



Pay for performance in emerging markets: Insights from China

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Abstract

With the rapid increase in the application of Western HR practices in emerging markets, it is crucial to investigate how non-Western employees react to Western HR practices such as pay for performance (PFP). We investigate employee reactions to PFP in emerging markets using China as a case. Our multilevel analyses, based on data from 574 engineers in 22 domestic firms and eight foreign firms in China, demonstrated that PFP was positively associated with conscientiousness at the individual level. In contrast, PFP was negatively related to employees' organizational commitment and interpersonal helping at the organization level. This study suggests that the impact of "culture distance" associated with Western HR practices may be more likely to manifest itself in the collective entity than at the individual level. Employees of domestic firms reported significantly higher levels of performance appraisal satisfaction and justice perceptions than employees of foreign firms, which might explain why PFP was more widely implemented in domestic firms in China. The present results demonstrated that, in addition to the culture distance, the "context distance" between domestic and foreign firms may play a critical role in accruing benefits from PFP, indicating that PFP can be more beneficial to domestic firms than to foreign firms. The present findings provide practical implications for foreign firms operating in emerging markets.

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INTRODUCTION

"Culture distance" is a critical human resource management (HRM) issue to be considered when multinational companies enter a new country with different cultural values (Gong, Shenkar, Luo, & Nyaw, 2005). With an increasing number of foreign firms expanding their operations to emerging markets (e.g., China, Russia, Vietnam), scholars and managers alike are concerned about the cross-cultural applicability of Western-style HR practices (Ralston, 2008; Ralston, Holt, Terpstra, & Kai-Cheng, 1997; Witt, 2008; Zhu, Warner, & Rowley, 2007). Pay for performance (PFP, also often referred to as performance-related pay or PRP), an efficiency-oriented remuneration system, is an important part of Western-style HR practice, because it prescribes employees' income. Compared with other Western-style HR practices (e.g., job interviews, training, teams), the success of PFP is more likely to be influenced by culture distance, because of the plausible cultural clash between the individualistic orientation of

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PFP and the mostly collectivistic values in emerging markets (Chang & Hahn, 2006; Hofstede, 1993). Considering the increasing introduction of Western-style HR practices in emerging markets, and emerging markets' growing importance in the global economy (Hassard, Morris, & Sheehan, 2004; Zhu, Cooper, De Cieri, & Dowling, 2005; Zhu et al., 2007), it is critical that we understand how PFP is received by employees in emerging markets.

There have been only a handful of studies, most of them conducted in Western countries, that have examined the role of PFP with respect to employee attitudes and behavior, perhaps owing to the prevailing interest in its performance implications. For example, Schay (1988) found that white-collar workers with PFP in the US showed high job satisfaction and low turnover intent. In some studies conducted in Western countries, however, PFP has been reported to be a source of negative outcomes, such as dissatisfaction and high turnover intent, possibly owing to inappropriate goal-setting and unfair performance appraisal processes (Dowling & Richardson, 1997; Kellough & Nigro, 2002). Scholars of international business have argued that PFP may induce negative reactions from employees of emerging economies, because compensation practices in emerging countries usually have been traditionally linked to seniority, group membership, and equality concerns rather than performance (Giacobbe-Miller, Miller, Zhang, & Victorov, 2003; Zhu et al., 2005). Although only a few empirical studies of PFP have been conducted in emerging markets, the results were surprising, in that employee reactions to PFP were found to be positive in China (Zheng, Morrison, & O'Neill, 2006) as well as in Korea (Chang & Hahn, 2006).

These mixed study findings and counter-intuitive empirical patterns suggest that the effects of PFP on employee outcomes may be moderated by context and other contingencies that have not been considered in prior studies (Rynes, Gerhart, & Parks, 2005). Unfortunately, there has been no research effort to identify and test potential moderators of the effects of PFP in emerging markets where PFP is becoming more prevalent (Zhu et al., 2005).

In the present study we develop theoretical expectations regarding employee reactions to PFP in emerging markets, and empirically test them using China as a case. China offers an appropriate empirical setting for validating our model regarding employees in emerging markets, for several reasons. First, China has attracted considerable attention from international business researchers and managers

because of its tremendous market potential and fast-growing economy (Gong et al., 2005; Ralston, 2008; Witt, 2008). Second, Chinese culture, often characterized by a traditional collectivistic and Confucian culture in addition to its socialistic ideology, may reflect the prototypical cultural values and orientations of many other emerging markets in the Asian region (Chua, Morris, & Ingram, 2009; Ralston et al., 1997; Wei & Lau, 2008). Third, PFP has been introduced to Chinese workers widely and intensively, and thus China may be an appropriate setting for examining the way employees in emerging market firms react to new, Western-style HR systems. Since the implementation of its economic reforms in 1978, the Chinese government has emphasized three human resources reforms that affect the labor/personnel, social insurance, and wage systems (Warner, 1996). As a critical part of the wage system revolution, an increasing number of public and private organizations in China have introduced PFP. Over the 15-year period from 1978 to 1993, piecework wage and bonuses as a percentage of the total pay of Chinese employees increased from 3.1% to 23.3% (Warner, 1996). Chiu, Luk, and Tang (2002) reported that the amount of PFP for urban Chinese employees was approximately 40% of their total pay. PFP combined with competence-based pay (fixed or base pay) is becoming a dominant remuneration system in China.

In the traditional payment structure applied before Chinese reforms, employees received increasing pay and benefits (including welfare housing) according to their tenure, regardless of their performance level, and job security was guaranteed, thus providing workers with an "iron rice bowl" (*Tiefanwan*, or lifelong guaranteed employment). This payment system reflected the Chinese traditional Confucian idea of "no worry about scarcity but unevenness" (in resource allocation) as well as the collectivistic culture and socialistic ideology that emphasized equality among members rather than equity based on individual merit (Hofstede, 1993). PFP was introduced to break the idea of the "iron rice bowl," as well as the traditional compensation ideology, by creating a strong link between pay and performance (Rousseau, 1995). Considering China's significant position in emerging markets, and the rapid change associated with PFP in China, China may provide a suitable case for investigating whether PFP affects employee outcomes differently in various national and cultural contexts.

In the present study we theorize and empirically investigate employees' attitudinal and behavior reactions to PFP (operationalized as the proportion of bonuses in one's total pay). Expanding the current literature, which is based largely on single-level theory and research, we hypothesize that the link between PFP and employee reactions will be moderated by each employee's satisfaction with the performance appraisal system, and by the organization's justice climate (cross-level moderation). We also attend to inherent discrepancies between foreign and domestic companies as a context for employee behavior (Yu & Egri, 2005). These discrepancies are likely to affect employees' workplace perceptions and attitudes that may shape their reactions to PFP and determine whether the organization accrues benefit from it. We validate our theoretical arguments using data collected from 410 engineers employed in 22 domestic architectural design firms and 164 engineers working in eight foreign architectural firms in China.

THEORETICAL FRAMEWORK AND HYPOTHESES

As depicted in Figure 1, to understand the effects of PFP on employee attitudes and behavior of employees in emerging markets we focus on affective commitment (AC) and two core dimensions of organizational citizenship behavior (OCB): conscientiousness and helping (Organ, Podsakoff, & MacKenzie, 2006). We further propose that these relationships are moderated by two variables pertinent to employees' evaluations of PFP: (1) each employee's personal judgment of the performance appraisal system, which may be related to the actual amount of incentives allocated by PFP (Kellough & Nigro, 2002); and (2) employees' collective perception of the climate for distributive and procedural justice in their organization, which may be related to the extent to which the

organization is capable of implementing PFP in a fair manner (Colquitt, 2004; Liao & Rupp, 2005). Some of our hypotheses reflect the idiosyncratic cultural or societal contexts in emerging markets, but others may be applicable to employees both in emerging markets and in Western countries. For each hypothesis we will specify its jurisdiction in terms of its regional applicability. In addition, we expect that these contextual perceptions are different in foreign firms and domestic firms because of their inherent differences in emerging markets. Owing to the discrepancies in contextual perceptions, PFP may induce different reactions among employees in foreign firms and domestic firms.

