The determinants of central control and subsidiary ‘discretion’ in HRM and employment relations policies

Findings from a large-scale survey in foreign multinational subsidiaries in the UK

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Introduction

Multinational companies (MNCs) can be seen as actors which create their own governance structure in the field of HR/IR. These structures cut across the conventional tiers of work governance, such as nation and sector. A key question in understanding the nature of HR/IR governance within national systems is the degree to which local operations of MNCs act independently of headquarters. To what extent do subsidiaries, rather than higher organisational levels located within other business systems, have discretion or ‘decision-making authority’ (Garnier 1982: 893-4) over HR/IR issues? The more that subsidiaries are subject to control of higher-level HQs located elsewhere, the more complex and heterogeneous governance structures within a given national territory are likely to become.

There has been wide debate in the international business literature (e.g. Bartlett and Ghoshal 1998; Edström and Galbraith 1977; Harzing 1999; Martinez and Jarillo 1989; 1991) on mechanisms of control and coordination in MNCs. The use of such mechanisms varies according to factors such as MNC nationality and nature of product markets (e.g. Harzing 1999). Martinez and Jarillo (1989) found an evolution in control mechanisms as bureaucratic methods are supplemented by more ‘subtle’, informal mechanisms such as networks. It has been argued (Ferner 2000) that formal control systems are inherently dependent on such ‘subtle’ mechanisms.

In this paper, the primary focus is on the extent to which subsidiaries are able to determine policy in a range of HR/IR areas: pay and performance management; training and development; employee involvement; and employee representation. Do subsidiaries have discretion to set policy in these areas, or are they circumscribed by higher organisational levels, either through detailed policy prescription, or through broader frameworks guiding subsidiary policy-making? Such constraints on subsidiary HR policy may derive from global corporate HQ, or from a range of intermediate organisational structures between the host country operation and corporate HQ, such as international product divisions or geographical regions.

Drawing on a large-scale survey of employment practice in foreign MNCs operating in the UK, this paper examines the following questions:

1. To what extent do UK subsidiaries of foreign MNCs have discretion over policy-making in a range of HR/IR areas?

2. What factors best predict the variations observed in the degree of subsidiary discretion?
Central control and subsidiary discretion in MNCs

A number of key variables have been associated with the level of central control over subsidiaries within MNCs. First, there are broader ‘demographic’ variables concerning the nationality, sector, age and size of MNCs. Second, aspects of corporate structure and strategy, such as the nature of international organisational structures, the kind of product, and the degree of international integration of operations within the MNC, have been identified as important variables in determining the level of central control. A third set of factors, little discussed in the literature, concerns the way in which the HR function itself is structured. Finally, control may vary between different groups of HR practices, e.g. between performance management and employee representation, or between practices affecting managers and those affecting non-managerial employees. Each of these sets of issues are discussed in more detail below, and hypotheses are proposed.

National origin and control

A large body of research has repeatedly demonstrated the importance of country of origin in different aspects of control. As Harzing and Sorge (2003: 187) argue, ‘Multinationals appear to follow the tracks of coordination and control in which they have become embedded in their country of origin.’

Much research on national differences in control draws heavily on a ‘cultural values’ perspective (e.g. Hamilton & Kashlak 1999; Ngo et al. 1998), though in more recent years there has been growing awareness of the limitation of cultural values approaches not underpinned by more concrete conceptualisation of institutional differences between national business systems. Institutional approaches root behaviour in specific and concrete characteristics of the organisation of business activity and markets, the interactions between economic actors in markets, and the relationship between actors and the state in parent country economies. Such characteristics give rise to distinctive resource endowments, competences and ‘institutional complementarities (Hall and Soskice 2001; Porter 1990). The implications for centralised control of this approach are likely to be significantly different compared with those of traditional cultural values approaches using indices of ‘power distance’, ‘uncertainty avoidance’, etc.¹

¹ For example, the US has low power distance and uncertainty avoidance and this presumably would indicate relatively low centralisation of policy-making. In fact, as is discussed below, centralisation is typically high in US firms.
In the specific area of HR/IR, both survey and case-study research also concludes that US MNCs tend to be more centralised on HR/IR issues than do other MNCs (e.g. Bomers and Peterson 1977; Negandhi 1986; Young et al. 1985; Yuen and Kee 1993). Single-country studies confirm the importance US MNCs attach to centralised determination of policy on pay and performance management, management development, employee representation, and so on (e.g. Almond and Ferner 2006; Dunning 1998; Fenton-O’Creevy et al. forthcoming; Martin and Beaumont 1999). Such central control is also associated with formalisation, i.e. the codification of systems and procedures to guide action (cf. Bartlett and Ghoshal 1998: 80). In US MNCs, formalisation provides channels for the exertion of central influence in systematic, proceduralised ways (e.g. Negandhi 1983).

Japanese MNCs, in contrast are more likely to rely on personal control through the use of expatriates in key management positions in subsidiaries (Chang and Taylor 1999; Chung et al. 2006; Kranias 2000; Liebau and Wahnschaffe 1992). Central influence is therefore more diffuse and indirect, since it is carried through the business approach of Japanese managers rather than through formal systems. To put it another way, central control is internalised within the senior managers of the subsidiaries. Thus one would expect subsidiaries to have considerable formal discretion over HR/IR policy-making, even though (as Rosenzweig and Nohria 1994: 247-8 found) their practices are likely to be closer to parent practice compared with MNCs of most other nationalities. There is less research on MNCs of other national origins. However, studies of German MNCs suggest that a lower degree of centralisation of HR/IR is likely to be found, partly because of the low ‘context generalisability’ (Taylor et al. 1996) of typical features of German HR/IR such as codetermination and the dual system of training (e.g. Dickmann 2003; Quintanilla 2002).

Such findings may be seen as reflecting characteristic institutional features of the national business systems in which firms originate and which colour their behaviour as MNCs. For example, US firms developed at an early stage the ‘organisational capabilities’ to manage geographically dispersed firms through formal systems that allowed delegation of operational decision-making to managers within a framework of centrally determined and monitored constraints (Chandler 1990). Centralisation in the HR/IR field was reinforced by factors including: an early emphasis on standardised mass production; the bureaucratisation and joint management–union regulation under the New Deal model of IR; the concern of non-union ‘welfare capitalist’ firms to ensure employee commitment through a strategic and coordinated approach to employment relations; and the impact of equal employment opportunities
legislation from the 1960s (e.g. Jacoby 1997; Kochan et al. 1994). Moreover, as Chandler argues, the codification of control through formal systems made it relatively straightforward to extend these organisational capabilities across national boundaries; particularly in a context of US global economic hegemony, and given the high ‘context generalisability’ of practices developed in a liberal market economy. We would therefore expect to find that US MNCs are more centralised in the determination of policy on HR/IR than are MNCs of other nationalities. Conversely, we would expect MNCs from what Hall and Soskice (2001) designate as ‘coordinated market economies’ (CMEs), such as Germany and Japan, with more institutionally ‘dense’ business systems in which practices are embedded in specific and hard-to-transfer institutional arrangements, to be less likely to exert central control over HR policy-making (cf. Whitley 2001).

Hypothesis 1a: subsidiaries of US MNCs will have less discretion over the determination of HR policy than MNCs from other countries of origin.

