

This is a peer-reviewed, post-print (final draft post-refereeing) version of the following published document, This is an Accepted Manuscript of an article published by Taylor & Francis in International Journal of Human Resource Management on 11 Oct 2017 available online:  
<http://www.tandfonline.com/10.1080/09585192.2016.1170713>. and is licensed under All Rights Reserved license:

**Singh, Satwinder and Darwish, Tamer K and Wood, Geoffrey and Mohamed, A Fattaah (2017) Institutions, Complementarity, Human Resource Management and Performance in a South-East Asian Petrostate: The Case of Brunei. International Journal of Human Resource Management, 28 (18). pp. 2538-2569. ISSN 0958-5192**

Official URL: <http://www.tandfonline.com/doi/full/10.1080/09585192.2016.1170713>  
DOI: <http://dx.doi.org/10.1080/09585192.2016.1170713>  
EPrint URI: <http://eprints.glos.ac.uk/id/eprint/3396>

#### **Disclaimer**

The University of Gloucestershire has obtained warranties from all depositors as to their title in the material deposited and as to their right to deposit such material.

The University of Gloucestershire makes no representation or warranties of commercial utility, title, or fitness for a particular purpose or any other warranty, express or implied in respect of any material deposited.

The University of Gloucestershire makes no representation that the use of the materials will not infringe any patent, copyright, trademark or other property or proprietary rights.

The University of Gloucestershire accepts no liability for any infringement of intellectual property rights in any material deposited but will remove such material from public view pending investigation in the event of an allegation of any such infringement.

PLEASE SCROLL DOWN FOR TEXT.

This is a peer-reviewed, post-print (final draft post-refereeing) version of the following published document:

**Singh, Satwinder and Darwish, Tamer K and Wood, Geoffrey and Mohamed, A Fattaah (2016).  
*Institutions, Complementarity, Human Resource Management and Performance in a South-East Asian Petro state: The Case of Brunei.* The International journal of Human Resource Management, 1-32. ISSN 0958-5192**

Published in The International journal of Human Resource Management, and available online at:

<http://www.tandfonline.com/doi/abs/10.1080/09585192.2016.1170713?journalCode=ijh20>

We recommend you cite the published (post-print) version.

The URL for the published version is <http://www.tandfonline.com/doi/full/10.1080/095851...>

**Disclaimer**

The University of Gloucestershire has obtained warranties from all depositors as to their title in the material deposited and as to their right to deposit such material.

The University of Gloucestershire makes no representation or warranties of commercial utility, title, or fitness for a particular purpose or any other warranty, express or implied in respect of any material deposited.

The University of Gloucestershire makes no representation that the use of the materials will not infringe any patent, copyright, trademark or other property or proprietary rights.

The University of Gloucestershire accepts no liability for any infringement of intellectual property rights in any material deposited but will remove such material from public view pending investigation in the event of an allegation of any such infringement.

PLEASE SCROLL DOWN FOR TEXT

# **Institutions, Complementarity, Human Resource Management and Performance in a South-East Asian Petrostate: The Case of Brunei**

## **Abstract**

*This is a study on the incidence and impact of specific sets of HR practices on Organisational Performance (OP) across different types of firm, within an emerging market setting, where institutional arrangements are fluid and developing. The literature on comparative capitalism suggests that, within advanced societies, formal and informal regulations are mutually supportive, and will be sustained by associated HR systems, optimising OP. In contrast, in settings where institutional arrangements are weaker, there will not be the same incentives for disseminating mutually supportive HR bundles, and when these do exist, they are unlikely to yield any better outcomes. We found that this was indeed the case in the petrostate of Brunei as the usage of integrated HR models did not work better than individual interventions. Whilst it is often assumed that, in petrostates, the primary focus of institution-building is to service the needs of the oil-and-gas industry, we found no evidence to suggest that integrated HR systems were any more effective there; this may reflect the extent to which the industry's HR needs may be simply resolved through turning to overseas labour markets—both for skilled and unskilled-labour. At the same time, we found that the efficacy of HR practices varied according to firm characteristics: even in challenging contexts, firms may devise their own solutions according to their capabilities and endowments.*

Keywords: Institutional complementarity, HR practices, Recruitment and selection, Training, Internal career opportunities, Incentives and rewards, Organisational performance, Hierarchical regressions.

## **Introduction**

This is a study of institutions, and the incidence and utility of more sophisticated HR practices in an emerging market setting where national institutional arrangements may be less developed or more fluid. It focuses on the case of Brunei—a South East Asian petrostate. The literature on diversity within capitalisms argues that, where national-level institutions are weaker or more fluid, regulatory coverage will be uneven, with sub-national institutional arrangements much more conducive to the needs of certain categories of actor, rather than others (Lane and Wood, 2012). Again, the resource curse literature suggests that easy revenues generated by resource windfalls (such as in the case of petrostates) mean that governments may neglect institution-building (Auty, 2002); economic growth is possible

even when institutional arrangements are not wholly functional or perfectly aligned, making the latter seem much less important. In turn, this may not so much make for diffuse diversity within such contexts, but rather much variation between sectors (Rugman and Oh, 2013; c.f. Nguyen, 2014), with higher value-added HR practices more likely to thrive within some areas than others. Given this, we seek to explore variations in the efficacy of HR practices according to size and sector, affording particular attention to the differences between the oil and gas industry, as well as other areas of the economy. It has been further argued that it is a mutual or synergetic system or bundle of HR practices that best enhances performance, with one practice encountered on its own not having the same effect than when encountered in combination with others (Ichniowski and Shaw, 1999), arguably reflecting the underlying nature of complementarity within particular institutional settings (Hall and Soskice, 2001). More specifically, the literature on comparative capitalism suggests that, in less mature institutional contexts, complementarities between regulations and practices are unlikely; this makes it less likely that clusters of broadly similar mutually supportive practices will work better than individual interventions in support of specific organisational challenges (Hall and Soskice *et al.*, 2001; Hancke *et al.*, 2007). However, actors may devise their own solutions specific to particular types of firm, either through finding ways around formal regulations or through devising informal micro-regulatory solutions of their own, according to their relative capabilities and endowments (Wood *et al.*, 2011).

### **The Context of the Study**

Both oil and liquefied natural gas industries have dominated the economy of Brunei since their initial discovery in 1963. The extensive literature on the resource curse alerts us as to the degree to which resource-rich countries often end up with seriously unbalanced economies, with other areas of economic activity rendered uncompetitive (Heeks, 1998;

Auty, 2002). Oil and gas exports may lead to an overvalued currency, making other exports too expensive. The opportunities provided by the oil and gas sector also may crowd-out investment in other areas, starving non-resource sectors of capital; the latter also are likely to be neglected by the government (Auty, 2002). In the case of resource-rich countries, revenues flow to a large extent regardless of the functionality of institutions. This, in turn, reduces incentives for institutional-building, -development or -maintenance. Again, as commodity markets are notoriously volatile, it makes it difficult to plan future investments and to support non-resource industries. Economic diversification is indeed viewed as one of the main objectives of Brunei in acknowledgment of the fact that oil and gas are both finite resources; the government has recognised the scale of this challenge. In 2007, a 30-year development framework was established, comprising the 'Wawasan Brunei 2035', the Outline of Strategies and Policies for Development (OSPD) and the National Development Plan (NDP). The first of these plans is considered a national vision centred on facilitating the nation's achievement of a reputation for educated and highly skilled professionals according to internationally recognised standards, delivering quality of life and further ensuring a sustainable and dynamic economy with good levels of income per capita. As yet, however, it is too early to assess the full impact of this initiated plan, although over-reliance on minerals has consistently placed structural barriers to diversification (Cooke, 2012). Again, the second, somewhat broader, plan has, at best, resulted in very limited progress, with Brunei's main economic activities remaining centred on oil and gas.

Brunei is quite a lightly regulated context in terms of the ease of firing, minimum wage rates and working time regulations. In specific regard to Bruneian Labour Law, there is no restriction on using temporary workers for permanent tasks, nor is there a specified maximum time for being in a temporary role (World Bank, 2014). There are no retraining or redeployment requirements or severance payments in respect of redundancies; only a notice

period that, depending on length of service, ranges from one to four weeks. There is no minimum wage, and no premium attached to overtime, other than the enforcement of a single weekly rest day (ibid.).

Although the 1961 Trade Union Act allows for registered trade unions to operate, and further provides workers a right to freedom of association with unions, there is no requirement or provision for collective bargaining, whilst unions are prohibited from joining Global Union Federations (ITUC, 2009). There is no right to strike and little union activity. There are only three trade unions, located in the oil and gas sector, which tend to be compliant (Expafocus, 2015). Migrant labourers and expatriates (who together constitute some 40% of the workforce) are excluded from almost all the limited rights conferred by Bruneian Labour Law (ITUC, 2009; Expafocus, 2015)<sup>1</sup>. The enforcement of health and safety laws is lax and, despite efforts, the national training system has very uneven coverage, with many Bruneians lacking the skills for any but the most basic jobs, which they tend to shun (Expafocus, 2015).

Whilst the ease of hiring and firing may be seen as desirable in terms of allowing firms to maximise shareholder value (World Bank, 2014), this also means that ties between workers and employers is weaker (Whitley, 1999). Firms are more able to substitute staff with job seekers resourced via the external labour market, and to readily hire and fire workers according to changes in demand for their service; in other words, they are able to pursue quite short-term solutions to HR problems. However, employers are unlikely to take account of the collective cognitive capabilities of their workforce as a whole, and have less incentive to invest in people; in turn, employees have less incentive to develop their organisation-specific human capital (Whitley, 1999; Aoki, 2010).

Again, formal levels of delegation to employees will be low (c.f. Whitley, 1999). In terms of the law, there is no obligation to engage in collective bargaining, and hence, accord employees input into the nature of the employment contract, and only limited obligation to consult; employees are not accorded any input into issues of work organisation, as with works council systems encountered in a number of Coordinated Market Economies (CMEs). Again, union countervailing power under both law and practice is weak. In turn, this means that employers are under little pressure to delegate decision-making to employees (c.f. Whitley, 1999). Although such delegation may help to underpin mutually beneficial high value-added production paradigms, in the absence of dense ties with stakeholders and legal incentives, it can be argued that firms are likely to default to short-term value maximisation (Whitley, 1999; Hall and Soskice, 2001).