Pay for Performance and Affective Commitment

Affective commitment refers to an "employee's emotional attachment to, identification with, and involvement in, the organization" (Allen & Meyer, 1990). AC has been identified as a key organizational attitude that predicts employees' turnover and performance (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). In the emerging market context, we predict that PFP will be *negatively* associated with AC. When an employee's salary is determined largely by task performance, the employer may be perceived as failing to appreciate the individual's innate value or competence, based on prior experience, company tenure, education, and certifications. These relatively stable individual characteristics reflect one's social status, and they have been a common basis for pay decisions in emerging-market countries such as China (Chiu et al., 2002; Ralston et al., 1997; Zhu et al., 2007). In a sense, a higher proportion of competence-based pay relative to performance-based pay signifies the level of the employer's acceptance of and respect toward employees, and it can thus be interpreted as how much the organization values employees for *who they are* rather than for *what they do* (Kuvaas, 2006). In this context, the higher the proportion of competence-based pay, the more an employee is likely to return the organization's favor by becoming more committed and loyal to the employer.

In terms of cultural values, most emerging markets are characterized by either traditional collectivistic values (e.g., India and Thailand; Hofstede, 1993) or socialistic-ideology-based group orientation (e.g., Russia and Poland; Ralston, 2008), or both (e.g., China and Vietnam; Ralston, 2008; Zhu et al., 2007). Thus emerging countries often allocate rewards based on *equality* norms and group interest, rather than equity norms and individual

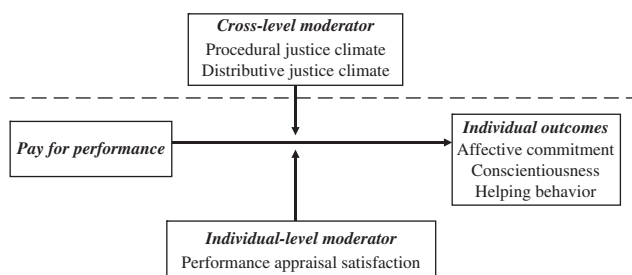


Figure 1 Multilevel model of pay for performance (PFP) and individual outcomes.

interest (Ralston et al., 1997). Ramamoorthy and Flood (2002) found that people with group orientation are likely to feel less obligated toward the organization, and are prone to look for career opportunities outside the organization when they perceive increases of *equitably* allocated rewards, perhaps due to such a system being incongruent with their values. Miller, Hom, and Gomez-Mejia (2001) also found that productivity bonuses were significantly associated with higher turnover of Mexicans, because the pay scheme conflicted with their collectivistic values. Thus we hypothesize the following relationship in emerging markets:

Hypothesis 1: PFP is negatively related to affective commitment in emerging markets.

Pay for Performance and Organizational Citizenship Behavior

Organizational citizenship behavior refers to employees' discretionary behavior that goes beyond the call of duty, and contributes to task performance by maintaining the social fabric of the workplace. Most scholars of OCB have identified conscientiousness and helping as two critical dimensions of OCB (Organ et al., 2006). In the present study we propose that PFP has a positive relationship with both types of citizenship behavior in emerging markets.

A motivation theory that is particularly pertinent to any discussion of performance-based pay is expectancy theory (Vroom, 1964), which emphasizes the critical role of the performance-outcome link (instrumentality) in individuals' motivation and task behavior. Given that the monetary rewards have high valence, the possibility of earning more by exerting more effort will increase employees' task motivation and willingness to make an extra contribution to the organization. This general expectation with regard to PFP may also be applicable to employees in emerging markets: under a strong PFP scheme, employees are likely to exhibit a higher level of conscientiousness through enthusiastic persistence and sustained efforts to accomplish task goals (Organ et al., 2006), which may in turn result in greater financial rewards.

With regard to the other critical dimensions of OCB, such as helping, it has been argued that PFP may increase competition among and disintegration of employees, thus effectively degenerating teamwork and mutual support (Beer & Cannon, 2004; Rynes et al., 2005). However, in the context of emerging markets, often characterized by

collectivism and socialism-based group orientation, PFP may increase employees' helping behavior. In emerging economies employees may engage in interpersonal helping in order to enhance their social images (face) and influence resource allocation decisions in their favor (cf. impression management; Rosenfeld, Giacalone, & Riordan, 1995). Performing extra-role behaviors such as providing work-related assistance to peers or supervisors may create a positive impression, which may be critical in developing and maintaining social relations that are highly regarded (or even necessary for survival) in emerging markets (House et al., 1999; Ramamoorthy, Kulkarni, Gupta, & Flood, 2007). For example, in the current context of Chinese engineering firms, an engineer's PFP is determined largely by the number and types of projects assigned to him or her. In this case, by engaging in positive interpersonal behaviors such as helping and knowledge-sharing, employees can indirectly increase their PFP by presenting a positive impression of them to their supervisors, which should result in favorable project allocation decisions. Therefore, in emerging markets, when employees' pay is linked to their performance, they are likely to increase their individual effort (conscientiousness) as well as their collaborative effort (helping).

Hypothesis 2: PFP is positively related to conscientiousness and helping in emerging markets.

Individual-Level Moderator: Performance Appraisal Satisfaction

We proposed that PFP increases employees' conscientious efforts and helping because PFP increases the instrumentality of high performance, owing to its link with positively valenced outcomes. According to expectancy theory (Vroom, 1964) there is another critical link to be considered – *expectancy*, which refers to a person's belief that his or her work effort will lead to some form of success or performance. Although this effort–performance link can be affected by numerous factors, organizational policies and practices regarding performance appraisal may determine employees' expectancy judgments (Cawley, Keeping, & Levy, 1998). Compared with overall job satisfaction reflecting evaluative judgments regarding various workplace outcomes (e.g., pay, promotions, supervision, work itself), performance appraisal satisfaction (PAS) refers to one's contentment with appraisal processes, such as timeliness of appraisal, criteria used,

evaluation standards, and feedback offered (Blau, 1999; Cawley et al., 1998).

Given that PFP connects employee performance directly to pay level, its efficacy in generating positive effects on employee motivation and behavior depends largely on the presence of an effective and fair performance appraisal system (Kellough & Nigro, 2002). Without an adequate performance appraisal system in place that is not only fair but also perceived to be fair, employees will believe that PFP allocates incentives almost at random, and thus undeserving individuals often benefit. This unfair situation is apt to exacerbate the potentially negative effect of PFP on the AC of employees in emerging markets (Hypothesis 1). In contrast, when employees feel satisfied with the criteria, standards, and procedures applied to performance appraisal, they are less likely to experience negative attitudinal reactions to PFP, and will further shift their attention toward maximizing the return within the given reward system. For this reason, the positive effect of PFP on conscientiousness and helping expected among employees in emerging markets should be more pronounced when employees feel satisfied with performance appraisal than when they feel that the probabilistic link between their work efforts and evaluated performance is rather ambiguous or close to zero. We thus hypothesize the following moderating effects:

Hypothesis 3a: Performance appraisal satisfaction will moderate the relationship between PFP and affective commitment in emerging markets: this relationship will be less negative under conditions of high performance appraisal satisfaction.

Hypothesis 3b: Performance appraisal satisfaction will moderate the relationships between PFP and OCBs (conscientiousness and helping) in emerging markets: these relationships will be more positive under conditions of high performance appraisal satisfaction.

Cross-Level Moderator: Justice Climate

We further propose that the effects of PFP on employee attitudes and behavior will be moderated by the global social context in which individual employees are embedded. Salancik and Pfeffer's (1978) classic study clearly demonstrated that individuals' statements or judgments about their attitudes, motivation, and behavior are affected by social information (or how others see and talk

about the work environment). Given the ambiguity of the "right" amount of pay for a given work, and the ambiguity of organizational events such as PFP, employees may depend on others to determine whether the pay system is properly implemented and the outcome is fair to everyone. In this regard we focus on the justice climate of the organization, which refers to *shared perceptions* regarding the extent to which the organization treats its members fairly, in the sense of both procedural and distributive justice (Naumann & Bennett, 2000). The organizational justice climate is based on how employees collectively experience and perceive organizational practices and policies related to the process of allocating resources (e.g., challenging task, benefit, pay) and the actual patterns of distribution (Liao & Rupp, 2005).

