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High-Performance Work Systems and Organizational Performance Across Societal Cultures

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ABSTRACT

This paper assesses whether societal culture moderates the relationship between human resource management (HRM) practices and organizational performance. Drawing on matched employer-employee data from 387 organizations and 7,187 employees in 14 countries, our findings show a positive relationship between HRM practices combined in High-Performance Work Systems (HPWS) and organizational performance across societal cultures. Three dimensions of societal culture assessed (power distance, in-group collectivism, and institutional collectivism) did not moderate this relationship. Drawing on the Ability-Motivation-Opportunity (AMO) model, we further consider the effectiveness of three bundles of HRM practices (skill-enhancing, motivation-enhancing, and opportunity-enhancing practices). This analysis shows opportunity-enhancing practices (e.g., participative work design and decision-making) are less effective in high-power-distance cultures. Nevertheless, in markedly different countries we find combinations of complementary HPWS and bundles of AMO practices appear to outweigh the influence of societal culture and enhance organizational performance.

Keywords: high-performance work systems; societal culture; cross-cultural management; organizational performance

INTRODUCTION

Convergence towards best practice in management across different national and cultural settings remains a central debate in the International Business (IB) and Cross-Cultural Management (CCM) literatures. An important stream of research has focused on whether human resource management (HRM) practices are converging towards a globally recognized best practice approach (Edwards, Sánchez-Manges, Jalette, Lavelle, & Minbaeva, 2016; Farndale, Brewster, Ligthart, & Poutsma, 2017; Pudelko & Harzing, 2007). Central to this issue is whether, in different countries, organizations with technically superior HRM best practices outperform their competitors, suggesting an economic imperative towards convergence. Companies are offered contrasting advice regarding the effectiveness of HRM practices in different countries from two opposite perspectives - the universalistic perspective ('best practice') implies convergence, and the contingency perspective ('best fit') continued divergence (Festing, 2012). Our study therefore explores whether, in markedly different countries, organizations that have implemented HRM best practices report enhanced performance (the universalistic perspective), or alternatively whether societal culture moderates the relationship between HRM best practices and organizational performance (the contingency perspective).

The universalistic perspective has produced compelling large-scale and meta-analytic evidence of a positive association between organizational performance and a set of complementary best practices that comprise High-Performance Work Systems (HPWS) (Combs, Liu, Hall, & Ketchen, 2006; Wright & Ulrich, 2017). Across the last twenty years, many single-country studies have reproduced these findings and indicate convergence towards a universalistic HPWS-organizational performance relationship (Bae, Chen, & Lawler, 1998; Rabl, Jayasinghe, Gerhart, & Kühlmann, 2014). The conclusion drawn is that organizations in all countries should benefit from adopting HPWS to enhance financial performance.

The alternative contingency perspective emphasizes cross-national variation in the effectiveness of individual HRM best practices. Focusing on isolated HRM practices such as performance appraisals or flexible work arrangements, rather than assessing a company's overall HRM system, studies report that

best practices are not associated with higher levels of employee commitment and organizational performance in all countries (Newman & Nollen, 1996; Peretz & Fried, 2012; Peretz, Fried, & Levi, 2018). These findings are consistent with GLOBE's culturally endorsed theory of leadership (CLT), that highlights the influence of societal culture on the way organizations are structured and managed (House, Hanges, Javidan, Dorfman, & Gupta, 2004). The implication is that organizations should adopt HRM practices that 'best fit' with societal culture to enhance performance, rather than so-called 'best practices' (Aycan, 2005).

Both perspectives have limitations this paper seeks to address. The universalistic perspective provides impressive cumulative evidence, but to date has relied on single-country studies using a wide range of different measures (Combs et al., 2006). We lack analysis of primary data from large cross-national samples that use standardized measures of HPWS and organizational performance to assess these claims. In contrast, contingency arguments remain theoretically compelling, but the empirical support is weaker given the absence of large-scale and meta-analytic evidence. These studies also focus on individual practices to the neglect of the broader HRM system, and rarely assess ultimate strategic outcomes such as financial performance.

Addressing these limitations empirically, we develop cross-national primary data to examine whether societal culture, the key aspect of national context emphasized in the IB/CCM literature, moderates the relationship between HPWS and organizational performance. This involved the collection of primary and extensive matched employer-employee data, using consistent measures at workplace-level, from 387 organizations and 7,187 employees in 14 diverse countries.

Our study makes two theoretical contributions. First, we propose societal culture may moderate the effectiveness of individual HRM best practices (the contingency perspective), but not the effectiveness of HRM practices combined in HPWS (the universalistic perspective). We suggest isolated HRM practices do not increase workforce certainty, clarity, and direction. In such circumstances, GLOBE's CLT suggests employees rely on decision-making heuristics provided by societal culture to interpret

organizational events (House et al., 2004). In contrast, complementary practices in HPWS send clear and reinforced leadership messages to increase workforce certainty, clarity, and direction. HPWS may therefore outweigh the influence of societal culture on workforce attitudes, behaviors, and job performance.

Second, we draw on the Ability-Motivation-Opportunity (AMO) model that suggests organizations may usefully implement bundles of combined HRM practices- skill-enhancing, motivation-enhancing, and opportunity-enhancing practices. We propose bundles of AMO practices have theoretically distinct roles in sending clear and reinforced leadership messages: skill-enhancing practices clarify human capital requirements (the types of employees hired and skills required); motivation-enhancing practices reinforce productive role behaviors; and opportunity-enhancing practices encourage high-involvement. We therefore also consider whether complementary bundles of AMO practices outweigh the influence of societal culture and enhance organizational performance in diverse countries.

THEORY AND HYPOTHESES

Universalistic Perspective and HPWS

Theorizing in HRM research in the last two decades has proceeded along the lines of the core debate between the contrasting universalistic and contingency perspectives (Delery & Doty, 1996). The universalistic perspective has provided compelling evidence of the positive relationship between technically superior HRM 'best practices' and organizational performance (Becker & Huselid, 1998; Huselid, 1995; Pfeffer, 1998). Adopting a more macro viewpoint to assess a company's overall HRM system, consistent evidence has emerged of a positive association between organizational performance and complementary/ mutually reinforcing 'best practices' comprising HPWS. This system includes selective recruitment, extensive training, internal promotion, performance appraisals, work teams, and employee participation practices among others. The alignment of interrelated 'best practices' that complement and support each other (termed internal or horizontal fit) creates an HRM system that conceptually increases employee skills (human capital), motivation, and opportunities to contribute

towards the achievement of organizational goals (Huselid, 1995). An overall correlation estimated at .20 between HPWS and organizational performance is derived from studies using a range of subjective and objective performance measures, collecting cross-sectional and single industry data, and measuring HPWS practices using different survey items and scales (Combs et al., 2006; Wright & Ulrich, 2017).

Notwithstanding concerns that HPWS practices are culture-bound and reflect convergence to a dominant U.S. approach (Brewster, 1995; Festing, 2012), initial findings from U.S. studies have been replicated in many countries (e.g., Bae et al., 1998; Yalabik, Chen, Lawler, & Kim, 2008). Subsequent meta-analysis of 156 such studies in 29 countries reports a corrected correlation of 0.28 between HPWS and organizational performance, and a positive relationship in each country assessed (Rabl et al., 2014). This evidence suggests global convergence towards a best practice HRM system associated with enhanced organizational performance. We provide the first systematic analysis of this issue that draws on primary data from a large cross-sectional sample, using standardized measures of HPWS and organizational performance. Accordingly, we assess the following universalistic proposition:

> **H1:** HPWS are positively associated with organizational performance in a diverse range of countries.

Organizations may usefully combine HRM practices in two ways: as systems described above (HPWS); and bundles of related HRM practices. The Ability-Motivation-Opportunity (AMO) model proposes organizational performance may be enhanced by bundles of HRM practices that increase employee skills, motivation, and opportunities to contribute (Appelbaum, Bailey, Berg, & Kalleberg, 2000; Gardner, Wright, & Moynihan, 2011; Liao, Toya, Lepak, & Hong, 2009; Subramony, 2009). Meta-analysis of 115 relevant studies has provided support for AMO propositions, demonstrating a positive relationship between organizational performance and three bundles of HRM practices- skill-enhancing, motivation-enhancing, and opportunity-enhancing practices (Jiang, Lepak, Hu, & Baer, 2012). Bundles of skill-enhancing practices, such as selective recruitment and training, aim to provide employees with appropriate knowledge, skills, and abilities. Motivation-enhancing practices, such as internal promotion

and performance appraisals, increase employee motivation to provide discretionary effort. Opportunity-enhancing practices, such as work teams and employee participation, increase opportunities for employees to contribute towards organizational objectives.

We provide the first systematic application of the AMO model to IB/CCM studies in order to help clarify the key mechanisms and theoretical logic of a universalistic HPWS-organizational performance relationship, and identify the relative contribution of HRM bundles. This involves assessing whether national differences moderate the positive relationship between organizational performance and skill-enhancing, motivation-enhancing, and opportunity-enhancing practices:

> **H2:** (a) Skill-enhancing practices, (b) motivation-enhancing practices, and (c) opportunity-enhancing practices are positively associated with organizational performance in a diverse range of countries.

Contingency Perspective and Societal Culture

In contrast to the universalistic relationship between HPWS and organizational performance proposed above, the contingency perspective suggests adopting HRM practices that 'best fit' with pertinent aspects of the organization's context will enhance organizational performance (Delery & Doty, 1996). This involves vertical alignment between HRM practices and aspects of the organization's internal context (e.g. size, business strategy, technology) and external context (e.g. societal culture or institutional factors such as the economic and business system, laws/regulations, labor market, and industrial relations system) (Jackson & Schuler, 1995). IB/CCM research focuses specifically on the relationship between HRM and societal culture or institutional factors (Fey, Morgulis-Yakushev, Park, & Björkman, 2009; Vaiman & Brewster, 2015). We concentrate here on societal culture because it is central to the view that universalistic best practices do not exist in the international HRM literature (Ollo-López, Bayo-Moriones, & Larraza-Kintana, 2011), and to assessments of whether national differences moderate the HPWS-organizational performance relationship (see Rabl et al., 2014). Furthermore, studies exploring institutional factors generally seek to explain national differences in HRM practices rather than

organizational performance (Aycan, 2005: 1108).

It is widely accepted that key dimensions of societal culture differentiate between countries in many areas of management research and influence the effectiveness of HRM practices (Caprar, Devinney, Kirkman, & Caligiuri, 2015; Hofstede, 2001; House et al., 2004; Kim, Triandis, Kagitcibasi, Choi, & Yoon, 1994; Newman & Nollen, 1996). Societal culture and values are considered to have a more enduring influence on HRM practices than institutional factors, because culture is deeply embedded, transcends the workplace, and relatively immutable (Schuler & Rovosky, 1998). As such, societal culture is central to employees' perception and understanding of work, and the treatment they expect, with implications for attitudes, behaviors, and job performance (Newman & Nollen, 1996; Robert, Probst, Martocchio, Drasgow, & Lawler, 2000). Furthermore, the impact of societal culture on organizational performance is often inexplicit, poorly understood, and overlooked (Aycan, Kanungo, & Sinha, 1999; Peretz & Fried, 2012).

Focusing on societal culture does not suggest institutional factors are unimportant for the effectiveness of HRM practices. Societal culture is not independent of institutional factors, as widely held values interact and co-evolve with economic and business systems, laws/regulations, labor markets, and industrial relations systems (Alesina & Giuliano, 2005; Aycan et al., 2000; Brewster, 1995; Vaiman & Brewster, 2015). Furthermore, focusing on societal culture does not suggest aspects of the organization's internal context (e.g., organizational size and age, industrial technology) are unimportant, and we control for these in assessing whether societal culture moderates the HPWS-organizational performance relationship.

Regarding the evidence in support of the contingency perspective, a range of micro-analytic studies report that societal culture moderates the effectiveness of individual HRM practices. For example, performance appraisals linked to incentive pay are associated with lower labor turnover and absenteeism in countries with low power distance, high individualism, high future orientation, and high uncertainty avoidance (Peretz & Fried, 2012). Organizations using flexible work arrangements also report lower labor

turnover and absenteeism in countries with low institutional collectivism, in-group collectivism, power distance, and uncertainty avoidance (Peretz et al., 2018). Diversity programs also had a stronger association with lower labor turnover and absenteeism where societal cultures are supportive of diversity (Peretz, Levi, & Fried, 2015). However, these studies focus on individual practices to the neglect of the broader HRM system, despite evidence that combinations of practices are required to enhance organizational performance, and rarely assess ultimate strategic outcomes such as financial performance.

Given this, the system effects of complementary HPWS and AMO bundles (rather than individual HRM practices) may create a skilled, motivated, and flexible workforce, and have a positive impact on strategic performance outcomes (productivity and financial performance) regardless of societal culture. Rabl et al.'s (2014) meta-analysis goes someway to addressing the focus on individual practices by adopting a more macro focus on the HRM system. The findings supported the universalistic perspective in reporting a positive HPWS-organizational performance relationship in all 19 countries with two or more studies available. However, it found no support for hypotheses suggesting a stronger HPWS-organizational performance relationship in countries with low power distance and low collectivism. As explained below, however, these theoretical relationships are more complex than Rabl et al. (2014) portray. We provide the first systematic application of AMO theory in IB/CCM to derive more precise propositions on this question.

