

In turn, we build on Poutsma et al.'s (2006, p. 515) central observation of the criticality of institutional duality in determining the use of HRM practices in MNCs. They highlight: 'In striving to develop consistent organisational

capabilities, MNCs want their subsidiaries to comply [to the home context]... At the same time, the subsidiary confronts pressures to adapt to the institutional patterns specific to that domain in the host country.' However, we are also mindful of Rana and Morgan's (2019, p. 514) argument that institutions serve not only as mechanisms of constraint, but also potentially as 'opportunity providers'.

Rather than examine bundles of HRM practices through a configurational approach (see Poutsma et al., 2006), we focus on single, discrete HRM practices. While a configurational approach is helpful for unearthing the interdependence between practices in providing positive organisational performance outcomes (Delery & Doty, 1996; Misangyi et al., 2017), we suggest that when examining the impact of institutional context on the adoption of HRM practices, this approach makes it more difficult to capture the differences between ostensibly associated practices in relation to their institutional appropriateness. Thus, in order to further unpack the influence of home and host institutional context on the use of HRM practices, we favour an approach that examines single practices, each of which may be subject to different constraints.

We draw on the utility of Farndale et al.'s (2017) argument that, depending on the home and host institutional environments under consideration, not all HRM practices are necessarily subject to the same constraints. However, Farndale et al. (2017) focused only on host country effects, while we explicate the combined impact of both home and host country effects to capture the institutional duality that arises from these two contexts (Witt & Jackson, 2016). In order to conceptualise this duality, we draw on the institutional literature, primarily that on comparative capitalisms and specifically on Hall and Soskice's (2001) Varieties of Capitalism (VoC) classification of liberal market economies (LMEs; e.g., UK) and coordinated market economies (CMEs; e.g., Germany).

We build on the extant literature in three ways. First, in calling attention to the nature of institutional duality that arises from MNCs operating in different combinations of LME and CME home and host settings, we underscore the importance of conceptualising conformity to context as a set of options, rather than a simple 'either or' choice. In this respect, we provide empirical support for the idea of intermediate conformity (Bascle, 2016), developing it further by disentangling the drivers behind the choice of individual practices, and the nature of the mix of host and home country practices suggested by other authors (Farndale et al., 2017; Morgan, 2001). Second, we move past conceptualising duality as simply competing pressures or constraints for institutional isomorphism from the home and host contexts (Kostova & Roth, 2002) and recognise that duality can also present opportunities for subsidiaries to break free from practices dictated by their home or host environments.

Third, we extend the prevalent focus in previous studies on MNCs headquartered in LMEs to also incorporate less frequently investigated MNCs that originate from CMEs. While previous research has examined the impact of LME MNCs entering another LME or CME, we know relatively little about how MNCs from CMEs act when they enter different settings. Studying CMEs is particularly important given the heterogeneous nature of contemporary foreign direct investment patterns in an increasingly diverse range of settings (Child & Marinova, 2014). This enables us to develop a more comprehensive map of variations in the HRM practices MNCs pursue in their subsidiaries.

The remainder of our paper proceeds as follows. First, we draw on insights from institutional theory to situate the choices organisations make in seeking to conform with contextual norms and operationalise institutional settings via the VoC literature to develop a series of hypotheses. Subsequently, we test our arguments using a large-scale dataset of MNC subsidiaries employing different collaborative and calculative HRM practices operating in different LMEs and CMEs. We discuss our key findings in the context of the enfolding literature and highlight the implications arising from our analysis.

1.1 | Institutional context

Scholars have long emphasised the importance of institutional context in governing practices at the organisational level (e.g., Di Maggio & Powell, 1983; Meyer & Rowan, 1977), including in MNCs (e.g., Philips & Tracey, 2009; Marano & Kostova, 2016; Saka-Helmhout, et al, 2016). Managerial approaches are influenced by pressures to

conform to preferred practices and procedures institutionalised in society. More recently referred to as institutional logics (Friedland & Alford, 1991), institutions serve to enable or constrain behaviour and the choices that organisations make (Dacin et al., 2002; Meyer & Rowan, 1977; Scott, 1987). Organisations seek to comply with the dominant institutional logics operating in their environment to gain endorsement from important referent audiences, to understand the social world and thus act confidently within it (Greenwood et al., 2011).

Traditional perspectives emphasise the role of institutional factors primarily as constraints and suggest that organisations are obliged to comply with *all* societal norms, values and formal regulations operating within their institutional context in order to maintain legitimacy. However, some authors have suggested that institutional contexts can also provide opportunities for MNC subsidiaries (e.g., Morgan, 2017), and that organisations possess a degree of agency to take a more balanced, strategic, purposive and selective stance towards compliance (Deephouse & Suchman, 2008; Oliver, 1990). Thus, decisions in relation to practice are rooted in an interplay between the perceived degree of latitude available to the organisation on the one hand, and the perceived level of institutional compliance required on the other (Friedland & Alford, 1991; Thornton & Ocasio, 1999, 2008).

MNCs are physically dispersed in a range of different institutional settings and therefore are exposed to multiple, and often competing logics, resulting from different pressures in their home and host environments. They are forced to engage with multiple logics from across their operating zones, many of which may contain competing prescriptions which may not be easily reconciled (Bascle, 2016; Besharov & Smith, 2014; Kostova & Zaheer, 1999). The responses made to conflicting logics can be viewed as conformity struggles between internal and external stakeholders, struggles which may ultimately affect access to resources and organisational survival (Cloutier & Langley, 2013).

In line with their capacity for achieving a strategic balance in both seeking to respond to institutional requirements and to differentiate themselves from competitors (Deephouse, 1999), and given their status as powerful players in national business ecosystems, MNCs have some discretion when it comes to conforming to norms within their host environments (Bascle, 2016; Ferner et al., 2013). This allows them to exercise agency when conforming to particular norms emanating from their home or host context. In this respect, Kostova et al. (2008, p. 999) observed that 'MNCs enjoy a rich institutional landscape, being exposed to a multitude of diverse practices and patterns of activity' that affords them the 'discretion to choose patterns that they think fit them best.'

In harmony with this strategic perspective, Bascle (2016) suggests that MNCs may adopt 'intermediate conformity,' where they accept some norms, but not others within a particular institutional setting. Bascle connects the level of conformity specifically to proscriptive and prescriptive social norms and their unexplored implications when organisations attempt to deal with them. Bascle distinguishes those norms for which their rejection is in contradiction to the interests of key regulators, as particularly important sources of constraint. Building on this argument, we suggest that, where feasible and desirable, in order to achieve a strategic balance, an MNC will choose to conform to particular norms within their home and host institutional settings, while knowingly rejecting others.