In the present study we propose that when organizational climate in terms of procedural and/or distributive justice is positive (the workplace is generally perceived to be fair), employees tend to make positive interpretations regarding organizational events such as PFP, and exhibit more favorable reactions to them. For example, if an employee finds that his or her colleagues regard the allocation procedure and the actual distribution of organizational rewards as fair, he or she may also see PFP in a positive light, and thus the negative effect of PFP on AC (Hypothesis 1) may become less severe. For this reason, the hypothesized negative relationship between PFP and AC in emerging markets will be less negative (if not positive) when the organization's justice climate is high (cf. Meyer et al., 2002).

We expect similar cross-level moderation by justice climate of the relationship between PFP and OCBs. Organ et al. (2006) maintained that social exchange is a key mechanism that determines employees' engagement in OCB. The exchange relationship between employees and their employing organization is not limited to social relations, but also includes financial aspects, which can be as important as the social aspects (Rousseau, 1995). When exposed to a positive justice climate, a person is likely to develop a conviction that his or her OCBs may lead to increased financial gain, because extra efforts and contributions such as helping will be accurately recognized and rewarded by the organization (Vroom, 1964). This prediction is consistent with Colquitt's (2004) finding that role performance depends on one's own procedural justice perception, as well as on that of others. Thus we propose

that the positive relationship between PFP and the two OCB dimensions expected among workers in emerging markets will be moderated by organization-level justice climate (cross-level moderation).

Hypothesis 4a: Justice climate will moderate the relationship between PFP and affective commitment in emerging markets: this relationship will be less negative in high-justice-climate organizations.

Hypothesis 4b: Justice climate will moderate the relationships between PFP and conscientiousness and helping in emerging markets: these relationships will be more positive in high-justice-climate organizations.

Employees' Contextual Perceptions and Behavior in Domestic and Foreign Firms in Emerging Markets

Given the innate differences between domestic and foreign firms in emerging markets (Zhu et al., 2007), we propose that employees of domestic firms and those working in foreign firms have distinct organizational perceptions and workplace attitude and behavior. Specifically, we predict that employees of foreign firms have higher levels of PAS and procedural and distributive justice perceptions than their counterparts in domestic firms. This is because foreign firms have developed and implemented advanced HRM practices that provide clear standards and comprehensive guidelines with regard to recruitment, selection, training, performance appraisal, and compensation (Fey & Björkman, 2001; Yu & Egri, 2005). Typical HR practices of foreign firms, which are characterized by consistent rules and systematic processes as well as by regular feedback directed to each employee, are likely to enhance employees' PAS and procedural justice perceptions, which may further increase their distributive justice perception (Liao & Rupp, 2005). In contrast, domestic firms in emerging markets (e.g., state-owned enterprises (SOEs) in China and Vietnam, Thai-owned corporations, family enterprises in Thailand) typically do not provide any formal (or even informal) performance reviews, and lack systematic guidelines for critical HR decisions (e.g., recruiting, promotion) (Hassard et al., 2004; Zhu et al., 2007), which may lower employees' satisfaction with performance appraisal and justice perceptions.

On the other hand, we expect that AC will be higher in domestic firms than in foreign firms.

Although domestic firms in emerging markets are moving to market-oriented and modern HRM practices (Fey & Björkman, 2001; Wei & Lau, 2008), they still maintain traditional culture or value orientations (e.g., collectivism and socialism) that endorse harmony and equality, as can be observed in China, India, Thailand, and Vietnam (Budhwar & Boyne, 2004; Yu & Egri, 2005; Zhu et al., 2007). The collectivism/socialism orientation is advantageous in developing employees' AC (Gelade, Dobson, & Auer, 2008; Ramamoorthy & Flood, 2002). For example, organizations with a collectivistic culture are apt to be an extended family, and cherish employees and their needs beyond the formal employment contract (Ramamoorthy et al., 2007). Therefore the employment relationship tends to have more social exchange in domestic firms than in foreign firms, and thus employees of domestic firms are more likely to demonstrate loyalty and commitment to their organization (Meyer et al., 2002; Rousseau, 1995). In addition, employees in domestic firms with these traditional values intact may feel more comfortable than those in foreign firms, because of general congruence among their own values, firm culture, and societal culture. This value congruence is likely to further enhance employees' emotional attachment to their organization.

In contrast, local employees may have difficulty in developing AC in foreign firms. Because of gaps between local employees and expatriates, such as the culture gap (Shin, Morgeson, & Campion, 2007) and the large compensation gap (Leung, Zhu, & Ge, 2009), local employees perceive expatriates as *outsiders*. This perception may lead to weak organizational identification in foreign firms, owing to motivational biases coming from in-group/out-group distinction (cf. social identify theory; Ashforth & Mael, 1989). The bias against outsiders is likely to reduce employees' trust toward expatriate supervisors, as well as their emotional attachment to the company these expatriates are representing (Yu & Egri, 2005). For example, local employees believe that foreign firms focus on profit, and they will leave host countries if their operation is not profitable. Low AC may also weaken employees' work motivation in general, not to mention their willingness to perform extra-role behaviors such as conscientiousness and helping (Organ et al., 2006). Because OCBs are mostly discretionary and voluntary contributions, employees are more likely to engage in those behaviors when they possess value congruence with and AC

to the organization (Deckop, Mangel, & Cirka, 1999). Therefore we hypothesize that AC and OCBs will be higher in domestic firms than in foreign firms.

Hypothesis 5a: Employees' performance appraisal satisfaction and justice perceptions in domestic firms are lower than those in foreign firms in emerging markets.

Hypothesis 5b: Employees' affective commitment, conscientiousness, and helping in domestic firms are higher than those in foreign firms in emerging markets.

METHOD

Sample and Data Collection Procedure

To test the present hypotheses we chose Chinese architectural design firms as the empirical context, for two reasons. First, we were interested in knowledge workers' reactions to PFP, which might be more complicated than those of manual laborers. Investigating knowledge workers is also meaningful, given the growing importance of this type of work in the knowledge economy. Second, compared with other knowledge-based professions (e.g., professors, software developers), the performance evaluation of architectural engineering work is relatively compatible across different organizations, because most Chinese architectural design firms have selected "square meters" to measure performance. This consistency of the PFP application in architectural design firms removes potential confounding due to different PFP-related practices in different research sites, which allows a fair comparison of engineers' reactions to PFP across many Chinese organizations in different cities.¹

The present sample consisted of 30 civil engineering and architectural design firms located in 10 cities in China, including Beijing, Shanghai, Shenzhen, Guangzhou, Zhengzhou, Suzhou, Fuzhou, Wuhan, Taizhou, and Xuchang. We sampled two different types of organizations: foreign firms ($n=8$) and domestic firms ($n=22$). The latter included SOEs ($n=13$) and local private firms ($n=9$). We contacted managers and employees of these companies to make sure that they utilized PFP as part of their remuneration policies. All 30 firms contacted were using PFP to varying degrees. Before we collected data through surveys, we also interviewed 17 managers and 20 employees of these companies to obtain a more precise understanding of PFP-related practices in Chinese organizations.

In the current research setting each engineer was responsible for his or her own engineering component of a given project, and was rewarded for individual contribution to the project. Nevertheless, because the engineers' tasks were sequential (e.g., structural design follows architectural design), they had to coordinate with others on the same project team to facilitate the completion of the project, and to ensure the quality and integrity of the design. In addition to its contribution to task completion, engineers' collaborative behavior could also enhance their own reputations and help them be selected as team members for future projects by project managers, which was critical for maintaining and further increasing future income.