Pressures towards indigenisation could make for intense competition between firms in more lucrative areas of the economy—above all, oil and gas—for a small pool of highly skilled and educated local staff, thus leaving a large number of locals with lower skills largely unaffected (see Mellahi and Wood, 2002). A central concern of this paper is aimed at exploring the extent of internal diversity within the Bruneian context.

### **Defining Human Resource Management Practices**

Although the benefits and challenges conferred by national institutional context will impact on the degree to which much employers delegate decisions to employees, and their mutual inter-dependence (Whitley, 1999), in this paper, we deploy Whitley's definition of interdependence to encompass the relative propensity of a firm to invest in its people and relative security of tenure (Whitley, 1999), although it is recognised that the concept may incorporate a wider range of issues, including interests and goals. Whitley defines delegation

as the extent to which employees are accorded a voice in the running of the firm, which may range from collective and representative voice to individual and direct consultation (Whitley 1999; Brewster *et al.*, 2007). In mature coordinated markets, both are relatively high, and in liberal markets, rather lower (Whitley, 1999).

In this study, the primary focus is on interdependence; this is on account of the weakness of the Bruneian labour movement and the general neglect of issues of voice within Bruneian Labour Law. Turnover will reflect not only the rights of workers under the law (which, in Brunei, are limited), but also the degree of care taken in recruitment and selection, and career-planning; greater attention to the latter would suggest that the firm views workers as not simply a commodity that is readily disposable or substitutable on the external labour market (Guest, 2007).

### ***Recruitment and Selection:***

It is widely argued that better recruitment enhances firm performance (Huselid, 1995; Paauwe, 2009), despite there being much debate concerning the optimal set of selection practices, as well as which selection technique works best (Guest, 2007); hence, we look at how seriously organisations consider selection, and whether they deploy a broad range of selection criteria as opposed to focusing on a limited number of basic issues, such as a minimal skillset or willingness to work for a particular wage. This encompasses items such as the relative emphasis placed on formal and informal qualifications, previous training, combined with an evaluation of personal characteristics, including devotion to work, and motivation (see, for example, Casson *et al.*, 1998; Mohamed *et al.*, 2013; Darwish *et al.*, 2015); further details are provided below.



### ***Training:***

Existing research suggests that training enhances competitiveness and firm performance whilst reducing staff turnover (Pfeffer, 1998; Kalleberg and Moody, 1994; Way, 2002; Moideenkutty *et al.*, 2011; Razouk, 2011; Darwish *et al.*, 2013). In exploring the relative commitment of the organisation to skills development, we consider training capabilities (whether the company had an in-house training facility) and the relative usage of formal and informal training.

### ***Internal Career Opportunities:***

Similarly, there is evidence to suggest that firms that make extensive usage of internal promotions enhance performance and employee motivation, and reduce turnover (Noe *et al.*, 2006; Delery and Doty, 1996; Guest, 1997; Guthrie, 2001; Joseph and Dai, 2009). Hence, we explore the extent to which the firm has established clear promotion procedures as opposed to arbitrary and ad hoc decisions.

### **Institutional Complementarity and HR Practices**

A key strand of the literature on comparative capitalism suggests that, at a given time, there are only a limited number of viable institutional arrangements with the potential to generate fully developed complementarities; that is, sets of rules and firm-level practices that work better together to optimise outcomes for firms and across the economy at large, to a greater extent than the lump sum of individual interventions (Hall and Soskice, 2001; Hancke *et al.*, 2007; Witcher and Chau, 2014). Hence, most of the early literature has focused on the mature

economies and, more specifically, on Liberal Market Economies (LMEs) and Coordinated Market Economies (CMEs).

Does the lack of worker rights vis-à-vis shareholders position Brunei as like a full-fledged Liberal Market Economy (LME), especially as its GDP per capita is on par with many developed nations? There are two reasons as to why this is not the case. The first centres on overall developmental indices. Brunei's UNDP human development index ranking is a respectable 30; however, largely, this is due a high GNP per capita (owing to oil and gas); it performs rather more poorly when it comes to other measures, such as mean years of schooling (8.7); again, a large component of the workforce lack basic skills (UNDP, 2015). As Bryane (2014) notes, Brunei is both a rich and poor country, and outside the oil and gas sector, the country is closer to many developing countries than the developed world. Again, the indices of political voice and accountability, and the egalitarian distribution of political rights, place the region at a considerable distance from developed LMEs (Chongvilavan, 2014). Whilst there is a vast body of literature centred on the relationship between democracy and development, which suggests that the two are not always immediately connected (Przeworski, 2000), political voice and accountability imposes greater (but never complete) restraints on the political and corporate elite. A lack of democracy also means that unions have to operate in a very much more confined political space, leaving less room for campaigning around issues besides than those immediately pertaining to the employment contract. The second is that the skills base is particularly uneven, and the enforcement of labour regulations light. Although a large portion of the labour force in LMEs tends to be unskilled and occupationally insecure (Standing, 2011), this is offset by a large number of workers with generic tertiary skills, who are seen to underpin high technology industries (Thelen, 2001). Again, light or arbitrary enforcement of regulations in emerging markets, such as Brunei, makes for different employment relations approaches to those aligned to

meeting fixed rules. More broadly speaking, this means that complementarities are less likely. The latter are contingent upon clear and predictable rules of the game and an infrastructure supportive of particular capabilities and associated employment relationships (even if centred on formalised arms-length contracting).

Does this simply make Brunei less lightly regulated than developed LMEs? The literature on cross-cultural management and indigenous management practices suggests that many emerging markets are more communitarian than the mature liberal markets (Mangaliso, 2001; c.f. Morris *et al.*, 1994; Tsui, 2004); in other words, embedded social ties and associated feelings of mutuality and obligation run deeper. In turn, successful firms in such contexts take account of these ties, aligning the firm more closely to such prevailing societal realities and norms (Tsui, 2004; Herrmann and Werbel, 2007). Otherwise stated, there may be a greater emphasis on informal regulatory mechanisms.

Developments and extensions of the literature on comparative capitalism have sought to extend this analysis to peripheral European and the developing world, leading to the development of a range of national institutional archetypes, such as South East Asian Capitalism, Familial Capitalism (East Asia), Mixed-Market Economies (the Mediterranean world), Hierarchical Market Economies (Latin America) and Segmented Business Systems (tropical Africa) (Tipton, 2009; Carney *et al.*, 2009; Steier, 2009; Wood *et al.*, 2011; Hancke *et al.*, 2007; Schneider, 2009). However, a common feature of such systems is continuously developing and more fluid institutional supports, a dualism between lightly regulated informal and SME sectors, on the one hand, and larger, more closely regulated organisations on the other hand, a particularly high incidence of family-based ownership, coupled with a tendency towards autocratic-paternalist management (Carney *et al.*, 2009; Wood *et al.*,

2011). In other words, within such settings, the differences between larger firms and their smaller counterparts are likely to be particularly pronounced.

In one way, despite any weaknesses in owner rights under the law (La Porta *et al.*, 2000), a dominance of family ownership would reduce agency issues and thus potentially allow greater room for manoeuvre in introducing innovative practices; in contrast, however, there are fewer systemic pressures, such as legislation promoting consultation and co-determination, developed training capabilities (in terms of national level training systems) or countervailing employee power (in the form of strong labour movements) to encourage the usage of the type of cooperative HR practices commonly encountered in mature Coordinated Markets (Hall and Soskice, 2001).

The literature on segmented business systems similarly emphasises the central role adopted by informal rules and understandings in such contexts (Wood and Frynas, 2006; Wood *et al.*, 2011). This would include the widespread usage of informal networks (including those of existing workers) in recruitment, as well as a greater degree of flexibility in terms of rewards (informal cash advances in the case of misfortune) and leave (with room for absence at short notice in response to family or personal needs) (*ibid.*). Where institutional approaches differ from cross-cultural approaches is that the former emphasise that such arrangements are relatively fragile and co-exist with great imbalances in power and resources (both within and beyond the firm), which can make higher value-added production paradigms difficult to realise (*ibid.*). Furthermore, as noted above, in emerging markets, the enforcement of Labour Law is often uneven, facilitating the exercise of arbitrary managerial power (*ibid.*). At the same time, Brunei is some distance from the segmented business system encountered in much of tropical Africa and, indeed, other emerging market capitalist archetypes. Oil and gas have ensured a reliable—even if somewhat volatile—basis for growth for a number of years.

Mellahi and Wood (2002) refer to the pattern of growth and development encountered in petrostates with small-to-medium populations as *petroleum growth regimes*, with Brunei, it could be argued, falling into this model. However, it also could be posited that the volatility of oil and gas revenues—as well as the extent to which revenue is secured, regardless of any (or at least most) governance shortfalls—precludes the emergence of a closely coupled assembly of institutions that would constitute a coherent growth regime (Jessop, 2012). Again, as Boschini *et al.* (2007) note, the problems associated with institution-building in petrostates are particularly pronounced, making it difficult to develop the necessary supports for optimal firm practices and, hence, broad-based and sustainable growth.

A central theme in the literature on comparative capitalism is the rejection of the notion that firm-level HR practices will be widely adopted independent of institutional circumstances (Hancke *et al.*, 2007; Whitley, 1999). It could be argued that, if comprehensive mutually supporting complementarities are confined to advanced societies, this would suggest that, within emerging markets, sets of rules and practices encountered together are less likely to yield superior results to a simple sum of their component parts (Hall and Soskice, 2001). As noted earlier, the literature on comparative capitalism suggests that, within advanced societies, developed institutional frameworks mean that mutually supportive sets of formal and informal regulations, and practices, will be complementary; that is, resulting in better outcomes than the sum of the outcomes of individual practices might suggest (Hall and Soskice, 2001; Hancke *et al.*, 2007). In the case of emerging markets, weaker and less developed institutions will mean that complementarities will be weaker or entirely absent (Hancke *et al.*, 2007); in turn, this suggests that there will be little or no incentive to follow a particular national recipe to people management; in other words, whilst reward and development practices may enhance performance, any particular combination of them will be

unlikely to yield superior results across such national economies owing to the lack of complementarities.