Theoretical Framework to Assess Societal-Culture Fit

Contingency models of societal-culture fit in HRM propose societal culture will moderate the effectiveness of HRM practices, and organizations should therefore align HRM practices with societal culture (Aycan et al., 1999, 2000). These models provide a cross-national theoretical framework to assess whether societal culture moderates the HPWS-organizational performance relationship. Drawing on GLOBE's CLT (House et al., 2004), societal culture is regarded as the main aspect of organizational context that determines employee expectations and behaviors. It provides decision-making heuristics or rules of thumb that guide employee expectations and behaviors in often complex and uncertain work

environments. HRM systems are fundamental mechanisms through which organizational leaders translate their overall strategies, philosophies, and visions into practice (Becker & Huselid, 1998). HRM practices congruent with societal culture convey clear messages that leaders will reward employee behavior in a manner consistent with ingrained values. Therefore, such contingency models propose congruence between societal culture and HRM practices will enhance organizational performance.

Congruence is defined here as alignment, consistency, and fit between HRM practices and deeply held cultural values and expectations with regard to employees' understanding and approach to work, and how they expect to be treated (Newman & Nollen, 1996). Studies indicate congruence between HRM practices and societal culture is a precursor to positive employee attitudes, behaviors, and job performance (Robert et al., 2000). It results in less distracted and more productive employees (Schuler & Rovosky, 1998), reduced organizational friction (Fitzsimmons & Stamper, 2014), perceived procedural justice (Wu & Chaturvedi, 2009), and job satisfaction (Hui, Au, & Fock, 2004; Robert et al., 2000). Misalignment, inconsistency, and limited fit between societal culture and HRM practices indicate friction or incompatibility between leadership and workforce expectations. This inhibits the optimal implementation and use of HRM practices, with managers and employees feeling distracted, uncomfortable, dissatisfied, and ultimately less productive (Jiang, Colakoglu, Lepak, Blasi, & Kruse, 2015; Newman & Nollen, 1996). We assess congruence from the organization-level to consider whether societal culture moderates the HPWS-organizational performance relationship. Hence, we draw on this theoretical framework to consider whether societal culture moderates the relationship between HPWS practices and organizational performance (Aycan et al., 2000; Brewster, 1995; Newman & Nollen, 1996).

Dimensions of Societal Culture, HPWS and AMO

Societal Culture. Regarding the selection of pertinent dimensions of societal culture, prior studies concentrate on the dimensions considered theoretically most relevant to the HPWS-organizational performance relationship (e.g., Aycan, 2005; Peretz & Fried, 2012; Rabl et al., 2014; Sagie & Aycan, 2003). Following advice to concentrate on a small number of 'well-chosen dimensions' (Zaheer, Spring

Schomaker, & Nachum, 2012: 13), we focus on power distance and individualism-collectivism. These represent key dimensions of national cultural differences in CCM research (e.g., Bochner & Hesketh, 1994; Kirkman, Lowe, & Gibson, 2017; Kim et al., 1994), with specific implications for societal-level outcomes (e.g., Basabe & Ros, 2005; Oyserman, Coon, & Kemmelmeier, 2002). These dimensions are also especially relevant for HRM and performance. For example, power distance may influence the effectiveness of recruitment, reward, and communication practices (Fey et al., 2009). Individualism may influence whether worker's value an emphasis on individual goals and contributions, or prefer a collective emphasis on cooperation and team contribution, job security, and training provision (Hofstede, 2001; Rode, Huang, & Flynn, 2016). As such, these dimensions may moderate the relationship between HRM practices and organizational performance.

Table 1 presents the congruence between our selected societal culture dimensions and 17 HPWS practices, as reported by relevant studies identified in 11 major journals from 1996-2017 (publications following the start of the debate in Huselid's (1995) classic paper). This involved searching online library databases (e.g. ABI/Inform Global and PsychINFO) and leading journals. Consensus regarding component HPWS practices remains elusive (Wright & Ulrich, 2017). We assess the presence/absence of 17 practices including 11 of 13 often-included measures (Combs 2006).[1] Table 1 includes citations to summaries of evidence where possible rather than each individual study to aid parsimony.

…Insert Table 1 here…

Our first societal culture dimension of power distance refers to 'the degree to which members of a society expect and agree that power should be shared unequally' (House et al., 2004). Power, authority, and the unequal dissemination of information characterize high-power-distance cultures, in which status hierarchy is rigid and institutionalized, and inequality accepted (Hofstede, 2001). In low-power-distance cultures, people believe inequality in treatment, rights, and privileges between individuals should be minimized (House et al., 2004). Rabl et al. (2014) proposed HPWS are less effective in high-power-distance cultures, in which managers base their recruitment and reward decisions on criteria such as

status, rather than objective measures of performance. Additionally, in these cultures, managerial reluctance to share information will undermine the effectiveness of attempts to increase employee participation in order to address organizational problems. In contrast, HPWS are potentially more effective in low-power-distance cultures, with a greater emphasis placed on ability and performance, self-management, and participation. Therefore, studies report limited congruence between high power distance and 13 individual HPWS practices including selection tests, incentive systems, and participative job design (Table 1, column 2). Hence:

> **H3(a):** The relationship between HPWS and organizational performance is weaker in high-power-distance cultures.

Table 1 classifies this literature into three established AMO bundles to assess theoretical congruence between related HRM practices and societal culture (Appelbaum et al., 2000; Gardner et al., 2011; Jiang et al., 2012; Subramony, 2009). Panel 1 suggests the relationship between skill-enhancing practices and power distance is not clear-cut. On one hand, high-power-distance is likely to deter managers from involving subordinates in selection processes, and encourage a more hierarchical approach to selection decisions (Ryan, McFarland, Baron, & Page, 1999). Lower training provision is also evident in high-power-distance cultures, perhaps reflecting a preference for unilateral decision-making to protect managerial power and status (Coget, 2011; Peretz & Rosenblatt, 2011; Rabl et al., 2014). On the other hand, studies also report that power distance does not influence the effectiveness of aptitude and performance tests, given high validity, low costs, and professional standardization (Steiner, 2012). Furthermore, studies provide scant evidence that power distance affects training effectiveness. Taken together, prior studies therefore suggest power distance will not moderate the impact of skill-enhancing practices on organizational performance.

Moving onto motivation-enhancing practices, prior research predicts discomfort in high-power-distance cultures if line managers are not the primary evaluators in reward decisions (Table 1, panel 2). In

this context, incentive systems based on objective performance will reduce managerial discretion and appear unsuitable. The emphasis on workers' rights in flexible work arrangements and equal opportunities policies also appears inappropriate as this undermines managerial authority (Aycan, 2005; Peretz et al., 2015, 2018). Motivation-enhancing practices may therefore be less effective in high-power-distance cultures, as discomfort with restrictions to managerial decision-making hinders its effective implementation.

The main source of incongruence between HPWS and high-power-distance cultures relates to opportunity-enhancing practices (Table 1, panel 3). In such cultures, attempts to increase workforce involvement and empowerment may cause significant unease, and undermine the effectiveness of work teams, functional flexibility, and employee participation. Hierarchical rather than shared decision-making is widespread in such cultures, with managers protecting privileged access to information, and employees distrustful of practices to increase participation (Huang, Rode, & Schroeder, 2011; Hui et al., 2004; Jiang et al., 2015). This mismatch between cultural preferences and opportunity-enhancing practices may hinder job performance as well as overall organizational outcomes. Hence:

H3(b): The relationship between skill-enhancing practices and organizational performance is not moderated by power distance.

H3(c): The relationship between motivation-enhancing practices and organizational performance is weaker in high-power-distance cultures.

H3(d): The relationship between opportunity-enhancing practices and organizational performance is weaker in high-power-distance cultures.

Moving onto individualism-collectivism, Rabl and colleagues' (2014) proposed countries with high individualism (low collectivism) offered the best context for the success of HPWS, given practices such

as individual incentive pay reflect U.S. values. However, this overlooks other HPWS practices such as work teams and quality circles that are congruent with Japanese values (Bae et al., 1998; Yalabik et al., 2008). Furthermore, employment security and labor-management participation are institutional features of central and northern European economies (Brewster, 1995). GLOBE's distinction between two dimensions of individualism-collectivism (in-group collectivism and institutional collectivism) (House et al., 2004) helps clarify these issues.

In-group collectivism refers to 'the degree to which individuals express pride, loyalty and cohesiveness in their organizations and families' (ibid.). High in-group collectivist cultures (e.g., China and India) emphasize obligations, duties, and ties to tight in-groups of family members, workgroups, or close friends (Markus & Kitayama, 1991). Meeting in-group expectations, obligations, and close ties are prioritized over individual goals. Practices such as internal promotion and work teams may therefore enhance organizational performance in such cultures, because these practices promote in-group harmony (Table 1, column 3). However, four HPWS practices appear to threaten in-group harmony and may not enhance organizational performance in high in-group collectivism cultures. Among these, incentive compensation and performance appraisals emphasize individual performance over organizational cohesiveness, and flexible work arrangements and equal opportunities policies emphasize personal needs and equal rights over obligations and duties (Aycan, 2005; Peretz et al., 2018). Hence:

H4(a): The relationship between HPWS and organizational performance is weaker in high in-group collectivism cultures.

Regarding skill-enhancing practices, in-group collectivism appears incongruent with aptitude and performance testing in recruitment decisions, given preference for in-group membership and close ties when recruiting (Aycan, 2005: 1088-9). However, the effectiveness of induction and training appear unaffected in these cultures (Table 1, panel 1). The main source of incongruence between HPWS and in-group collectivism relates to motivation-enhancing practices (Table 1, panel 2). As explained above, this

reflects discomfort with practices such as incentive compensation and flexible work arrangements, given the emphasis on differences between individuals rather than in-group harmony, cohesiveness, and obligations. There is less evidence that in-group collectivism moderates the effectiveness of opportunity-enhancing practices (Table 1, panel 3). Hence:

H4(b): The relationship between skill-enhancing practices and organizational performance is not moderated by in-group collectivism.

H4(c): The relationship between motivation-enhancing practices and organizational performance is weaker in high in-group collectivism cultures.

H4(d): The relationship between opportunity-enhancing practices and organizational performance is not moderated by in-group collectivism.

Institutional collectivism is defined as 'the degree to which organizational and societal institutional practices encourage and reward the collective distribution of resources and collective action' (House et al., 2004). Cultures high in institutional collectivism (e.g., China and Japan) emphasize societal good over individual relationships, and rely on large group memberships of organizations, society-at-large, or the nation, for identity and status (Markus & Kitayama, 1991). In such cultures, outcomes are favored that benefit the larger organization rather than specific individuals or groups. Institutional collectivism appears congruent with four HPWS practices that emphasize collective rewards for organizational loyalty-training, extensive benefits, employment security, and work teams. Hence:

H5(a): The relationship between HPWS and organizational performance is stronger in high-institutional-collectivism cultures.

Regarding skill-enhancing practices, institutional collectivism encourages training investment to build mutual obligations between organizations and employees (Aycan, 2005; Rode et al., 2016), although there is no evidence training is more effective (Table 1, panel 1). The main source of congruence between HPWS and institutional collectivism relates to motivation-enhancing practices (Table 1, panel 2). Institutional collectivism appears congruent with extensive benefits and employment security, as these practices represent collective rewards for organizational loyalty. However, studies report contradictory evidence on congruence with flexible work arrangements and equality practices. There is scant evidence to suggest institutional collectivism will moderate the effectiveness of opportunity-enhancing practices (Table 1, panel 3). Hence:

H5(b): The relationship between skill-enhancing practices and organizational performance is not moderated by institutional collectivism.

H5(c): The relationship between motivation-enhancing practices and organizational performance is stronger in high-institutional-collectivism cultures.

H5(d): The relationship between opportunity-enhancing practices and organizational performance is not moderated by institutional collectivism.

Summarizing, the studies in Table 1 show the effectiveness of HPWS practices in different societal cultures will vary across AMO bundles. Most notably, power distance may reduce the effectiveness of opportunity-enhancing practices, and in-group collectivism may reduce the effectiveness of motivation-enhancing practices. In contrast, institutional collectivism appears to increase the effectiveness of motivation-enhancing practices. One interpretation is that individual HPWS practices without other complementary practices may not send sufficiently clear and reinforced leadership messages to the workforce. In such circumstances, GLOBE's CLT proposes that employees will rely on decision-making

heuristics provided by societal culture to interpret organizational events (House et al., 2004). However, the studies in Table 1 focus only on individual practices rather than combinations of HRM practices, and few assess the implications for organizational performance.

It is therefore feasible that complementary HPWS practices to increase workforce skills, motivation, and opportunities to contribute may have a powerful impact on workforce attitudes, behaviors, and job performance. This is because HPWS send clear and reinforced messages to the workforce regarding the beliefs, assumptions, and strategic vision of organizational leaders (Becker & Huselid, 1998). For example, clarity is enhanced by the selective recruitment of applicants with appropriate skills and aptitudes, extensive induction to socialize new hires, incentives to reward productive behaviors, and team-based structures to encourage high-involvement. Reinforced messages sent through multiple and complementary HPWS practices may thus increase workforce certainty, clarity, and direction. It may be possible to suggest that a coherent HPWS will have an impact on workforce attitudes, behaviors, and job performance that overrides the influence of societal culture (which would have otherwise provided for more certainty), and will enhance organizational performance.

Summarizing the research model (Figure 1), societal culture may moderate the effectiveness of individual HPWS practices. This is consistent with GLOBE's CLT that highlights the influence of societal culture on the structure and management of organizations (House et al., 2004). Congruence between societal culture and leadership behavior provides the organization with a system to reduce uncertainty and increase comfort levels, that will ultimately enhance organizational performance (Dorfman, Javidan, Hanges, Dastmalchian, & House, 2012; House et al., 2014). However, the combined effect of complementary HPWS practices, in terms of fit with organizational strategies and practices, may generate the certainty, clarity, and direction required to affect workforce behaviors and improve performance. This process, according to our conception, may supersede or substitute for the influence of societal culture on organizations. Extending the HRM universalistic perspective, we propose the alignment of different elements of HPWS may provide the certainty, clarity, and direction to organizational activities, and among organizational members, that would supersede the impact of societal

culture. Hence complementary HPWS practices reduce uncertainty in work environments to correspond to, or take the place of, the influence of societal culture on employee attitudes and behaviors.