1.1.1 | Operationalizing institutional context and HRM practices

A number of mechanisms are offered in extant literature to conceptualise institutional context. Wood et al. (2014) offer an account of three widely accepted comparative approaches and their merits and shortcomings, namely VoC, business systems theory (BST) and regulation theory (RT). VoC focuses on short- and long-term relations with relevant stakeholders, BST focuses on state-worker and employer-employee relations, and RT focuses on competition and finance while addressing power imbalances between capital and labour.

We draw here on what Witt and Jackson (2016) consider the most prominent of these, the VoC framework and on the distinction between LMEs and CMEs, focussing on different combinations of home and host contexts (Hall & Soskice, 2001). Previous literature has noted differences in the adoption of HR practices among firms in LMEs and CMEs and related this to the influence of institutions (Saka-Helmhout, et al., 2016). We therefore associate market economy with two different approaches to the direction and alignment of HRM. One is the economic perspective,

driven primarily by performance and the other is the predominantly humanistic perspective driven by collaboration and commitment (Poutsma, et al., 2006). The economic perspective approaches HRM as a main contributor to organisational performance by deploying calculative HRM practices that are more likely in LMEs. In contrast, the humanistic perspective underlines the importance of employee commitment by deploying collaborative practices, which are more likely in CMEs (P. N. Gooderham et al., 1999; Poutsma et al., 2006).

In LMEs, firms coordinate their activities primarily via hierarchies and competitive market arrangements; firm behaviour is driven by demand and supply conditions in competitive markets (Hall & Soskice, 2001). LME logics are based on the predominant norm of firm autonomy, short-term returns and maximising shareholder value through economic gain (Cruz-Suárez et al., 2014). The absence of particularly imposing norms in these settings means that organisations face fewer constraints in selecting their HRM practices of choice (Brewster, 1995). Evidence suggests that these logics primarily espouse an economic efficiency perspective and a focus on calculative HRM practices (Cristiani, 2019; Poutsma et al., 2006).

Calculative practices such as formal performance appraisal and individual performance related pay aim at ensuring that each employee's contribution is assessed and rewarded accordingly: this is seen as innate to LMEs as opposed to CMEs where trade unions resist individualised remuneration (P. N. Gooderham, et al., 1999). Calculative HRM approaches might also include collective incentive systems, such as employee share schemes. While some researchers place these practices in a separate category aimed at aligning individual with collective firm interests (Poutsma et al., 2006), others identify them as calculative because their focus is on employee contributions in relation to firm performance (Døving & Nordhaug, 2013). In this study, we therefore examine the prevalence of three core calculative practices widely used in LMEs: formal performance appraisals; individual performance related pay; and employee share schemes.

Conversely, in CMEs, firms depend more heavily on nonmarket stakeholder relationships including works councils and trade unions (Farndale et al., 2008). This entails a high level of regulatory coordination and therefore more constraints than those in LMEs. Thus, firms in CMEs tend to coordinate efforts through long-term relationships that necessitate mechanisms of collective action (Witt & Jackson, 2016). Logics within a CME are driven by strong norms of collaboration and commitment at all levels of the organisation (Poutsma et al., 2006) that manifest themselves in distinctively collaborative HRM practices (P. N. Gooderham, et al., 1999).

Despite their broad commonalities, CMEs exhibit significant variation 'in relation to the institutional structures underpinning strategic coordination [that] can have significant effects on corporate strategy...' (Hall & Soskice, 2001, pp. 34). This has led some researchers to advise caution in employing such a dichotomous approach (Edwards et al., 2016) to comparative capitalisms. For example, Brookes et al. (2017, p. 1693) point critically to the 'very broad, encompassing multiple systemic features' VoC approach and the diversity within the CME grouping, necessitating the introduction of a split in Hall and Soskice's CME category into different groupings (e.g., Witt et al., 2018). However, Hall and Soskice's (2001) research demonstrates that the magnitude of difference between LMEs and CMEs is more substantial than the differences between the various economic types within the CME category. In a similar vein, Witt and Jackson (2016, p. 780) provided evidence to support the validity of the broad CME and LME clusters among industrialised nations, concluding that the VoC framework 'continues to have a uniquely powerful hold.' Therefore, we view the VoC grouping as valuable for distinguishing broad institutional contexts on aspects such as the political system, framework of corporate governance, education and training system and legal code (Farndale et al., 2008; Parry et al., 2008).

Nevertheless, in response to Amable (2003) and Brookes et al. (2017), we accept that in order to theorise and operationalise institutional appropriateness more precisely than previous studies, we should focus on a narrower range of CMEs. Within CMEs one significant distinction may be drawn between those that have statutory co-determination arrangements—the Nordic-Germanic-Dutch (NGD) group of CMEs—and those that do not, such as Belgium and Italy. We focus on NGD-CMEs. A distinguishing feature of these is the powerful normative role of collective forms of decision-making: specifically, the role of works councils is regulated and the role of trade unions, if not regulated, is highly prescribed. Even in Germany where union membership has fallen in recent years, within

core sectors of its economy, unions continue to exert considerable influence in determining salaries and conditions. For example, the IG Metall Engineering Union represents 3.8 million German workers in annual industry-wide negotiations that have a significant impact on wage setting in Germany (Lauer, 2016). Thus, a characteristic feature in NGD-CME countries is a prescribed partnership culture among employers and employees in relation to organisational decision-making through the channels of works councils and trade unions. In this study therefore, we examine two core collaborative HRM practices in the context of NGD-CME countries: employer-employee communication via works councils and via trade unions.

1.2 | Hypothesis development

We suggest that the level of conformity in the use of HRM practices in MNC subsidiaries depends on the *combination* of normative constraints that exist in relation to these particular practices in the subsidiary's home *and* host environments. Using the LME-CME divide, we put forward a four-way grouping of different combinations of home and host institutional settings: *Group (1)* the home country of the MNC is an LME and the host country of the subsidiary is another LME; *Group (2)* the home country of the MNC is an LME and the host country of the subsidiary is a NGD-CME; *Group (3)* the home country of the MNC is a NGD-CME and the host country of the subsidiary is an LME; and *Group (4)* the home country of the MNC is a NGD-CME and the host country of the subsidiary is another NGD-CME.