Hypothesis 1b: subsidiaries of companies from CME countries will have greater discretion over the determination of HR policy than MNCs from other countries of origin.

International integration, standardisation, and control

Researchers have long associated the degree of international integration of operations with the degree of control in MNCs. A number of authors have characterised a subsidiary’s integration into the wider MNC in terms of the flow of information and resources (such as production inputs) between subsidiaries and the centre (e.g. Gupta and Govindarajan 1991; Martinez and Ricks 1989). The more there is two-way flow of resources, the higher the degree of integration and the greater the mutual dependence of the centre and subsidiary. Moreover, the MNC’s exposure to risk (cf. Garnier 1982) is higher where international operations are highly interdependent and there is thus a greater incentive for HQ to control subsidiary operations in such cases.

However, the implications of interdependence for control are ambiguous. Ambos and Schlegelmilch (2007: 476-7) argue that ‘units controlling strategically important resources with few options for alternative sourcing should command a high power within the network’, and that ‘network centrality’ of a subsidiary reduces the ability of the centre to exercise hierarchical power (cf. also Edwards, R. et al. 2002). In other words, subsidiaries with, say, global mandates on behalf of the MNC, or with
responsibility for significant R&D activity, might experience less central control. Garnier (1982), for example, observed a negative relationship between integration and control. But findings generally point in the other direction. Ambos and Schlegelmilch (2007; see also Edwards, R. 2002) found that ‘interdependence’, as measured by the proportion of work received from and passed on to other units, and the percentage of jointly developed projects, was positively related to different modes of control. Further, Ambos and Schlegelmilch found that control of subsidiaries with global mandates tended to be higher, and concluded (2007: 481) that this ran counter to what might be expected from a power dependency perspective.

International integration may also be conceptualised in terms of a contrast between segmentation and standardisation (Edwards and Kuruvilla 2005). In segmented integration, there is likely to be an international division of labour among subsidiaries, i.e. different subsidiaries attend to different activities within an internationally coordinated value chain.\(^2\) The division of labour may indicate different skill sets, workforce composition, kinds of labour process, and so on, with a lower likelihood of central control of HR issues. However, as indicated above, it could be argued that the greater the parent’s resource dependency on the subsidiary, the greater the former’s motive for control even if segmentation is high. In short, resource dependency pressures may increase the subsidiary’s capacity to resist central control while at the same time increasing HQ’s motive for exerting it (by e.g. increasing its exposure to risk). It is therefore possible that such countervailing tendencies may cancel each other out and that the net effect of integration is neutral.

**Hypothesis 2a:** On resource dependency and risk grounds, subsidiaries highly integrated into MNC resource flow networks will experience less discretion. Alternatively:

**Hypothesis 2b:** On network centrality grounds, on resource availability grounds, and on the grounds of the performance of differentiated functions within the global MNC, subsidiaries highly integrated into resource flow networks, &/or with ‘global mandates’ on behalf of the MNC as a whole, will have greater discretion over HR policy-making.

Taking both elements into account:

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\(^2\) It could be argued that segmented integration is likely to be associated with high interdependence, in terms of the exchange of inputs between operation units, since the division of labour necessitates the exchange of resources between units.
Hypothesis 2c: The overall impact of high integration on subsidiary discretion will be broadly neutral.

International integration may be on the basis of standardisation rather than segmentation. This is the degree to which an MNC produces products or services that are standardised across different national markets. In firms producing highly standardised products and services internationally, skills, composition of the workforce, employee roles, the organisation of work, etc. are more likely to be similar in different national operations. Where a company produces standardised products to serve international markets, central control is likely to be higher than either where integration is achieved through ‘segmentation’, or where products are produced to serve local markets and international integration in production is therefore low. Fenton-O’Creevy et al. (forthcoming), for example, found that US MNCs exert less central control over HRM in subsidiaries serving domestic rather than global markets, arguing that subsidiaries with primarily ‘domestic mandates’ customise their products, skills and marketing strategies to the local market.

Hypothesis 3: subsidiaries of MNCs whose products tend to be standardised globally or regionally will experience more central control of HR than those whose products are adapted to the specific requirements of the national market.

A final aspect of international integration is the nature of international organisational structures in the MNC. While there is little research on the relationship between such structures and the mode of control, it may be argued that tiers such as international business divisions, geographical regions and global functional structures provide additional sources and levels of control over subsidiary operations. In diversified MNCs with a wide range of products, for example, intermediate organisational structures in effect break the corporation into subunits of a more homogeneous nature in which control may be effectively exerted. Thus the argument of some authors (e.g. Garnier 1982), that subsidiary autonomy is related to the degree of diversification of products, is problematic in that MNCs with diversified product ranges may well manage them in distinct product divisions, within each of which the range of variation may be restricted, and control may be exerted not at the level of the MNC as a whole but at that of the product division. Where multiple intermediate levels exist, matrix structures are likely to emerge, generating formal processes to manage conflicts.
between tiers, e.g. between business divisions and geographical structures, and increasing the likelihood of higher-level control of lower-level activity.\textsuperscript{3}

\textit{Hypothesis 4: The existence of intermediate tiers of international organisation between host country operations and MNC headquarters is likely to be associated with higher levels of control.}

\textbf{Structure of the international HR function}

There has been little if any systematic research on the relationship between different structural mechanisms within the HR function – e.g. international HR structures, formal systems for data reporting, informal cross-national networking, etc. – and the degree of central control. Nonetheless, HR structure would seem to be an important factor in mediating between business strategy or nationality of ownership and discretion. The way in which the function is organised may be seen as critical for providing ‘organisational capabilities’ (Chandler 1990) to enable control to be exerted in the field of HR/IR.

First, central control is more feasible where there is a central body with international oversight for HR policy development in the MNC. Second, central control is facilitated by formal global systems for monitoring HR/IR; for example, international electronic information systems (such as SAP HR or PeopleSoft) permit accurate and speedy surveillance of such HR outcomes as completion of performance appraisal processes or employee attitude surveys, gender composition of the workforce, labour turnover, etc. This provides higher organisational levels with both context concerning the implementation of existing policy and the knowledge basis for the determination of new policy. It also enables them to intervene in the case of subsidiary ‘deviance’ from agreed objectives or ranges of outcomes. Third, while virtually all MNCs are likely to monitor at least some aspects of subsidiary HR/IR, the greater the range of issues monitored by such systems the more likely the MNC is to have a ‘control orientation’ towards HR/IR in its subsidiaries. Fourth, the existence of mechanisms for delivering HR services to its internal ‘customers’ across national boundaries may be seen as an indicator of the capability of the MNC to coordinate and control HR/IR internationally and its orientation to seeking international economies of scale in the

\textsuperscript{3} Edwards R. et al. (2002: 184-5) hypothesised that ‘subsidiaries categorised as being part of MNCs with regional divisions [would] enjoy more autonomy than subsidiaries that are part of MNCs organised into product divisions’. However, this proposition was unsupported by their data.
provision of HR services. Since economies of scale would be vitiated by subsidiaries’ attempts to develop their own policies, such an orientation is likely to predispose firms towards centralised policy development in order to maximise the benefits to ‘centralisation’ and ‘standardisation’ and minimise the costs of subsidiary autonomy (cf. Schmitt and Sadowski 2002).