The variation in congruence reported in Table 1 between societal culture and bundles of AMO practices further implies complementary skill-enhancing, motivation-enhancing, and opportunity-enhancing practices each work together to have a positive impact on organizational performance in diverse countries (H2a-c). Complementarities between bundles of AMO practices may therefore increase certainty, clarity, and direction to organizational events. This may override the influence of societal culture on workforce attitudes, behaviors, and job performance, identified by CLT in uncertain work environments. We therefore assess whether HPWS and AMO bundles enhance organizational performance in diverse countries.

…Insert Figure 1 here…

METHODS

Data Collection

We collected establishment-level data using a mixed-method, multi-case-study approach, to assess the HPWS-organizational performance relationship in organizations from three industries in 14 countries. Focusing on three industries (financial services, healthcare, and manufacturing) allowed nuanced generalization across service and manufacturing contexts (i.e., Combs et al., 2005), while reducing the potential impact of unobserved structural characteristics due to differences between industries in business strategy, operational structure, and occupational characteristics (Aycan, 2005; Gerhart & Fang, 2005). Country co-investigators (CCIs) developed a convenience sample of organizations from professional networks and business directories in the three industries. We selected 14 countries to vary on societal culture dimensions (i.e., Australia, Austria, Canada, China, Egypt, India, Iran, Italy, Japan, Malaysia, Pakistan, Taiwan, Turkey, and Vietnam). Mixed-method data collection involved a combination of structured interviews with managers and employee surveys in 387 organizations. We sampled an average 28 organizations in each country ranging from 15 (Japan) to 38 (Italy).

In accordance with methodological recommendations in international HRM research (Cascio, 2012), and replicating GLOBE's approach, an international research team of fourteen CCIs representing all the cultures in the study co-designed standard instruments to collect field-data, refine, and check the conceptual and functional equivalence of measurement items. We developed questions in English, translated to local languages by CCIs, and back-translated to ensure translation equivalence. The principal project coordinator conducted one-on-one training with CCIs, and provided uniform protocols to ensure consistency in securing access to organizations, questions, data-collection, data-coding, and online uploading.

i. *Interview component.* CCIs contacted and interviewed face-to-face the most senior manager responsible for HRM issues in each workplace. In many workplaces without a senior HRM specialist this is the general manager. Interviews followed a standard protocol of 56 questions and lasted over one hour. Questions gathered data on: organizational characteristics (e.g., age, size (number of employees), market competition, and ownership); workplace HPWS practices for the largest occupational group (LOG) (e.g., nurses in hospitals), given potential variation in practices between occupational groups; and workplace performance. Establishment-level surveys provide more reliable data on HRM practices than corporate-level surveys, given variation across corporations, and establishment-level management familiarity with local practices and workplace performance (Gerhart, Wright, McMahan, & Snell, 2000). Audio-recording and transcribing interviews enabled data-entry checks and query resolution during data analysis.

ii. *Survey component.* During interviews, we requested access to a random selection of 20 employees from the workplace's LOG to complete surveys. Employee surveys were available in paper form distributed in the workplace and posted to the CCI, or online through Qualtrics. It included questions covering demographics (15 questions), HPWS practices (17), and societal culture (13). Combining multiple data sources reduced the potential for common method bias and facilitated the assessment of measurement error.

Sample

The 387 organizations in 14 countries included 125 finance, 112 healthcare, and 150 manufacturing organizations, on average established 36 years ago, and with 6,331 parent company employees. Of these organizations, 85% are local/ domestically-owned companies and the rest are subsidiaries of international companies. Employee survey data consisted of 7,187 respondents from these workplaces, with an average of 19 usable responses per workplace (response rate 75%). The number of organizations and employees in the sample from each country ranged from 38 organizations and 747 employees (Italy), to 15 organizations and 271 employees (Japan).

Measures

Organizational Performance. HPWS-organizational performance studies use varied organizational performance measures (Combs et al., 2006). We used two business measures: financial performance, given that business failure and success is the central issue in IB; and labor productivity as a central discipline-specific measure (Richard, Devinney, Yip, & Johnson, 2009), less distal to HPWS than financial performance. Both objective and subjective measures of organizational performance have limitations and trade-offs are required against the research context (Delaney & Huselid, 1996; Richard et al., 2009). We used subjective measures of organizational performance in this context, given our data is workplace-level where objective financial information is publicly unavailable, calculation varies depending on costs allocated to the workplace and organization (ibid.), and different accounting standards between countries hinder comparison of financial information. Furthermore, unobserved heterogeneity of industry and market environments affects objective performance data. Subjective measures also allow for differences between organizations in key financial and labor productivity indicators used to capture performance.

The most senior manager responsible for HRM (often the general manager), likely involved in the senior management team (where performance will be frequently compared against competitors), answered the question -'Compared with other workplaces in the same industry how would you assess your workplace's 1) financial performance 2) labor productivity', measured on a five-point Likert scale where

1=*a lot below average* and 5=*a lot better than average*. These items, taken directly from the authoritative Workplace Employment Relations Study (WERS) (van Wanrooy et al., 2013), are widely used in previous research, and correlate with objective performance measures and the determinants of workplace performance (Forth & McNabb, 2008). Although acknowledging the potential for measurement error, average correlations between subjective and objective performance measures range between 0.4 and 0.6 (Wall et al., 2004). Meta-analysis also reports similar positive HPWS-organizational performance relationships in studies using objective and subjective measures (Combs et al., 2006), suggesting subjective performance measures are suitable in appropriate contexts.

High-performance work systems. Following prior studies, we measured HPWS in management interviews by an additive index of practices. Our 17 practices measure of HPWS is broad-ranging compared to most studies that assess 2-13 practices (Combs et al., 2006). This helped capture an in-depth and comprehensive picture of the HRM system in a multi-industry sample (Becker & Huselid, 1998), and account for national differences in the types of practices adopted. We took the question wording from WERS, given extensive review of these items by scholars, pre-testing with managers, and use in national surveys for over 25 years and over 100 academic publications (van Wanrooy et al., 2013).[2] CCIs involved in co-designing standard instruments agreed the question wording as appropriate and meaningful. Appendix A provides details on the measurement of each practice.[3,4,5] Nine items are composed from binary measures of policies generally applied to the whole workplace, or all employees in the largest occupational group (LOG) (for example, 'Is there a policy of guaranteed job security or no compulsory redundancies for [LOG] employees?', 'Have you or a third party conducted a formal attitude survey of your [LOG employees'] views or opinions during the past two years?'). Eight items were measured categorically given not all LOG employees may be affected. These questions ask the manager to calculate the extent to which a practice was used, in terms of the proportion of LOG employees affected (for example, 'What proportion of [LOG] have been given time-off from their normal daily work duties to undertake training over the past 24 months?', 'Approximately what proportion of [LOG] are formally

trained to be able to do jobs other than their own?'), measured on a graded scale, for example, 0=*none* (0%), 1=*just a few* (1-19%), 2=*some* (20-39%), 3=*around half* (40-59%), 4=*most* (60-79%), 5=*almost all* (80-99%), 6=*all* (100%).

AMO measures. We further categorized HPWS practices reported in the management survey into three AMO bundles in accordance with prior studies- skill-enhancing, motivation-enhancing, and opportunity-enhancing practices (e.g., Appelbaum et al., 2000; Gardner et al., 2011; Jiang et al., 2012; Subramony, 2009). Practices are grouped as listed in Table 1 to create three further theoretically-driven additive indexes.[6] Prior studies demonstrate deductive validation and the item congruency of these three formative constructs (e.g., Gardner et al., 2011; Subramony, 2009). Companies below the threshold for a practice scored 1, whereas those above the threshold scored 2 for that practice. Skill-enhancing practices ranged from 3-6, motivation-enhancing practices from 7-14, and opportunity-enhancing practices from 7-14.

Cultural dimensions. Employee surveys included established GLOBE scales to measure societal culture scores on power distance, institutional collectivism, and in-group collectivism (Dorfman et al., 2012; House et al., 2004). We followed Kirkman et al.'s (2017) methodological recommendation to directly assess employee perceptions of societal culture using workplace-level surveys, rather than rely on GLOBE scores, because cultural values are not homogenous at organizational- and societal-levels (see also: Taras, Kirkman, & Steel, 2010). Gathering primary data on societal culture rather than relying on secondary sources reduced the potential for measurement error, due to in-country variation on cultural values (Rabl et al., 2014), and potential changes in cultural values over time since GLOBE collected scores in 1990 (Taras, Steel, & Kirkman, 2012). Reliance on GLOBE scores may also restrict the countries assessed (it excludes Pakistan and Vietnam in our case), and not account for increased workforce diversity from migration. Primary data collection, therefore, provides an important check against existing GLOBE scores (House et al., 2004). Significant and high Pearson product-moment correlations between our (new) mean scores and GLOBE scores indicated consistency in relative cultural

values over time ($Corr._{power\ distance}$=0.60, p<0.05; $Corr._{institutional\ collectivism}$=0.845, p<0.01; and $Corr._{in\text{-}group\ collectivism}$=0.832, p<0.01).

GLOBE includes two societal culture measures – practices ('as is') and values ('should be'). We measured 'as is' practices to capture current perceptions in the country more relevant to our theoretical arguments, rather than future goals and aspirations (see: Rode et al., 2016). While other studies such as Hofstede (2001) and the World Value Survey (Inglehart, 1997, 2004) measure cultural values, GLOBE's critique of the measurement of values suggests that individuals may not be able to report on cultural values or societal values, but only one's own values (House et al., 2004). GLOBE also found little variation in their measure of societal values in 2004. Therefore, in the present study, we have included GLOBE's measures of ('as is') cultural practices. Sample items with Likert scales from 1(low)-7(high) included: power distance 'In this society, followers are expected to obey their leaders without question' (alpha=.80); institutional collectivism 'Being accepted by other members of a group is very important' (alpha=0.67); and in-group collectivism 'Children generally live at home with their parents until they get married' (alpha=0.79).[7,8]

Control variables. All equations control for GDP 2014 at societal-level and the following organizational-level characteristics (Jackson & Schuler, 1995), to help isolate the impact of societal culture on the HPWS-performance relationship, and reduce the potential impact of the lack of equivalence in cross-national studies: organizational age and size (employees); industry (finance, healthcare, manufacturing); sector (public, private, non-profit); internationally-owned subsidiary; and market competition (the question, 'How would you assess the degree of competition in this market?' assessed on a five-point Likert scale from 1('*very low*')-5('*very high*')). Finance companies and private sector companies were referent categories in the models reported.

Data Analysis

Measurement Invariance. Measurement invariance/equivalence helps validate our measures in a multi-national context. Specifically, we tested for structural and metric equivalence in the response styles

for the measures of culture. Principal component analysis of culture factors separately for each country helps assess construct equivalence. Lower bounds measured at the 95% confidence interval with average Eigenvalues >1 indicated construct equivalence ($LB_{\text{Power Distance}}$=2.27, $LB_{\text{Institutional Collectivism}}$=1.49, and $LB_{\text{In-group Collectivism}}$=2.05). Metric equivalence requires that statistical associations among dependent and independent variables remain relatively stable using both domestic and international data. Correlation matrices and factor structures should also remain similar (Cheung, 2008). We measured metric equivalence using the orthogonal procrustean factor rotation (Fischer & Fontaine, 2011), following GLOBE's approach to compare factor structures across countries (House et al., 2014: 181-185). This helps determine equivalence in factor loadings for culture scales across countries. While there is no established cut-off point, difference in loadings remained low, with the highest difference 0.74 for one item in the Italian sample. Significant and high correlations between culture scores in GLOBE and our sample (as indicated above) further indicated the robustness of measurement.

Data Aggregation. While defining culture at the societal-level, it is measured at the individual-level with scores aggregated for each country. Intraclass correlations (ICCs) and RWG are widely used indicators in multilevel modelling to compute inter-rater agreement and reliability. These scores help assess the appropriateness of the aggregation of individual-level measures to societal-level (Bliese, 2000). Results supported aggregation: Power Distance: $ICC1_{\text{Power Distance}}$=0.21 and $ICC2_{\text{Power Distance}}$=0.99 (F=132.5; p<0.001); Institutional Collectivism: $ICC1_{\text{Institutional Collectivism}}$=0.18 and $ICC2_{\text{Institutional Collectivism}}$=0.99 (F=111.8, p< 0.001); and for In-group Collectivism: $ICC1_{\text{In-group Collectivism}}$=0.33 and $ICC2_{\text{In-group Collectivism}}$=0.99 (F=251.7; p <0.001). We measured inter-rater agreement using the RWG formula (James, Demaree, & Wolf, 1984) and the results support aggregation ($RWG_{\text{Power Distance}}$=0.6; $RWG_{\text{Institutional Collectivism}}$=0.73, and $RWG_{\text{In-group Collectivism}}$=0.73). The indicators are within a range similar to previous country-level studies (e.g., Stephan & Pathak, 2016; Waldman et al., 2006).

Hypothesis Testing. To examine cross-cultural and cross-level variances in the impact of HPWS on financial performance and labor productivity, we use country-level moderators (power distance,

institutional collectivism, and in-group collectivism). Hypothesizing cross-level moderating effects, we conduct multilevel modelling using the linear mixed effects program for R (programming language) (Pinheiro, Bates, DebRoy, Sarkar, & Core R Team, 2014). In the model, we standardize the independent variables to facilitate interactions. We assessed the model fit using Akaike Information Criterion (AIC) and the deviance (which is -2*log likelihood) for each model to establish if the model is a significant improvement over the previous models. Lower AIC values indicate a better model. We also used Nakagawa and Schielzeth's (2013) Pseudo-R^2 to check the total variance explained by the model. We report Marginal Pseudo-R^2, which is the proportion of variance explained by the fixed factors in the model.[9]

RESULTS

Table 2 reports means, standard deviations, and correlations for the main variables. Tables 3-9 present the results of hypothesis testing using multilevel analysis to estimate main effect models followed by moderation models.