In *Group (1)*, while no two LMEs are identical, scholars have noted that MNCs from LMEs find it relatively easy to move into other LMEs as there is less dependence on social institutions and more emphasis on the market (Morgan, 2012). Thus, we expect subsidiaries of LME MNCs to be able to fully and freely adopt calculative HRM practices (in our case performance appraisal, employee share schemes and individual performance-related pay) in other LMEs. Conversely, we suggest that the collaborative practices of communicating through trade unions and works councils are unlikely to be used in these subsidiaries as they are not part of the norms of either the home or host setting. Therefore, we propose:

H1 *Subsidiaries of LME MNCs located in other LME settings will adopt calculative HRM practices (performance appraisal, employee share schemes and individual performance related-pay) but not collaborative HRM practices (communicating through trade unions and works councils).*

In *Group (2)* subsidiaries of LME MNCs operating in a NGD-CME will experience pressure from the home setting to use calculative HRM in line with the notion that this enhances performance. However, the host NGD-CME context will act as a constraint on fully doing so. Individual performance related pay, as a highly individualised calculative practice can be described as a proscriptive norm (something that should not be done) within a NGD-CME setting (Bascle, 2016; Poutsma et al., 2006). In contrast, another calculative practice, formal performance appraisals, is more acceptable among subsidiaries in CME settings. Although not commonplace in NGD-CMEs (Chiang & Birtch, 2010), this is typically seen as 'best practice' critical to leveraging human capital to achieve high organisational performance (e.g., Boxall & Purcell, 2003; Takeuchi et al., 2007). In addition, collective incentive schemes, such as employee share schemes, are increasingly being diffused into CME settings (Poutsma et al., 2006) through collective forms of bargaining or management discretion, depending on the regulatory and fiscal regimes, corporate governance and ownership structures involved. Therefore, given that their headquarters originate from an LME, MNC subsidiaries will likely take the opportunity to use collective share schemes in a NGD-CME setting. The NGD-CME setting will also exert pressure for conformity to some aspects of collaborative HRM, particularly those that are mandated by legislation or strong norms. In the case of NGD-CMEs, legislation in regard to using works councils for employer-employee communication is one such pressure. In addition, the use of communication via trade unions in NGD-CMEs, while not mandated by law as in using works councils, is also commonplace among indigenous organisations. Thus, we propose:

H2 *Subsidiaries of LME MNCs operating in a NGD-CME will adopt the collaborative practices of communicating via works councils and trade unions; as well as the calculative practices of formal performance appraisals and employee share schemes; but will avoid the highly calculative practice of individual performance related pay.*

In *Group (3)* subsidiaries of NGD-CME MNCs operating in an LME are not obliged to employ their home collaborative practices in the host setting. Therefore, we expect these subsidiaries to apply intermediate conformity by using low levels of communication through works councils and trade unions. In relation to calculative practices, while host LME logics support their application, the strong proscriptive norms in the home NGD-CME will constrain any inclination to deploy highly calculative practices. Thus, subsidiaries in *Group 3* will be less likely to adopt individual performance related pay but will take advantage of their latitude within the LME setting to adopt practices such as formal performance appraisals and employee share schemes that are more acceptable in their home NGD-CME. We propose:

H3 *Subsidiaries of NGD-CME MNCs located in an LME will not adopt collaborative practices (communicating via works councils and trade unions) or the highly calculative practice of performance-related pay, but will adopt formal performance appraisals and employee share schemes.*

Finally, in *Group (4)* subsidiaries of NGD-CME MNCs operating in another NGD-CME will espouse the local CME logic of collaborative HRM in using communication through trade unions and works councils. In relation to calculative HRM, although NGD-CMEs have generic similarities in relation to the role non-market institutions play in supporting the strategic interaction of firms, they also display considerable variation in the specific ways in which institutions influence company operations (Gooderham et al., 2014). Thus the norms within any two NGD-CMEs are not identical. In turn, a subsidiary originating from one and operating in another NGD-CME will experience institutional duality, and thus undertake intermediate conformity. We propose that these subsidiaries draw on a larger repertoire of strategic responses to institutional pressures than those available to purely domestic NGD-CME players (e.g., Oliver, 1991; Westney, 1993) by taking the opportunity to differentiate themselves from the competition through adopting performance-enhancing calculative practices, such as formal performance appraisals. According to Iseke and Schneider (2012), norms within the global business community encourage MNEs to adopt specific practices where possible, including performance management systems, irrespective of the market economy in the home and host country. However, given their dual NGD-CME context, the use of pay options that differentiate amongst employees, such as individual pay for performance or employee share schemes, will not be adopted due to proscriptive norms in both the home and host settings (Poutsma et al., 2006). Thus:

H4 *Subsidiaries of NGD-CME MNCs located in another NGD-CME will adopt collaborative practices (communicating via works councils and trade unions) and the calculative practice of performance appraisals; but not performance related pay or employee share schemes.*

In summary, given the combination of home and host institutional logics (NGD-CME or LME) and the nature of HRM practices (calculative or collaborative), we argue that MNC subsidiaries will vary in the extent of their conformity in applying such practices in order to gain legitimacy and differentiate themselves in both contexts.

1.3 | Methods

We use data from the 2014–2016 Cranet comparative survey of HRM policies and practices (see Morley & Heraty, 2019; Parry et al., 2011). Cranet focuses on factual information regarding organisations and their HRM policies and is developed using an iterative process based on extant literature and discussions among an international network of collaborators. It is first developed in English and then, to ensure equivalence, translated/back-

translated into the language of each country (Cascio, 2012). Any differences found after the back translation are reconciled after discussion with the partner in each country, to ensure that the questions retain their intended meaning. The survey is pilot tested locally (Cushner & Brislin, 1996) and subsequently distributed by the Cranet representative in each country, to firms with at least 100 employees.

We followed Hall and Soskice's (2001) categorisation of LME and CME countries. The LMEs included were Australia, the UK and the USA. For CMEs, we focused on the NGD countries of Denmark, Finland, Iceland, Sweden, Germany, Austria and the Netherlands. The sample size consisted of 1196 firms and the response rates among countries varied between 16% and 23%. We compared answers from the first 10% to those from the last 10% of respondents and found no evidence of systematic response bias (Cascio, 2012).

Since our data involved a nested structure of 1196 MNC subsidiaries in 10 countries, we used Hierarchical Linear Modelling (HLM) to test our hypotheses. Unlike regular OLS regression, which would assume independence of firms within a country, HLM accounts for the fact that firms within a country may be more similar to one another than firms in other countries, taking into account differences in industry type (Woltman et al., 2012). While increasing the number of countries included would have improved the robustness of the model, simulation studies by Austin (2010) and Maas and Hox (2004), suggest that a small number of Level 2 units, for example as few as five, does not affect the estimations of the regression coefficients and confidence intervals given a large sample size.

1.4 | Variables

Our independent variable was *Type of Operation*. To create a typology of MNC operations we employed a variable consisting of four categories (Groups 1–4 above), showing whether a firm originates and/or operates in an LME or CME. For MNCs subsidiaries in their home country, we have a reference category of indigenous subsidiaries, which we used as controls.