A mutually supportive bundle of HR practices or HR systems does not constitute a complementarity in its own right; otherwise stated, a set of practices working together will not necessarily yield better results than the sum of their component parts in the absence of a supportive institutional environment. However, a widely disseminated HR paradigm encompassing broad commonalities in policy and practice may be aligned with specific systemic features, and together may constitute an example of complementarity: for example, greater employment security and better vocational training may encourage incremental and organisation-specific skills development, as well as particular types of career planning, and, in turn, the latter would make the former systemic features more relevant (Thelen, 2001). Conversely, a general lack of coherent mutually supportive HR systems is likely to reflect institutional shortfalls; again, a concentration of them in specific areas of the economy are likely to reflect weaker institutional coupling and, as a result, greater internal institutional diversity (Lane and Wood, 2012; Goergen *et al.*, 2012).

In such a situation, firms would have fewer incentives to work towards developing a coherent HR system than in mature contexts, as wider systemic shortfalls would undermine key dimensions of it: for example, if there are chronic skills shortfalls across an economy, competitors may respond to investments in people through poaching. This means that firms experimenting with high value-added HR practices are more likely to make cautious carefully calibrated individual interventions than systematically related bundles of them, and, when they do, they are less likely to yield optimal outcomes.

Accordingly:

*Hypothesis 1:* Bundles of higher value-added HR practices are not likely to make any greater contribution to organisational performance than the sum of their component parts.

### **Internal Institutional Diversity and HR Practices: Are Specific HR Practices More Viable According to Sector?**

This is a single country case study and, hence, we cannot test the effects of Bruneian institutions in their entirety, other than in terms of complementarities; therefore, we further seek to evaluate the extent to which HR practices are likely to vary according to organizational characteristics. However, as highlighted by the literature on capitalist diversity, institutions are likely to have very different effects on different types of organisation within a single national context (Wood and Lane, 2012). It is further held that less closely coupled or more fluid institutional arrangements are likely to make for greater internal diversity within national settings (Wood and Lane, 2012). Hence, whilst diversity in firm practices is always bounded by national contextual circumstances, when institutions are relatively weak or developing, there will be greater pressure on key actors to forge their own solutions based on their immediate needs (Jessop, 2012). Again, gaps in formal or informal regulation at national level may be plugged by interventions by sector-specific or regional authorities and their allies, and/or very focused national legislation to meet particular needs, to impart a greater predictability to exchange relations in strategic areas (Wood and Lane, 2012; Jessop, 2012). In other words, even if sharing some common features and subject to the same global trends, institutional arrangements will be variegated within and between settings (Jessop 2012); national level institutional weaknesses or fluidity will be compensated for by institutional fixes being devised to support and nurture specific firm level practices aimed at solving shared problems within particular regions or sectors.

Hence, some sets of regulations may be orientated towards specific sectors. This may reflect a bottom-up approach to institution-building, with firms and other stakeholders in a specific sector acting in close concert to drive policy and formal regulatory interventions to suit their needs, and/or agreeing on and acting in such a manner so as to reinforce mutually acceptable informal regulations (Jessop, 2012; Boyer, 2006). It may also represent a top-down approach, with national governments according a greater attention to a particular sector for ideological or political reasons, or because it is in the government's material interest to do so (Collinge, 2001; Hudson, 2006).

Given that, in petrostates, the main focus of institution-building would be on supporting the oil and gas industry (Auty, 2002; Mellahi and Wood, 2002), it can be argued that there is likely to be much diversity in the incidence and efficacy of specific HR practices. Within petrostates, firms operating in the oil and gas industry will be particularly powerful and the major focus of government attention (Weinthal and Luong, 2006). It has been argued that, in petrostates, entrepreneurs will neglect productive areas of economic activity—most notably manufacturing—to contend for rents (Mehlum *et al.*, 2006; Auty 1999). Again, it can be argued that capital and skilled labour are sucked away from manufacturing in petrostates (*ibid.*). Finally, institutions are likely to be primarily geared towards regulating and supporting the oil and gas industry; there will little support or consistency in regulations that might promote higher value-added HR practices in other areas of the economy, such as manufacturing or services.

The Resource Curse literature holds that manufacturing will be 'crowded out', owing to investment and skills being drawn towards the oil and gas sector, and the effects of currency over-valuation on other areas of the economy, leaving manufacturing particularly poorly off (Frankel, 2010; Atkinson and Hamilton, 2003). Again, the lop-sided orientation of



institutions and these broad effects reduce the chances of technology and capabilities overflows into manufacturing (Papyrakis and Gerlagh, 2004). Finally, resource-rich countries are characterised by very uneven human capital development, making the challenges of developing organisation-specific skills in manufacturing particularly difficult (Van der Ploeg and Poelhekke, 2009). In practical terms, it would suggest that high staff turnover rates, volatility, undercapitalisation and weak institutional support would mitigate against high value-added HR strategies in manufacturing; the converse will be true for the oil and gas industry (c.f. Sachs and Warner, 2001; Weinthal and Luong, 2006). Hence, the following can be hypothesised:

*Hypothesis 2:* The relative attention and resources devoted to training, recruitment and selection, as well as to developing internal career opportunities and their impact on employee turnover rate and performance, will be relatively low in manufacturing and relatively high in the oil and gas industry.

### **Internal Institutional Diversity and HR Practices: Does Size Matter More in Some Contexts?**

As Bonaccorsi (1992) notes, firm size represents an approximation of organisational resources. Hence, clear links have been drawn between firm size, and the nature and extent of sophisticated HR practices (De Kock *et al.* 2006). Therefore, based on Australian evidence, Kotey and Sheridan (2004) have established that larger firms are more likely to have formal HR systems in place, whereas smaller ones place greater reliance on informal and ad-hoc interventions. Looking at the case of North Cyprus, Tanova (2003) found that smaller firms were particularly likely to make usage of informal mechanisms of recruitment; Canadian

evidence confirmed that larger firms favour more complex and formalised recruitment mechanisms (Golhar and Deshpande, 1997).

Although it is quite predictable that larger firms would have more resources to invest in HRM, more contentious would be whether, in settings such as Brunei, high value-added HR practices are more likely to positively contribute to performance. The comparative literature on institutional arrangements in emerging markets suggests that the main domain of institutional coverage and the focus of regulation—both formal and informal, the latter reflecting the density ties linking the firm with other formally constituted actors (industry associations, unions, and other societal players)—will be on larger organisations (Schneider 2009; Wood *et al.*, 2011). In contrast, smaller firms (whether formally constituted or not) may evade or selectively engage with regulatory arrangements with relative impunity. Finally, larger firms are likely to wield greater political power, and also are more likely to be able to secure regulatory interventions that suit their needs.

Accordingly, although firm size often is treated in the HR literature as a separate and distinct contextual variable to national context (Bowen and Ostroff, 2004), a strand of the literature on comparative institutional analysis in the developing world links together firm size and context. More specifically, extensions of business systems theory to emerging markets suggests that such systems are characterised by particularly pronounced segmentation between large firms, which are relatively highly regulated, and large and erratically regulated small business and informal sectors (Wood *et al.* 2012; Wood and Frynas 2005). Whilst the former tends to comply with a wide range of formal employment relations regulations, the latter categories of firm tend to largely ignore formal regulatory strictures, instead operating according to a range of informal norms and conventions. In smaller firms, as workers are more readily substitutable—and with the basis of competitiveness being more tenuous and

dependent on cheap rather than skilled labour (Wood *et al.*, 2011)—there are fewer incentives for firms to invest in promoting firm specific human capital. Again, systemic skills shortfalls are likely to have particularly adverse consequences for smaller firms; they are less able to recruit highly skilled staff in the first place, and the production paradigms on which they have based their competitiveness will not be enhanced through this. Whilst small firms and the informal sector are characterised by autocratic and arbitrary managerial power, this is leavened by paternalism, with low pay being offset by the usage of informal credit, long working hours with ad-hoc leave arrangements in the event of personal crisis, and informal recruitment using the networks of existing staff (Wood *et al.* 2011). This does not mean that such firms will necessarily desire or work to promote higher value-added HR practices, but that they will work to bring about regulatory changes to support or make possible the type of HR solutions they seek to implement (Crouch *et al.*, 2009). Within emerging markets, institutional weaknesses open opportunities for institutional redesign (Ebner *et al.*, 2008). Again, governments may be more vulnerable to the exercise of power by larger firms and/or the part capture of state mechanisms by big corporate interests (Grzymala-Busse, 2008). In other words, whilst there are differences between large firms and their smaller counterparts within all national contexts, and their relative ability to invest in high value-added HR practices, these differences will be particularly visible in emerging market settings,

*Hypothesis 3:* The relative attention and resources dedicated to training, recruitment and selection, as well as to developing internal career opportunities, and their impact on employee turnover rate and performance will increase in line with firm size. In other words, larger firms in Brunei will have more advanced and regulated HR practices; this, in turn, will reduce employee turnover rate and enhance financial performance. In the case of smaller firms, the effect of these HR practices on performance will be significantly less.

## **Methodology**

### ***Data, Sample and Survey Instrument***

Data used in this study comes from a primary survey carried out on a cross-section of firms. The data collection process posed significant challenges. To begin with, there did not exist a list of registered firms in the country. This sampling frame had to be compiled over a period of several months, utilising a variety of sources, such as Chamber of Commerce, Brunei government, specifically the Ministry of Finance, the Ministry of Industry and Primary Resources, and the Brunei Economic Development Board, as well as a wealth of past government reports. This process was lengthier than expected as the information provided often was not up-to-date; it also had to be cross-checked, which was time-consuming. Eventually, a sampling framework of 465 firms was created, of which a sample size of 214 was selected for the primary survey<sup>2</sup>.