Taking into account the Chinese organizational context, we designed a survey instrument and pilot-tested it on 18 individuals. The finalized questionnaire was e-mailed to 30 contact persons within each company, each of whom in turn disseminated the e-mail-based survey to 30 employees. Over a period of 2 months, 574 individuals responded by completing the survey and e-mailing it directly to us, resulting in a response rate of 63.8%, which is higher than the norm (55.6%) observed in field studies (Baruch, 1999; Roth & BeVier, 1998). On average, 19 employees per organization ($SD=5.82$, ranging between 10 and 29) participated in the study. The sample included 201 females and 373 males with an average age of 31 ($SD=5.26$). Eighty-nine participants (15.5%) held degrees from a 3-year college, 352 (61.3%) held bachelor's degrees, and 133 held graduate degrees (23.2%). The majority of participants (65%, or 372 participants) were responsible for engineering tasks such as designing, drawing, and proofing, and the remaining 202 participants (35.2%) were engaged in these same engineering tasks as well as in project and technical management. The current sample included 252 engineers working in 13 SOEs, 158 working in nine privately owned local firms, and 164 working in eight foreign firms. On average, participants reported that 40% of their total remuneration was performance-based pay (or bonus).

Measures

All variables were measured with multi-item scales with a five-point Likert-type scale as a response format (1="strongly disagree," and 5="strongly agree"). For variables included in the organization-level analysis we checked for organization-level reliability, within-group agreement (r_{wg}), and

intra-class correlation values (ICC(1) and ICC(2)) to validate the aggregation of those variables empirically at the organizational level (Chen, Mathieu, & Bliese, 2004).

Pay for performance. We used one item to assess the level of PFP (operationalized as the proportion of bonuses in one's total pay). The item was

As an employee of this company, what proportion of your pay is based on your performance? Please indicate the proportion of pay for performance (or bonus) in your total pay using the following eight categories: (1) 0–5%, (2) 5–15%, (3) 15–30%, (4) 30–50%, (5) 50–70%, (6) 70–85%, (7) 85–95% and (8) 95–100%.

These eight categories did not represent equal proportions. Instead, they were designed to be more sensitive at detecting extreme levels (either very high or low) of PFP than at detecting the middle range. For this reason, instead of treating this variable as an interval scale ranging between 1 and 8, we took the median values of each category (e.g., 2.5% for the first category, 40% for the fourth category), which represent the *actual percentage* of PFP. Although PFP is the individual-level predictor, it was aggregated and included in the organization-level analysis as a control variable for testing cross-level moderation. Thus we calculated ICC values for PFP. The value of ICC(1) was 0.37, indicating that 37% of variance in PFP can be explained by one's organizational membership. Although PFP can be greatly influenced by organizations' HR practices, the ICC(1) value nevertheless suggests that individual-level variance was in fact much greater than organization-level variance. The ICC(2) value for PFP was 0.92, which indicates that an organization-level mean of PFP is a reliable estimate for this potential organization-level phenomenon.

Affective commitment. Adopting items developed by Tsui, Pearce, Porter, and Tripoli (1997), we used a seven-item scale ($\alpha=0.85$) to assess the participants' AC to their company. This scale included items such as "I am proud to tell others that I am part of this organization" and "I really care about the fate of this organization."

Conscientiousness. Taking items from Farh, Earley, and Lin (1997), participants' conscientiousness was measured by a five-item index ($\alpha=0.77$, e.g., "I take my job seriously and rarely make mistakes," "I often arrive early and start to work immediately").

Helping. To measure participants' helping behavior, we adopted four items used in Farh et al. (1997) ($\alpha=0.86$, e.g., "I am willing to help colleagues solve work-related problems," "I am willing to cover work assignments for colleagues when needed").

Performance appraisal satisfaction. Based on our interviews with Chinese engineers, we selected and adopted five items ($\alpha=0.77$) used in prior studies (Miller, 2001) to assess employees' satisfaction with performance appraisal (e.g., "Considering my job responsibility, the criteria used for my performance evaluation make sense to me," "Performance evaluation is conducted fairly in this organization").

Procedural justice climate. Drawing on scales used in Tsui et al. (1997) and Moorman (1991), we constructed a six-item measure ($\alpha=0.76$) to assess procedural justice climate (PJC). Example items include "My company gives opportunities to explain before punishing someone" and "My company provides opportunities to appeal or challenge the decision regarding job performance." Because this scale was aggregated as an organization-level variable, we examined organization-level reliability ($\alpha=0.84$), within-group agreement ($r_{wg}=0.92$), and between-unit variance (ICC(1)=0.24 and ICC(2)=0.78), all of which justified our organization-level aggregation of PJC scores.

Distributive justice climate. Adapting items from Tsui et al. (1997) and Moorman (1991), we developed a seven-item index ($\alpha=0.73$) to measure the level of distributive justice within the organization. Sample items include "As compared to other companies, the results of performance appraisal in our company are fair" and "My firm fairly rewards employees considering their responsibilities." All indexes for testing the adequacy of organization-level aggregation supported the presence of distributive justice climate (DJC) as a collective phenomenon (organization-level $\alpha=0.80$, $r_{wg}=0.93$, ICC(1)=0.12, and ICC(2)=0.61).

Analytic Strategy: Split-Group Design

We used the entire sample to conduct individual-level analysis. For the cross-level analysis, however, Ostroff, Kinicki, and Clark (2002) showed that single-source data can cause substantial method variance at multiple levels of analysis. To avoid the problem when conducting cross-level analysis, we employed a split-group design (Ostroff et al., 2002)

and randomly divided employees within the same organization into two subgroups (A and B), each including about 10 employees. Participants in Subgroup A provided individual-level data and those in Subgroup B provided organization-level data when we conducted cross-level analysis. This procedure effectively reduces multilevel method variance by separating the sources for individual- and organization-level variables.

RESULTS

To examine the empirical distinctiveness of the current study variables we conducted three sets of confirmatory factor analyses (CFA). First, a four-factor CFA for individual-level variables (PAS, AC, conscientiousness, and helping) using the entire sample exhibited acceptable fit (χ^2 (df=134)=471.73, $p < 0.001$; CFI=0.93, RMSEA=0.066). Second, a three-factor CFA for three individual-level outcome variables (AC, conscientiousness, and helping) based on subgroup A resulted in satisfactory model fit (χ^2 (df=83)=226.49, $p < 0.001$; CFI=0.93, RMSEA=0.078). Finally, a two-factor CFA for PJC and DJC based on subgroup B also showed acceptable model fit (χ^2 (df=51)=124.62, $p < 0.001$; CFI=0.94, RMSEA=0.071). In these three CFA models all loadings of items on their corresponding latent factor were highly significant (all $p < 0.01$), indicating convergent validity. Table 1 presents descriptive statistics and correlations among variables.

In the current data collected from 30 organizations, hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002) is an appropriate analytic strategy for testing individual-level hypotheses, because with this procedure the results are not confounded with interdependence or shared variance among employees from the same organization. Therefore HLM was used to test the current hypotheses.

Main Effects of PFP on AC and OCBs

The hypothesized individual-level relationships involving PFP were tested in HLM equations reported in the first set of results based on the entire sample (see Table 2). As shown in Model 1 in Table 2, the link between PFP and AC was not significant (Hypothesis 1 not supported). PFP was positively associated with conscientiousness ($\beta=0.33$, $p < 0.01$), but not with helping behavior. Thus Hypothesis 2 was partially supported.

Individual-Level Moderation by PAS

To test the moderation by PAS, we entered both PAS and its interaction term with PFP in Model 2 (Cohen & Cohen, 1983). The results show that PAS had significant main effects on all three outcome variables. Supporting Hypotheses 3a and 3b, the interaction between PFP and PAS was a significant predictor of AC ($\beta=0.47$, $p < 0.01$), conscientiousness ($\beta=0.41$, $p < 0.05$), and helping ($\beta=0.70$, $p < 0.01$). Following the common procedure for graphing interaction effects (Aiken & West, 1991), we identified two subgroups with high and low PAS, each operationalized as one standard deviation greater and less than the mean PAS, respectively. Figures 2a, 2b, and 2c demonstrate that PFP produced positive reactions (high AC and OCBs) *only when* employees were satisfied with performance appraisal.