We employed five dependent variables arising from a set of diagnostic analyses, including PCA and Cronbach's alpha. For **calculative HRM practices**, we assessed **Formal Performance Appraisal** by computing the average of the use of formal appraisal system (yes/no) among (a) managerial, (b) professional/technical and (c) clerical/manual staff (Cronbach's alpha 0.868). Our aim was not to differentiate among these types of employees but to explore overall use of formal performance appraisals. Therefore, we first conducted PCA and Cronbach's alpha analyses to ensure that these types of employees were part of one principal component with high reliability. When this is the case, it is common to calculate the average of these options in order to create the new variable (Berenson & Levine, 1989). In a similar fashion, we computed average scores for both **Employee Share Schemes** (yes/no) among (a) managerial and (b) professional/technical (Cronbach's alpha 0.869) and **Individual Performance Related Pay** (yes/no) among (a) managerial, (b) professional/technical and (c) clerical/manual staff (Cronbach's alpha 0.811). Initially we included all three categories of staff in Employee Share schemes and the results remain the same. Subsequently, we removed clerical/manual staff to focus on the more qualified parts of the workforce as previous research indicates that these schemes tend to be specifically aimed at these employee categories as a means to binding them to the firm (Kaarsemaker, Pendleton & Brewster, 2009; Pendleton et al., 2001).

For **collaborative HRM practices**, we assessed **Communication through Trade Unions** as an average composite index (values 0–4) formed from three measures (Cronbach's alpha 0.858): (a) extent to which trade unions influence organisation (0–4); (b) extent of use of trade unions to communicate major issues (i) from management to employees (0–4) and (ii) from employees to management (0–4). **Communication through Works Councils** was an average composite index (values 0–4) formed from two measures (Cronbach's alpha 0.883): extent of use of works councils to communicate major issues (a) from management to employees (0–4) and (b) from employees to management (0–4).

We controlled for several factors that could influence the adoption of HRM practices. **Strategic Position of HRM (SHRM)** (values 0–3) comprised three dichotomous measures: whether the person with responsibility for HRM had

TABLE 1 Descriptive statistics and correlations

	1a.	1b.	1c.	1d.	1e.	1f.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Type of operation															
a. Operate LME, origin CME	1														
b. Operate LME, origin LME	-0.02	1													
c. Operate CME, origin CME	-0.03	-0.05	1												
d. Operate CME, origin LME	-0.02	-0.05	-0.06*	1											
e. Indigenous LME operations	-0.07*	-0.14***	-0.17***	-0.17***	1										
f. Indigenous CME operations	-0.10***	-0.21***	-0.26***	-0.25***	-0.71***	1									
2. Formal performance appraisal	0.05	0.12***	-0.01	0.08**	0.28***	-0.35***	1								
3. Employee share schemes	-0.04	0.07*	0.03	0.10**	0.11***	-0.18***	0.09**	1							
4. Indiv. Perf. Related pay	0.02	0.07*	-0.02	0.04	0.13***	-0.16***	0.24***	0.13***	1						
5. Communication through TU	-0.01	-0.04	0.10**	0.04	-0.31***	0.24***	-0.17***	0.03	-0.08*	1					
6. Communication through WC	-0.04	-0.09**	0.07*	0.12***	-0.41***	0.33***	-0.10**	-0.01	0.00	0.45***	1				
7. Industry (1 = services)	-0.03	0.04	-0.00	-0.10**	0.14***	-0.09**	0.06	0.01	0.07*	-0.11**	-0.20***	1			

(Continues)

TABLE 1 (Continued)

	1a.	1b.	1c.	1d.	1e.	1f.	2.	3.	4.	5.	6.	7.	8.	9.	10.
8. Firm size (ln)	-0.02	-0.00	-0.00	-0.04	-0.00	0.03	0.14***	0.16***	0.15***	0.19***	0.22***	0.01	1		
9. Strategic position of HRM (SHRM)	0.06	0.02	0.05	0.06*	-0.02	-0.05	0.15***	0.13***	0.10**	0.23***	0.12***	-0.02	0.18***	1	
10. Headquarters (0 = no, 1 = yes)	-0.03	-0.04	-0.05	-0.03	0.13***	-0.07*	-0.05*	-0.14***	-0.12***	-0.10**	-0.13***	0.14***	-0.31***	-0.11***	1
Mean/Frequency	0.01	0.04	0.06	0.06	0.32	0.52	0.75	0.15	0.55	0.86	1.12	0.65	6.16	1.77	0.44
SD	0.10	0.20	0.26	0.26	0.45	0.50	0.38	0.33	0.43	1.00	1.21	0.48	1.55	1.00	0.50
Minimum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum	1	1	1	1	1	1	1	1	1	4	4	1	12.39	3	1

Note: CME's are limited to NGD-CME countries.

Abbreviations: CME, Coordinated Market Economy; HRM, Human resource management; LME, Liberal Market Economy; NGD-CME, Nordic-Germanic-Dutch Coordinated Market Economy; SHRM, Strategic position of HRM.

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

a seat on the Board or equivalent (0 = no, 1 = yes); in the cases where the organisation had a business/service strategy, whether the person responsible for HRM was involved in its development from the outset (1 = yes, 0 = no); and whether line management views were considered for the evaluation of the HR function (1 = considered, 0 = not-considered). **Industry** was operationalised as services (1) or manufacturing (0). In the questionnaire, this question used the NACE classification of main sector of industry. We subsequently collapsed this classification into these two sectors and excluded any parts of the classification that did not clearly belong in one of these two. **Headquarters (HQ)** denotes whether the respondent firm is the headquarters (1) or not (0). Finally, **Organisational Size** was measured as the \ln function of employees and subsequently standardised.

2 | RESULTS

Table 1 provides descriptives and bivariate relationships. These support our assertion that calculative HRM practices are more common in organisations indigenous to LMEs and collaborative practices are more common in organisations indigenous to NGD-CMEs (Table 2).

Next, we tested our hypotheses through HLM and controlled for *Strategic Position of HRM (SHRM)*, *Industry*, *Headquarters (HQ)* and *Organisational Size*. The covariance parameters for the random effects are statistically significant ($p < 0.10$), suggesting the contribution of these effects warrants them remaining in the model. In Table 2a, we use operations indigenous to NGD-CME settings as the reference category and test the calculative HRM practices across the different *Types of Operation*. According to this table, *Formal Performance Appraisals* are more likely in all other *Types of Operations*; *Employee Share Schemes* are more likely in firms originating in an LME setting, irrespective of setting of operation; *Individual Performance Related Pay* is more likely only in LME settings, both of origin and operation.

Next, we conducted the same analysis for the collaborative HRM practices, using operations indigenous to LME settings as the reference category of *Type of Operation*. According to Table 2b, *Communication through Works Councils* is more likely in firms operating in NGD-CME settings only, regardless of setting of origin. Furthermore, *Communication through Trade Unions* is more likely in firms operating in and originating from NGD-CME settings.