…Insert Table 2 here…

H1 predicted HPWS are positively associated with organizational performance in a diverse range of countries. This receives support as evidenced by the positive (γ=0.56) and significant (p=0.035) coefficient of HPWS on financial performance, and the positive (γ=0.76) and significant (p=0.004) coefficient of HPWS on labor productivity, as shown in table 3, models 1 and 5 respectively.

…Insert Table 3 here…

H2 predicted (a) skill-enhancing practices, (b) motivation-enhancing practices, and (c) opportunity-enhancing practices are positively associated with organizational performance in a diverse range of countries. Table 3, models 2 and 6 (respectively) show skill-enhancing practices had positive and significant effects on financial performance (γ=0.13, p=0.020) and labor productivity (γ=0.19, p=0.000). Furthermore, opportunity-enhancing practices were positive and significantly associated with financial

performance (γ=0.06, p=0.015) as shown in Table 3 model 4, and labor productivity (γ=0.07, p=0.008) as shown in model 8 of the same table. However, motivation-enhancing practices were not significantly related to organizational performance in models 3 and 7 of Table 3 (Financial Performance: γ=0.01, p=0.847; Labor Productivity: γ=0.03, p=0.484). Therefore, H2a and H2c receive support, and H2b is not supported.

Regarding high-power-distance cultures, there is no support for H3(a) proposing the relationship between HPWS and organizational performance is weaker in high-power-distance cultures, as shown by the non-significant interaction coefficient between HPWS and power distance (see Tables 4 and 5, Model 2; Financial Performance: γ=-0.66, p=0.112; Labor Productivity: γ=-0.67, p=0.105). There is also no support for H3(c) proposing the relationship between motivation-enhancing practices and organizational performance is weaker in high-power-distance cultures, as shown by the non-significant interaction coefficient between motivation-enhancing practices and power distance (Table 4 and 5, Model 6; Financial Performance: γ=-0.01, p=0.817; Labor Productivity: γ=-0.01, p=0.831). H3(b) proposed the relationship between skill-enhancing practices and organizational performance is not moderated by power distance. This is supported given the insignificant coefficient of interaction between skill-enhancing practices and power distance (Tables 4 and 5, Model 4; Financial Performance: γ=-0.03, p=0.765: Labor Productivity: γ=0.02, p=0.805). H3(d) receives support as shown by the negative and significant coefficient of interaction between opportunity-enhancing practices and power distance (Financial Performance: γ=-0.12, p=0.003; Labor Productivity: γ=-0.11, p=0.004), reported in model 8 of tables 4 and 5. This suggests that a 1 standard deviation rise in power distance diminishes financial performance and labor productivity by 11%. This effect remained significant and negative in a full model including other AMO bundles and interactions to check for robustness, as shown in the interaction coefficient between opportunity-enhancing practices and power distance in model 10 of tables 4 and 5 (Financial Performance: γ=-0.12, p=0.003; Labor Productivity: γ=-0.12, p=0.004).

…Insert Table 4 and 5 here…

Considering in-group collectivism, we found no support for H4(a) (the relationship between HPWS and organizational performance is weaker in high in-group collectivism cultures), as the coefficient of interaction between HPWS and in-group collectivism was not significant (Tables 6 and 7, Model 2; Financial Performance: γ=-0.46, p=0.263; Labor Productivity: γ=0.28, p=0.491). H4(c) is also not supported because the coefficient of interaction between motivation-enhancing practices and in-group collectivism was not significant (Table 6 and 7, Model 6; Financial Performance: γ=-0.05, p=0.363; Labor Productivity: γ=-0.05, p=0.314). As such, in-group collectivism did not weaken the relationship between HPWS and organizational performance, nor between motivation-enhancing practices and organization performance. Both H4(b) and H4(d), proposing in-group collectivism did not have moderating effects, receive support. H4(b) is supported because the coefficient of interaction between skill-enhancing practices and in-group collectivism was not significant (Model 4 of Tables 6 and 7; Financial Performance: γ=-0.01, p=0.932; Labor Productivity: γ=0.11, p=0.171). H4(d) receives support because the coefficients of interaction between opportunity-enhancing practices and in-group collectivism were also not significant as predicted (Model 8 in Tables 6 and 7; Financial Performance: γ=-0.03, p=0.445; Labor Productivity: γ=0.05, p=0.181).

…Insert Table 6 and 7 here…

With regards to institutional collectivism, we found no support for H5(a) (the relationship between HPWS and organizational performance is stronger in high-institutional-collectivism cultures), as the coefficient of interaction between HPWS and institutional collectivism was not significant (Table 8 and 9, Model 2; Financial Performance: γ=-0.21, p=0.698; Labor Productivity: γ=-0.02, p=0.972). Similarly, H5(c) is also not supported because the coefficient of interaction between motivation-enhancing practices and institutional collectivism was not significant (Table 8 and 9, Model 6; Financial Performance: γ=-0.09, p=0.209; Labor Productivity: γ=-0.07, p=0.355). It appears these hypotheses may over-estimate the influence of institutional collectivism on the relationship between organizational performance and HPWS or motivation-enhancing practices. Both H5(b) and H5(d) receive support. H5(b)

is supported because the coefficient of interaction between skill-enhancing practices and institutional collectivism was not significant (Model 4 of Tables 8 and 9; Financial Performance: γ=-0.09, p=0.448; Labor Productivity: γ=0.00, p=0.978). H5(d) receives support because the coefficient of interaction between opportunity-enhancing practices and institutional collectivism was not significant (Model 8 in Tables 8 and 9; Financial Performance: γ=0.08, p=0.196; Labor Productivity: γ=0.06, p=0.326).

…Insert Table 8 and 9 here…

Across these findings, the negative and significant coefficient of interaction between opportunity-enhancing practices and power distance provides the strongest indication of a societal culture effect. This suggests employees in high-power-distance countries may feel uncomfortable with these practices. To further examine the moderation effects, we plot the significant interactions following Aiken and West (1991), and estimate the paths at low (-1 s.d.) and high (+1 s.d.) power distance values respectively. Figures 2 and 3 present the moderation effect of power distance. The positive effect of opportunity-enhancing practices on financial performance and labor productivity in low-power-distance cultures becomes negative or weakened in high-power-distance cultures. The non-significant interaction effects reported above suggest neither in-group collectivism nor institutional collectivism diminish the effect of HPWS, or the three AMO bundles, on organizational performance. The non-significant interaction effect of power distance on skill-enhancing practices and motivation-enhancing practices, similarly, indicate that power distance may not carry sufficient influence to affect the relationship between these practices and organizational performance. These unsupported hypotheses on the interaction between HPWS and three dimensions of societal culture indicate such complementary practices may outweigh the effect of cultural dimensions and enhance organizational performance across cultures.

…Insert Figures 2 and 3 here…

DISCUSSION

This study assessed whether societal culture moderates the relationship between HPWS and organizational performance, to evaluate competing advice offered to companies regarding the strategic selection of HRM practices by the universalistic and contingency perspectives. Drawing on a large primary dataset of organizations and countries, we find societal culture did not moderate the positive HPWS-organizational performance relationship, nor the effectiveness of skill-enhancing and motivation-enhancing practices. High power distance did, however, reduce the effectiveness of opportunity-enhancing practices.

Our findings have several implications for HRM theory in IB/CMM studies. Conceptually, the findings support propositions from the universalistic perspective that existing societal culture and norms do not limit HPWS effectiveness (see also: Bae et al., 1998; Combs et al., 2006; Rabl et al., 2014; Yalabik et al., 2008). The contingency perspective and HRM culture-fit models, that recommend 'best fit' between societal culture and HRM practices to enhance organizational effectiveness (Aycan et al., 1999, 2000), receive less support. Investment in complementary HPWS practices appears effective in all countries assessed. This is not culture-bound and encourages convergence towards a globally recognized best practice approach.

In explaining the perhaps surprising lack of support for the contingency perspective and culture-fit models, we emphasize prior studies have focused on individual HRM practices when reporting an influential role for societal culture. Individual HRM practices send ambiguous signals about human capital (e.g., the types of employees hired and skills required), role behaviors, and employee involvement. In these circumstances, GLOBE's CLT proposes employees will rely on decision-making heuristics provided by societal culture (House et al., 2004). In contrast, organizations with complementary HPWS 'best practices' may send clear and reinforced messages to the workforce about leadership beliefs, assumptions, and strategic vision. These practices in combination may increase certainty, clarity, and direction to organizational activities. Synergies between 'best practices' send unambiguous messages about broader strategic priorities and values. This may help create strong HRM systems with

distinctiveness (e.g., visible, understandable, and relevant practices), consistency (e.g., consistent, instrumental, and valid practices), and consensus (e.g., agreement and fairness) across HRM practices (Bowen & Ostroff, 2004; Ostroff & Bowen, 2016). These features of strong HRM systems encourage a shared and positive organizational climate, in which employees develop a common understanding of behaviors that are valued, rewarded, and expected. As such, employees understand how they contribute towards organizational performance (ibid.). As such, HPWS arguably reduce workforce reliance on rules of thumb provided by societal culture when responding to organizational events. Complementary HPWS practices may thus have a powerful impact on workforce attitudes and behaviors that outweighs the influence of societal culture. The methodological implication for IB/CCM studies is that focusing on individual HRM practices may overlook larger HRM system effects on organizational performance that a more macro viewpoint captures (Becker & Huselid, 1998). Future studies should, therefore, control for other practices in HRM systems.

Drawing on AMO theory, we further proposed that performance would be enhanced when organizations create a skilled, motivated, and flexible workforce. Proposing positive effects for each AMO bundle of practices, we identified distinct effects on organizational performance in a cross-cultural context. Both skill-enhancing and opportunity-enhancing practices were positively associated with organizational performance. The lack of an association between motivation-enhancing practices and organizational performance contrasts with previous studies indicating each AMO bundle is positively related to organizational performance (Jiang et al., 2012). The difference in findings may reflect several issues. First, we studied a wide range of countries beyond those most frequently studied – the United States, China, Spain, United Kingdom, South Korea, and Canada (Rabl et al., 2014) - and prior findings may not hold in other countries (a sample composition effect). Second, the regulatory environment of some countries may influence the adoption and effectiveness of motivation-enhancing practices. Remuneration, employment security, and equality practices are legally required in highly-regulated countries, and do not appear feasible in others. This reduces firm heterogeneity and the scope to adopt

these practices for relative competitive advantage (ibid.: 1015, 1023). Third, motivation-enhancing practices have pecuniary implications of a gain/loss nature. Failures to deliver on pay and promotion promises may demotivate employees with harmful consequences for organizational performance. Fourth, the high costs of motivation-enhancing practices for employers may off-set any benefits from increased employee motivation, and result in no overall impact on organizational performance. For these reasons, motivation-enhancing practices alone appear insufficient to improve organizational performance.

Systematic application of the AMO model also revealed the relationship between opportunity-enhancing practices and organizational performance is weaker in high-power-distance countries. This is consistent with prior research indicating limited congruence between power distance and work teams/flexible-working, information-sharing, and labor-management participation (Aycan, 2005; Fey et al., 2009; Newman & Nollen, 1996; Ollo-López et al., 2011). Should organizations in high-power-distance countries, therefore, avoid opportunity-enhancing practices? Our findings suggest not. While being aware of the processes by which managers introduce these practices in high-power-distance contexts, we still advise implementing HPWS. As skill-enhancing practices carefully match, induct, and train appropriate employees, and motivation-enhancing practices align and reward productive behaviors, it appears overall HPWS have a consistent association with performance in high-power-distance countries. However, organizations in high-power-distance contexts should only implement opportunity-enhancing practices as part of a broader HPWS including skill-enhancing and motivation-enhancing practices. Consistent with Jiang et al. (2015), opportunity-enhancing practices are effective in high-power-distance countries only as part of HRM systems that select and develop the necessary aptitudes and skills, and provide appropriate incentives to share decision-making.

Although lacking data to assess the many potential theoretical explanations for the positive impact of AMO bundles, we propose the following. Skill-enhancing practices may enhance human capital by increasing person-organization fit, defined as the compatibility of attitudes, behaviors, and skills between employees and the organization's requirements. Induction/training further transmits the values, role

behaviors, and organizational culture required for success (Cable & Parsons, 2001; Schneider, 1987). Clear and consistent messages about human capital requirements should improve role clarity and job performance (Jackson & Schuler, 1985).

Motivation-enhancing practices (as part of HPWS), such as effective performance management systems, establish well-defined goals, monitor and review performance, and reward appropriate behaviors (Gardner et al., 2011; Schuler & Jackson, 1987). Employment security and flexible work arrangements further develop long-term employee commitment (Jiang et al., 2012; Pfeffer, 1998). Consistent messages provide a clear line of sight to increase role clarity, behavioral integration, and workforce commitment.

Opportunity-enhancing practices help to generate a high-involvement organizational structure in which flexible job design and team-based working provide sufficient latitude for employees to act, share knowledge, and learn new skills (Combs et al., 2006; Lawler, 1986; Pfeffer, 1998). Extensive communication, interaction, and cooperation among employees help minimize the uncertainty of work environments by improving networks, reciprocity, and social cohesion (Evans & Davis, 2005).

Hence, AMO bundles may override the influence of societal culture: skill-enhancing practices develop appropriate human capital, increase person-organization fit and role clarity; motivation-enhancing practices set expectations, reward, and reinforce productive role behaviors; opportunity-enhancing practices facilitate high-involvement social structures to enhance communication, interaction, and cooperation among employees.

Drawing on GLOBE's distinction between in-group and institutional collectivism (House et al., 2004), and considering a wide-range of HPWS component practices, we further challenged the proposal of a stronger HPWS-organizational performance relationship in individualistic countries (Rabl et al., 2014). The AMO framework helps clarify potential congruence between HPWS and aspects of societal culture. This shows HPWS merge a wide range of practices from successful organizations in countries as culturally diverse as the U.S. (e.g., individual pay incentives), Japan (e.g., work teams and information sharing), and central and northern Europe (e.g., extensive training and employment security) (Bae et al.,

1998; Brewster, 1995; Yalabik et al., 2008). Prioritizing HPWS practices (e.g., individual pay incentives) drawn from the U.S. over other practices to suggest HPWS are congruent with individualistic countries (Rabl et al., 2014) is perhaps over-simplistic, as organizational performance is associated with the HPWS not individual practices. Initial formulations of HPWS specifically encouraged U.S. organizations to learn from Japanese organizations, implying organizations benefit from implementing HPWS 'best practices' drawn from a range of diverse countries. Our findings do not require organizations in Asia and Europe to become more like U.S. organizations (thus emphasizing the importance of cultural practices and values), but to implement HPWS best practices that are common features of countries with different societal cultures. We, therefore, propose feasible convergence towards a model of international 'best practice' HPWS (Edwards et al., 2016; Farndale, et al., 2017; Pudelko & Harzing, 2007), with an eye on cultural dimensions and their potential influences on organizations given our finding on power distance.

Several practical implications emerge from our study. First, managers seeking to improve organizational performance in all countries assessed here should implement HPWS practices (or bundles of AMO practices) rather than individual HRM practices that appear to 'best-fit' with societal culture. Incongruence with societal culture does not reduce HPWS effectiveness. Organizational leaders should focus on the strategic role of the HRM system and implement complementary best practices to build HRM systems (HPWS), rather than matching the perplexing range of individual HRM practices to societal cultures found across diverse countries. Second, investments in skill-enhancing and opportunity-enhancing practices are associated with higher organizational performance in diverse countries - managers should implement these practices. This is a necessary condition before implementing motivation-enhancing practices which by themselves will not improve organizational performance. Third, managers should note the heterogeneous effect of societal culture across AMO bundles. The introduction of opportunity-enhancing practices in countries with high power distance may not improve organizational performance. Specifically, organizations in high-power-distance countries should introduce complementary skill-enhancing and motivation-enhancing practices alongside opportunity-enhancing

practices.

Fourth, deeply ingrained assumptions and preferences may limit HPWS implementation even if potentially beneficial for organizational performance. If leaders of domestic companies or MNCs seek to implement HPWS, we advise presenting evidence on the positive association with organizational performance in diverse countries. This may help overcome resistance if managers or the workforce prefer practices believed to be congruent with societal culture. While acknowledging that societal culture may influence responses to individual HRM practices, it appears complementary HPWS and AMO bundles have positive effects on employee abilities, motivation, and opportunities to contribute, in diverse countries. Increasing workforce diversity with employees from different countries of origin, therefore, should not limit HPWS implementation. Fifth, the findings have important implications for governments seeking to increase national productivity. Encouraging HPWS implementation as a coherent system without immediate concern for societal culture appears likely to enhance organizational performance.

Limitations and Future Research

The study's limitations include the HPWS practices and societal culture dimensions assessed, subjective performance measures, temporal and sampling issues. HPWS studies lack an established set of component practices and agreed on measurement conventions. We measured a wider range of HPWS practices than many previous studies (see Combs et al., 2006), and future studies may explore whether different HPWS measures produce similar results. Regarding societal culture dimensions, other dimensions not assessed here (e.g., uncertainty avoidance or future orientation) may provide more support for culture-fit models. In addition, we measured GLOBE's cultural practices and not values. Incorporating both values and practices might have provided different insights as it has in other cross-cultural studies (e.g., Dorfman et al., 2012; House et al., 2014). Although HPWS studies using subjective and objective organizational performance measures have produced comparable findings, future studies may assess the moderating impact of societal culture on objective measures of organizational performance. The temporal issue relates to measurement of the dependent (organizational performance) and independent (HPWS

practices) variables in interviews up to one month before measurement of societal culture in the employee survey. Our findings draw on a convenience sample of organizations in three industries, and such non-probability samples limit the ability to generalize results across societal cultures.

Future studies may, therefore, seek to reproduce the findings using similar and different HPWS measures, other societal culture dimensions and measures of values, objective performance measures, cotemporal and longitudinal measurement, and nationally-representative samples of industries. Studies may further develop and test AMO theory to help explain the mechanisms through which HPWS enhances organizational performance. This may involve assessing the relationship between: skill-enhancing practices, person-organization fit, and role clarity; motivation-enhancing practices and productive employee behaviors; and opportunity-enhancing practices and communication, interaction, and cooperation among employees. As such, managers may further understand the HRM practices required to improve business performance across societies.

Regarding the future interface between the fields of IB/CCM and HRM (see Andersson, Brewster, Minbaeva, Narula, & Wood, 2019), we suggest IB/CCM should take greater interest in HRM practices, as rigorous quantitative data analysis identifies positive associations with organizational performance in a diverse range of countries. Researchers with interest in GLOBE's CLT may explore the conditions in which HRM practices minimize culture's consequences and improve organizational performance. Beyond societal culture, studies may also explore whether national institutional differences moderate the effectiveness of HPWS. We challenge HRM scholars interested in IB/CCM to focus on HRM systems and organizational performance, and work in international teams to gather the large data-sets required from diverse countries.

CONCLUSION

Our findings suggest HPWS and AMO bundles of practices are positively associated with organizational performance across diverse countries and are not culture-bound. As such, international and domestic firms should implement these complementary practices to improve organizational performance in the

countries assessed, rather than seek to match individual HRM practices to societal culture. Leaders should focus on complementary best practices (HPWS) to develop a skilled, motivated, and flexible workforce, rather than the perplexing range of individual HRM practices found across diverse countries. HPWS provide clear leadership messages to influence workforce attitudes, behaviors, and job performance, and thereby enhance organizational performance. Unless leaders consider the HRM system as a whole they are unlikely to optimize the strategic contribution of effective workforce management to the bottom line.

NOTES

[1]Often-included HPWS measures are selective recruitment, training, internal promotion, incentive compensation, performance appraisal, employment security, work teams, flexible work, information-sharing, participation, and grievance procedures. We excluded two of these practices. Compensation-level reflects national economic development and we replaced this with 'non-pay benefits' as likely related to societal culture. Staff planning is a broader strategic HRM construct rather than an HPWS practice (Rabl et al., 2014). Additionally, we included 'induction programs for employee socialization' and 'equal opportunities practices' as likely related to societal culture via country-specific norms.

[2]The WERS questions and bibliography of publications using WERS, including studies assessing HPWS and individual component practices, are available at https://www.gov.uk/government/publications/the-2011-workplace-employment-relations-study-wers.

[3]We created an overall count index that assesses each organization's use of HPWS practices, given prior studies associated combinations of these practices (rather than individual practices) with organizational performance (Combs et al., 2006). Theoretically-driven additive indices of HPWS practices regard these practices as formative rather than reflective of an underlying construct. Practices are not interchangeable and therefore do not co-vary, and similar results emerge as a function of practices substituting for each other in an appropriate index. It is therefore inappropriate to measure reliability by assessing internal consistency (e.g., coefficient alpha) as intercorrelation is not expected (Gardner et al., 2011).

[4]To analyze 17 measures coded on different scales, we recoded data into dichotomous high/low scores. Companies below the threshold for a practice (i.e. lacked that practice) scored 1, whereas companies above scored 2 for that practice. Consequently, the 17 HPWS indices ranged from 17-34. Robustness checks involved substituting dichotomous variables with standardized continuous variables and re-analysis did not change the findings.

[5]Gerhart et al. (2000) criticized HPWS measures based on single managerial respondents. Following Liao et al. (2009) we included several questions on HPWS practices in the employee survey to check measurement reliability. Correlations between practices reported by management and employee respondents were 0.46 ($p<0.001$) for performance appraisals, 0.381 ($p<0.001$) for employee attitude surveys, 0.261 ($p<0.001$) for quality circles, and 0.122 ($p<0.05$) for training. We used managerial reports in the analysis for the following reasons: management and employee reports of practices in our study are more highly correlated than in prior studies (typically a .20 correlation) (Ostroff & Bowen, 2016); our study focuses on more macro-level organizational practices and performance, in contrast to studies of the intended-implemented HR practices gap that focus on the implications for individual-level attitudes, behaviors, and performance; and in order to collect data on the broad range of HPWS practices (e.g., employees are generally not involved in recruitment and selection, labor-management participation, grievance procedures, and equal opportunities monitoring, and are therefore unlikely to have accurate perceptions on these practices).

[6]Skill-enhancing practices include selective recruitment, induction, and training to increase employees' knowledge, skills, and abilities (Combs et al., 2006). Motivation-enhancing practices include internal promotion, incentive compensation, performance appraisal, high compensation (extensive benefits), employment security, and flexible work arrangements (Huselid, 1995; Pfeffer, 1998). Additionally, we included equal opportunity practices. Opportunity-enhancing practices include work teams, flexible-working, information-sharing (e.g., team briefings, quality-circles) (Pfeffer, 1998), and participation (e.g., employee attitude surveys, grievance procedures, and labor-management participation).

[7]Reliability scores for these dimensions in individual countries ranged from $Alpha_{Pakistan=}0.55$ to $Alpha_{Italy}=0.90$ (Power Distance); to $Alpha_{Pakistan}=0.36$ to $Alpha_{Egypt}=0.81$ (Institutional Collectivism); and $Alpha_{Japan}=0.27$ to $Alpha_{India}=0.86$ (In-Group Collectivism). Although we could drop data from countries where the scale fell below the 0.6 Cronbach's alpha threshold from the analysis, they are retained given good overall alpha reliability for countries overall.

[8]While the Cronbach alphas were low for specific countries on the two collectivism scores, the interaction effects did not emerge as significant. However, the Cronbach alpha for power distance (a significant moderator of opportunity-enhancing practices) fell below the threshold for only the Pakistan sample. The findings remained the same after re-running the analysis for the dataset after eliminating the Pakistan sample. We are therefore satisfied low reliability measures did not affect the findings.

[9]R^2 indicates the total variance explained by the predictors in a linear model. One disadvantage of this indicator is that it tends to favor more complex models. To counter such tendencies, Information Criterion through Akaike Information Criteria (AIC) is preferred. AIC selects the model that produces a probability distribution with the smallest discrepancies from a true distribution. AIC indices are badness of fit indices, therefore a good model is one that has the minimum AIC among others (Busemeyer & Diedrich, 2014). Deviance (i.e. -2*log likelihood) indicates the difference between the log likelihood of the saturated model and log likelihood of the fitted model. Recently, Nakagawa and Schielzeth (2013) proposed two measures of Pseudo-R^2 for mixed models. This measure is appropriate because it honors the multilevel structure where there is partitioning of variance. This Pseudo-R^2 is variance explained for linear models and Nakagawa and Schielzeth (2013) acknowledge it is only an approximation. We therefore report even small values of Pseudo-R^2. We report Marginal Pseudo-R^2 which describes the proportion of variance explained by the fixed factors.

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Table 1: Congruence between HPWS, AMO bundles and three societal culture dimensions

HPWS/ AMO Bundles	**Societal Culture Dimensions**		
	High power distance	***In-group collectivism***	***Institutional collectivism***
Skill-enhancing practices (Panel 1)			
Selective recruitment	-(Ryan et al., 1999: 363-4)	+ -(Aycan, 2005: 1088-9)	
Induction			
Training	-(Coget, 2011; Peretz & Rosenblatt, 2011; Rabl et al., 2014: 1013)		+(Aycan, 2005: 1097; Rode et al., 2016: 475-6)
Motivation-enhancing practices (Panel 2)			
Internal promotion	-(Aycan, 2005: 1103)	+(Aycan, 2005: 1088; Bjorkman & Lu, 1999)	
Incentive compensation	-(Aycan, 2005: 1106; Newman & Nollen, 1996)	-(Aycan, 2005: 1106; Chiang & Birtch, 2010: 1371-2; Peretz & Fried, 2012; Schuler & Rovosky, 1998)	
Performance appraisal	-(Aycan, 2005: 1095; Chiang & Birtch, 2010; Peretz & Fried, 2012)	-(Aycan, 2005: 1095; Chiang & Birtch, 2010: 1371-2; Peretz & Fried, 2012)	
Extensive benefits	+(Aycan, 2005: 1107)		+(Aycan, 2005: 1106-7)
Employment security			+(Aycan, 2005: 1106-7)
Flexible work arrangements	-(Peretz et al., 2018)	-(Peretz et al., 2018)	+(Aycan, 2005: 1106-7) -(Peretz et al., 2018)
Equal opportunities	-(Peretz et al., 2015: 878)	-(Peretz et al., 2015: 877-8)	+(Aycan, 2005: 1106-7) -(Peretz et al., 2015: 877-8)
Opportunity-enhancing practices (Panel 3)			
Work teams	-(Aycan et al., 2000; Carl et al., 2004; Hui et al., 2004; Ollo-López et al., 2011)	+(Aycan, 2005: 1100; Kirkman & Shapiro, 1997)	+(Rode et al., 2016: 477)
Flexible work (functional flexibility)	-(Aycan et al., 2000; Hui et al., 2004) +(Aycan, 2005: 1100)		
Information-sharing (Team briefing)	-(Carl et al., 2004; Ollo-López et al., 2011; Newman & Nollen, 1996)		
Information-sharing (Quality-circles)	-(Carl et al., 2004; Ollo-López et al., 2011; Newman & Nollen, 1996)		

Employee attitude survey	-(Carl et al., 2004; Newman & Nollen, 1996)		
Grievance procedures			
Labor-management participation	-(Carl et al., 2004; Ollo-López et al., 2011; Newman & Nollen, 1996)		

Notes: +congruence between practice and societal culture dimension
-incongruence between practice and societal culture dimension
blank unknown congruence

Table 2 Means, standard deviations, and correlations of main variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
Organizational-level variables															
1. Organizational size (log)	2.17	0.75	1												
2. Organizational age (log)	1.33	0.46	0.26**	1											
3. Market competition	3.79	1.16	0.00	0.04	1										
4. HPWS	1.46	0.16	0.24**	0.16**	0.10	1									
5. Skill-enhancing practices	1.59	0.26	0.23**	0.11*	-0.04	0.59**	1								
6. Motivation-enhancing practices	1.44	0.17	0.15**	0.05	0.11*	0.65**	0.15**	1							
7. Opportunity-enhancing practices	1.43	0.24	0.16**	0.16**	0.09	0.84**	0.37**	0.23**	1						
8. Financial performance	3.54	0.82	0.14**	0.02	0.05	0.17**	0.16**	0.06	0.16**	1					
9. Labor productivity	3.47	0.81	0.09	-0.04	-0.04	0.13**	0.17**	0.02	0.12*	0.59**	1				
Country-level variables															
10. GDP 2014	1108.31	1051.71	-0.02	0.11*	0.00	0.16**	0.05	0.00	0.23**	-0.06	-0.15**	1			
11. Power distance	4.48	0.96	-0.05	0.04	0.16**	-0.05	0.02	-0.01	-0.08	-0.08	-0.06	-0.04	1		
12. Institutional collectivism	4.31	0.46	0.13*	-0.02	-0.19**	0.06	0.11*	-0.01	0.05	0.17**	0.14**	0.01	-0.38**	1	
13. In-group collectivism	4.90	0.71	0.05	-0.31**	-0.09	-0.16**	-0.13*	0.01	-0.19**	0.04	0.10	-0.65**	-0.17**	0.40**	1

*p<.05, **p<.01

Excludes industry, ownership, and internationally-owned subsidiary measured nominally.

Subsequent regression analysis use mean centered values of all variables.

Table 3: The effects of HPWS and AMO bundles on financial performance and labor productivity across societal cultures

	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error
	Financial Performance								Labor Productivity							
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
(Intercept)	-0.69	0.41	0.14	0.08	0.15	0.08	0.14	0.08	-1.16**	0.40	-0.04	0.08	-0.03	0.08	-0.04	0.08
Level 1: Organizational-level controls																
Organizational size	0.12*	0.06	0.11	0.06	0.15*	0.06	0.13*	0.06	0.04	0.06	0.02	0.06	0.07	0.06	0.05	0.06
Organizational age	0.01	0.10	0.02	0.10	0.01	0.10	0.00	0.10	-0.11	0.10	-0.09	0.10	-0.11	0.10	-0.12	0.10
Market competition	0.01	0.04	0.02	0.04	0.01	0.04	0.02	0.04	-0.02	0.04	-0.01	0.04	-0.02	0.04	-0.01	0.04
Health Industry	-0.16	0.11	-0.17	0.11	-0.20	0.11	-0.18	0.11	-0.01	0.11	-0.03	0.11	-0.06	0.11	-0.05	0.11
Manufacturing Industry	-0.10	0.10	-0.11	0.10	-0.14	0.10	-0.11	0.10	0.18	0.10	0.17	0.10	0.13	0.10	0.15	0.10
Public Ownership	-0.18	0.12	-0.18	0.12	-0.16	0.12	-0.17	0.12	-0.01	0.12	-0.01	0.12	0.02	0.12	0.01	0.12
Voluntary Ownership	0.04	0.20	0.01	0.20	0.08	0.20	0.06	0.20	0.01	0.20	-0.02	0.20	0.07	0.20	0.05	0.20
Internationally-owned subsidiary	-0.11	0.12	-0.10	0.12	-0.09	0.12	-0.12	0.12	-0.09	0.12	-0.09	0.12	-0.07	0.12	-0.10	0.12
Level 2: Societal-level control																
GDP 2014[1]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Level 1: Organizational-level predictors																
HPWS	0.56*	0.26							0.76**	0.26						
Skill-enhancing practices			0.13*	0.06							0.19***	0.06				
Motivation-enhancing practices					0.01	0.04							0.03	0.04		
Opportunity-enhancing practices							0.06*	0.03							0.07**	0.03
Model fit																
AIC	835.97		834.99		840.49		834.46		829.59		825.65		837.59		831.03	
Deviance	809.98		808.98		814.5		808.46		803.58		799.66		811.58		805.04	
Marginal Pseudo-R^2	0.05		0.05		0.04		0.06		0.04		0.05		0.02		0.04	

*p<.05, **p<.01, ***p<.001. Lower AIC values depict better models.

1: Low Beta values and Std. errors for GDP 2014 =<0.0001.

Table 4: The moderating effect of power distance on the relationship between HPWS and AMO bundles and financial performance

	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error.
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8		Model 9		Model 10	
(Intercept)	-0.69	0.41	-0.55	0.42	0.14	0.08	0.14	0.08	0.15	0.08	0.15	0.08	0.14	0.08	0.15*	0.08	0.14	0.08	0.15	0.08
Level 1: Organizational-level controls																				
Organizational size	0.12*	0.06	0.12*	0.06	0.11	0.06	0.11	0.06	0.15*	0.06	0.15*	0.06	0.13*	0.06	0.12*	0.06	0.11	0.06	0.11	0.06
Organizational age	0.01	0.1	0	0.1	0.02	0.1	0.02	0.1	0.01	0.1	0.01	0.1	0	0.1	0.01	0.1	0.01	0.1	0.03	0.1
Market competition	0.01	0.04	0.01	0.04	0.02	0.04	0.02	0.04	0.01	0.04	0.01	0.04	0.02	0.04	0.01	0.04	0.02	0.04	0.02	0.04
Health Industry	-0.16	0.11	-0.18	0.11	-0.18	0.11	-0.18	0.11	-0.21	0.11	-0.21	0.11	-0.18	0.11	-0.22*	0.11	-0.17	0.11	-0.22	0.11
Manufacturing Industry	-0.1	0.1	-0.09	0.1	-0.11	0.1	-0.11	0.1	-0.14	0.1	-0.14	0.1	-0.11	0.1	-0.14	0.1	-0.1	0.1	-0.14	0.1
Public Ownership	-0.18	0.12	-0.16	0.12	-0.18	0.12	-0.18	0.12	-0.16	0.12	-0.16	0.12	-0.17	0.12	-0.14	0.12	-0.18	0.12	-0.14	0.12
Voluntary Ownership	0.03	0.2	0.06	0.2	0.01	0.2	0.01	0.2	0.08	0.2	0.08	0.2	0.06	0.2	0.09	0.2	0.02	0.2	0.06	0.2
Internationally-owned subsidiary	-0.11	0.12	-0.09	0.12	-0.1	0.12	-0.11	0.12	-0.09	0.12	-0.09	0.12	-0.11	0.12	-0.09	0.12	-0.12	0.12	-0.09	0.12
Level 2: Societal-level control																				
GDP 2014[1]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Level 1: Organizational-level predictor																				
HPWS	0.56*	0.27	0.46	0.27																
Skill-enhancing practices (SEHR)					0.13*	0.06	0.12*	0.06									0.1	0.06	0.09	0.06
Motivation-enhancing practices (MEHR)									0.01	0.04	0.01	0.04					-0.01	0.04	-0.02	0.04
Opportunity-enhancing practices (OEHR)													0.06*	0.03	0.06*	0.03	0.05	0.03	0.05	0.03
Level 2: Societal-level predictor																				
Power distance (PD)	0	0.06	0.97	0.62	-0.01	0.06	-0.01	0.06	-0.01	0.06	-0.01	0.06	-0.01	0.06	-0.01	0.06	-0.01	0.06	-0.01	0.06
Cross-level interactions																				
HPWS X PD			-0.66	0.41																
SEHR X PD							-0.03	0.1											0.03	0.10
MEHR X PD											-0.01	0.06							0.03	0.06
OEHR X PD															-0.12**	0.04			-0.12**	0.04
Model fit																				
AIC	837.97		837.35		836.94		838.85		842.45		844.39		836.42		829.26		837.59		834.49	
Deviance	809.96		807.34		808.94		808.84		814.44		814.38		808.42		799.26		805.58		796.5	
Marginal Pseudo-R^2	0.05		0.06		0.05		0.05		0.04		0.04		0.06		0.08		0.06		0.09	

*p<.05, **p<.01, ***p<.001. Lower AIC values depict better models. 1: Note as table 3.

Table 5: The moderating effect of power distance on the relationship between HPWS and AMO bundles and labor productivity

	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8		Model 9		Model 10	
(Intercept)	-1.17**	0.41	-1.03*	0.41	-0.04	0.08	-0.04	0.08	-0.03	0.08	-0.03	0.08	-0.04	0.08	-0.02	0.08	-0.05	0.08	-0.03	0.08
Level 1: Organizational-level controls																				
Organizational size	0.04	0.06	0.03	0.06	0.02	0.06	0.02	0.06	0.07	0.06	0.06	0.06	0.05	0.06	0.04	0.06	0.01	0.06	0.01	0.06
Organizational age	-0.11	0.10	-0.12	0.10	-0.09	0.10	-0.09	0.10	-0.11	0.10	-0.11	0.10	-0.12	0.10	-0.11	0.10	-0.10	0.10	-0.08	0.10
Market competition	-0.02	0.04	-0.02	0.04	-0.01	0.04	-0.01	0.04	-0.02	0.04	-0.02	0.04	-0.01	0.04	-0.01	0.04	-0.01	0.04	-0.01	0.04
Health Industry	-0.01	0.11	-0.03	0.11	-0.03	0.11	-0.03	0.11	-0.06	0.11	-0.07	0.11	-0.05	0.11	-0.09	0.11	-0.02	0.11	-0.06	0.11
Manufacturing Industry	0.18	0.10	0.19	0.10	0.17	0.10	0.17	0.10	0.13	0.10	0.13	0.09	0.15	0.10	0.13	0.10	0.18	0.10	0.14	0.10
Public Ownership	-0.01	0.12	0.01	0.12	-0.01	0.12	-0.01	0.12	0.02	0.12	0.02	0.12	0.01	0.12	0.04	0.12	-0.01	0.12	0.03	0.12
Voluntary Ownership	0.02	0.20	0.04	0.20	-0.02	0.20	-0.02	0.20	0.07	0.20	0.07	0.20	0.05	0.20	0.08	0.20	-0.02	0.20	0.01	0.20
Internationally-owned subsidiary	-0.10	0.12	-0.08	0.12	-0.09	0.12	-0.09	0.12	-0.07	0.12	-0.07	0.12	-0.10	0.12	-0.08	0.12	-0.10	0.12	-0.07	0.12
Level 2: Societal-level control																				
GDP 2014[1]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Level 1: Organizational-level predictor																				
HPWS	0.76**	0.26	0.66*	0.27																
Skill-enhancing practices (SEHR)					0.19	0.06	0.20	0.06									0.16**	0.06	0.17**	0.06
Motivation-enhancing practices (MEHR)									0.03	0.04	0.02	0.04					0.00	0.04	-0.01	0.04
Opportunity-enhancing practices (OEHR)													0.07**	0.03	0.06*	0.03	0.04	0.03	0.04	0.03
Level 2: Societal-level predictor																				
Power distance (PD)	0.01	0.06	1.00	0.61	0.00	0.06	0.00	0.06	0.00	0.06	0.00	0.06	0.00	0.06	0.00	0.06	0.00	0.06	0.00	0.06
Cross-level interactions																				
HPWS X PD			-0.67	0.41																
SEHR X PD							0.02	0.09											0.08	0.10
MEHR X PD											-0.01	0.06							0.02	0.07
OEHR X PD															-0.11**	0.04			-0.12**	0.04
Model fit																				
AIC	831.53		830.82		827.65		829.59		839.59		841.55		833.02		826.53		829.19		826.70	
Deviance	803.54		800.82		799.66		799.58		811.58		811.54		805.02		796.52		797.10		788.70	
Marginal Pseudo-R^2	0.04		0.05		0.05		0.05		0.02		0.02		0.04		0.06		0.06		0.08	

*p<.05, **p<.01, ***p<.001. Lower AIC values depict better models. 1: Note as table 3.