In short, aspects of the international HR function may be seen as part of the ‘technology of control’ of HR, and their presence or absence is likely to influence the degree of control over and above the factors discussed above. Hence:

Hypothesis 5a: subsidiary discretion is likely to be less where the HR ‘technology of control’ is present, as measured by i) the presence of an international HR policy-making body; ii) the existence of international electronic HR information systems; iii) the collection of a range of HR outcome data; and iv) the existence of international ‘shared service’ centres.

A final aspect of the structure of the international HR function that is relevant for control is the existence of mechanisms for bringing together members of the HR function on a cross-national basis. These may be periodic meetings, international task forces, virtual groups and other forums. Such contact permits ‘personal’ control by the centre of subsidiary HR activity, and facilitates knowledge exchange. Contact between members of the HR function may be regarded more as a form of organisational learning and knowledge networking than of higher-level control. Nonetheless, such networked-based mechanisms may be seen as a form of ‘social control’. The literature suggests that such informal mechanisms may be complements to formal control mechanisms such as policy prescription and outcome monitoring in the HR area (see Ferner 2000, and more generally Martinez and Jarillo 1989).

Hypothesis 5b: the existence of mechanisms for bringing together HR managers from different countries in a systematic way is likely to be associated with lower subsidiary discretion in HR/IR policy-making.

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4 A note of caution is necessary. Although HR structures may be seen as part of the technology of control, the direction of causation is ambiguous. Do such structures predispose companies towards tighter central control, or do companies with an orientation to tight central control introduce such mechanisms in order to accomplish it? In either event, it is important to establish whether linkages exist.
Central control and the nature of HR/IR issues

Rosenzweig and Nohria (1994) in their study of foreign subsidiaries in the USA reported differences in the degree of local adaptation of policy according to the nature of the HR issue. They found overall that ‘HRM practices with precise or mandated local norms most closely resemble local practices, whereas those HRM practices that have to do with executives or speak to the internal decisionmaking of the firm tend relatively more to resemble the parent’s practices’ (pp241-2). For example, policies affecting ‘rank-and-file’ employees, such as union recognition, were more likely to be influenced by local institutional arrangements and to be more distant from parent practices. Conversely, executive bonus arrangements and participation were likely to be closer to parent norms.

While this approach seems prima facie plausible, it needs qualifying in some respects. First, rank-and-file policies are not likely to be equally affected by local institutional arrangements, and the degree to which they are affected is likely to vary from host country to host country. In the UK context, for example, issues of workplace involvement through teamworking, quality circles, etc. are not subject to major institutional constraints. Second, it seems likely that MNCs will vary in their desire to exert central control over particular HR practices and policies. As Taylor et al. (1996) argue, MNCs are more likely to exert central control over policies seen as crucial for international competitive advantage. Moreover, arguments about the national origins of competitive advantage (Porter 1990) and the specific ‘institutional complementarities’ of different business systems (Hall and Soskice 2001) suggest that MNCs of different nationality are likely systematically to prioritise certain areas of HR practice, and hence to exert central control over them. For example, Japanese firms, given their competitive advantages in production organisation, may wish to privilege aspects of employee involvement and team working. More broadly, firms from coordinated market economies (CMEs) are likely to privilege training and development, while US firms may accord greater priority to controlling managerial

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5 Rosenzweig and Nohria make the important point that degree of similarity to the local practice does not equate straightforwardly to subsidiary discretion. Thus conclusions for control must be made with considerable caution. An example would be the case of Japanese firms mentioned above: the degree of subsidiary discretion is likely to be high, but similarity of practices to parent company practices is also high, as Rosenzweig and Nohria find (pp. 247-8).
performance and policy on union representation than to say employee involvement. Hence:

Hypothesis 6a: The degree of central control will vary according to the nature of the HR/IR policy; ‘rank-and-file’ policies such as union representation may be subject to greater local institutional influence and hence less central control.

Hypothesis 6b: The relative ranking of degrees of central influence/subsidiary discretion is likely to vary between MNCs of different national origin.

Finally, for issues affecting non-managerial employees, the predictors of subsidiary discretion may be expected to differ in certain ways from those affecting managers. Fenton-O’Creevy et al. (forthcoming) examine the impact of the presence of unions on management control of subsidiary HR, and find that control is inversely related to union density. However, it seems likely that the impact of union presence is felt almost exclusively on issues affecting ‘rank and file’ employees.

Hypothesis 6c: Union presence will be a significant predictor of subsidiary discretion for employment practices affecting rank and file employees.

Methods

Overview

The data used in this paper derive from a survey of employment practices and organisational characteristics of MNCs operating in the UK. The UK is an important site for the operation of foreign companies, second only to the USA in terms of inward foreign direct investment (FDI) stock (UNCTAD 2006). Nonetheless, there have been few systematic surveys of the HR/IR behaviour of MNCs operating in the UK. The surveys that have been conducted have tended to focus on particular nationalities (e.g. Dunning 1998; Tüselmann 2003), or are concerned with greenfield firms (e.g. Guest and Hoque 1997), or have drawn on broader surveys (such as WERS and Cranet) not primarily intended as studies of MNCs (e.g. Buckley and Enderwick 1985; Fenton-O’Creevy et al. forthcoming). Much of the work is case-study-based,

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6 This is part of a wider project, with a consortium of partners in different countries, examining MNC behaviour in a variety of host business systems, particularly exploring a range of liberal market economies.
with the danger that the view of MNCs is shaped by a focus on a relatively small number of large, high-profile companies (cf. Rugman and Collinson 2005).

The survey is based on two distinct populations, constructed using published sources, particularly AMADEUS and FAME. A variety of other sources were used to supplement these two databases and to reconcile differences between them. Details of the process are described in Edwards, T. et al. (2007). The first population comprises all foreign companies with at least 500 employees worldwide of whom at least 100 are in the UK; the second covers all UK-owned MNCs with at least 500 employees worldwide of whom at least 100 are outside the UK. The database was initially constructed in 2002 and updated in 2004-5. This updated database contained 3099 companies of which were 2242 were foreign-owned, 681 were UK-owned and 176 were joint UK/foreign-owned.

The survey was conducted using a professional survey firm, GfK-NOP, in two phases: a telephone screening survey, and a main face-to-face survey. The screener was used to check the reliability of the population data and to ask some preliminary questions about organisational structure and HR. Nearly 950 firms screened out of the population (mainly on the basis of size), resulting in a valid population of 2,148 firms. A total of 903 usable responses resulted from the screener, representing a response rate of 43% of the eligible population. Assuming that non-respondents would have screened out of the population at the same rate as respondents, it is possible to calculate a likely maximum response rate for the screening survey of 52%.

The main survey was conducted face-to-face using CAPI (computer-aided personal interviewing) with respondents who had answered the telephone screener. The respondent in each case was a senior HR manager in the UK operations. The aim was to collect data on the organisational structure of the MNC and on substantive HR/IR themes. On organisational structure, areas of investigation included:

- the international structuring of firms into business divisions, regions, business functions or national subsidiaries;
- the structure and operations of the HR function, e.g. concerning the setting of an overall HR philosophy, the monitoring of HR in subsidiaries, the existence of international HR managers’ forums, etc.;
- the extent of product diversification and standardisation;
- the degree of international integration in product or service provision.
On HR/IR, information was collected on the following four broad areas:

- Pay and performance management;
- Organisational learning, including training and development;
- Employee direct involvement, communication and participation;
- Employee representation, including union recognition and employee consultation.