H1 was supported as *MNC subsidiaries originating in LMEs and operating in other LMEs* were most likely to adopt performance appraisal, employee share schemes and individual performance related-pay. Further, they did not adopt the practice of communicating through trade unions and works councils. H2 is partially supported as *MNC subsidiaries originating in an LME and operating in a NGD-CME* (a) avoided individual performance related pay; (b) adopted formal performance appraisals and employee share schemes (c) but adopted communication only via works councils, not trade unions. H3 was partially supported. In line with our hypothesis, *MNC subsidiaries originating in a NGD-CME and operating in an LME* did not adopt either of the collaborative HRM practices nor performance related pay, but they also adopted formal performance appraisals. However, they did not, as we postulated, adopt employee share schemes. Finally, H4 was supported as *MNC subsidiaries originating in a NGD-CME and operating in another NGD-CME* (a) adopted both collaborative practices; (b) did not adopt performance related pay or employee share schemes; and (c) deviated from host NGD-CME logics by adopting performance appraisals.

3 | DISCUSSION AND CONTRIBUTIONS

In this paper, we have contributed to the on-going debate on how MNCs respond to institutional duality arising from variations in both their home and host contexts when deciding on which HRM practices to adopt. We build on the idea of a 'mixed' approach in relation to adopting HRM practices in subsidiaries of MNCs (Farndale et al., 2017) and also on arguments that MNC subsidiaries that experience institutional duality adopt intermediate conformity (Bascle, 2016). Our operationalisation of duality as a set of combinations of LME and NGD-CME home and host

TABLE 2A HLM Analysis of Type of Operation (*indigenous CME as reference category*)

Indigenous CME as reference category	Formal performance appraisal		Employee share schemes		Indiv. perf. related pay				
	Est.	SE	Est.	SE	Est.	SE			
<i>FIXED Effects</i>									
Intercept	0.59	***	0.06	0.07*	0.04	0.40	***	0.06	
Type of operation									
Operate LME, origin CME	0.29	*	0.13	-0.15	0.12	0.08		0.16	
Operate LME, origin LME	0.32	**	0.10	0.22	**	0.07	0.22	*	0.10
Operate CME, origin CME	0.10	**	0.05	0.03		0.05	-0.04	0.06	
Operate CME, origin LME	0.18	***	0.05	0.17	***	0.05	0.11	0.06	
Indigenous LME operations	0.31	***	0.07	0.11	**	0.03	0.22	**	0.06
Indigenous CME operations (<i>reference category</i>)	0			0			0		
Industry (0 = products, 1 = services)	0.03		0.04	0.02		0.02	0.09	*	0.04
Headquarters (0 = no, 1 = yes)	0.10	*	0.04	0.11	*	0.04	0.12	**	0.06
Firm size (ln)	0.04	**	0.01	0.05	***	0.01	0.03		0.02
Strategic position of HRM (SHRM)	0.06	***	0.01	0.03	**	0.01	0.04	**	0.01
<i>RANDOM Effects</i>									
σ^2_ϵ	0.11	***	0.01	0.10	***	0.00	0.16	***	0.01
σ^2	0.01	*	0.00	0.00		0.00	0.00	^a	0.00
Information criteria (-2 restricted log likelihood)	678.76			510.60			956.48		

Note: CME's are limited to NGD-CME countries.

Abbreviations: CME, Coordinated Market Economy; HRM, Human resource management; LME, Liberal Market Economy; NGD-CME, Nordic-Germanic-Dutch Coordinated Market Economy; SE, standard error; SHRM, Strategic position of HRM.

^a $p < 0.10$.

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

contexts has allowed us to move beyond previous literature and suggest that duality will present a different range of both constraints and opportunities for subsidiaries based upon a variety of norms within the home and host contexts. Suggesting that, given their home context, subsidiary responses to operating in host LME and NGD-CME contexts are substantially different, we have included both LMEs and NGD-CMEs as home and host contexts, which allows us to examine how different characterisations of institutional duality affect the adoption of individual HRM practices.

We support previous research that MNC subsidiaries that both originate and operate in LMEs adapt to their new context with relative ease (Morgan, 2012). In the absence of strong social institutions, and with a focus on the market, these subsidiaries pursue similar calculative HRM practices to those that operate in their home environment to enhance differentiation via individual performance (Poutsma, et al., 2006; Morgan, 2012), while eschewing collaborative practices as these are not needed in order to conform to their institutional context.

Subsidiaries originating in LMEs and operating in NGD-CMEs conform to their host context by adopting communication via works councils but not communication via trade unions, suggesting that this practice might not

TABLE 2B HLM Analysis of Type of Operation (*indigenous LME as reference category*)

Indigenous LME as reference category	Communication through trade unions		Communication through works councils		
	Est.	SE	Est.	SE	
<i>FIXED Effects</i>					
Intercept	0.45	0.26	0.40	0.23	
Type of operation					
Operate LME, origin CME	0.03	0.29	0.44	0.38	
Operate LME, origin LME	0.28	0.17	0.29	0.23	
Operate CME, origin CME	0.69	*	0.30	0.83	**
Operate CME, origin LME	0.47		0.30	1.03	***
Indigenous CME operations	0.73	**	0.28	1.00	***
Indigenous LME operations (<i>reference category</i>)	0		0		
Industry (0 = products, 1 = services)	0.24		0.16	-0.33	*
Headquarters (0 = no, 1 = yes)	-0.24	*	0.11	-0.23	
Firm size (ln)	0.20	***	0.30	0.28	***
Strategic position of HRM (SHRM)	0.07	*	0.03	0.11	**
<i>RANDOM Effects</i>					
σ^2_ϵ	0.65	***	0.03	1.03	***
σ^2	0.10	**	0.03	0.06	*
Information criteria (-2 restricted log likelihood)	2161.63		2603.68		

Note: CME's are limited to NGD-CME countries.

Abbreviations: CME, Coordinated Market Economy; HRM, Human resource management; LME, Liberal Market Economy; SHRM, Strategic position of HRM.

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

be as prescriptive (Bascle, 2016) within NGD-CMEs as expected. A weakening of the position of trade unions in NGD-CMEs and with it their ability to impose themselves as institutional regulators may explain this. For these subsidiaries, calculative HRM is also constrained by the host environment. They are thus unlikely to use highly calculative practices (e.g., of individual performance related pay), but are likely to use other calculative practices that are more institutionally acceptable (e.g., employee share schemes and performance appraisals), which can differentiate them within the CME setting (Poutsma et al., 2006).

These results support previous suggestions that subsidiaries of MNCs consider the 'relative strength of competing forces regulating their behaviour' (Brewster et al., 2008, pp. 333) and use the discretion available to them to make decisions about which norms to comply with (Bascle, 2016; Kostova et al., 2008), but suggest that subsidiaries seek to also maintain their competitive advantage through using performance-enhancing (calculative) practices where possible.

Subsidiaries originating in NGD-CMEs and operating in LMEs avoided collaborative practices and individual performance related pay but adopted performance appraisals. They did not, as expected, adopt high levels of employee share schemes. This suggests that these firms use their agency as subsidiaries of MNCs to discard collaborative practices and adopt those calculative HRM practices that allow them to function competitively in market-based economies.