Table 6: The moderating effect of in-group collectivism on the relationship between HPWS and AMO bundles and financial performance

	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
(Intercept)	-0.70	0.41	-1.07*	0.53	0.14	0.08	0.14	0.08	0.15	0.09	0.15	0.09	0.14	0.08	0.14	0.08
Level 1: Organizational-level controls																
Organizational size	0.12*	0.06	0.12*	0.06	0.11	0.06	0.11	0.06	0.15*	0.06	0.14*	0.06	0.13*	0.06	0.13*	0.06
Organizational age	0.01	0.10	0.00	0.10	0.02	0.10	0.02	0.10	0.01	0.10	0.01	0.10	0.00	0.10	-0.01	0.10
Market competition	0.01	0.04	0.01	0.04	0.02	0.04	0.02	0.04	0.01	0.04	0.01	0.04	0.02	0.04	0.02	0.04
Health Industry	-0.15	0.11	-0.14	0.11	-0.17	0.11	-0.18	0.11	-0.20	0.11	-0.20	0.11	-0.18	0.11	-0.17	0.11
Manufacturing Industry	-0.10	0.10	-0.09	0.10	-0.11	0.10	-0.11	0.10	-0.14	0.10	-0.14	0.10	-0.11	0.10	-0.10	0.10
Public Ownership	-0.18	0.12	-0.19	0.12	-0.18	0.12	-0.17	0.12	-0.16	0.12	-0.14	0.12	-0.17	0.12	-0.18	0.12
Voluntary Ownership	0.04	0.20	0.03	0.20	0.01	0.20	0.01	0.20	0.08	0.20	0.08	0.20	0.06	0.20	0.05	0.20
Internationally-owned subsidiary	-0.11	0.12	-0.13	0.12	-0.10	0.12	-0.10	0.12	-0.09	0.12	-0.09	0.12	-0.12	0.12	-0.13	0.12
Level 2: Societal-level control																
GDP 2014[1]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Level 1: Organizational-level predictor																
HPWS	0.56*	0.27	0.81*	0.35												
Skill-enhancing practices (SEHR)					0.13*	0.06	0.13	0.07								
Motivation-enhancing practices (MEHR)									0.01	0.04	0.03	0.04				
Opportunity-enhancing practices (OEHR)													0.06*	0.03	0.08*	0.03
Level 2: Societal-level predictor																
In-group collectivism (IG)	0.01	0.07	0.68	0.60	0.00	0.07	0.00	0.07	0.00	0.07	0.00	0.07	0.00	0.07	0.00	0.07
Cross-level interactions																
HPWS X IG			-0.46	0.41												
SEHR X IG							-0.01	0.08								
MEHR X IG											-0.05	0.05				
OEHR X IG															-0.03	0.04
Model fit																
AIC	837.95		838.65		836.98		838.98		842.49		843.64		836.46		837.86	
Deviance	809.94		808.66		808.98		808.98		814.5		813.64		808.46		807.86	
Marginal Pseudo-R^2	0.05		0.05		0.05		0.05		0.04		0.04		0.05		0.06	

*p<.05, **p<.01, ***p<.001. Lower AIC values depict better models. 1: Note as table 3.

Table 7: The moderating effect of in-group collectivism on the relationship between HPWS and AMO bundles and labor productivity

	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
(Intercept)	-1.16**	0.41	-0.93	0.52	-0.03	0.08	-0.04	0.08	-0.02	0.09	-0.02	0.09	-0.03	0.08	-0.02	0.08
Level 1: Organizational-level controls																
Organizational size	0.04	0.06	0.04	0.06	0.02	0.06	0.02	0.06	0.07	0.06	0.06	0.06	0.05	0.06	0.05	0.06
Organizational age	-0.11	0.10	-0.11	0.10	-0.09	0.10	-0.08	0.10	-0.11	0.10	-0.11	0.10	-0.12	0.10	-0.11	0.10
Market competition	-0.02	0.04	-0.02	0.04	-0.01	0.04	-0.01	0.04	-0.02	0.04	-0.02	0.04	-0.01	0.04	-0.02	0.04
Health Industry	-0.01	0.11	-0.02	0.11	-0.03	0.11	-0.03	0.11	-0.07	0.11	-0.06	0.11	-0.05	0.11	-0.06	0.11
Manufacturing Industry	0.18	0.10	0.18	0.10	0.17	0.10	0.17	0.10	0.13	0.10	0.13	0.10	0.15	0.10	0.14	0.10
Public Ownership	-0.01	0.12	-0.01	0.12	0.00	0.12	-0.01	0.12	0.02	0.12	0.04	0.12	0.01	0.12	0.03	0.12
Voluntary Ownership	0.01	0.20	0.02	0.20	-0.03	0.20	-0.01	0.20	0.06	0.20	0.06	0.20	0.05	0.20	0.06	0.20
Internationally-owned subsidiary	-0.10	0.12	-0.08	0.12	-0.09	0.12	-0.09	0.12	-0.08	0.12	-0.08	0.12	-0.10	0.12	-0.07	0.12
Level 2: Societal-level control																
GDP 2014[1]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Level 1: Organizational-level predictor																
HPWS	0.76**	0.26	0.61	0.34												
Skill-enhancing practices (SEHR)					0.19	0.06	0.14*	0.07								
Motivation-enhancing practices (MEHR)									0.03	0.04	0.05	0.04				
Opportunity-enhancing practices (OEHR)													0.07**	0.03	0.04	0.03
Level 2: Societal-level predictor																
In-group collectivism (IG)	-0.01	0.07	-0.41	0.59	-0.03	0.07	-0.02	0.07	-0.02	0.07	-0.02	0.07	-0.02	0.07	-0.02	0.07
Cross-level interactions																
HPWS X IG			0.28	0.40												
SEHR X IG							0.11	0.08								
MEHR X IG											-0.05	0.05				
OEHR X IG															0.05	0.04
Model fit																
AIC	831.58		833.09		827.52		827.58		839.51		840.46		832.92		833.06	
Deviance	803.58		803.10		799.52		797.56		811.52		810.46		804.92		803.06	
Marginal Pseudo-R^2	0.04		0.04		0.05		0.06		0.02		0.02		0.04		0.04	

*p<.05, **p<.01, ***p<.001. Lower AIC values depict better models. 1: Note as table 3

Table 8: The moderating effect of institutional collectivism on the relationship between HPWS and AMO bundles and financial performance

	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
(Intercept)	-0.69	0.41	-0.76	0.45	0.13	0.08	0.14	0.08	0.15	0.08	0.15	0.08	0.13	0.08	0.14	0.08
Level 1: Organizational-level controls																
Organizational size	0.12*	0.06	0.12*	0.06	0.11	0.06	0.11	0.06	0.15*	0.06	0.15*	0.06	0.13*	0.06	0.13*	0.06
Organizational age	0.01	0.10	0.00	0.10	0.03	0.10	0.03	0.10	0.01	0.10	0.01	0.10	0.00	0.10	0.02	0.10
Market competition	0.01	0.04	0.01	0.04	0.02	0.04	0.02	0.04	0.01	0.04	0.01	0.04	0.01	0.04	0.01	0.04
Health Industry	-0.16	0.11	-0.15	0.11	-0.17	0.11	-0.17	0.11	-0.20	0.11	-0.20	0.11	-0.17	0.11	-0.19	0.11
Manufacturing Industry	-0.10	0.10	-0.10	0.10	-0.11	0.10	-0.11	0.10	-0.14	0.10	-0.15	0.10	-0.11	0.10	-0.12	0.10
Public Ownership	-0.19	0.12	-0.19	0.12	-0.19	0.12	-0.18	0.12	-0.16	0.12	-0.15	0.12	-0.18	0.12	-0.17	0.12
Voluntary Ownership	0.04	0.20	0.03	0.20	0.02	0.20	0.00	0.20	0.08	0.20	0.07	0.20	0.06	0.20	0.08	0.20
Internationally-owned subsidiary	-0.11	0.12	-0.11	0.12	-0.10	0.12	-0.11	0.12	-0.09	0.12	-0.10	0.12	-0.11	0.12	-0.10	0.12
Level 2: Societal-level control																
GDP 2014[1]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Level 1: Organizational-level predictor																
HPWS	0.56*	0.27	0.61*	0.30	0.13*	0.06	0.15*	0.06	0.01	0.04	0.03	0.04	0.06*	0.03	0.05	0.03
Skill-enhancing practices (SEHR)																
Motivation-enhancing practices (MEHR)																
Opportunity-enhancing practices (OEHR)																
Level 2: Societal-level predictor																
Institutional collectivism (ICG)	0.02	0.09	0.32	0.79	0.03	0.09	0.03	0.09	0.03	0.09	0.03	0.09	0.03	0.09	0.03	0.09
Cross-level interactions																
HPWS X ICG			-0.21	0.53												
SEHR X ICG							-0.09	0.11								
MEHR X ICG											-0.09	0.08				
OEHR X ICG															0.08	0.06
Model fit																
AIC	837.93		839.77		836.87		838.27		842.39		842.76		836.34		836.62	
Deviance	809.92		809.78		808.88		808.26		814.38		812.76		808.34		806.62	
Marginal Pseudo-R^2	0.05		0.05		0.05		0.06		0.04		0.04		0.06		0.06	

*p<.05, **p<.01, ***p<.001. Lower AIC values depict better models. 1: Note as table 3.

Table 9: The moderating effect of institutional collectivism on the relationship between HPWS and AMO bundles and labor productivity

	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error	Beta	Std. Error
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
(Intercept)	-1.17**	0.40	-1.17**	0.45	-0.04	0.08	-0.04	0.08	-0.03	0.08	-0.02	0.08	-0.03	0.08	-0.03	0.08
Level 1: Organizational-level controls																
Organizational size	0.04	0.06	0.04	0.06	0.02	0.06	0.02	0.06	0.07	0.06	0.07	0.06	0.05	0.06	0.05	0.06
Organizational age	-0.12	0.10	-0.12	0.10	-0.09	0.10	-0.09	0.10	-0.11	0.10	-0.11	0.10	-0.12	0.10	-0.11	0.10
Market competition	-0.02	0.04	-0.02	0.04	-0.01	0.04	-0.01	0.04	-0.02	0.04	-0.02	0.04	-0.01	0.04	-0.01	0.04
Health Industry	-0.01	0.11	-0.01	0.11	-0.03	0.11	-0.03	0.11	-0.07	0.11	-0.06	0.11	-0.05	0.11	-0.06	0.11
Manufacturing Industry	0.18	0.10	0.18	0.10	0.17	0.10	0.17	0.10	0.13	0.10	0.12	0.10	0.15	0.10	0.15	0.10
Public Ownership	0.00	0.12	0.00	0.12	0.00	0.12	0.00	0.12	0.02	0.12	0.03	0.12	0.01	0.12	0.02	0.12
Voluntary Ownership	0.01	0.20	0.01	0.20	-0.02	0.20	-0.02	0.20	0.07	0.20	0.06	0.20	0.05	0.20	0.07	0.20
Internationally-owned subsidiary	-0.10	0.12	-0.10	0.12	-0.09	0.12	-0.09	0.12	-0.07	0.12	-0.08	0.12	-0.10	0.12	-0.09	0.12
Level 2: Societal-level control																
GDP 2014[1]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Level 1: Organizational-level predictor																
HPWS	0.76**	0.26	0.77*	0.30												
Skill-enhancing practices (SEHR)					0.19	0.06	0.19**	0.06								
Motivation-enhancing practices (MEHR)									0.03	0.04	0.04	0.04				
Opportunity-enhancing practices (OEHR)													0.07**	0.03	0.06*	0.03
Level 2: Societal-level predictor																
Institutional collectivism (ICG)	-0.02	0.09	0.01	0.78	-0.01	0.08	-0.01	0.08	-0.01	0.09	-0.01	0.09	-0.01	0.09	-0.01	0.09
Cross-level interactions																
HPWS X ICG			-0.02	0.53												
SEHR X ICG							0.00	0.11								
MEHR X ICG											-0.07	0.07				
OEHR X ICG															0.06	0.06
Model fit																
AIC	831.53		833.35		827.65		829.65		839.59		840.70		833.02		834.02	
Deviance	803.54		803.52		799.66		799.66		811.58		810.70		805.02		804.02	
Marginal Pseudo-R^2	0.04		0.04		0.05		0.05		0.02		0.02		0.04		0.04	

*p<.05, **p<.01, ***p<.001. Lower AIC values depict better models. 1: Note as table 3.

Figure 1: Research Model

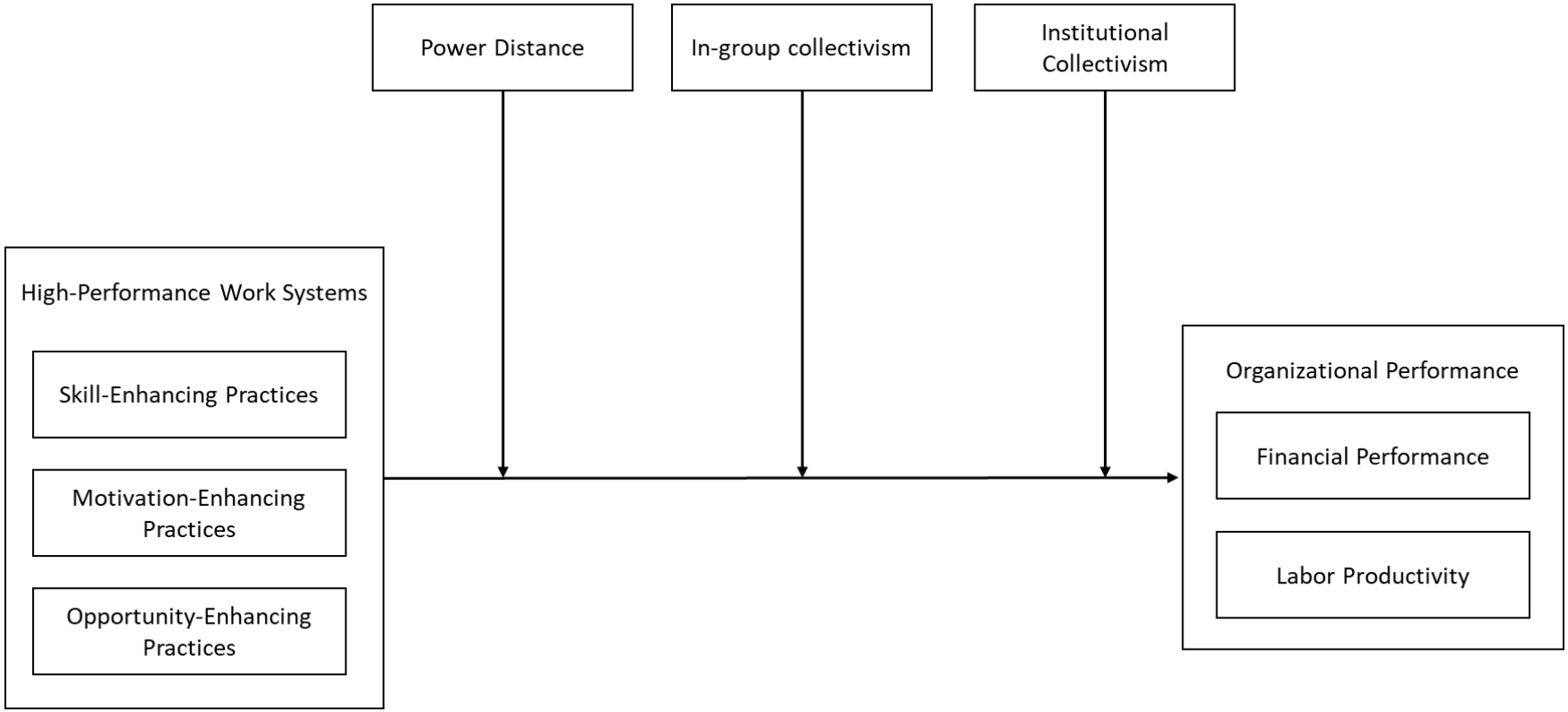


Figure 2: Power distance as a moderator for opportunity-enhancing practices and financial performance