Fieldwork took place in late 2005 and early 2006. On average, each interview lasted 70 minutes. There were 302 usable responses, a response rate of 33 percent in relation to the telephone screening survey. Representativeness checks were conducted in relation to the screener, and also from the screener back to the original eligible population; significant non-concordance in respect to nationality of ownership, sector and size did not result in biasing of responses to the survey questions in the screener relative to firms correctly classified on these variables.

Of the 302 firms, 44 were from the UK and these were excluded from the analysis in this paper. Of the remaining 258 firms, 94 were from Europe excluding the UK; 123 from the US, 23 from east Asia (mainly Japan) and 18 from the rest of the world.

**Measures**

**Dependent variable**

Previous research into central control and subsidiary discretion in HR/IR has sometimes conceptualised control as a binary issue: control is either located at the subsidiary or at HQ (or some other higher level). For example, a recent study operationalises centralized control in an index indicating whether policies are set at international headquarters or in the host country (Fenton-O’Creevy et al. forthcoming). This approach has limitations in that control/discretion may best be conceptualised as a continuum. At one end, the subsidiary has total discretion over the establishment of policy; at the other, it is forced to conform to detailed policies set by a higher level. At intermediate values, however, the centre may intervene through

7 UK firms were asked analogous discretion questions, but as these concerned higher level control of domestic UK operations of UK MNCs, or of higher level control of non-UK operations, they were not strictly comparable to the questions asked of foreign MNC respondents.
prescribing broad policy guidance rather than by setting detailed policy. The present survey therefore adopted the approach of a discretion scale.

Data were collected on a total of 17 HR/IR issues on the discretion of the UK operations in policy-making with respect to higher organisational levels. Each used a standard 5-point scale, for which three anchor points were defined:

1 = The UK operations have no discretion (must implement policy set by a higher level such as corporate or regional HQ)
3 = The UK operations have some discretion (can develop policy within the guidelines/framework set by a higher organisational level)
5 = The UK operations have full discretion (can set own policy)

Thus the higher the discretion of the UK operation, the higher the score on this scale. A lower score means tighter control by higher levels (whether corporate HQ, regional HQ or other intermediate international levels of the MNC) in terms of the setting of a broad framework for subsidiary policy, or of detailed policy. A composite dependent variable (DISCRET_CONT10) was constructed using 10 of the 17 variables to encompass a range of issues in the four areas while eliminating those with lower N’s. These were policy on:

1. relating pay to market comparators
2. performance appraisal for managers
3. performance appraisal for the largest occupational group
4. variable pay for managers
5. training and development
6. involvement of employees in work process (e.g. teamwork or problem-solving groups)
7. attitude surveys and suggestion schemes
8. provision of company information to employees
9. union recognition
10. employee consultation.

Items 1, 5 and 7 relate to all employees, 2 and 4 solely to managers, and 3, 6, 8, 9 and 10 predominantly to non-managerial employees. The discretion scale had a Cronbach alpha coefficient of .85 and may therefore be considered to have good internal reliability with this sample. The resulting variable showed marked negative skewness (-.647, skewness/SE of skew = 3.83). However, the concentration of responses in the high discretion values should be seen as reflecting inherent properties of the
characteristic being measured rather than problems with the scale or the sample. A square transformation was used as an alternative measure (skewness/SE of skew = -1.44), and results were virtually identical. The transformed variable is used in regression presented in this paper.

Predictors

As discussed above, three groups of independent variables are considered. The first is nationality. Apart from the US, with 123 firms, all other country groups were relatively small. The US could be seen as a prototypical representative of the ‘liberal market economy’. Following Fenton-O’Creevy et al. (forthcoming), a second grouping was constructed drawing on Hall and Gingerich’s coordination index. The US lies at one end of the index with a coordination index of 0. To examine control behaviour in a contrasting set of MNCs, firms from countries with a high score on the Hall and Gingerich index were grouped together. The reasoning is that these countries approximate more to coordinated market economies for which international transfer of policies is more problematic given their embeddedness in particular institutional features of the parent business system (Whitley 2001). Eleven countries with a total of 96 MNCs in the sample scored .66 or higher on the coordination index: Austria, Belgium, Denmark, Finland, France, Germany, Italy, Japan, The Netherlands, Norway and Sweden. Because this left only a relatively small residual group of overseas companies that were neither US nor from CME countries, direct comparison of the two principal groups was carried out where appropriate on a sub-sample of 217 cases containing only US and ‘CME’ companies.

Second, a group of variables was selected to operationalise international structure and integration. A binary variable explored the existence of intermediate organisational levels between corporate HQ and the UK operations, whereby the existence of two or more intermediary levels was taken as an indicator of a sophisticated matrix system. Standardisation of products was measured by a dummy-coded variable distinguishing firms whose main product or service was standardised

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8 Hall and Gingerich 2005. The index is compiled from macro-indicators of economic coordination within national business systems in relation to finance and labour markets. It runs from 0 (the US) to 1 (Austria).

9 Most of these were not represented in Hall & Gingerich’s index and could thus not be allocated to CME or non-CME groupings. Marginal changes in the cut off point for ‘high’ coordination do not appear to affect the results appreciably.
regionally or globally from those whose main product or service was adapted to the national market. Integration of the subsidiary into the wider MNC was assessed through a binary variable identifying subsidiaries that both supplied and received inputs to and from other parts of the worldwide firm. In addition, the subsidiary’s undertaking of significant R&D activity on behalf of the MNC, and its possession of a mandate for a product or service on behalf of the MNC were used as indicators of integration.

Third, variables concerning the ‘technology of HR control’ were investigated. These assessed the structure and approach of the international HR function through the following five variables:

- whether there was a body internationally responsible for HR policy-making;
- the existence of an international electronic HR information system;
- a count of the collection of HR data on a range of nine items (managerial pay packages and career progression; total labour costs; headcount; employee turnover; absenteeism; labour productivity; workforce ‘diversity’; employee attitudes)
- whether national HR managers were brought together internationally on a systematic basis;
- the existence of a structure for the delivery of shared HR services cross-nationally.

Finally, for the analysis comparing discretion on issues affecting rank-and-file employees compared with those affecting managers, a dummy-coded variable measuring whether any unions were recognised for the purposes of representing the largest occupational group was included in the regression.

Control variables

A number of control variables were also taken into account, based on previous literature. Size, as measured by the number of employees, has been widely reported as a significant variable. It may be assumed to relate to control on a number of grounds: increased size leads to the bureaucratisation of processes; risk and dependency increase with size (e.g. Garnier 1982). At the same time, however, increased size leads to increased complexity that complicates the task of central controllers (e.g. Gomez and Sanchez 2005). Fenton-O’Creevy et al. (forthcoming) argue that the smaller the subsidiary, the less likely the MNC is to invest in central control. Conversely, it could be argued that the costs of central control are lower in smaller
subsidiaries (e.g. because of less power to resist) while the costs of subsidiary
discretion are higher because of the loss of economies of scale in policy-making (e.g.
Schmitt and Sadowski 2003). It has also been argued that the key factor is not
absolute size but, rather, the size of the subsidiary relative to the overall MNC (e.g.
Chang and Taylor 1999; Garnier 1982). The implications for control of employment
size, both global and subsidiary, are therefore somewhat ambiguous. A number of
studies have found little relationship between size and autonomy (e.g. Garnier 1982;
Gomez and Sanchez 2005), and Harzing and Sorge (2003) maintain that size variables
are more likely to be associated with international strategy than with control
outcomes. Two size variables were used in the present study: UK employment and
worldwide employment (since both are entered into the regression equation, the size
of the UK subsidiary relative to the worldwide company is also implicitly taken into
account).