Finally, MNC subsidiaries originating in NGD-CMEs and operating in other NGD-CMEs seek legitimacy in both their country of origin and operation by adopting collaborative HRM practices and avoiding individual performance related pay and employee share schemes. However, despite their dual NGD-CME contexts these subsidiaries also adopted performance appraisal, a calculative practice more commonly associated with market-driven LMEs. This suggests that not only do subsidiaries from NGD-CMEs take advantage of freedoms within an LME host context to adopt some performance-based practices and learn about market-relations (Morgan, 2012) but also that NGD-CMEs entering other NGD-CMEs will use the latitude available to them (Oliver, 1991) to introduce novel HRM practices by mixing headquarter and local models (Morgan, 2017). Thus, NGD-CMEs will retain those practices (or absence of practices) that are required to maintain legitimacy but will also adopt performance-based practices in an attempt to drive competitive advantage. These findings lead us to question the common description of simple 'trade-offs and compromises between competing pressures and influences' (Brewster et al., 2008, p. 333) and support a focus on the agency of the firm in making decisions in light of institutional constraints and opportunities, rather than a more fatalistic view of local isomorphism.

We move existing arguments forward in three ways. First, we support previous evidence that a subsidiary's decisions in relation to HRM practices are best explained in relation to institutional duality (Brewster et al., 2008), rather than other perspectives that favour a country of origin (Ferner et al., 2013), host country (Rosenzweig & Nohria, 1994) or best practice effect (Edwards et al., 2013; Pudelko & Harzing, 2007). We show that, rather than conformity with either the home or host context, the combination of contexts drives the choice of HRM practices adopted by the MNC subsidiary. Our study therefore empirically supports the idea of intermediate conformity (Bascle, 2016) but develops this idea by attempting to understand the drivers behind the choice of individual practices, in relation to the mix of host and home country logics (Farndale et al., 2017; Morgan, 2001).

Second, we add to existing theoretical understanding of institutional duality itself. Duality involves more than simply competing pressures for institutional isomorphism from the home and host (Kostova & Roth, 2002). Rather, it is a complex intersection of the constraints and opportunities available in the home and host contexts. Crucially, these opportunities arise not only from the move of MNCs from CMEs into less constrictive LMEs, but also from the existence of institutional duality itself for MNCs moving from one CME into another CME. Indeed, differences between restrictions in different CME settings provide opportunities for MNCs to use their agency to adopt practices from *outside* of both home or host logics.

We give expression to the capacity of institutions to serve as both mechanisms of constraint and as 'opportunity providers' (Rana & Morgan, 2019, p. 514). In addition to engaging dynamically between global integration and local responsiveness in order to react to the expectations of their host context and the transfer of practices from headquarters (Morgan & Kristensen, 2006), subsidiaries might also have the latitude to resist institutional constraints and choose HR practices that do not conform with either the home or host context (Oliver, 1991; Pudelko & Harzing, 2007). Thus, we could conceptualise the MNC as a transnational community (Morgan, 2001, 2017) in which it not only makes choices between practices that conform to home or host logics but actually chooses from a wider repertoire of practices depending on the strength of institutional forces and their ambition to improve its competitive advantage through performance enhancing practices.

Finally, we extend existing literature to suggest that the treatment of duality requires not only consideration of this combination of home and host contexts but also of the individual practices being discussed. From a practice perspective, we argue that this mix of considerations stands closer to the experience of managers in MNCs on the ground that they seek to reconcile possibly competing norms, achieve a strategic balance in responding to contextual requirements and leverage particular HRM recipes. In seeking out this strategic balance (Deephouse, 1999), they will, where possible, exercise the agency available to them arising from the resources they possess or can acquire.

Considering these three points in tandem, our work moves beyond Brewster et al. (2008) to paint a picture of management decisions within contexts of institutional duality as being more complex than previous literature has suggested. Our results illustrate that institutional duality presents a variety of practice adoption options, not only

depending on the combination of home and host contexts and the particular HRM practice in question, but also on the motivation of MNCs to exploit available latitude.

4 | LIMITATIONS, FUTURE RESEARCH AND PRACTICE

We accept that the need to extend the VoC framework beyond advanced economies (Fainshmidt et al., 2016; Witt et al., 2018) presents one limitation of our study. Further, we have not undertaken a detailed examination of state-level institutions or of the nature of specific constraints or opportunities within each country setting. To test our hypotheses, the number of practices we have selected is small (albeit they are core HRM practices) so future research should establish whether our results are replicated with a larger repertoire of HRM practices. In addition, we did not compare foreign operations of the same MNC, something which future studies could usefully explore. Finally, our study was cross-sectional and utilised responses from the single most senior HR manager in each subsidiary. Arguably, future studies could include multiple respondents or other additional information sources.

Future research could also usefully build on our ideas regarding the nature of duality to analyse how specific institutional factors such as laws, policies or norms affect the utilisation of specific HRM practices. Scholars might also examine institutional logics at other levels, such as at sector or occupational level. Furthermore, future research designs could add performance outcomes to the proposed relationships to explore the national and organisational conditions under which MNC subsidiaries achieve competitive advantage in relation to their indigenous counterparts through their choice of HRM practices.

Our results provide some indication of how leaders within subsidiaries of MNCs make decisions regarding the HRM practices that they adopt. However, it would be useful to undertake more in-depth research around how leaders actually make these decisions. Practice adoption is likely to be a far more complex process than this quantitative analysis can capture, thus a qualitative analysis that considers aspects, such as relationships and politics within and across subsidiaries might enrich our knowledge in this area (Ferner et al., 2012).

Research might also expand the specific institutional contexts used to include settings beyond the LME and NGD-CME dichotomy. Given that works councils are collaborative institutional arrangements that are primarily features of NGD-CMEs this will involve incorporating less formalised means of employer-employee communication. This would pave the way for comparative analyses of the HRM practices applied by LME and CME MNCs in their respective subsidiaries in emerging and transition economies. In addition, we recognise that our study focuses only on the developed world and that further research might examine subsidiaries of MNCs from emerging economies such as China, Brazil or India, in light of evidence that they follow distinct paths to internationalisation (e.g. Deng, 2012).

Our study has important implications for MNC managers and their understanding of the mechanisms behind MNC practice. MNCs have to confront national level influences when developing consistent HRM practices across their operations. Managers of MNCs continually face pressures to readjust their HRM systems in order to operate in a global context. They do so in the midst of a continuing debate on standardisation versus localisation (Lazarova et al, 2016). In turn, HR and line managers need to be adequately trained to handle such readjustments effectively. They may also need to establish organisational policies specific to the institutional settings in which the firm operates. The results of this study may help them in this endeavour. For example, understanding the differences between LME and NGD-CME settings and the constraints or opportunities of moving from an LME to a NGD-CME and vice versa, or recognising the idiosyncrasies of different NGD-CME settings, could enable management in MNCs to more effectively deploy HRM provisions across institutional settings. Finally, our findings indicate proscribed and prescribed single HRM practices across a range of contexts, suggesting that managers of MNCs should consider the notion of 'intermediate conformity' as a guide to negotiating the implementation of HRM practices and policies that may be less common but yet acceptable in the subsidiary setting.

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DATA AVAILABILITY STATEMENT

The data are not available. These data were collected by Cranet. A condition of membership of the Cranet network is that this data is not shared outside of its members.

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APPENDIX

Complementary Analysis to illustrate differences among Type of Organisation and each HRM Practice

TABLE A1 ANOVA Between HRM Practices and Type of Operation

		Sum of squares	df	Mean square	F	Significance
<i>Formal Performance Appraisal</i>	Between groups	23,34	5	4,67	36,41	0,00
	Within groups	152,72	1191	0,13		
	Total	176,06	1196			
<i>Employee share schemes</i>	Between groups	4,79	5	0,96	9,37	0,00
	Within groups	113,27	1108	0,10		
	Total	118,06	1113			
<i>Individual performance related pay</i>	Between groups	6,35	5	1,27	7,21	0,00
	Within groups	200,19	1137	0,18		
	Total	206,54	1142			
<i>Communication through trade unions</i>	Between groups	119,33	5	23,87	27,31	0,00
	Within groups	1036,54	1186	0,87		
	Total	1155,87	1191			
<i>Communication through works councils</i>	Between groups	330,05	5	66,01	55,34	0,00
	Within groups	1400,50	1174	1,19		
	Total	1730,56	1179			

Note: * $p < 0.05$; ** $p < 0.01$.

Abbreviation: HRM, Human resource management.

TABLE A2 Post Hoc Tests among HRM practice and type of operation

Dependent variable	(I) Type of operation	(J) Type of operation	Mean difference (I–J)	SE	Significance
<i>Formal performance appraisal</i>	Operate LME, origin CME	Operate LME, origin LME	–0,00	0,12	1,00
		Operate CME, origin CME	0,22	0,12	0,60
	Operate LME, origin LME	Operate CME, origin LME	0,09	0,12	0,99
		Indigenous LME	0,06	0,11	0,99
	Indigenous CME	Operate LME, origin CME	0,34	0,11	0,08
		Operate LME, origin LME	0,00	0,12	1,00
	Operate CME, origin CME	Operate CME, origin LME	0,23 [*]	0,07	0,04
		Operate CME, origin LME	0,09	0,07	0,88
	Indigenous LME	Indigenous LME	0,06	0,05	0,95
		Indigenous CME	0,34 [*]	0,05	0,00
	Operate LME, origin CME	Operate LME, origin CME	–0,22	0,12	0,59
		Operate LME, origin LME	–0,23 [*]	0,07	0,04
	Operate CME, origin LME	Operate CME, origin LME	–0,14	0,06	0,41
		Indigenous LME	–0,17 [*]	0,05	0,02
	Indigenous CME	Indigenous CME	0,12	0,04	0,21
		Operate LME, origin CME	–0,09	0,12	0,99
	Operate LME, origin LME	Operate LME, origin LME	–0,09	0,07	0,88
		Operate CME, origin CME	0,14	0,06	0,41
	Indigenous LME	Indigenous LME	–0,03	0,05	0,99
		Indigenous CME	0,25 ^{**}	0,05	0,00
	Operate LME, origin CME	Operate LME, origin CME	–0,06	0,11	0,99
		Operate LME, origin LME	–0,06	0,05	0,95
	Operate CME, origin CME	Operate CME, origin CME	0,17 [*]	0,05	0,02

TABLE A2 (Continued)

Dependent variable	(I) Type of operation	(J) Type of operation	Mean difference (I–J)	S.E	Significance	
	Indigenous CME	Operate CME, origin LME	0,03	0,05	0,99	
		Indigenous CME	0,29**	0,02	0,00	
	Employee share schemes	Operate LME, origin CME	Operate LME, origin LME	-0,34	0,11	0,08
		Operate CME, origin CME	Operate LME, origin LME	-0,34**	0,05	0,00
			Indigenous LME	-0,12	0,04	0,21
		Operate LME, origin LME	Operate CME, origin CME	-0,25**	0,05	0,00
			Indigenous CME	-0,29**	0,02	0,00
		Operate LME, origin CME	Operate LME, origin LME	-0,27	0,11	0,34
			Operate CME, origin CME	-0,18	0,11	0,72
		Operate LME, origin LME	Operate CME, origin LME	-0,28	0,11	0,25
Indigenous LME	-0,21		0,10	0,55		
Operate LME, origin CME	Indigenous CME	-0,09	0,10	0,97		
	Operate LME, origin LME	0,27	0,11	0,34		
Operate CME, origin CME	Operate CME, origin CME	0,09	0,06	0,87		
	Operate CME, origin LME	-0,01	0,06	1,00		
Operate LME, origin CME	Indigenous LME	0,06	0,05	0,92		
	Indigenous CME	0,17	0,05	0,05		
Operate CME, origin CME	Operate LME, origin CME	0,18	0,11	0,72		
	Operate LME, origin LME	-0,09	0,06	0,87		
Indigenous LME	Operate CME, origin LME	-0,09	0,05	0,68		
	Indigenous CME	-0,02	0,04	0,99		
Indigenous CME	Indigenous LME	0,09	0,04	0,44		
	Indigenous CME					

(Continues)

TABLE A2 (Continued)

Dependent variable	(I) Type of operation	(J) Type of operation	Mean difference (I–J)	S.E.	Significance
	Operate CME, origin LME	Operate LME, origin CME	0,28	0,11	0,25
		Operate LME, origin LME	0,01	0,06	1,00
	Indigenous LME	Operate CME, origin CME	0,09	0,05	0,68
		Indigenous LME	0,08	0,04	0,69
	Indigenous LME	Indigenous CME	0,19**	0,04	0,00
		Operate LME, origin CME	0,21	0,10	0,55
		Operate LME, origin LME	−0,06	0,05	0,92
		Operate CME, origin CME	0,02	0,04	0,99
		Operate CME, origin LME	−0,08	0,04	0,69
		Indigenous CME	0,11**	0,02	0,00
	Indigenous CME	Operate LME, origin CME	0,09	0,10	0,97
		Operate LME, origin LME	−0,17*	0,05	0,05
		Operate CME, origin CME	−0,09	0,04	0,44
		Operate CME, origin LME	−0,19**	0,04	0,00
<i>Individual performance related pay</i>	Operate LME, origin CME	Indigenous LME	−0,11**	0,02	0,00
		Operate LME, origin LME	−0,05	0,14	1,00
	Operate CME, origin CME	Operate CME, origin CME	0,12	0,14	0,98
		Operate CME, origin LME	0,02	0,14	1,00
	Indigenous LME	Indigenous LME	0,01	0,13	1,00
		Indigenous CME	0,16	0,13	0,92
	Operate LME, origin LME	Operate LME, origin CME	0,05	0,14	1,00
		Operate CME, origin CME	0,17	0,08	0,48
		Operate CME, origin LME	0,07	0,08	0,98
		Operate CME, origin LME	0,07	0,08	0,98

TABLE A2 (Continued)

Dependent variable	(I) Type of operation	(J) Type of operation	Mean difference (I–J)	S.E	Significance
		Indigenous LME	0,06	0,07	0,98
		Indigenous CME	0,21	0,07	0,07
	Operate CME, origin CME	Operate LME, origin CME	-0,12	0,14	0,98
		Operate LME, origin LME	-0,17	0,08	0,48
		Operate CME, origin LME	-0,09	0,07	0,87
		Indigenous LME	-0,11	0,05	0,53
		Indigenous CME	0,04	0,05	0,99
	Operate CME, origin LME	Operate LME, origin CME	-0,02	0,14	1,00
		Operate LME, origin LME	-0,07	0,08	0,98
		Operate CME, origin CME	0,09	0,07	0,87
		Indigenous LME	-0,01	0,06	1,00
		Indigenous CME	0,14	0,05	0,29
	Indigenous LME	Operate LME, origin CME	-0,01	0,13	1,00
		Operate LME, origin LME	-0,06	0,07	0,98
		Operate CME, origin CME	0,11	0,06	0,53
		Operate CME, origin LME	0,01	0,06	1,00
		Indigenous CME	0,15**	0,03	0,00
	Indigenous CME	Operate LME, origin CME	-0,16	0,13	0,92
		Operate LME, origin LME	-0,21	0,07	0,07
		Operate CME, origin CME	-0,04	0,05	0,99
		Operate CME, origin LME	-0,14	0,05	0,29
		Indigenous LME	-0,15**	0,03	0,00

(Continues)

TABLE A2 (Continued)

Dependent variable	(I) Type of operation	(J) Type of operation	Mean difference (I–J)	SE	Significance
<i>Communication through trade unions</i>	Operate LME, origin CME	Operate LME, origin LME	0,10	0,31	1,00
		Operate CME, origin CME	−0,49	0,30	0,76
	Operate LME, origin LME	Operate CME, origin LME	−0,25	0,30	0,98
		Indigenous LME	0,35	0,29	0,92
	Indigenous CME	Operate LME, origin CME	−0,33	0,28	0,93
		Operate CME, origin CME	−0,10	0,31	1,00
	Operate LME, origin CME	Operate CME, origin LME	−0,59 [*]	0,17	0,04
		Operate CME, origin LME	−0,35	0,18	0,55
	Indigenous LME	Indigenous LME	0,25	0,14	0,71
		Indigenous CME	−0,43	0,14	0,09
	Operate LME, origin CME	Operate LME, origin CME	0,49	0,30	0,76
		Operate LME, origin LME	0,59 [*]	0,17	0,04
	Operate CME, origin LME	Operate CME, origin LME	0,24	0,16	0,81
		Indigenous LME	0,84 ^{**}	0,12	0,00
	Indigenous CME	Indigenous CME	0,17	0,12	0,84
		Operate LME, origin CME	0,25	0,30	0,98
	Operate LME, origin LME	Operate LME, origin LME	0,35	0,18	0,55
		Operate CME, origin CME	−0,24	0,16	0,81
	Indigenous LME	Indigenous LME	0,59 ^{**}	0,12	0,00
		Indigenous CME	−0,07	0,12	0,99
Operate LME, origin CME	Operate LME, origin CME	−0,35	0,29	0,92	
	Operate LME, origin LME	−0,25	0,14	0,71	
Operate CME, origin CME	Operate CME, origin CME	−0,84 ^{**}	0,12	0,00	

TABLE A2 (Continued)

Dependent variable	(I) Type of operation	(J) Type of operation	Mean difference (I–J)	SE	Significance
<i>Communication through works councils</i>	Operate CME, origin LME	Operate CME, origin LME	-0.59**	0.12	0.00
		Indigenous CME	-0.67**	0.06	0.00
	Indigenous CME	Operate LME, origin CME	0.33	0.28	0.93
		Operate LME, origin LME	0.43	0.14	0.09
	Operate CME, origin CME	Operate CME, origin CME	-0.17	0.12	0.84
		Operate CME, origin LME	0.07	0.12	0.99
	Indigenous LME	Indigenous LME	0.67**	0.06	0.00
		Operate LME, origin LME	0.09	0.37	1.00
	Operate CME, origin CME	Operate CME, origin CME	-0.78	0.35	0.44
		Operate CME, origin LME	-1.03	0.36	0.14
	Indigenous LME	Indigenous LME	0.31	0.33	0.98
		Indigenous CME	-0.81	0.33	0.31
	Operate LME, origin LME	Operate LME, origin CME	-0.09	0.37	1.00
		Operate CME, origin CME	-0.87**	0.21	0.00
Indigenous LME	Operate CME, origin LME	-1.12**	0.21	0.00	
	Indigenous LME	0.21	0.17	0.91	
Indigenous CME	Indigenous CME	-0.90**	0.17	0.00	
	Operate LME, origin CME	0.78	0.35	0.44	
Operate CME, origin CME	Operate LME, origin LME	0.87**	0.21	0.00	
	Operate CME, origin LME	-0.25	0.19	0.87	
Indigenous LME	Indigenous LME	1.08**	0.14	0.00	
	Indigenous CME	-0.03	0.14	1.00	

(Continues)

TABLE A2 (Continued)

Dependent variable	(I) Type of operation	(J) Type of operation	Mean difference (I–J)	SE	Significance
Operate CME, origin LME	Operate LME, origin CME	Operate LME, origin CME	1.02	0.36	0.14
		Operate LME, origin LME	1.12 ^{**}	0.21	0.00
		Operate CME, origin CME	0.25	0.19	0.87
		Indigenous LME	1.33 ^{**}	0.15	0.00
		Indigenous CME	0.22	0.14	0.79
Indigenous LME	Operate LME, origin CME	Operate LME, origin CME	–0.31	0.33	0.98
		Operate LME, origin LME	–0.21	0.17	0.91
		Operate CME, origin CME	–1.08 ^{**}	0.14	0.00
		Operate CME, origin LME	–1.33 ^{**}	0.15	0.00
		Indigenous CME	–1.11 ^{**}	0.07	0.00
Indigenous CME	Operate LME, origin CME	Operate LME, origin CME	0.81	0.33	0.31
		Operate LME, origin LME	0.90 ^{**}	0.17	0.00
		Operate CME, origin CME	0.03	0.14	1.00
		Operate CME, origin LME	–0.22	0.14	0.79
		Indigenous LME	1.11 ^{**}	0.07	0.00

Abbreviations: CME, Coordinated Market Economy; LME, Liberal Market Economy; SE, Standard Error.

^{*} $p < 0.05$.^{**} $p < 0.01$.