The basis of the survey instrument was a questionnaire based on a study successfully conducted elsewhere (cf. Casson *et al.*, 1996, 1997, 1998)<sup>3</sup>. The questionnaire used for this survey comprised six sections that posed questions on basic information, which included the company details and control variables, such as the size and age of the company, the role of the HR director, recruitment, training and retention, appraisals, incentives and rewards, corporate culture and company performance. The survey instrument was devised in the English language, which also was translated in Malay language just in case some smaller firms asked for such a version. Due care in the translation process, specifically in terms of its 'linguistic validation' and 'cultural validation' by reverse transferring the questionnaire into English language, was done to make sure that none of the nuances and terminology were misunderstood or otherwise wrongly interpreted (Hambleton 1993). The translated questionnaire was used only on a few occasions, however. Owing to the length and detail of

the research questionnaire, care was taken to ensure that the responses suitably reflected the perception and attitudes of the respondents. The ‘funnel approach’ (Festinger & Katz, 1996) was used in the sequencing of the questionnaire, which centred on asking the more general questions earlier on and accordingly posing specific questions later. The questionnaire also started with the easier questions and progressively moved towards the harder ones. Furthermore, the questionnaires were distributed with a covering letter clearly explaining the rationale of the research, as well as assuring the respondents of anonymity. The questionnaire was pilot-tested and redrafted, taking into account the comments and suggestions made by HR directors or personnel in charge of HR affairs. Having then scientifically selected the sample (cf. endnote 2), researchers found that, in the case of the e-mailed/posted survey instrument, respondents were not always forthcoming with information. As a result of this, in addition to mail surveys, data in some instances had to be collected in face-to-face meetings over a period of several months. One positive outcome of this process was that researchers learnt more about the role of HR Directors and how such a strategic role had developed over the years. Most HR Directors displayed in-depth knowledge of their respective companies, particularly in regards financial performance—both real and potential. Given that the HR Directors also moved around and interacted with the executives of peer firms on social and formal occasions (Brunei being a small country), often exchanging information, they were found to be very informative and knowledgeable about one another’s performances. The final response tally of completed and usable questionnaire was 151 out of a sample of 214, which was seen to represent a relatively high rate of 70%. As stated earlier, the HR Directors/Heads were the main respondents in the study. It is held that people working in such managerial levels can play a crucial role in communicating a clear and consistent message through the type of HR policies and practices at work; this is likely to shape the responses of employees and ultimately organisational performance (see Bowen and Ostroff, 2004; Heavy *et al.*, 2013;

Wright and Nishi, 2013). Hence, the way in which HR directors report and describe HR practices is of key importance in understanding the relationship between formal practices and performance outcomes.

### *Data Analysis*

As stated, data for this study comes from a cross-section of firms that included firms with varying degrees of local and foreign participation, including joint ventures. Before the work was begun, the decision was made to make sure that the sample characteristics between groups of firms were the same. In an effort to determine this, an ANOVA test was conducted, during which groups that displayed similar characteristics were reclassified as one group. In order to test the hypotheses detailed earlier, a number of approaches were adopted. The reliability and validity of the variables under consideration were tested, with a factor analysis also conducted. The descriptive analysis of data (Table 2) includes mean, standard deviation and zero-order pairwise correlations; hierarchical regression analysis was implemented for modelling the data. Prior to conducting the regression analysis, data were screened and tested for multivariate assumptions. An outliers test was conducted, with the results revealing no extreme cases; the results of the normality test revealed that the skewness and kurtosis values lie within the acceptable ranges, except for in the cases of firm size and firm age, which then were transformed into logs.

### *Convergent and Discriminant Validity of HR Practices:*

Scales were created for measuring HR practices, employee turnover and perceived financial performance. As stated earlier, HR practices covered three individual areas of HRM: recruitment and selection, training, internal career opportunities (measures were adapted from

the works of Delery and Doty, 1996; Casson *et al.*, 1998; Pfeffer, 1998; Paauwe, 2009; Mohamed *et al.*, 2013; Singh *et al.*, 2013; Darwish *et al.*, 2015). Three main indicators were used for the assessment of the convergent validity in the form of factor loadings, average variance extracted (AVE) and the reliability of the construct (Hair *et al.*, 2010). The results show that the factor loadings of each construct indicator are significant, ranging from 0.56 to 0.95, thus demonstrating a strong association between constructs and their respective factors, with the results indicating that AVE values were higher than the threshold value of 0.50, thus demonstrating adequate convergence of the constructs. Finally, the results of the Cronbach's Alpha indicate that the scales satisfy the reliability criterion with values ranging from .69 to .91. When taken together, as recorded in Table 1, the results of factor loadings, AVE and reliability tests provide sufficient confirmation of the convergent validity. Furthermore, Fornell and Larcker (1981) propose a method to test discriminant validity, claiming that the researcher can establish discriminant validity if the square root of the average variance extracted for a specific construct is greater than the absolute value of the standardised correlation of this specific construct with any other construct. As shown in Table 2, the square roots of AVE values were compared with the constructs' correlations through which the results showed that the squared roots of the AVE values were higher than any correlation of the HR practices constructs, therefore indicating an acceptable level of discriminant validity.

#### *Common Method Variance:*

Common method bias, which may, in this case, lead to the estimates of the relationship between HR practices and performance to be inflated or deflated, represented a potential shortfall to this study as, in most instances, single respondents were used to collect data for both the variables<sup>4</sup>. This could lead to Type I and Type II errors. Hence, Harman's one-factor

test was used *post-hoc*, as recommended by Podsakoff and Organ (1986). All variables were entered into principal components factor analysis: if a single or one general factor was seen to emerge and account for the majority of the total variance, this would be seen to signal a considerable amount of common method variance (Steensma *et al.*, 2005). In terms of our data, principal component analysis with Varimax rotation revealed the presence of five distinct factors with eigenvalue greater than 1.0, rather than a single factor. The five factors accounted for 62% of the total variance. Notably, the first factor did not account for a majority of the variance (27%), which explains why no general factor is apparent. The results of Harman's one-factor test suggest that common method variance is not of great concern, and therefore is unlikely to affect the results (Podsakoff and Organ, 1986).

### ***TABLE-1 ABOUT HERE***

#### ***Outcome Variables***

*Employee Turnover:* There are some non-financial indicators that could indirectly reflect firms' performance. It is held that employee turnover represents a particularly important non-financial measure, as explained earlier. For the purpose of this work, employee turnover rate is measured through the use of a direct question regarding the percentage of total employees that voluntarily leave the company ever year (see, for example, Arthur, 1994; Huselid, 1995; Way, 2002).

*Perceived Financial Performance:* Empirical work conducted in the context of HRM and performance has largely used subjective measures when measuring organisational performance. In this context, various empirical works—mainly in the strategy literature—



have supported the use of subjective measures, and further claimed that the latter could be equally reliable as objective performance measures (see, for example, Dess and Robinson, 1984; Geringer and Hebert, 1991; Powell, 1992; Singh, Darwish, Potocnik, 2016). Following prior work, perceived financial performance was measured by three items on a Likert scale; respondents were asked to rate their main financial criteria compared with their rivals. Factor analysis showed that these three items are strong measures in terms of reflecting this construct, which are sales revenue, profitability (after tax) and holding market share. As recorded in Table 1, the items had individual loadings ranging from 0.870 to 0.952, thus emphasising highly reliable items for measuring this construct.

### ***Control Variables***

Some control variables are taken into consideration in this work owing to their possible association with the outcome variables. In this study, firm size and firm age are employed as control variables, measured in natural logs (also see Kimberly, 1976; Huselid, 1995). Firm size is measured by the number of employees in each of the targeted firms, whilst firm age is measured by the number of years for which those firms have been in operation. As we consider firms across all industries, we also controlled for this factor owing to their potential impacts on results. Dummy codes representing six industries were created, with these industries and the percentage of sample firms in each industry noted as oil and gas industry (11%), financial industry (10%), service industry (18%), retail and wholesale industry (29%), media and communication industry (13%) and manufacturing industry (19%). The retail and wholesale industry was selected as the baseline/benchmark industry variable in the analysis as it represents the highest percentage from the sampled firms, and it would be more interesting to compare other groups against the majority (Field, 2009).

## Results

### *Descriptive Results:*

Table 2 reports the means, standard deviations and correlations of all variables. It is instructive to note that, at the very outset, the relationship between HR practices is significant. Whilst different sets of HR practices may be at the very least compatible (McDuffie, 1995; Ichniowski and Shaw, 1999; Hall and Soskice, 2001), it is possible that the optimal configuration may not only be contingent upon only national context, but also upon the sector and specific characteristics of the firm. We can also note that HR practices are significantly related to perceived financial performance, and negatively to employee turnover.

### ***TABLE 2 ABOUT HERE***

### *Hypothesis 1—Results:*

It is held that, under an institutional regime that makes for complementarities, the impact of mutually supportive practices on organisational outcomes should be more than the sum of each practice's independent effects (see Crouch, 2005; Macky and Boxall, 2007). Hence, owing to contextual effects, and/or internal synergistic effects, such practices working together should yield superior outcomes (Huselid, 1995; MacDuffie, 1995; Macky and Boxall, 2007; Mohamed *et al.*, 2013). Thus, researchers consider the interaction effects (Venkatraman, 1989) amongst HR practices as an indicator of the effectiveness of HR-bundling. In view of this, interaction effects were tested, with Table 4 showing the standardised regression coefficients for the interaction effects amongst HR practices. The

Variance Inflation Factor (VIF) for the interaction terms was computed. Lower levels of VIF are more desirable as higher levels are known to have an adverse effect on the results associated with a multiple regression analysis. As a rule of thumb, a value greater than 10 is a value at which there should be concern, and which would merit further investigation (Hair *et al.*, 2010). However, other scholars (e.g., Rogerson, 2001) recommend a maximum VIF value of 5. In this case, as recorded in Table 4, VIF values were all acceptable, ranging from around 2 to 6. As suggested in the literature, the variation in performance should be significantly greater than the variation explained by an individual HR practice in that bundle (Ahmad and Schroeder, 2003); however, our results failed to show significant increments in variation, which could be explained by contextual complementarities. It can be seen from the results in Table 4 that this does not explain a significant incremental level of variance in  $R^2$  beyond what the controls and the individual HR practices explain in perceived financial performance ( $\Delta R^2 = .006$ ,  $F$  for  $\Delta R^2 = .505$ ,  $p > .10$ ). Looking at coefficients for the interaction terms, no significant interaction effects amongst HR practices were found, with these results failing to confirm that mutually supportive HR practices, made possible in a context of complementarity, positively impact performance to a greater degree than their individual effects. Thus, the results do not provide support for the first hypothesis; this suggests that the optimal configuration may not only be contingent upon national context but also the industry and specific characteristics of the firm, especially if central institutional supports were weak.