Cross-Level Moderation by PJC and DJC

Hofmann and Gavin (1998) cogently explained that unless researchers control for the organization-level interaction between the individual-level predictor (in our case, PFP) and the organization-level moderator (PJC and DJC), the impacts of cross-level interaction terms are confounded, because they represent both cross-level interaction (moderation of individual-level slopes by an organization-level moderator) and organization-level interaction

Table 1 Means, standard deviations, and inter-scale correlations: Individual level (N=574)

Variables	M	Std dev.	1	2	3	4	5	6	7
1. Pay for performance	0.44	0.24	—						
2. Performance appraisal satisfaction	2.79	0.76	0.07	—					
3. Affective commitment	3.14	0.69	-0.08	0.28***	—				
4. Conscientiousness	3.29	0.68	0.13**	0.12**	0.20***	—			
5. Helping	3.26	0.74	0.05	0.15***	0.36***	0.45***	—		
6. Procedural justice climate	2.83	0.62	0.09*	0.56***	0.52***	0.04	0.20***	—	
7. Distributive justice climate	2.93	0.55	0.12**	0.48***	0.44***	0.26***	0.26***	0.46***	—

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 2 Hierarchical linear models: Individual-level relationships between PFP and outcomes

Variables	Entire sample		Domestic firms		Foreign firms	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
<i>Outcome: Affective commitment</i>						
Pay for performance (PFP)	-0.02	-0.17	0.00	-0.22	-0.29	-0.41
Performance appraisal satisfaction (PAS)		0.33***		0.42***		0.08*
PFP × PAS		0.47**		0.52**		-0.33
Pseudo R ²	0.00	0.17	0.00	0.25	0.00	0.01
<i>Outcome: Conscientiousness</i>						
Pay for performance (PFP)	0.33**	0.28*	0.41**	0.30*	0.22	0.37
Performance appraisal satisfaction (PAS)		0.12**		0.14**		0.09
PFP × PAS		0.41*		0.30		0.73*
Pseudo R ²	0.02	0.04	0.02	0.03	0.00	0.03
<i>Outcome: Helping</i>						
Pay for performance (PFP)	0.21	0.07	0.18	0.00	0.09	0.03
Performance appraisal satisfaction (PAS)		0.22**		0.25**		0.05
PFP × PAS		0.70**		0.85**		-0.14
Pseudo R ²	0.00	0.08	0.00	0.10	0.00	0.00

*p<0.05; **p<0.01; ***p<0.001.

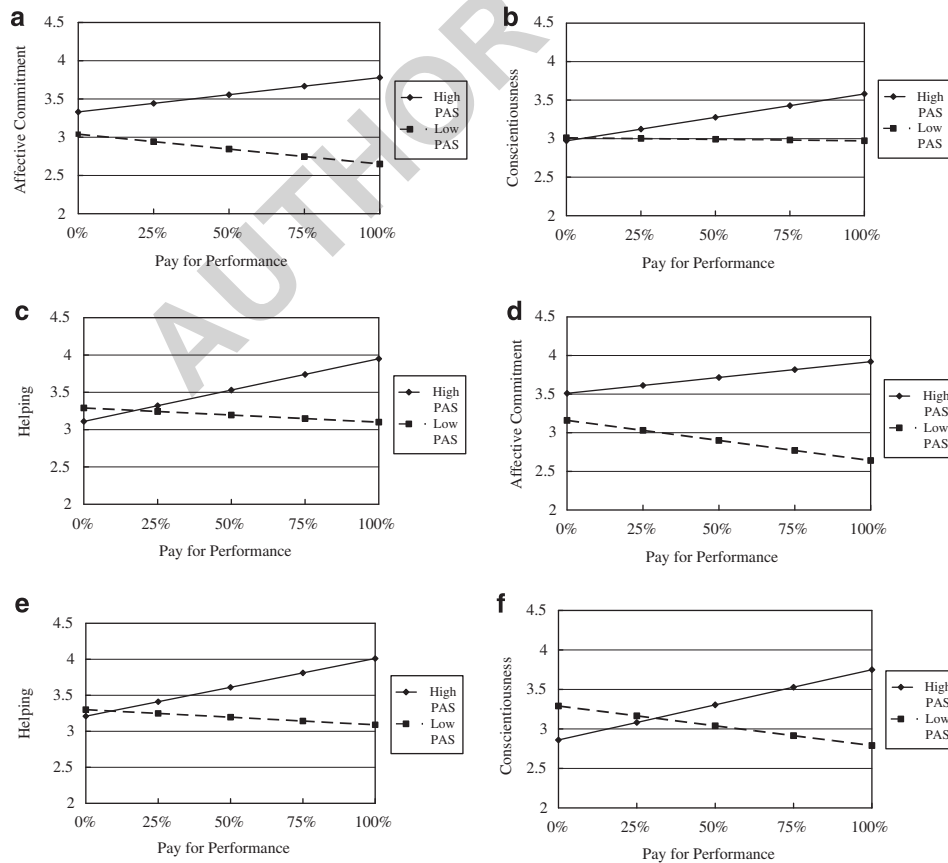


Figure 2 Individual-level moderation by performance appraisal satisfaction (PAS): (a), (b), (c) plots for entire sample; (d), (e) plots for domestic firms; (f) plot for foreign firms.

(interaction between two organization-level variables). For this reason we tested our cross-level moderation hypotheses by controlling for the organization-level interactions between PFP and justice climate variables (cf. Choi, 2006; Hofmann, Morgeson, & Gerras, 2003).

Following this procedure, in the first organization-level (L2) equation in Table 3 we included five control variables that predict the organization-level intercept of the outcome. The regression coefficients for the average PFP of an organization (γ_{01}) indicate that, at the organization level, PFP was positively related to employees' conscientiousness ($\gamma=0.97$, $p<0.01$), but *negatively* associated with commitment and helping ($\gamma=-1.06$, $p<0.05$ and $\gamma=-1.02$, $p<0.05$, respectively). The hypothesized negative relationship of PFP with AC (Hypothesis 1) seemed to occur at the organizational level rather than at the individual level. Consistent with prior findings observed in Western settings (Rynes et al., 2005), PFP seemed to impede collaboration and cohesion among members, and thus impair altruistic behavior at the organization level, even in emerging markets characterized by high levels of collectivism and socialism.

Procedural justice climate (γ_{02}) was positively associated with employees' AC and conscientiousness at the organization level ($\gamma=0.53$, $p<0.01$ and $\gamma=0.51$, $p<0.001$, respectively) (Liao & Rupp, 2005;

Naumann & Bennett, 2000). However, interestingly, DJC (γ_{03}) had a negative relationship with the overall level of conscientiousness among employees of the organization ($\gamma=-0.77$, $p<0.01$).

The significant *organization-level interaction* (γ_{04}) between PJC and PFP with regard to conscientiousness ($\gamma=3.38$, $p<0.01$) suggests that the overall level of PFP in an organization is positively related to its employees' overall level of conscientiousness only when its PJC is high. The significant *cross-level interactions* (γ_{11}) between PJC and PFP in predicting AC and helping ($\gamma_{11}=1.34$ and 2.03 , both $p<0.05$, respectively) supported our cross-level moderation hypotheses (Hypotheses 4a and 4b). Using the Aiken and West (1991) procedure, we identified *organizations* with one standard deviation greater or less than the average PJC and conducted the regression analyses using the employees within the two subsets of organizations. As depicted in Figure 3, the effects of PFP on AC and helping were positive only in organizations with high justice climate.

Comparing Employee Perceptions and Behavior in Domestic and Foreign Firms

Table 4 summarizes the results of mean comparisons between domestic and foreign firms. Unexpectedly, PFP was more intensively used in domestic firms than in foreign firms (0.46 and 0.30, respectively, $t=3.65$, $p<0.001$). In addition,

Table 3 Cross-level interactions between PFP and justice climate variables

	Parameter estimates						
	γ_{01}	γ_{02}	γ_{03}	γ_{04}	γ_{05}	γ_{11}	γ_{12}
Outcome: Affective commitment	-1.06*	0.53**	-0.56	-2.15	-1.82	1.34*	-1.88
L1: $AC_{ij}=\beta_0+\beta_1PFP+r_{ij}$							
L2: $\beta_0=\gamma_{00}+\gamma_{01}PFP_{Mean}+\gamma_{02}PJC+\gamma_{03}DJC$ $+\gamma_{04}PFP_{Mean} \times PJC+\gamma_{05}PFP_{Mean} \times DJC+U_0$							
L2: $\beta_1=\gamma_{10}+\gamma_{11}PJC+\gamma_{12}DJC+U_1$							
Outcome: Conscientiousness	0.97**	0.51***	-0.77**	3.38**	-1.71	0.09	-0.29
L1: $Conscientiousness_{ij}=\beta_0+\beta_1PFP+r_{ij}$							
L2: $\beta_0=\gamma_{00}+\gamma_{01}PFP_{Mean}+\gamma_{02}PJC+\gamma_{03}DJC$ $+\gamma_{04}PFP_{Mean} \times PJC+\gamma_{05}PFP_{Mean} \times DJC+U_0$							
L2: $\beta_1=\gamma_{10}+\gamma_{11}PJC+\gamma_{12}DJC+U_1$							
Outcome: Helping	-1.02*	0.42	-0.29	-0.85	0.64	2.03*	-0.65
L1: $Helping_{ij}=\beta_0+\beta_1PFP+r_{ij}$							
L2: $\beta_0=\gamma_{00}+\gamma_{01}PFP_{Mean}+\gamma_{02}PJC+\gamma_{03}DJC$ $+\gamma_{04}PFP_{Mean} \times PJC+\gamma_{05}PFP_{Mean} \times DJC+U_0$							
L2: $\beta_1=\gamma_{10}+\gamma_{11}PJC+\gamma_{12}DJC+U_1$							

Notes: L1=Level 1; L2=Level 2; PFP=pay for performance; AC= affective commitment; PJC=procedural justice climate; DJC=distributive justice climate; γ_{00} =intercept of Level 2 regression predicting β_0 ; γ_{01} , γ_{02} , γ_{03} , γ_{04} , γ_{05} =slopes of Level 2 regression predicting β_0 ; γ_{10} =intercept of Level 2 regression predicting β_1 ; γ_{11} , γ_{12} =slope of Level 2 regression predicting β_1 . * $p<0.05$; ** $p<0.01$; *** $p<0.001$.

disconfirming Hypothesis 5a, employees of domestic firms reported greater levels of PAS ($p < 0.01$), procedural justice ($p < 0.001$), and distributive justice ($p < 0.10$). However, Hypothesis 5b was supported, in that employees of domestic firms reported greater levels of AC ($p < 0.001$) and helping ($p < 0.05$). All in all, employees of domestic firms reported more positive contextual perceptions in terms of PAS and justice perceptions, as well as more positive attitude (commitment) and

behavior (helping), than their counterparts in foreign firms.

Given this significant difference in contextual perceptions and behavior in domestic and foreign firms, it is likely that employees' reactions toward PFP in the two types of firms can take different functions. The second and the third sets of results reported in Table 2 present the results of the individual-level HLM analysis using domestic and foreign firms, respectively. The results from the domestic firms sample were similar to those based on the entire sample, except for the insignificant moderating effect of PAS on conscientiousness. The analysis based on foreign firms produced somewhat weaker results, perhaps because of the small sample size ($n = 164$), but showed a significant interaction between PFP and PAS in predicting conscientiousness ($\beta = 0.73, p < 0.05$). As depicted in Figures 2d, 2e, and 2f, employees' PAS changed the direction of the relationship between PFP and their reactions in both domestic and foreign firms.

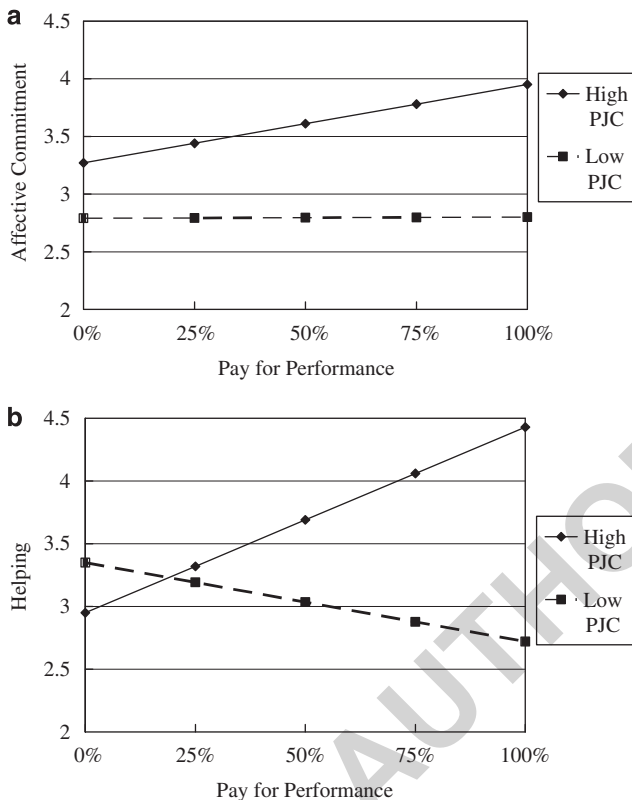


Figure 3 Cross-level moderation by procedural justice climate (PJC).

Post-Hoc Analyses

To further validate the present findings, we conducted several post-hoc analyses. First, we performed the same set of analyses presented in Tables 2 and 3 using the original eight-point Likert-type measure of PFP as the predictor. The results based on this new predictor were identical to (but slightly less significant than) the original results based on actual percentage of PFP in one's total salary. Second, we conducted the same HLM analyses by switching the sources of data, using subgroup A to obtain organization-level moderators and subgroup B for individual-level variables. Again, the results were quite similar to those presented above.

Table 4 Mean comparisons between domestic and foreign firms

	Domestic firms		Foreign firms		t value	p value
	Mean	SD	Mean	SD		
1 Pay for performance	0.46	0.25	0.30	0.22	3.65	0.000
2 Performance appraisal satisfaction	2.85	0.66	2.68	0.62	2.86	0.004
3 Procedural justice climate	2.95	0.61	2.72	0.48	4.81	0.000
4 Distributive justice climate	2.93	0.55	2.85	0.44	1.82	0.070
5 Affective commitment	3.23	0.64	2.93	0.55	5.52	0.000
6 Conscientiousness	3.19	0.67	3.16	0.61	0.46	0.644
7 Helping	3.33	0.77	3.17	0.61	2.53	0.012

Note. Domestic firms, $n = 410$; foreign firms, $n = 164$. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

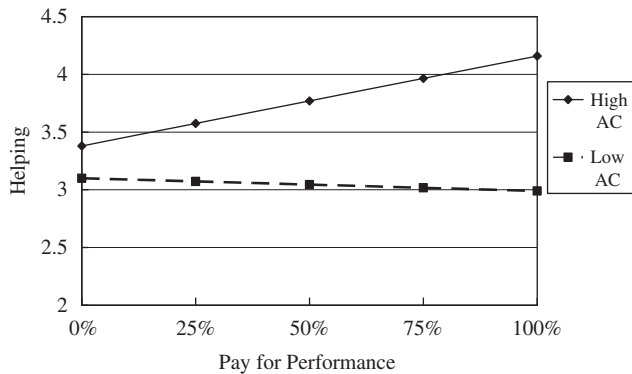


Figure 4 Individual-level moderation by affective commitment (AC).

Finally, we examined a potential interaction between AC and PFP in predicting OCBs. This final set of *post-hoc* analyses was driven by Deckop et al.'s (1999) finding that the perceived performance–pay link is positively related to OCB only when employees experience high value commitment to their organization. It is possible that Chinese engineers' OCB in response to PFP is also moderated by their AC. To test this possibility, we tested the significance of the interaction between PFP and AC in predicting conscientiousness and helping. The interaction was significant for helping ($\beta=0.37$, $p<0.05$), but non-significant for conscientiousness ($\beta=0.23$, ns). The significant interaction is depicted in Figure 4. Consistent with Deckop et al.'s study, which was based on American workers, Chinese engineers exhibited a greater level of helping in response to PFP when they were more committed to the organization.

DISCUSSION

Considering the rapidly increasing application of Western HR practices in emerging markets (Fey & Björkman, 2001; Zhu et al., 2007), it is important to understand their implications for local employees. In this study we focused on one such HR policy, PFP, and investigated its relationships with employee attitudes and behavior, using China as a case (Ralston, 2008). Our analyses clearly showed that PFP enjoyed a certain degree of success, and did indeed motivate employees to work conscientiously at both the individual and organization level. A series of HLM-based moderation analyses clearly demonstrated that PFP had positive associations with both commitment and helping *only when* employees were satisfied with the performance appraisal system, and when they collectively perceived a high level of procedural justice in their

organization. The relationships between PFP and AC and helping observed at the organizational level were somewhat surprising, but revealing: PFP was negatively related to organization-level aggregated AC and helping.

In this study we also examined differences in contextual perceptions and behavior of employees in domestic and foreign firms in China. The results clearly indicated that Chinese employees possessed more positive contextual perceptions and reported more positive attitudes and altruistic behavior in domestic firms than in foreign firms. These patterns have distinctive implications for introducing PFP in emerging markets. Below we highlight some of the interesting findings, and discuss their implications.

We expected that, in emerging markets, PFP would be negatively related to employees' organizational commitment owing to its strong emphasis on what they actually do at work instead of who they are (thus perhaps creating an instrumental outlook in the workplace) (Kuvaas, 2006). Our moderation analysis showed that this negative relationship was observed only when employees were dissatisfied with the company's performance appraisal system, or when they belonged to an organization with a low PJC. With the presence of satisfactory performance appraisal practices and PJC, employees may see PFP as an opportunity to increase their income rather than a threat to their personal identity or financial security. Thus, in the current emerging markets, where monetary rewards are highly valued (e.g., cash mentality in China; Chiu et al., 2002), with fairness in place, PFP may be framed in a positive manner and regarded as a channel for equity and greater income.

Similar to previous studies (Deckop et al., 1999; Organ et al., 2006), we treated subdimensions of OCB as indicators representing the same underlying construct, and hypothesized similar relationships for conscientiousness and helping. Our results, however, were quite different for the two OCB dimensions, perhaps because they are driven by very different motivational processes – one by self-interest, the other by concern about others and collective goal orientations. At both the individual and organizational levels of analysis PFP was positively associated with employees' conscientious work efforts. This is perhaps because conscientiousness has substantial overlap with in-role performance that is expected and formally rewarded. From the employee's perspective, with the introduction of PFP the link between work effort (particularly toward individual performance) and

pay may become highly salient, effectively promoting conscientious efforts.

Unexpectedly, PFP was not significantly associated with helping at the individual level. However, the same relationship at the organization level was significant and *negative*, indicating that employees in companies with higher levels of PFP were less likely to assist co-workers. This finding is in line with previous findings that PFP often impairs morale and relationships among co-workers, and reduces cohesion and collaboration among them by introducing competitive motivation (Beer & Cannon, 2004). Even in emerging markets with collectivistic and socialistic values PFP may channel employees' attention toward their specified work objectives, and make individual identity or individual well-being more salient than group or collective identity (Dowling & Richardson, 1997; Rynes et al., 2005). However, the results of the moderation analyses showed that, with a reliable performance appraisal system in place and a fair organizational climate, employees exhibit a greater level of helping in response to PFP. Thus the level of employees' trust in the organization's capacity to give credit where it is due may determine their intention to provide assistance to others at the expense of their own narrowly defined individualistic performance.

When we compared employees' contextual perceptions, PAS and justice perceptions were, surprisingly, *lower* in foreign firms than in domestic firms. This rather unexpected pattern might be caused by distinct characters of most employees in emerging markets, including Chinese engineers. First, the very well-established and "systematic" HR practices in foreign firms in fact could be regarded as complicated and ambiguous in emerging markets. In our interviews with Chinese managers and employees of foreign firms we found that foreign firms tend to introduce their parent company's performance appraisal system without much modification. For this reason, performance appraisal in foreign firms was based on both objective performance and supervisors' subjective ratings regarding team work or the quality and the rate of progress in each project. In contrast, performance evaluation in domestic firms was based largely on the quantity of performance (e.g., square meters completed), and thus the procedure was simple, straightforward, and less affected by subjective judgmental errors associated with supervisor ratings. Therefore employees in foreign firms might perceive the link between their effort and

income to be a bit more ambiguous, because the procedure was complicated and the results less predictable than in domestic firms (Kellough & Nigro, 2002).

Second, Chinese employees could feel uncomfortable about several aspects of Western HR practices implemented in foreign firms, and thus reported low PAS and procedural justice in foreign firms. Like typical employees of emerging markets, Chinese are used to harmonious social exchanges and the indirect ways of giving and receiving feedback (particularly negative comments). For this reason, employees of foreign firms were likely to feel uncomfortable with Western HR practices and Western leadership styles exhibited by expatriate managers, such as formal performance evaluation and feedback sessions during which managers officially evaluate employees' strengths and weaknesses, rank their performance levels, and record them in numerous personnel documents. Tata, Fu, and Wu (2003) found that Chinese employees perceive procedural justice when they maintain harmonious and informal interpersonal relationships with supervisors instead of maintaining a relationship based on formal procedures and documents. Therefore Chinese employees in foreign firms felt negatively regarding performance appraisal and procedural justice, even though foreign firms were well known for their "comprehensive and advanced" HR systems.

Study Limitations

In interpreting the present findings, the following limitations should be considered. In terms of the current sample, although China is the biggest emerging-market economy and shares the typical cultural values of emerging-market countries, we still need further validation of the current findings in other emerging markets. Considering the historical and religious backgrounds, our findings may be more applicable to other Asian countries (e.g., Indonesia, Thailand, Vietnam) than to other geographical regions such as Eastern Europe and Latin America (e.g., Hungary, Poland, Brazil, Columbia). Another issue related to our sample is that our sample size at the firm level was relatively small. In addition, with the use of the split-group design, the size of the analysis sample within each organization was reduced to half that of the original sample. However, previous studies have shown that in multilevel analysis the number of groups is more important than the size of the within-group sample

(Snijders & Bosker, 1993). Future studies may explore the multilevel dynamics around PFP by using a larger number of organizations implementing it.

Finally, our research design, in which all variables were reported by the same source at the same time, poses a threat of common method bias (CMB) and introduces the ambiguity in causal directions of the relationships identified. Although recent meta-analytic studies have maintained that the issue of CMB has been overestimated, and have confirmed that it does not change the relational patterns among variables (Malhotra, Kim, & Patil, 2006; Spector, 2006), the issue of CMB in our study context deserves further consideration. First, as identified in previous studies (Podsakoff, MacKenzie, & Lee, 2003), the main source of the same method bias is due to the ambiguity of the information requested by the scale items, which renders room for subjective response tendencies to operate. Given that our PFP measure was asking the *actual proportion* of bonuses in one's total pay, the level of ambiguity was low, and this PFP measure seemed similar to other relatively objective measures that can be obtained by self-reports such as age, gender, and organizational tenure. Although this point does not eliminate the concern regarding CMB, it reduces the problems due to CMB that can be expected in typical survey studies examining percept–percept relationships (e.g., personal values and job attitudes).