Sector has also been regularly cited as a key variable. Fenton-O’Creevy et al.
(forthcoming) for example argue that services are generally more locally adapted than
is the case with manufacturing plants and firms delivering services will therefore tend
to be less subject to central control. In the absence of satisfactory sectoral breakdowns
(e.g. by 2-figure SIC codes), key aspects of sectoral variation, such as international
integration and standardisation, are partly covered by other variables. Nonetheless, a
broad sector variable (manufacturing or other) is included among the controls.

A third control factor is the age of the subsidiary. Fenton-O’Creevy et al.
(forthcoming) suggest that the older the subsidiary, the less important central control
is seen to be since the MNC has had time to socialise the operation into the corporate
culture of HRM. However, it could be argued that control increases over time,
particularly with acquired subsidiaries, as the centre gradually increases its grip over
the acquired management structure and there is generational replacement of existing
managers. Again, therefore, the implications of age for control are somewhat
ambiguous. Respondents were asked for the length of time that the UK operations had
been part of the parent company.  

However, caution should be used with this age variable: it did not necessarily equate to the age of the
operations since they could have been acquired. Whether the subsidiary operation is greenfield or
brownfield has been commonly been associated with a range of HR and control outcomes (e.g. Guest
and Hoque 1996; Kim and Gray 2005; Rosenzweig and Nohria 1994). The argument is, first, that
MNCs are keen to control greenfield sites closely because of uncertainty in the local environment, and
second, that the absence of an embedded management culture makes them easier and less costly to

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Data Analysis

To test hypotheses 1 to 5, linear multiple regression was used, with the transformed composite 10-item discretion scale as the dependent variable. Control variables of UK employment size, worldwide employment size, sector and age of the subsidiary were entered first, following by grouped independent variables covering nationality, integration and standardisation in one block. Finally, HR structure and strategy variables were entered.

Hypothesis 6a was assessed by using paired sample t-tests to compare the mean scores for each of the four groups of discretion items (pay and performance; training and learning; employee involvement; employee representation). In addition, separate regressions were run for a bundle of discretion items affecting managers and for a bundle affecting rank-and-file employees. Hypothesis 6c was tested by examining the impact of the addition of a union presence variable to the rank-and-file regression.

Hypothesis 6b, concerning the relative ranking of subsidiary discretion among firms of different national origin, was assessed using binary logistic regression with discretion variables as the covariates entered in one block, and dummy nationality variables as the dependents. US companies and companies from the 11 countries comprising the ‘CME’ country scale were filtered in so that US and CME could be directly compared. The odds ratios for the discretion variables in the two sets of regression were inspected for significant differences between the US model and the CME model.

control. While the concept of greenfield establishment is clear in principle, there are conceptual problems when it is extended over time. While a foreign operation may be initially founded as a greenfield site, in the course of years it may come to develop its own distinctive management culture reflecting the host environment (cf. Martinez and Weston 1994), and may become less amenable to central control. Many foreign operations in the UK, for example, were founded as greenfield sites several decades ago. It seems plausible to hypothesise that their control behaviour would differ from say those founded within the past five years. The survey did not ask directly about greenfield status. It did ask whether any part of the UK operations had joined the current worldwide parent company as the result of a merger or acquisition within the past five years. Looking at operations that have been part of the worldwide company for five years or less, it is therefore possible to separate these that are (at least in part) the result of merger or acquisition from those that were not; the latter may be categorised as ‘greenfield’. However, only 10 responses can be regarded as greenfield on this criterion.
Results

Table 1 presents the correlations among the study variables entered into the linear regression. No independent variables have a correlation above .51, and tests for multicollinearity are all within acceptable limits (all tolerance values are .61 or higher). Table 2 presents the hierarchical regression results for HR discretion.

As shown in tables 2 and 3, the adjusted R square for the final model was .293 (R square = .357, SE = 5.23); i.e. 29 percent of total variance was predicted by the independent variables in the regression. The impact of the control variables as a group was not significant (F change 1.351), while that of the second block of variables (nationality and structural factors) was significant at < .000 (F change = 6.23), as was that of the third block (HR structure) (F change = 6.55). All the items that are significant in model 2 remain so in the final model. In model 3, HR discretion was related to:

- US country of origin (standardised $\beta = - .231$, $p < .01$);
- the existence of intermediate international levels between HQ and subsidiary ($\beta = -.161$, $p < .05$);
- the standardisation of products regionally or globally ($\beta = -.163$, $p < .05$);
- and bringing together managers on an international basis ($\beta = -.263$, $p < .001$).

As can be seen, none of the variables relating to interdependence had a significant impact on variance, nor did other variables relating to the HR structure. The regression was also run using CME11 as the nationality variable. As expected, CME11 ownership was positively related with discretion ($\beta = .139$) but falls just short of significance at the .05 level once HR structural variables are entered into the model.\textsuperscript{11}

Thus the findings broadly support hypothesis 1 in that US ownership predicts lower discretion, and CME11 ownership is a predictor of higher discretion. The impact of ownership declines once the HR structure/strategy variables are brought into the

\textsuperscript{11} The contrast between CME and US is sharpened once other countries are filtered out of the analysis. The $\beta$ value is .236, significant at $p < .01$ level). Overall adjusted R square for the CME model (on the subset of US and CME11 companies) is .304.
model, indicating that the nationality effect is partly mediated through the ‘technologies’ of HR control, in particular the bringing together of HR managers internationally.

The impact of the ‘international interdependence’ variables (flows of inputs between the subsidiary and the MNC, a global product or service mandate, and a significant R&D role) is uniformly insignificant. Therefore neither hypothesis 2a nor 2b is supported. The findings support the alternative proposition that the countervailing impacts of integration (increasing desire to control due to enhanced risk, decreasing ability to control due to enhanced subsidiary resources) cancel each other out. However, hypothesis 3 concerned the impact of product standardisation is supported by the analysis, as is the argument of hypothesis 4 that the existence of intermediate tiers of international organisation predicts higher central control.

The hypotheses concerning the impact of HR structure and strategy variables are partly supported. Bivariate analysis shows as expected significant negative correlations at p<.01 between discretion and each of the HR variables. However, in multivariate analysis, Hypothesis 5a is not supported with respect to the collection of a wide range of IR data (5a iii) nor, unexpectedly, on the predictive effect of a central HR policy-making body, of an international HR information system, or the existence of internationally delivered shared HR services. However, the β coefficients have the expected signs: all predict lower discretion. Hypothesis 5b, about the existence of mechanisms for bringing HR managers together internationally, finds strong support, with the highest standardised β value.

Table 4 reports the binary logistic regression for US firms to test hypothesis 6b concerning the relative importance of discretion/control for different HR issues in US firms relative to CME11 companies: it will be recalled that this analysis was performed on the US/CME subset of firms, so the results indicate probabilities for one group relative to the other. The results show that there are no discretion items that are significant at the .05 level as predictors of US ownership relative to CME11 companies. However, there are several predictors of nationality that are significant at the .1 level. For US firms, predictors are low discretion on performance appraisal of the largest occupational group and on union recognition policy. Interestingly, high discretion on team working and other forms of direct involvement is a predictor of US ownership relative to CME11 firms, possibly suggesting that work organisation issues are seen as less important aspects of international competitive advantage in US firms than in CME firms. Thus hypothesis 6b is supported to some degree.
Table 5 provides the means and 5% trimmed means for the 10 individual items of
discretion used in the composite discretion variable. Means varied from a low of 3.2
(i.e. relatively high central control) for the determination on policy on variable pay for
managers to a high of 4.6 (i.e. relatively high subsidiary discretion) for policy on
employee involvement through teamworking.

Hypothesis 6a, that different issues would be subject to significantly different levels
of discretion, was evaluated by using rotating paired t-tests, in which all four groups
of discretion variables were assessed against each other in turn. The results (see table
6) suggest, as expected, that mean discretion values differ significantly between
different HR issues. Pay and performance differed significantly, for example, from
employee involvement and from employee representation. Exceptions are employee
involvement and representation, whose means do not differ significantly; and pay and
performance compared with training and learning, whose means fall short of
significance at the .05 level.

Moreover, overall the mean discretion values for HR issues affecting rank-and-file
employees were significantly higher than those for managers. This was tested by
comparing the means for two scales. The first comprised three items affecting
managers only – managerial performance appraisal, managerial variable pay and
succession planning (Cronbach alpha = .745). The second was composed of eight
items for issues only affecting the ‘largest occupational group’ or less explicitly the
rank-and-file: LOG performance appraisal and variable pay; employee task
involvement; attitude surveys; information to employees; union recognition;
collective bargaining; and employee consultation (Cronbach alpha = .853). Both these
derived variables were computed on a comparable basis, where 1 equates to low
discretion and 5 to high discretion. Discretion means were 4.14 and 3.10 for the rank-
and-file and managerial scales respectively. Conducting a one-sample t-test for the
LOG variable against the mean of the management variable as the test value showed
that the difference was significant at <.001.
Running regressions using the LOG and manager discretion scales as the dependent variable reveals notable differences in the significance of predictors. Thus for the LOG, worldwide employment is negatively associated with discretion ($\beta = -0.242; p < 0.05$). For managers, US ownership, exceptionally, is not significance at .05 level, while the existence of an international matrix structure is the most important predictor ($\beta = -0.319; p < 0.01$). When union presence is added to the regressions, the result is somewhat surprising. As expected, the presence of unions increases discretion over LOG items, although the effect falls short of significance at the .05 level ($\beta = 0.152; p = 0.083$). However, it is associated with a decrease in discretion for managerial items, again short of significance at the .05 level ($\beta = -0.160; p = 0.090$). Union presence has a stronger impact on individual discretion items: unsurprisingly, union presence predicts a higher level of discretion over union recognition ($\beta = 0.224; p < 0.01$) and union involvement in decision-making ($\beta = 0.222; p < 0.01$). Overall, therefore, the data provide fair support for hypothesis 6a and hypothesis 6b.

**Discussion**

These findings suggest that there are a number of key variables that are important predictors of discretion. As expected from the review of the literature, US ownership is a predictor of lower discretion, CME11 ownership a predictor of higher discretion. This supports the comparative institutionalist analysis according to which features of the US business system are conducive to the (relatively) centralised control of HR in foreign subsidiaries of US MNCs; whereas those of CME countries are less conducive to formal centralised control of subsidiary policy.

Structural variables are important. Two stand out: the existence of intermediate structures such as international business divisions between the global HQ and the national operations, multiplying the scope for control particularly in large and heterogeneous firms; and the standardisation of products and services beyond national markets. This provides support for the argument of Edwards and Kuruvilla (2005) that ‘standardised’ integration is more likely to lead to common international HR practices and policies than is ‘segmented’ integration. The latter, seen in cross-border intra-MNC flows of inputs, and in product, service or R&D mandates on behalf of the global firm, have virtually no predictive impact on the level of discretion. It is possible, as speculated in the theoretical discussion, that there are countervailing impacts that cancel each other out. However, it is also possible that interdependence generates different kinds of control mechanisms from the ones examined in this paper. O’Donnell (2000), for example, argues that intra-firm international interdependence
requires new social control mechanisms in the form of ‘lateral integrating mechanisms’ facilitating contact among managers of different facilities; these would include joint decision-making using inter-unit committees, task forces or teams.

Finally, a particular aspect of HR structure is an important predictor in virtually all the strands of analysis presented above: the coming together of HR managers from different national operations. The interest of this finding lies in debates about the complementarity of different forms of control. One possible line of argument is that more informal networking provides an underpinning in practice to formal centralisation and standardisation of policy through detailed directives or broad policy frameworks (cf. Ferner 2000). Another is that such mechanisms conceal widely differing modalities: international networking of HR managers may be highly ‘heterarchic’ and ‘decentred’ in nature, or it may be tightly control and coordinated by a central authority. More detailed exploration, in particular through case studies, is needed to throw light on such possibilities.

More surprisingly, perhaps, the other mechanisms of the technology of HR control – HR information systems, systematic data collection, international policy-making bodies, and so on – were not significant predictors, although the signs were uniformly in the predicted direction.\(^{12}\) It is noticeable, however, that the entry of HR variables into the regression partially moderates the impact of nationality (US ownership), suggesting that HR structure has a role as a mediating variable. In other words, part of the nationality effect derives from the fact that US firms are more likely to have elements of the HR technology of control. This is expected from an institutionalist perspective, given that the evolution and structure of the HR function in firms of different national origin is distinctive (e.g. Jacoby 2004), and that formal development of management systems is a defining characteristic of companies rooted in the US business system.

**Conclusion**

In conclusion, therefore, the analysis has explored predictors of subsidiary discretion in a range of HR/IR areas. Nationality, international organisational structure, product standardisation and aspects of HR organisation are all important predictors. Moreover,

\(^{12}\) The exception is when looking at a sub-sample comprising US firms only: the existence of an international policy-making body has a significant negative association with discretion (at the .05 level).
the degree of control varies between different areas of HR/IR – more intense in relation to performance-related issues, less so on employee involvement and representation; higher for managerial staff than for non-managers. In some respects, the predictors of discretion differ as between managerial and non-managerial issues. In relation to the conference theme on IR governance, the role of nationality in control is noteworthy. US subsidiaries are considerably less likely to have discretion than those of other nationalities; CME subsidiaries are more likely to have formal discretion. Given the predominance of US investment in the UK – accounting for over one-third of total FDI – this suggests that cross-national organisational-level HR/IR governance structures are significant in shaping HR/IR policies and practices in the UK.

However, the analysis leaves a number of gaps that merit further exploration. First, the literature has debated the connection between different kinds of control mechanisms (formal vs. informal, personal vs. impersonal; input or behavioural vs. output; forms of social control, etc.) (e.g. Martinez and Jarillo 1989; Fenton-O’Creevy et al. forthcoming). A key question to be examined in future analysis is whether formal mechanisms of control coexist with other forms of control (for example, the use of expatriates, networks of managers, common corporate cultures) in relation to HR/IR, or are they substitutes for one another? Is growing cross-national interdependence coordinated, as O’Donnell (2000) suggests, through the use of ‘lateral integrating mechanisms’ rather than through the vertical control dimension explored in this paper? Does the answer to such questions depend on the kind of issue examined; or on the nature of the firm (e.g. according to nationality, structure, sector, age, and so on)? Moreover, do different forms of control have different antecedents as Gomez and Sanchez (2005) suggest?

Second, there is likewise little research on the level at which HR/IR control over subsidiaries is exerted. Given debates about the evolution of the international organisational structure of MNCs (see Bartlett and Ghoshal 1998) – e.g. in terms of the proliferation of complex intermediate structures – future analysis should explore the organisational levels at which control takes place (for example, international business division, global headquarters, regional HQ), and the association between level at which control is exerted and the nature and intensity of control.

Third, when higher levels intervene in the shaping of subsidiary-level HR/IR, what kinds of interventions do they engage in? Preliminary analysis of the survey results suggests there are a range of interventions, from tight control of policy, through
benchmarking to the provision of advice and consultancy (see Edwards, P. et al. 2007). The nature of interventions by different levels, on different issues, is thus a topic for further exploration.

Finally, these findings are inevitably circumscribed by the choice of host country. Fenton-O’Creevy et al. (forthcoming) explore the issue of how control behaviour of US MNCs varies among different hosts. They argue that institutional differences among hosts are likely to influence the degree and nature of control exerted. Future analysis of our data in comparative perspective, drawing on parallel surveys being conducted by partners in a range of host countries including Canada, Ireland and Spain, will allow us to extend such exploration beyond the hosts studied by Fenton-O’Creevy et al., and to extend also the range of parent countries beyond the US.

References


Edwards, P. et al. 2007

Edwards, T. et al. 2007


Fenton-O’Creevy, M., Gooderham, P. and Nordhaug, O. (forthcoming) 'HRM In US subsidiaries in Europe and Australia: centralization or autonomy?' *Journal of International Business Studies*, 4:


Kim and Gray 2005


UNCTAD 2006


Table 1 Means, Standard deviations, reliabilities, correlations

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N = 168 with listwise deletion; * p < .05; ** p < .01; *** p < .001
Table 2 Results of Multiple Regression (Model 3)

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N = 168
### Model Summary(d)

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<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
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<tbody>
<tr>
<td>1</td>
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<td>.032</td>
<td>.008</td>
<td>6.19069</td>
<td>.032</td>
<td>1.351</td>
<td>4</td>
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<tr>
<td>2</td>
<td>.467(b)</td>
<td>.218</td>
<td>.168</td>
<td>5.66900</td>
<td>.186</td>
<td>6.230</td>
<td>6</td>
<td>157</td>
<td>.000</td>
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<tr>
<td>3</td>
<td>.597(c)</td>
<td>.357</td>
<td>.293</td>
<td>5.22593</td>
<td>.139</td>
<td>6.550</td>
<td>5</td>
<td>152</td>
<td>.000</td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Time in the UK, Numeric no. of Worldwide employees, sector: Manufacturing: Sector, Numeric no. of UK employees
b Predictors: (Constant), Time in the UK, Numeric no. of Worldwide employees, sector: Manufacturing: Sector, Numeric no. of UK employees, orig: US: Country of Origin, International Matrix, H4e R&D binary, z_h3 global or regional standardisation, H4a&H4b binary, H4e_1ov binary
c Predictors: (Constant), Time in the UK, Numeric no. of Worldwide employees, sector: Manufacturing: Sector, Numeric no. of UK employees, orig: US: Country of Origin, International Matrix, H4e R&D binary, z_h3 global or regional standardisation, H4a&H4b binary, H4e_1ov binary, Are HR managers from different countries brought together in a systematic way?, C2b. HR Data collection: Does the worldwide company have an HR Information System (such as PeopleSoft or SAP HR) that ho, count of data items collected by management, C6. Does the HR function in the UK operations make use of shared services centres that are part of the company at glob, C3. Formation of HR policies across countries: Is there a body within the worldwide company, such as a committee of senior executives
d Dependent Variable: discret_cont10_sq
Table 4 Binary logistic regression with US ownership as the dependent variable (US and CME11 firms only)

a) initial classification table

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>No</td>
<td>0</td>
<td>78</td>
</tr>
<tr>
<td>Yes</td>
<td>0</td>
<td>102</td>
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</tbody>
</table>

Overall Percentage 56.7

N = 180; included in the model: US and CME11 firms; subset = 218, missing cases = 38.

b) Final Classification Table

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>No</td>
<td>48</td>
<td>30</td>
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<tr>
<td>Yes</td>
<td>32</td>
<td>70</td>
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</tbody>
</table>

Overall Percentage 65.6
### c) Variables in the Equation

<table>
<thead>
<tr>
<th>discretion variables</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>sig.</th>
<th>exp(B)</th>
<th>95.0% C.I. for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step1(a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d16_1ov pay comparators</td>
<td>-.080</td>
<td>.185</td>
<td>.188</td>
<td>1</td>
<td>.664</td>
<td>.923</td>
<td>.642</td>
</tr>
<tr>
<td>d16_3ov perf. appraisal mngs</td>
<td>-.178</td>
<td>.161</td>
<td>1.216</td>
<td>1</td>
<td>.270</td>
<td>.837</td>
<td>.610</td>
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<tr>
<td>d16_5ov perf. appraisal LOG</td>
<td>-.305</td>
<td>.173</td>
<td>3.113</td>
<td>1</td>
<td>.078</td>
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<td>.526</td>
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<td>d16_6ov variable pay mngs</td>
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<td>.137</td>
<td>.193</td>
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<td>.660</td>
<td>1.062</td>
<td>.813</td>
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<tr>
<td>e9a_1ov training &amp; devt.</td>
<td>-.040</td>
<td>.229</td>
<td>.031</td>
<td>1</td>
<td>.860</td>
<td>.961</td>
<td>.613</td>
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<tr>
<td>f10_1ov work organisation</td>
<td>.472</td>
<td>.286</td>
<td>2.725</td>
<td>1</td>
<td>.099</td>
<td>1.603</td>
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<td>f10_2ov attitudes surveys</td>
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<td>.143</td>
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<td>.706</td>
<td>.944</td>
<td>.700</td>
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<tr>
<td>f10_3ov information</td>
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<td>.234</td>
<td>.654</td>
<td>1</td>
<td>.419</td>
<td>.828</td>
<td>.524</td>
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<tr>
<td>g13_1ov union recognition</td>
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<td>1</td>
<td>.093</td>
<td>.744</td>
<td>.527</td>
</tr>
<tr>
<td>g27_ov consultation</td>
<td>-.137</td>
<td>.275</td>
<td>.250</td>
<td>1</td>
<td>.617</td>
<td>.872</td>
<td>.509</td>
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<tr>
<td>Constant</td>
<td>3.097</td>
<td>1.303</td>
<td>5.652</td>
<td>1</td>
<td>.017</td>
<td>22.133</td>
<td></td>
</tr>
</tbody>
</table>

* Variable(s) entered on step 1: d16_1ov, d16_3ov, d16_5ov, d16_6ov, e9a_1ov, f10_1ov, f10_2ov, f10_3ov, g13_1ov, g27_ov.

### d) Model Summary

<table>
<thead>
<tr>
<th>Step</th>
<th>-2 Log likelihood</th>
<th>Cox &amp; Snell R Square</th>
<th>Nagelkerke R Square</th>
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<tbody>
<tr>
<td>1</td>
<td>211.629(a)</td>
<td>.175</td>
<td>.235</td>
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</table>

* Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.
Table 5. Means, 5% trimmed means and N for the 10 discretion items.

<table>
<thead>
<tr>
<th>discretion item</th>
<th>mean</th>
<th>5% trimmed mean</th>
<th>N</th>
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</thead>
<tbody>
<tr>
<td>D16. Discretion over variable payments schemes for managers</td>
<td>3.1504</td>
<td>3.1671</td>
<td>246</td>
</tr>
<tr>
<td>D16. Discretion over performance appraisals for managers</td>
<td>3.4087</td>
<td>3.4541</td>
<td>252</td>
</tr>
<tr>
<td>D16. Discretion over performance appraisals for the LOG</td>
<td>3.8140</td>
<td>3.9045</td>
<td>242</td>
</tr>
<tr>
<td>F10. Discretion of the UK operations over attitude surveys and suggestion schemes</td>
<td>3.8320</td>
<td>3.9244</td>
<td>244</td>
</tr>
<tr>
<td>D16. Discretion over relating pay levels to market comparators</td>
<td>3.9137</td>
<td>4.0062</td>
<td>255</td>
</tr>
<tr>
<td>F10. Discretion of the UK operations over provision of information to employees</td>
<td>4.2344</td>
<td>4.3594</td>
<td>256</td>
</tr>
<tr>
<td>G13. Discretion of the UK operations over setting policy towards unions: Union recognition</td>
<td>4.2403</td>
<td>4.3781</td>
<td>258</td>
</tr>
<tr>
<td>E9a. Discretion over overall policy on training and development in the UK operations</td>
<td>4.2992</td>
<td>4.4024</td>
<td>254</td>
</tr>
<tr>
<td>G27. Discretion of UK operations as a whole over employee consultation policy</td>
<td>4.5195</td>
<td>4.6250</td>
<td>256</td>
</tr>
<tr>
<td>F10. Discretion of the UK operations over involvement of employees in work process, e.g. team work or problem-solving groups</td>
<td>4.5875</td>
<td>4.7047</td>
<td>257</td>
</tr>
</tbody>
</table>
Table 6 Paired Samples t-tests for groups of discretion variables

<table>
<thead>
<tr>
<th>Pair</th>
<th>Paired Differences</th>
<th>99% Confidence Interval of the Difference</th>
<th>Sig. (2-tailed)</th>
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<tr>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Std. Error</td>
<td>Lower</td>
</tr>
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<td></td>
<td></td>
<td>Mean</td>
<td></td>
</tr>
<tr>
<td>Pair 1</td>
<td>D16 discretion scale for 7 items - E9a discretion scale 3 items</td>
<td>-.28798</td>
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<td>Pair 2</td>
<td>D16 discretion scale for 7 items - f10 discretion scale 3 items</td>
<td>-.68124</td>
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<tr>
<td>Pair 3</td>
<td>D16 discretion scale for 7 items - g13 &amp; g27 discretion scale 3 items</td>
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<td>Pair 4</td>
<td>E9a discretion scale 3 items - f10 discretion scale 3 items</td>
<td>-.48718</td>
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<td>Pair 5</td>
<td>E9a discretion scale 3 items - g13 &amp; g27 discretion scale 3 items</td>
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<td>.99974</td>
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<tr>
<td>Pair 6</td>
<td>f10 discretion scale 3 items - g13 &amp; g27 discretion scale 3 items</td>
<td>-.07207</td>
<td>.86370</td>
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</tbody>
</table>
Appendix

Linear regression results for predictors of LOG and management discretion variables

Table A1 Logistic regression with LOG discretion scale as dependent variable

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>5.254</td>
<td>.265</td>
</tr>
<tr>
<td>Numeric no. of UK employees</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Numeric no. of Worldwide employees</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>sector:Manufacturing:Sector</td>
<td>.189</td>
<td>.170</td>
</tr>
<tr>
<td>Time in the UK</td>
<td>.000</td>
<td>.003</td>
</tr>
<tr>
<td>H4a&amp;H4b binary</td>
<td>-.004</td>
<td>.168</td>
</tr>
<tr>
<td>International Matrix</td>
<td>-.236</td>
<td>.184</td>
</tr>
<tr>
<td>H4e_1ov binary</td>
<td>.063</td>
<td>.171</td>
</tr>
<tr>
<td>H4e R&amp;D binary</td>
<td>.002</td>
<td>.170</td>
</tr>
<tr>
<td>z_h3 global or regional standardisation</td>
<td>-.395</td>
<td>.197</td>
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<tr>
<td>count of data items collected by management</td>
<td>-.045</td>
<td>.032</td>
</tr>
<tr>
<td>C2b: HR Data collection: Does the worldwide company have an HR Information System (such as PeopleSoft or SAP HR) that ho</td>
<td>-.229</td>
<td>.168</td>
</tr>
<tr>
<td>C3. Formation of HR policies across countries: Is there a body within the worldwide company, such as a committee of seni</td>
<td>-.054</td>
<td>.180</td>
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<tr>
<td>Are HR managers from different countries brought together in a systematic way?</td>
<td>-.399</td>
<td>.166</td>
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<td>C6. Does the HR function in the UK operations make use of shared services centres that are part of the company at glob</td>
<td>.152</td>
<td>.182</td>
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</table>
Table A2 Logistic regression with Management discretion scale as dependent variable

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>(Constant)</td>
<td>5.338</td>
<td>.477</td>
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<tr>
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<td>Numeric no. of UK employees</td>
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<td>.000</td>
<td>-.173</td>
</tr>
<tr>
<td></td>
<td>Numeric no. of Worldwide employees</td>
<td>.000</td>
<td>.000</td>
<td>.127</td>
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<tr>
<td></td>
<td>sector:Manufacturing:Sector</td>
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<td>H4e_1ov binary</td>
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<td>.252</td>
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<td></td>
<td>H4e R&amp;D binary</td>
<td>.227</td>
<td>.266</td>
<td>.089</td>
</tr>
<tr>
<td></td>
<td>z_h3 global or regional standardisation</td>
<td>.162</td>
<td>.301</td>
<td>.053</td>
</tr>
<tr>
<td></td>
<td>count of data items collected by management</td>
<td>-.065</td>
<td>.052</td>
<td>-.125</td>
</tr>
<tr>
<td></td>
<td>C2b, HR Data collection: Does the worldwide company have an HR Information System (such as PeopleSoft or SAP HR) that ho</td>
<td>-.115</td>
<td>.241</td>
<td>-.048</td>
</tr>
<tr>
<td></td>
<td>C3. Formation of HR policies across countries: Is there a body within the worldwide company, such as a committee of seni</td>
<td>-.176</td>
<td>.267</td>
<td>-.070</td>
</tr>
<tr>
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<td>Are HR managers from different countries brought together in a systematic way?</td>
<td>-.765</td>
<td>.291</td>
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</tr>
<tr>
<td></td>
<td>C6. Does the HR function in the UK operations make use of shared services centres that are part of the company at glob</td>
<td>.018</td>
<td>.264</td>
<td>.007</td>
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</tbody>
</table>