#### *Hypotheses 2 and 3—Results:*

Table 3 reports the results of multivariate regression analysis of employee turnover rate on firm size, age and all industries. Two models were fitted to the data: in the first, only controls were applied; in the second, HR practices were introduced. Hierarchical multiple regression

was conducted to test this hypothesis. Regarding employee turnover rate, as recorded in Table 3,  $R^2$  for this model is significant ( $R^2 = .27$ ,  $F = 5.297$ ,  $p < .001$ ); in other words, the predictors account for 27% of the variation in employee turnover rate. As the results show, with firm size, firm age and industries controlled, significant changes in  $R^2$ —beyond what the controls significantly explained—provide preliminary support for the this hypothesis ( $\Delta R^2 = .16$ ,  $F$  for  $\Delta R^2 = 10.591$ ,  $p < .001$ ), and also show that the model fits well with the data.

In the case of employee turnover, the oil and gas industry coefficient is negative (but not significant) in Model 1 (Table 3), i.e. we can see that fewer employees leave the oil and gas industry. However, in Model 2, in which HR practices were introduced, its negative sign is retained but also becomes significant, telling us that, as firms move from ‘base line’ towards the oil and gas industry, employee turnover rate declines. Comparing these results with the manufacturing sector, we find that its impact on employee turnover is not significant, even when HR practices are introduced in the model. Our results indicate that the oil and gas sector is an all-important sector of the economy that is more successful than the manufacturing sector when robust recruitment, selection and training practices are introduced. The reasons for this could be that the manufacturing sector is in its infancy, and firms may still be mastering optimal sets of HR practices for the sector when compared with a well-established oil and gas sector. The results in Table 4 show that there are insignificant sectorial differences between oil and gas, and manufacturing in terms of their perceived financial performance. It should be noted in passing that, for the services sector, the coefficients are significant for perceived financial performance (Table 4, Model 2). It is pertinent to note that, when only controls are introduced in the model, the coefficient for the services sector is not significant. With the introduction of HR practices in Model 2, the

coefficient for the services sector becomes significant, and also remains so in Model 3. We discuss these results in the discussion section.

In Hypothesis 3, we predicted that, as a result of more advanced and sophisticated HR systems, the relative attention and resources dedicated to training, recruitment and selection, as well as to developing internal career opportunities, impact employee turnover rate and performance, where both will increase in line with firm size. The results show that the coefficient of log firm size is positive but not significant ( $b = .122$ ), as shown in Model 1 (Table 3), which tells us that, as firms grow larger, they face larger rates of employee turnover. In Model 2, firm size comes alive with a certain degree of certainty ( $b = .130$   $t = 1.422$ ,  $p < .10$ ), which further strengthens the previous observation on the size of a firm's influence on employee turnover. An important point should be noted here; that is, irrespective of the fact of whether or not specific sets of HR practices are introduced, large firms face a higher employee turnover rate.

In terms of perceived financial performance, the log firm size is positive but not significant, as shown in Model 1 (Table 4); in Model 2, when HR practices were introduced, it becomes significant ( $b = .142$ ,  $t = 2.237$ ,  $p < .05$ ), telling us that perceived financial performance is enhanced with the increase in firm size. As can be seen in Table 4, HR practices contributed more to the financial performance of larger firms in Brunei. Such firms may have more structured and sophisticated people management practice as a result of their greater capabilities and available resources. Overall, the results provide a partial support for the third hypothesis.

Regarding the individual contributions of HR practices, it seems that firms dedicating more attention to recruitment and selection practices have a lower turnover rate ( $b = -.313$ ,  $t = -2.628$ ,  $p < .05$ ). It would be surprising if more care in selection and recruitment did not

reduce staff turnover. However, we found, rather counter intuitively, that training also leads to significant reductions in employee turnover rates ( $b = -.201$ ,  $t = -2.247$ ,  $p < .05$ ). Normally, it is the case that any limitations in the national training system lead to increased poaching, with firms that invest in their people ending up training for entire sectors. However, in highly segmented economies, with limited numbers of good jobs in most sectors, it is then possible that industry- and firm-specific training may render employees less mobile, rather than more. The type of firms investing in their people in challenging circumstances would precisely constitute the type of ‘good’ employer, which employees would be reluctant to leave. Again, we found internal career opportunities did have an impact on employee turnover rate ( $b = .068$ ,  $t = .601$ ,  $p > .10$ ); conventional wisdom would suggest that the converse be the case. This might again reflect the extent to which (formally or informally) skilled staff in non-oil and gas sectors may be quite committed to organisations owing to a dearth of alternatives, rather than through the positive incentive of internally available career development opportunities.

In consideration to the perceived financial performance, the results of the hierarchical multiple regressions are shown in Table 4. The value of  $R^2$  is significant ( $R^2 = .45$ ,  $F = 11.629$ ,  $p < .001$ ), indicating that the predictors account for 52% of the variation in perceived financial performance. With firm size, firm age and industries controlled, the results show that HR practices explain a strong significant incremental level of variance in  $R^2$  beyond what the controls explain in perceived financial performance ( $\Delta R^2 = .40$ ,  $F$  for  $\Delta R^2 = 34.634$ ,  $p < .001$ ). What is remarkable is that, in Model 2 (Table 4), where all three HR practices are introduced, all show positive and significant effects on perceived financial performance. The results show that recruitment and selection have a positive and significant impact on performance ( $b = .267$ ,  $t = 2.585$ ,  $p < .05$ ); training also is positively and significantly associated with the outcome variable ( $b = .174$ ,  $t = 2.241$ ,  $p < .05$ ); finally,

internal career opportunities also have a positive and significant impact on performance ( $b = .302, t = 3.087, p < .01$ ).

***TABLE -3 ABOUT HERE***

***TABLE-4 ABOUT HERE***

### **Discussion and Conclusions**

This is a study centred on the relationship between HRM and performance in light of sectorial differences, firm size and the possible complementarities benefitting firms operating across all sectors in the country of Brunei. More specifically, we explored whether HR practices designed to promote greater employer–employee interdependence are not only more widespread but also more effective in contributing to greater organisational performance in certain sectors and larger firms. We found that robust recruitment and selection processes, training and internal career opportunities contribute to positive perceived financial performance, with the first two practices also reducing employee turnover. However, we did not find that sets of mutually supportive practices, as could be made possible through complementarity, positively impact perceived financial performance. The study showed that, in comparison to manufacturing, the oil and gas sector enjoyed a significantly lower turnover rate when robust HR practices were introduced—in particular, recruitment and selection, and training, both of which significantly contribute to a lower turnover rate. Again, in terms of perceived financial performance, there were no sectorial differences between the oil and gas, and manufacturing sectors, even when the same set of HR practices were introduced in the

model. This is a surprising finding given that it could be anticipated that, in petrostates, more attention would be devoted to building institutions conducive to the oil and gas industry than manufacturing, supporting effective high value-added HR practices in the former. However, it is possible that the oil and gas industry's interests may be better served by a lack of oversight in key areas than greater regulation: for example, the ability to make extensive usage of semi- and unskilled low wage labour from abroad and a general weak enforcement of labour and other laws, and that, hence, an atmosphere of benign regulatory neglect may be preferred or actively encouraged (Sawyer and Gomez, 2012). It could also reflect the extent to which the industry's HR needs may be simply resolved through turning to overseas' labour markets, both for skilled and unskilled labour, with high wages enabling the ready sourcing of skills in the case of the former (Akpomovie, 2011) and the near absence of legal rights securing discipline in the case of the latter (Abella, 1995). Both the usage of high pay for highly skilled workers and tenuous migration status for unskilled ones may, in turn, explain the lower turnover rates encountered in the sector, the lack of efficacy of integrated HR systems notwithstanding.

However, it is worth noting that the services sector displayed reported better financial performance when greater attention was afforded to recruitment and selection, training, and internal career opportunities, all of which were identified as significant in the model, impacting on perceived financial performance. More than any other Bruneian sector, the service sector is sharply segmented between small-scale and informal enterprises (with the boundaries between the two being fluid), on the one hand, and medium and larger players, with denser and more formal ties to other firms and with a closer alignment to the formal national institutional regime, on the other. As small firms and the informal sector were not encompassed by the study, the findings reflect the latter reality. In contrast, it is likely that, whilst there clearly will be diversity—such as between principles and suppliers, for



example—in the oil and gas, and manufacturing sectors, the divide is likely to be not as extreme given denser ties between players, and because a greater number of firms occupy a middle ground in terms of HR practice (see Abdul-Aziz and Zoo Lee, 2007; Golhar and Deshpande, 1997). The results also show that, despite the prevalence of sophisticated HR practices, as firms grow in size, they suffer higher employee turnover rate; as such firms are more likely to have the resources to invest in their people, this may make them more vulnerable to poaching. However, we also found that large firms display significantly higher perceived financial performance, demonstrating that size does not always make for inefficiency or underperformance but rather may be able to reap bureaucratic economies of scale (Brewster *et al.*, 2006). Older established firms display significantly lower turnover rate; this may be because established players may be seen as providing more secure career paths, making quitting less attractive.

Looking at the impacts of the individual HR practices encompassed in our hypotheses, it seems that the quality of the recruitment and selection practices is indeed effective in screening out those likely to quit at a future rate. Recruitment and selection, training, and internal career opportunities all were identified as statistically significant in terms of ensuring a positive impact on perceived financial performance, and that these effects were enhanced with greater firm size. Such findings are broadly consistent with a strand of existing research (see, for example, Arthur, 1994; Huselid, 1995; Guthrie, 2001; Guthrie *et al.*, 2009; Darwish *et al.*, 2015). However, this leaves the question as to whether or not mutually supportive practices associated with complementarities are likely to be encountered in settings such as Brunei.

Although it has been argued that the systematic adoption of related sets of HR practices will yield better results than the lump sum of individual interventions (Ichniowski and Shaw,

1999), we found no evidence for this. Our test on the internal fit of HR practices failed to support this hypothesis. Our results instead confirm that the individual effects of HR practices affect performance individually to a greater relative extent than a comprehensive bundle of practices. Our results would suggest that the optimal configuration may not only be contingent upon national context but also the industry and specific characteristics of the firm, especially if central institutional supports were weak; in other words, even if fully fledged complementarities were elusive, specific HR practices tend to work better than others—according to firm characteristics.