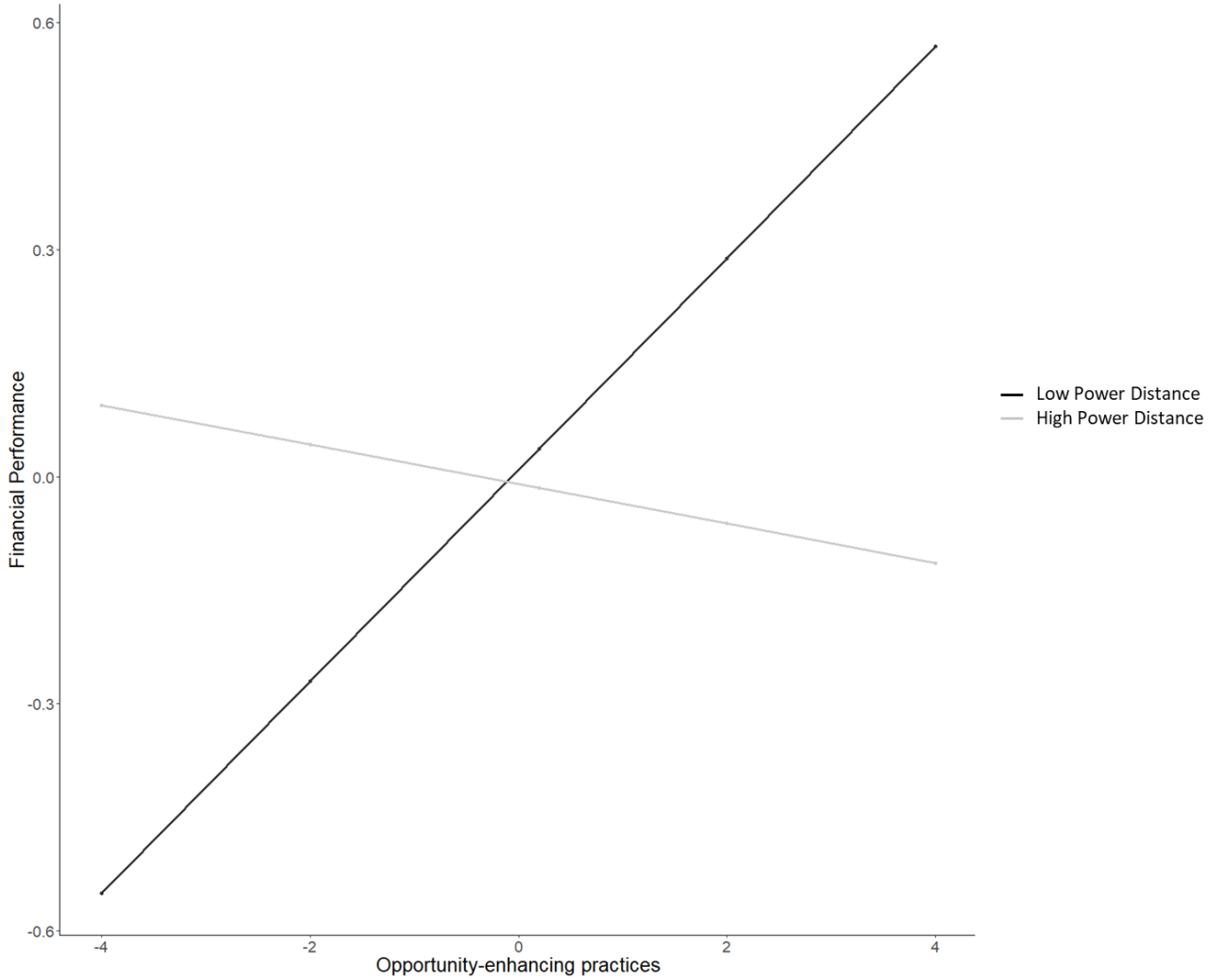
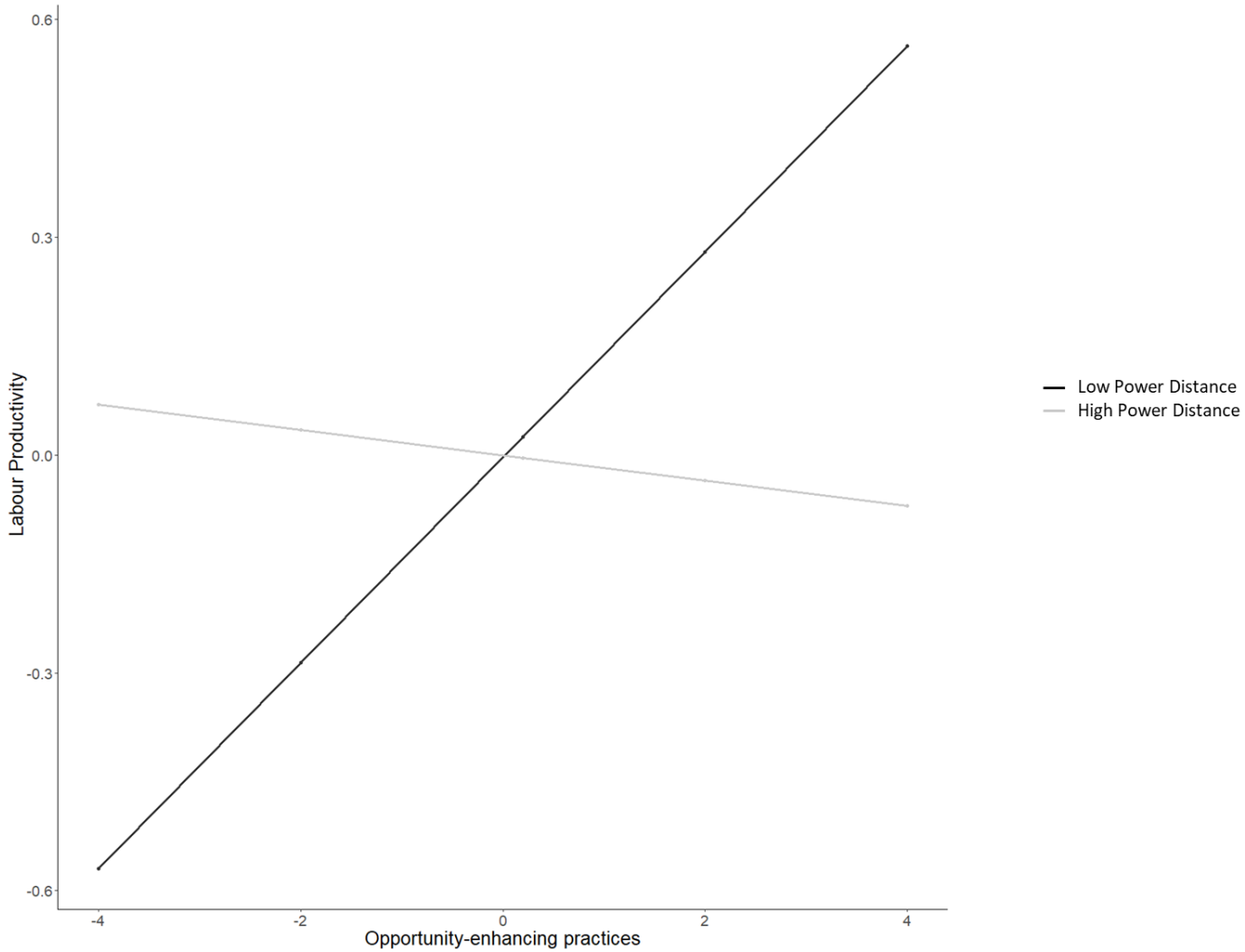

0.6
0.3
0.0
-0.3
-0.6
Financial Performance
-4
-2
0
2
4
Opportunity-enhancing practices
Low Power Distance
High Power Distance

Figure 3: Power distance as a moderator for opportunity-enhancing practices and labor productivity



APPENDIX A: Construction of HPWS and AMO bundles

HPWS Items	
Skill-Enhancing Practices- employees have appropriate knowledge, skills and abilities	
Selective recruitment	When filling vacancies at this workplace for [LOG], do you ever conduct any type of personality or attitude test? When filling vacancies at this workplace for [LOG], do you ever conduct any type of performance or competency test? (No tests conducted/yes). 1=none, 2=either or both.
Induction	Is there a standard orientation/induction program designed to introduce new [LOG] to this workplace? (yes/no). [If yes] How much time do [LOG] spend on orientation/induction activities? (hours) 1=<16 hours, 2=16 hours+.
Training	What proportion of [LOG] have been given time-off from their normal daily work duties to undertake training over the past 24 months?[1] 1=<60%, 2=60%+.
Motivation-Enhancing Practices- employee motivation to provide discretionary effort	
Internal labor market	Which of these statements best describes your approach to filling vacancies at this workplace? [card shown] Internal applicants are our only source, no external recruitment (=2); internal applicants are given preference, other things being equal, over external applicants (=2); applications from internal and external applicants are treated equally (=1); external applicants are given preference, other things being equal, over internal applicants (=1); external applicants are only source (=1).
Incentive compensation	Do any of [LOG] in this workplace get paid by results or receive merit pay? [If yes] What proportion of [LOG] at this workplace are paid in this way/ in either of these ways?[1] 1=<60%, 2=60%+.
Performance appraisal	Do [LOG] employees have their performance formally appraised? [If yes] What proportion of [LOG] employees at this workplace have there performance formally appraised?[1]1=<60%, 2=60%+.
Benefits	Are [LOG] entitled to any of these non-pay terms and conditions? Sick pay in excess of statutory requirements; more than 28 days of paid annual leave (including public holidays); private health insurance; company vehicle or vehicle allowance; employer contributions to a pension scheme. 1=<3 provided, 2=3+ provided.
Employment security	Is there a policy of guaranteed job security or no compulsory redundancies for [LOG] employees? 1=no, 2=yes.
Flexible work arrangements	Do you provide [LOG] employees with any of the following working time arrangements at this workplace? (yes/no) Working only during school term-times; the ability to change set working hours; compressed hours; the ability to reduce working hours; job-sharing schemes; flexi-time; work at or from home in normal working hours. 1=<3 available, 2=at least 3 available.
Equal opportunities	Do you monitor recruitment and selection by any of the following characteristics? (yes/no) Gender, ethnic background, disability, age, sexual orientation, religion or beliefs. Do you monitor promotions by any of these

	characteristics? (yes/no for each). 1=<3 characteristics monitored, 2=at least 3 characteristics monitored.
Opportunity-Enhancing Practices- employees offered opportunities to contribute towards organizational objectives.	
Work teams	What proportion, if any, of [LOG] at this workplace work in formally-designated teams? [1] 1=<60%, 2=60%+.
Flexible work (Functional flexibility)	Approximately what proportion of [LOG] are formally trained to be able to do jobs other than their own? [1] 1=<60%, 2=60%+.
Information-sharing (Team briefing)	How frequently do you have meetings between line managers or supervisors and [LOG] for whom they are responsible? These are sometimes known as 'briefing groups' or 'team briefings'. 1=none, <once every three months, <monthly, <fortnightly, 2=<weekly, <daily.
Information-sharing (Quality-circles)	Do you have groups of [LOG] employees at this workplace that solve specific problems or discuss aspects of performance or quality? They are sometimes known as problem-solving groups, quality circles or continuous improvement groups. [If yes] In the last 12 months, roughly what proportion of [LOG] employees have been involved in them?[1] 1=<60%, 2=60%+.
Employee attitude survey	Have you or a third party conducted a formal attitude survey of your [LOG] employees' views or opinions during the past two years? 1=no, 2=yes.
Grievance procedures	Is there a formal procedure for dealing with individual grievances raised by any [LOG] employee at this workplace? [If yes] Are [LOG] employees required to set out in writing the nature of the grievance? Are [LOG] employees asked to attend a formal meeting with a manager to discuss the nature of their grievance? Do [LOG] employees have a right to appeals against a decision made under the procedure? 2=yes to all, 1=no procedure or not all four stages.
Labor-management participation	Are there any committees of managers and employees at workplace primarily concerned with consultation, rather than negotiation? These committees may be called joint consultative committees, works councils or representative forums. 1=no, 2=yes

[1] 0=*none* (0%), 1=*just a few* (1-19%), 2=*some* (20-39%), 3=*around half* (40-59%), 4=*most* (60-79%), 5=*almost all* (80-99%), 6=*all* (100%).