Second, we mentioned that our cross-level analyses designed to test the main effects and moderating effects of organizational justice variables were based on multi-source data using the split-group design. Given the significance of multicollinearity issues among the main effect variables and moderators, this separation of sources for individual-level and organizational-level predictors increases the robustness of our findings. Moreover, the significant main effects or moderating effects of justice climate variables (reported by subgroup B) on commitment and OCBs (reported by subgroup A) were free from the concern of CMB. In addition, considering that a substantial portion of our moderating hypotheses was supported, CMB may not be a serious threat to our study, because CMB typically boosts only main effects but not interaction effects. For example, Evans (1985) demonstrated that the correlated error attenuates the power to detect significant interactions.

Third, to estimate the effect of CMB in our results, we followed the procedure developed by Lindell

and Whitney (2001). In this procedure, called the “marker-variable technique,” Lindell and Whitney suggested that, by including a marker variable that should not be related to a study variable, the magnitude of common method variance (CMV) can be estimated. Malhotra et al. (2006) demonstrated that the efficacy of the marker-variable technique in estimating the impact of CMV is comparable to that of the multi-trait, multi-method approach. A comparison of the CMV-adjusted correlation matrix and the original matrix indicated that the impact of CMV in our study is not that substantial.² After the CMV adjustment, the overall relational patterns and their significance remained the same, and the changes in correlation coefficients were less than 0.05.

Fourth, we agree that, given the cross-sectional research design, it is impossible to determine the causal directions of the relationships examined in this study. Nevertheless, based on prior studies, we can maintain that the causal flow as examined in the present study is more plausible than the reversed causal direction. Existing theoretical work advanced that a more plausible causal direction is from HR practices such as PFP to employee outcomes such as commitment and OCBs, rather than the other way around (Rynes et al., 2005). Empirical studies based on longitudinal panel data also demonstrated that the dominant direction of influence goes from workplace characteristics to employee attitudes and behavior, rather than the reverse (Houkes, Janssen, de Jonge, & Bakker, 2003).

All in all, despite the problems of CMB and the ambiguity in causal directions, we believe that our analysis offers meaningful and valid substantive conclusions regarding the phenomenon in question. Nevertheless, it would be beneficial to test our conceptual model using longitudinal, multi-source data to reduce the CMB-related concerns, and offer clear causal explanations among study variables. For example, PFP can be assessed by using payroll data, and OCBs can be reported by focal employees' peers or supervisors.

Implications for Research and Practice

Despite these limitations, the present study expands PFP theories and provides useful insights for both domestic and foreign firms that utilize performance-based pay practices in emerging markets. Scholars have argued that there will be negative responses to PFP among collectivistic employees (e.g., Giacobbe-Miller et al., 2003; Zhu

et al., 2005). However, consistent with other studies based on employees of emerging economies (Chang & Hahn, 2006; Zheng et al., 2006), this study indicates that PFP may enhance employees' work effort, even though the values inherent in this pay system diverge somewhat from the collectivistic values in emerging markets. Extending prior PFP studies conducted at the individual level (e.g., Brown, 2001), this study shows that PFP was positively related to work effort at both the individual and organization levels of analysis. In summary, although scholars have argued that distinct national cultures of non-Western countries would lead to unsuccessful implementation of Western HR practices (Ralston et al., 1997), the present results suggest that the effect of "culture distance" on PFP outcomes is not as great as one might expect.

However, unlike the culture distance, the "context distance" seemed to matter in shaping employee reactions to PFP. In this regard, foreign firms in emerging markets should be very careful in implementing PFP, owing to their employees' rather weak organizational commitment and low justice perceptions. Similar to Deckop et al.'s (1999) study, our analysis showed that PFP was more positively related to both conscientiousness and helping when employees were committed to the company. Given that employees of foreign firms exhibited significantly weaker commitment than those of domestic firms, introducing PFP could be risky, and might not accrue its intended benefits in foreign firms. In a sense this is counter-intuitive, because performance-based pay practices are often introduced with the idea of economic exchange between the company and its employees, in which the psychological contract between the employer and employees boils down to instrumental economic transactions without much covenantal relationship (Rousseau, 1995). The current findings, however, clearly indicate that PFP may not induce desired employee behavior if employees are not committed to their organization. The lack of a covenantal relationship seems more detrimental to helping behavior than to self-serving, conscientious behavior. Being deprived of innate advantages such as trust, family-like feelings, and collectivistic culture that promote AC, foreign firms in emerging markets should use PFP carefully.

The relatively low level of PAS and justice perceptions in foreign firms could further aggravate

the negative consequences of PFP. The interaction plots in Figures 2 and 3 indicate that employees tend to exhibit negative reactions to PFP when they feel low PAS and belong to organizations with low PJC. To improve the situation foreign firms may provide training programs that offer opportunities for employees to be familiar with and accept Western-style HR practices (e.g., formal goal-setting and feedback) (Shen & Darby, 2006). Given the unfavorable employee perceptions in foreign firms, the low level of PFP intensity in foreign firms could be a solution for their difficulty in recruiting and maintaining qualified employees. People in emerging markets usually scored high on uncertainty avoidance (House et al., 1999). Therefore "stable cash income" gained from low PFP could be an attractive practice coveted by the workforce in emerging markets (Chiu et al., 2002; Zhu et al., 2007).

One counter-intuitive finding is that, within a high DJC, Chinese employees seemed to lose their motivation to increase work effort, perhaps in a desire to maintain the *status quo* of income distribution. This pattern is consistent with the idea of harmoniousness, which is in effect an amalgam of collectivistic values or socialistic ideology in emerging countries. This strong orientation toward equality or evenness will to a certain degree remain a potent distributive norm in emerging economies in the coming years, especially in those organizations under the control of these countries' governments. Foreign firms operating in emerging markets should therefore take this deep-rooted practice into account.

Pay for performance is one of the most widely implemented HR practices in contemporary organizations, with increasing adoption occurring in non-Western contexts. Nevertheless, the literature has failed to provide a clear idea of how non-Western employees react to PFP. The present study offers a clearer indication of the effects of PFP on employees' attitudes and behavior in the context of emerging markets. Our analyses clearly demonstrate the need to approach the issue using a multilevel perspective in order to reveal level-dependent dynamics involving PFP and other HR practices in emerging countries. In addition to further empirical validation of the current findings, it would be useful to develop a comprehensive multilevel theory that would provide useful guidelines for further research, and beneficial insights for managers in emerging markets.



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NOTES

¹In the present research setting, engineers' bonus or PFP was determined largely by the quantity of their output of a completed project. For example, imagine that structural engineer A was involved in Project 1 (2500 m²) with architectural engineer B and project manager C, whose job consisted principally of quality control. Simultaneously, C participated in Project 2 (2000 m²) as a regular structural engineer. In this case, structural engineer A's PFP might be calculated by quantity of output, per unit incentive rate, and the difficulty or complexity of the design task: 2500 m² (quantity of output) × 2 CNY/m² (per-unit incentive rate) × 0.8 (project complexity coefficient) = 4000 CNY. Similarly, project manager C's PFP might

be: 2500 m² × 1.5 CNY/m² (the project manager's per-unit incentive rate is low, owing to lower workload) × 0.8 plus 2000 m² × 2 CNY/m² × 1.0 (project complexity coefficient) = 7000 CNY.

²According to the marker-variable technique, the size of the correlation (r_M) between a study variable and the marker variable indicates the level of common method variance (CMV) in the survey data. As a post-hoc procedure to estimate r_M , Lindell and Whitney (2001) proposed that "the smallest correlation among the manifest variables provides a reasonable proxy for CMV" (115). They further suggested that the second-smallest positive correlation can be used as a more conservative estimate of r_M . Using this estimate of CMV, they developed formulae to compute CMV-adjusted correlations between the variables under investigation and their t -statistics for the purpose of significance tests. Using these equations, we can examine the impact of CMV on the magnitude and significance of correlations among study variables. Following this procedure, we computed CMV-adjusted correlations and their statistical significance, resulting in a new correlation matrix after controlling for the estimated CMV effect (r_M) (the full correlation matrix is available upon request).

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