Hence, our findings suggest that the sets of HR practices encountered in Brunei that produce optimal OP will not necessarily correspond with the recognisable bundles of practice (whether instrumentalist or cooperative), seen as generating superior results for Western firms operating in specific mature markets (see Hall and Soskice, 2001; Storey, 2007). This may reflect partial or fluid institutional supports, making it difficult to sustain dense networks of relationships that make sophisticated and interlocking HR systems viable. In other words, if complementarities are less developed within emerging markets (Hancke *et al.*, 2007), sets of practices working together are less likely to yield any better results than a sum of their component parts might suggest. Indeed, it has been argued that, within petroleum growth-focused regimes, the challenges facing the HR manager are likely to be very much greater, and it is more difficult to piece together mutually supportive sets of HR practices (Mellahi and Wood, 2002). Although this study looks at private sector organisations, our findings appear to bear out this assertion.

A dominant strand of thinking within the global policy community suggests that light labour market regulation will yield optimal results for firms; such logic underpins the influential World Bank Doing Business Reports (Cooney *et al.*, 2011). However, what this study

highlights is that lightly regulated employment results in different outcomes to the liberal market ideal—and, indeed, complementarities associated with it—may be difficult to realise, even if labour markets are highly flexible. For example, less widespread tertiary-level education and a relatively large number of workers with limited schooling who lack basic skills means there is a larger component of vulnerable labour, encouraging even more employer opportunism, but also forcing a greater investment in basic induction training, leaving fewer resources for more sophisticated HRD. When there is less restraint on the arbitrary exercise of managerial power, owing to the uneven enforcement of the law and limitations in societal level checks and balances, the negative consequences of insecure tenure may be very much greater. In short, in such systems, there are both incentives against and disincentives towards the development of more sophisticated and integrated HR paradigms. It may be the case that some of the negative consequences of such systems may be mitigated through informal networks and ties, with employers adopting a role that is more flexible and paternalist than the arm's length contracting typically encountered in liberal markets. Nonetheless, the findings of this study suggest that better selection and recruitment (filtering out those likely to be lightly committed to the organisation) and a greater investment in people (enabling those with limited skills to develop their organisation specific capabilities) each will be beneficial to firms in their own right.

In other words, even if the extent of employer–employee interdependence and delegation appears relatively low—and, hence, similar to LMEs—it is, in fact, quite different. Firstly, the uneven enforcement of regulation imparts uncertainty to contracting. Secondly, with the formal employment relationship goes informal ties on paternalist lines; however, evidence from Africa suggests that paternalist relations bring with them further arbitrariness, diluting the embedding of more coherent and modern HR systems (Wood *et al.*, 2011). Not only are such webs of relations more difficult for outsiders to penetrate, but also they do not alleviate

structural power imbalances within the workplace. Thirdly, as Mellahi and Wood (2002) note, a feature of petroleum growth regimes is very high levels of labour market segmentation. The latter are split: firstly, there is a highly skilled and politically connected local elite, who benefits from indigenisation policies and is able to leverage their superior bargaining power to easily move between jobs; secondly, a less-skilled local labour force who may fall back on generous social protection or public sector work in the absence of desirable paid employment options in the private sector; thirdly, there is a large expatriate community, again divided between a highly skilled Western minority and many low-paid and rightless workers from impoverished Asian nations. Such segmentation is indeed encountered in Brunei. At an applied level, what the findings of the study suggest is that, through focused individual HR interventions, firms may mitigate some of the challenges imposed by the context, allowing for better skilled and more committed workforces; however, there is a lack of an enabling institutional framework that would support a more comprehensive national HR 'recipe' or paradigm imparting context-specific capabilities. In summary, whilst firms may be less able to harness systemic complementarities in such settings, this does not mean that individual high value-added HR practices might not work well in their own right.

As noted above, Resource Curse Theory suggests that institutional limitations are a particular feature of petrostates, and, within such settings, institutional building is more difficult. Inter alia, resource windfalls dilute the incentives for institutional building or redesign, as revenue inflows will continue to occur even when institutions are poor, whilst volatility in oil and gas prices makes it difficult to make long-term investment commitments (Auty, 2003). This may explain the apparent absence of complementarities in Brunei. However, it could be argued that the findings have broader relevance in many emerging markets, where institutional arrangements remain fragile and fluid, and may be particularly relevant to the case of small-to-medium-sized petrostates.

Although there is a growing body of empirical work that seeks to link national institutional context to variety in HR practice (Goergen *et al.*, 2012), the bulk of this work has focused on advanced societies. As may be the case of many countries across the developing world, the present article on HRM in the context of Brunei alerts us to the fact that national institutional features realities may result in bounded diversity in firm practice, and the implementation of sophisticated bundles of HR practices will be unlikely to yield the superior results encountered in the advanced societies. We found that only some HR practices had an impact on turnover and performance: the former was affected by the quality of selection processes, whilst the latter was affected by the usage of non-monetary reward systems, as well as clearly defined systems and procedures for promotion. We did not encounter a dense web of associated HR practices, which may be ascribed to relatively fluid and still-developing institutional supports, rendering complementarity between regulation and high value-added HR practices elusive. At the same time, we encountered significant variety according to firm characteristics, which, in turn, appears to reflect national institutional dynamics, and the specific patten of institutional development that is likely to develop in petrostates. In other words, the effect of firm characteristics, such as size and sector, on HR practice cannot be divorced from context: in emerging markets and petrostrates, these effects may be particularly pronounced.

**Acknowledgements:** The authors wish to record their debt to the anonymous referees for their comprehensive and constructive comments on the earlier iterations of this article, which helped us improve it significantly. Any shortcomings remain our own.

---

## Notes:

<sup>1</sup> The population of Brunei is estimated at 406,000 about 67 per cent of whom are ethnic Malay. A further 15 per cent are ethnic Chinese and about three per cent are Indigenous. The relatively large population of foreign contract workers is drawn from Indonesia, Malaysia and the Philippines, as well as from South Asia. Brunei relies heavily on foreign labour in lower-skill and lower-paying positions, with approximately 120,000 guest

---

workers brought in to fulfil specific contracts. The largest percentage of those work in construction, followed by wholesale and retail trade and then professional, technical, administrative and support services. <http://dfat.gov.au/geo/brunei-darussalam/pages/brunei-darussalam-country-brief.aspx>; <http://www.state.gov/documents/organization/226810.pdf>

<sup>2</sup> Based on the formula to determine sample size,  $n = \frac{N}{1+N(e)^2}$  where N is the population size and e represents the confidence level.

<sup>3</sup> The basis of survey instrument for this study was a questionnaire, which has been developed and executed previously at the department of economics, University of Reading, under the directorship of Mark Casson and Raymond Loveridge (c.f. Casson *et al.*, 1996, 1997, 1998).

<sup>4</sup> In some instances where the HR director was not sure of the correct response he did consult his superiors and/subordinates.

## References:

- Abella, M. I. (1995). Asian migrant and contract workers in the Middle East. *The Cambridge Survey of World Migration*. Cambridge: Cambridge University Press.
- Abdul-Aziz, A. R., & Zoo Lee, K. (2007). Knowledge management of foreign subsidiaries of international oil and gas contracting companies. *International Journal of Energy Sector Management*, 1,1, 63-83.
- Ahmad, S. and Schroeder, R. (2003). The impact of human resource management practices on operational performance: Recognising country and industry differences. *Journal of Operations Management*, 21, 1, 19–43.
- Akpomuvie, O. (2011). Tragedy of commons: Analysis of oil spillage, gas flaring and sustainable development of the Niger Delta of Nigeria. *Journal of Sustainable Development*, 4, 2, 200.
- Aoki, M. (2010). *Corporations in Evolving Diversity*. Oxford: Oxford University Press.
- Arthur, J.B. (1994). Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, 37, 3, 670–687.
- Atkinson, G. and Hamilton, K. (2003). Savings, growth and the resource curse hypothesis. *World Development*, 31, 11, 1793-1807.
- Auty, R.M. (2002). *Sustaining Development in Mineral Economies: The Resource Curse Thesis*. London: Routledge.
- Becker, B. and Huselid, M. (1998). High performance work systems and firm performance. *Research in Personnel and Human Resource Management*, 16, 1, 53-101.
- Bonaccorsi, A. (1992). On the relationship between firm size and export intensity. *Journal of international business studies*, 605-635.
- Boschini, A.D., Pettersson, J. and Roine, J. (2007). Resource curse or not: A question of appropriability. *The Scandinavian Journal of Economics*, 109, 3, 593-617.
- Bowen, D. and Ostroff, C. (2004). Understanding HRM-performance linkages: The role of the “strength” of the HR system. *Academy of Management Review*, 29, 2, 203-221.

- 
- Boyer, R. (2006). How to Institutions Cohere and Change', in G. Wood and P. James (eds.), *Institutions and Working Life*, Oxford: Oxford University Press.
- Brewster, C., Wood, G., Croucher, R. and Brookes, M. (2007). Collective and individual voice: Convergence in Europe? *International Journal of Human Resource Management*, 18, 7, 1246-1262.
- Brookes, M., Brewster, C. and Wood, G. (2005). Social relations, firms and societies: A study in institutional embeddedness. *International Sociology*, 20, 4, 403–426.
- Bryane, M. (2014). What does Brunei teach us about using human development index rankings as a policy tool? University of Hong Kong  
[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2395661](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2395661).
- Carney, M., Gedajlovic, E., & Yang, X. (2009). Varieties of Asian capitalism: Toward an institutional theory of Asian enterprise. *Asia Pacific Journal of Management*, 26, 3, 361-380.
- Casson, M., Loveridge, R. and Singh, S. (1998). *Human Resource Management in Multinational Enterprises: Styles, Modes, Institutions and Ideologies*. In G. Hooley, R. Loveridge, D. Wilson (eds.), *Internationalisation: Process, Context and Markets* (pp.158-170). Basingstoke: Macmillan.
- Chongvilavan, A. (2014). Inequality in South East Asia. Kanbur, R, Rhee, R. and Zhuang, J. (eds.), *Inequality in the Asia Pacific*. Abingdon: Routledge.
- Collinge, C. (2001). Self organization of society by scale, in B. Jessop (ed.), *Regulation Theory and the Crisis of Capitalism, Volume 4 – Developments and Extensions*, London: Edward Elger, pp. 176-195.
- Cooney, S., Gahan, P., and Mitchell, R. (2011). Legal origins, labour law and the regulation of employment relations, in Barry, M. and Wilkinson, A. (eds.), *Research Handbook of Comparative Employment Relations*, Cheltenham: Edward Elgar, 75-97.
- Cooke, K. (2012). Brunei Darassalam: Diversifying is Hard to Do, Cambridge: Global Briefing. Available at: <http://www.global-briefing.org/2012/07/diversifying-is-hard-to-do/>
- Crouch, C. (2005). *Capitalist Diversity and Change: Recombinant Governance and Institutional Entrepreneurs*. Oxford: Oxford University Press.
- Crouch, C., Schroeder, M. and Voelzkow, H. (2009). Regional and sectoral varieties of capitalism. *Economy and Society*, 38, 4, 654-678.
- Darwish, T., Singh, S. and Mohamed, A.F. (2013). The role of strategic HR practices in organisational effectiveness: An investigation in the country of Jordan. *International Journal of Human Resource Management*, 24, 17, 3343-3362.
- Darwish, T., Singh, S. and Wood, G. (2015). The impact of human resource practices on actual and perceived organisational performance in a middle-eastern emerging market. *Human Resource Management*, forthcoming: DOI: 10.1002/hrm.21664.

- 
- De Kok, J.M., Uhlaner, L.M. and Thurik, A.R. (2006). Professional HRM practices in family owned-managed enterprises. *Journal of Small Business Management*, 44, 3, 441-460.
- Delery, J.E. and Doty, D.H. (1996). Modes of theorizing in strategic human resource management: Tests of universalistic, contingency and configurational performance prediction. *Academy of Management Journal*, 39, 4, 802–835.
- Dess, G.G. and Robinson, R.B. (1984). Measuring organizational performance in the absence of objective measures: The case of the privately-held firm and conglomerate business unit. *Strategic Management Journal*, 5, 3, 265–279.
- Dore, R. (2000). *Stock Market Capitalism: Welfare Capitalism*. Cambridge: Cambridge University Press.
- Ebner, A. (2008). Institutional Evolution and the Political Economy of Governance’, in A. Ebner and N. Beck (eds.), *The Institutions of the Market – Organizations, Social Systems and Governance*, Oxford: Oxford University Press.
- Expafocus (2015). Brunei – Employment. Available: <http://www.expafocus.com/expatriate-brunei-employment>.
- Festinger, L. and Katz, D (1966), *Research Methods in the Behavioural Sciences*, New York: Holt, Rinehart and Winston.
- Field, A. (2009). *Discovering Statistics using SPSS*. London: Sage.
- Fornell, C. and Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18, 1, 39-50.
- Frankel, J.A. (2010). *The natural resource curse: A survey* (No. w15836). National Bureau of Economic Research.
- Geringer, M.J. and Hebert, L. (1991). Measuring performance of international joint ventures. *Journal of International Business Studies*, 28, 4, 249-263.
- Goergen, M., Brewster, C., Wood, G. and Wilkinson, A. (2012). Varieties of capitalism and investments in human capital. *Industrial Relations*, 51, 1, 501–527.
- Golhar, D. Y., & Deshpande, S. P. (1997). HRM practices of large and small Canadian manufacturing firms. *Journal of Small Business Management*, 35, 3, 30.
- Grzymala-Busse, A. (2008). Beyond clientelism incumbent state capture and state formation. *Comparative Political Studies*, 41, 4-5, 638-673.
- Guest, D.E. (1997). Human resource management and performance: A review and research agenda. *International Journal of Human Resource Management*, 8, 3, 263-276.
- Guest, D.E. (2007). *Human resource management and the worker: towards a new psychological contract?*. In P. Boxall, J. Purcell, and P. Wright (eds), *The Oxford Handbook of Human Resource Management* (pp. 128-146). Oxford: Oxford University Press.



- 
- Guthrie, J.P. (2001). High involvement work practices, and turnover and productivity: Evidence from New Zealand. *Academy of Management Journal*, 44, 1, 180–190.
- Guthrie, J.P., Flood, P., Liu, W. and MacCurtain, S. (2009). High performance work system in Ireland: Human resource and organisational outcomes. *The International Journal of Human Resource Management*, 20, 1, 112-125.
- Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2010). *Multivariate Data Analysis*. N.J: Prentice Hall.
- Hall, P. and Soskice, D. (2001). *An Introduction to the varieties of capitalism*. In P. Hall and D. Soskice (eds.) *Varieties of capitalism: The institutional basis of competitive advantage* (pp. 1-68). Oxford: Oxford University Press.
- Hambleton, R.K (1993), Translating achievement tests for use in cross-national studies, *European Journal of Psychological Assessment*, 9, 1, 57-68.
- Hancke, B., Rhodes, M. and Thatcher, M. (2007). *Introduction*. In B. Hancke, M. Rhodes and M. Thatcher (eds.), *Beyond varieties of capitalism: conflict, contradiction, and complementarities in the European economy*. Oxford: Oxford University Press.
- Heavy, A., Beijer, S., Federman, J., Hermans, M., Klein, F., McClean, E. and Martinson, B. (2013). *Measurement of Human Resource Practices: Issues Regarding Scale, Scope, Source and Substantive Content*. In J. Paauwe, D. Guest and P. Wright (eds.), *HRM and Performance: Achievement and Methods*. Chichester: Wiley.
- Heeks, R. (1998). Small enterprise development and the ‘Dutch Disease’ in a small economy: the case of Brunei. <http://ageconsearch.umn.edu/bitstream/30563/1/dp980056.pdf> (accessed 1-2-14).
- Herrmann, P. and Werbel, J. (2007), Promotability of host-country nationals: A cross-cultural study. *British Journal of Management*, 18, 281–293.
- Huselid, M. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38, 3, 635–670.
- Ichniowski, C. and Shaw, K. (1999). The effects of human resource management systems on economic performance: An international comparison of U.S. and Japanese plants. *Management Science*, 45, 5, 704-721.
- ITUC-International Trade Union Confederation. (2009) *Annual Survey of violations of trade union rights - Brunei Darussalam*, 11 June 2009, available at: <http://www.refworld.org/docid/4c52cafdc.html> [accessed 11 June 2015].
- Hudson, R. (2006). The Production of Institutional Complementarity?: The Case of North East England’, in G. Wood and P. James (eds.), *Institutions and Working Life*, Oxford, Oxford University Press.
- Jessop, B. (2012). Rethinking the diversity and variability of capitalism: on variegated capitalism in the world market’, Lane, C. and Wood, G. (eds.), *Institutions, internal diversity and change*. London: Routledge.

- 
- Kalleberg, A.L. and Moody, J.W. (1994), Human resource management and organizational performance. *American Behavioural Scientist*, 7, 37, 948–962.
- Kimberly, J. (1976). Organisational size and the structuralist perspective. *Administrative Science Quarterly*, 21, 4, 571-597.
- Kotey, B. and Sheridan, A. (2004). Changing HRM practices with firm growth. *Journal of Small Business and Enterprise Development*, 11, 4, 474-485.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny R. (2000). Investor protection and corporate governance. *Journal of Financial Economics*, 58, 1-2, 3-27.
- MacDuffie, J.P. (1995). Human resource bundles on manufacturing performance: Organizational logic and flexible production systems in the world auto industry. *Industrial and Labour Relations Review*, 48, 2, 197–221.
- Macky, K. and Boxall, P. (2007). The relationship between ‘high-performance work practices’ and employee attitudes: An investigation of additive and interaction effects. *The International Journal of Human Resource Management*, 18, 4, 537-567.
- Mangaliso, M. P. (2001). Building competitive advantage from ubuntu: Management lessons from South Africa. *The Academy of Management Executive*, 15(3), 23-33.
- Mellahi ,K. and Wood , G. (2002). Desperately Seeking Stability: The Making and Remaking of the Saudi Arabian Petroleum Growth Regime. *Competition and Change*, 6(4): 345–62.
- Mehlum, H., Moene, K., & Torvik, R. (2006). Institutions and the resource curse\*. *The economic journal*, 116(508), 1-20.
- Mohamed, A.F., Singh, S., Irani, Z. and Darwish, T. (2013). An analysis of recruitment, training and retention practices in domestic and multinational enterprises in the country of Brunei Darussalam. *International Journal of Human Resource Management*, 24, 10, 2054-2081.
- Moideenkutty, U., Al-Lamki, A. and Murthy, Y. (2011). HRM practices and organisational performance in Oman. *Personnel Review*, 40, 2, 239- 251.
- Morris, M. H., Davis, D. L., & Allen, J. W. (1994). Fostering corporate entrepreneurship: Cross-cultural comparisons of the importance of individualism versus collectivism. *Journal of International Business Studies*, 25, 1: 65-89.
- Nguyen, Q. T.K. (2014). The regional strategies of British multinational subsidiaries in South East Asia. *British Journal of Management*, 25, S60–S76.
- Noe, R., Hollenbeck, J., Gerhart, B. and Wright, P. (2006). *Human Resources Management: Gaining A Competitive Advantage*. New York: McGraw-Hill.
- Paauwe, J. (2009). HRM and performance: Achievements, methodological, issues and prospects. *Journal of Management Studies*, 46, 1, 129-142.
- Papyrakis, E. and Gerlagh, R. (2004). The resource curse hypothesis and its transmission channels. *Journal of Comparative Economics*, 32, 1,181-193.

- 
- Pfeffer, J. (1998). Seven practices of successful organizations. *California Management Review*, 40, 2, 96–124.
- Podsakoff, P.M. and Organ, D.W. (1986). Self-reports in organizational research: problems and prospects. *Journal of Management*, 12, 4, 531-544.
- Powell, T.C. (1992). Organisational alignment as a competitive advantage. *Strategic Management Journal*, 13, 7, 119-134.
- Przeworski, A. (2000). *Democracy and development: political institutions and well-being in the world, 1950-1990*. Cambridge: Cambridge University Press.
- Razouk, A. (2011). High performance work systems and performance of French small- and medium-sized enterprises: Examining causal order. *The International Journal of Human Resource Management*, 22, 2, 311-330.
- Ross, M. L. (1999). The political economy of the resource curse. *World politics*, 51(02), 297-322.
- Rugman, A. M. and Oh, C. H. (2013), Why the home region matters: Location and regional multinationals. *British Journal of Management*, 24, 463–479.
- Sachs, J.D. and Warner, A.M. (2001). The curse of natural resources. *European Economic Review*, 45, 4, 827-838.
- Sawyer, S., & Gomez, E. T. (2012). *The Politics of Resource Extraction: Indigenous Peoples, Multinational Corporations and the State*. Palgrave Macmillan.
- Schneider, B. (2009). Hierarchical market economies and varieties of capitalism in Latin America. *Journal of Latin American Studies*, 41, 3, 553-575.
- Singh, S., Mohamed, A.F. and Darwish, T. (2013), A comparative study of performance appraisals, incentives and rewards practices in domestic and multinational enterprises in the country of Brunei Darussalam. *International Journal of Human Resource Management*, 24, 19, 3577-3598.
- Standing, G. (2011). *Precariat: The New Dangerous Class*. London: Bloomsbury.
- Steensma, H.K., Tihanyi, L., Lyles, M.A. and Dhanaraj, C. (2005). The evolving value of foreign partnerships in transitioning economies. *Academy of Management Journal*, 48, 2, 213-235.
- Steier, L. P. (2009). Familial capitalism in global institutional contexts: Implications for corporate governance and entrepreneurship in East Asia. *Asia Pacific Journal of Management*, 26, 3, 513-535.
- Storey, J. (2007). *Human resource management: A critical text*. New York: Routledge.
- Tanova, C. (2003). Firm size and recruitment: staffing practices in small and large organisations in north Cyprus. *Career Development International*, 8, 2, 107-114.
- Thelen, K (2001). *Varieties of Labour Politics in the Developed Democracies*. In P. Hall, D. Soskice (eds.), *Varieties of Capitalism: The Institutional Basis of Competitive Advantage* (pp. 71-103). Oxford: Oxford University Press.

- 
- Tipton, F. B. (2009). Southeast Asian capitalism: History, institutions, states, and firms. *Asia Pacific Journal of Management*, 26, 3, 401-434.
- Tsui, A. S. (2004). Contributing to global management knowledge: A case for high quality indigenous research. *Asia Pacific Journal of Management*, 21(4), 491-513.
- Tzafir, S. (2005). The relationship between trust, HRM, and firm performances. *International Journal of Human Resource Management*, 16, 9, 1600-1622.
- UNDP (2015). Human Development Reports. <http://hdr.undp.org/en/content/table-1-human-development-index-and-its-components>.
- Van der Ploeg, F. and Poelhekke, S. (2009). Volatility and the natural resource curse. *Oxford economic papers*, 027.
- Venkatraman, N. (1989). The concept of fit in strategy research: Toward verbal and statistical correspondence. *Academy of Management Review*, 14, 3, 423-444.
- Way, S. (2002). High performance work systems and intermediate indicators of firm performance within the US small business sector. *Journal of Management*, 28, 6, 765-785.
- Weinthal, E. and Luong, P.J. (2006). Combating the resource curse: An alternative solution to managing mineral wealth. *Perspectives on Politics*, 4, 01,35-53.
- Whitley, R. (1999). *Divergent Capitalisms*. Oxford: Oxford University Press.
- Witcher, B. J. and Chau, V. S. (2012), Varieties of capitalism and strategic management: Managing performance in multinationals after the global financial crisis. *British Journal of Management*, 23, S58–S73.
- Wood, G. and Lane, C. (2012). *Institutions, Change and Diversity*. In C. Lane and G. Wood (eds.), *Capitalist Diversity and Diversity within Capitalism* (pp. 1-31). London: Routledge.
- Wood, G., Dibben, P., Stride, C. and Webster, E. (2011). HRM in Mozambique: Homogenization, path dependence or segmented business system? *Journal of World Business*, 46, 1, 31-41.
- Wood, G., & Frynas, J. G. (2006). The institutional basis of economic failure: Anatomy of the segmented business system. *Socio-Economic Review*, 4(2), 239-277.
- World Bank. (2014). Labour Market Regulation in Brunei. *Doing Business – Measuring Business Regulations*. Washington: World Bank. Available at: <http://www.doingbusiness.org/data/exploreeconomies/brunei/labor-market-regulation>.
- Wright, P. and Nishi, L. (2013). *Strategic HRM and Organizational Behaviour*. In J. Paauwe, D. Guest and P. Wright (eds.), *HRM and Performance: Achievement and Methods*. Chichester: Wiley.

Table 1: Convergent validity - standardised factor loadings, average variance extracted, and reliability results.

Items	Recruitment and selection	Training	Internal career opportunity	Perceived financial performance
Personal characteristics (self-motivation)	.861			
Personal characteristics (independent judgment)	.810			
Personal characteristics (potential to grow with the job)	.790			
Personal characteristics (total devotion to task)	.789			
Personal characteristics (commitment to the company)	.772			
Personal characteristics (willingness to learn)	.768			
Qualifications (command of languages)	.727			
Qualifications (personal presentation)	.701			
Qualifications (previous experience of a similar job)	.652			
Qualifications (wide range of work experience)	.622			
Qualifications (professional qualifications)	.592			
Personal characteristics (willingness to travel)	.559			
Induction into a group by socialisation and imitation		.855		
Training provided by a third party organisation but tailored to company needs		.749		
Work placement with strategic partners		.698		
Formal instructions within the company		.662		
Buddy system-mentoring		.557		
Overall professionalism			.831	
Effort – independent of final results			.827	
Deliverables			.819	
Quality of output			.761	
Individual competency level (technical)			.718	
Value of output-independent of profit margin			.644	
Keeping within budget			.615	
Sales revenue				.952
Profitability (after tax)				.935
Holding market share				.870
<b>Average Variance Extracted (AVE)</b>	<b>.53</b>	<b>.51</b>	<b>.56</b>	<b>.84</b>
<b>Reliability (Cronbach's alpha)</b>	<b>.91</b>	<b>.69</b>	<b>.87</b>	<b>.90</b>

Note: All deleted items (not reported in this table) had factor loadings below .55, which is considered the minimum significance level in comparison with our sample size (Hair et al., 2010).

Table 2. Mean, standard deviations, discriminant validity, and zero-order correlations

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1. Recruitment and Selection	4.15	.64	<b>.73</b>											
2. Training	3.53	.69	.61**	<b>.71</b>										
3. Internal Career Opportunities	4.05	.63	.71**	.51**	<b>.75</b>									
4. Employee Turnover	2.46	1.88	-.36**	-.33**	-.29**									
5. Perceived Financial Performance	6.98	1.69	.58**	.47**	.59**	-.27**								
6. Log. Firm Size	1.69	0.45	.01	-.01	.03	.08	.13							
7. Log. Firm Age	1.20	0.27	.02	-.01	.02	-.25**	-.04	.06						
8. Oil and Gas	0.08	0.28	-.06	-.01	-.01	-.08	-.05	.10	-.02					
9. Financial Industry	0.09	0.30	.02	.12	.03	-.06	.04	.01	.14	-.10				
10. Service Industry	0.17	0.38	-.06	-.09	-.17*	.16*	.05	-.01	-.19*	-.14	-.15			
11. Media & Communication Industry	0.12	0.33	.10	.05	.08	-.08	.11	.03	-.09	-.12	-.13	-.17*		
12. Manufacturing Industry	0.18	0.39	.06	.07	.09	-.03	.02	.04	.12	-.14	-.16	-.22**	-.18*	-

Notes:  $n=151$ . Retail and wholesale industry is the omitted benchmark industry variable. \*\* Correlation is significant at the 0.01 level (two-tailed).

\* Correlation is significant at the 0.05 level (two-tailed). Bolded diagonal elements are square roots of average variance extracted

Table 3. Hierarchical regression analysis for employee turnover

<i>Variables</i>	Model 1	Model 2
	<i>Employee Turnover</i>	
	Coefficient	Coefficient
<u>Step 1: Control Variables</u>		
Log. Firm Size	.122	.130†
Log. Firm Age	-.255**	-.252**
Oil and Gas	-.122	-.144†
Financial Industry	-.048	-.005
Service Industry	.059	.058
Media & Communication Industry	-.127	-.086
Manufacturing Industry	-.034	.001
<u>Step 2: HR Practices</u>		
Recruitment and Selection		-.313*
Training		-.201*
Internal Career Opportunities		.068
R <sup>2</sup>	.110 (.066)	.274 (.223)
ΔR <sup>2</sup>	---	.165
F for ΔR <sup>2</sup>	2.521*	10.591***

Notes:  $n = 151$ . Standardised regression coefficients are shown. Adjusted R<sup>2</sup> in parentheses.

Retail and wholesale industry is the omitted benchmark industry variable. †  $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 4. Hierarchical regression analysis for perceived financial performance

<i>Variables</i>	Model 1	Model 2	Model 3	VIF
	<i>Perceived Financial Performance</i>			
	Coefficient	Coefficient	Coefficient	
<u>Step 1: Control Variables</u>				
Log. Firm Size	.132	.142*	.154*	
Log. Firm Age	-.046	-.045	-.055	
Oil, Gas & Petrochemical Industry	-.015	-.013	-.007	
Financial Industry	.089	.042	.030	
Service Industry	.101	.146*	.154*	
Media & Communication Industry	.147	.089	.082	
Manufacturing Industry	.083	.023	.015	
<u>Step 2: HR Practices</u>				
Recruitment and Selection (R&S)		.267*	.663	
Training (TR)		.174*	.544	
Internal Career Opportunities (ICO)		.302**	.468	
<u>Step 3: HR Complementarities</u>				
R&S x TR			-.527	3.36
R&S x ICO			-.300	5.49
TR x ICO			-.017	4.41
R <sup>2</sup>	.048 (.002)	.454 (.415)	.460 (.408)	
ΔR <sup>2</sup>	---	.405	.006	
F for ΔR <sup>2</sup>	1.038	34.634***	.505	

Notes:  $n = 151$ . Standardised regression coefficients are shown. Adjusted R<sup>2</sup> in parentheses.

Retail and wholesale industry is the omitted benchmark industry variable. †  $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .