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High performance work systems and organization attraction: The moderating effects of vocational interests

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# High performance work systems and organization attraction

# The moderating effects of vocational interests

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#### Abstract

**Purpose** – The purpose of this paper is to test the effect of human resource systems on organization attraction. Furthermore, the authors theorize and test how the vocational interests of prospective employees can serve as boundary conditions that affect the relationship between high-performance work systems (HPWS) and organization attraction.

**Design/methodology/approach** – To achieve these ends, this study conducts a scenario-based experiment with prospective employees to examine the effects of HPWS and vocational interests on organization attraction.

**Findings** – The authors demonstrated that HPWS is an important feature for organization attraction. Despite the generally positive linkage between HPWS and organization attraction, the most important implication of the findings is that job applicants also have an important role in responding to the features being used by a firm to attract applicants through HPWS. For example, potential job applicants with higher (rather than lower) social vocational interests are more likely to be attracted to the HPWS of firms.

**Research limitations/implications** – This study has limitations that must be considered. In particular, the authors treated HPWS as a unidimensional construct. Given the study design, it is unclear whether the attraction effects are driven by HPWS as a whole or whether they are being driven by any single or multiple component(s) of the system. Future research needs to consider examining how specific practices are matched with specific vocational interests by using multiple scenarios where they bundle different high-performance work practices. Doing so would further the understanding of which specific practices affect attraction and for whom.

**Originality/value** – This study contributes to the authors' knowledge of the effects of HPWS on organization attraction. In addition, job applicants' social vocational interest plays an important role in strengthening the relationship between HPWS and organization attraction.

Keywords Recruiting, High-performance work systems, Organization attraction, Vocational interest

Paper type Research paper



Employee Relations Vol. 38 No. 5, 2016 pp. 682-702 © Emerald Group Publishing Limited 0142-5455 DOI 10.1108/ER-08-2015-0165 Attracting and recruiting qualified applicants is a critical component of organizational success (Carroll *et al.*, 1999; Chapman *et al.*, 2005). Organization attraction, which refers to how a prospective employee assesses the desirability to work for a particular company (Hannon, 1996), can be an important factor in recruitment. Organizational attraction has also been referred to as company employment image (Highhouse *et al.*, 1999). Over the last several decades, researchers have identified numerous predictors for organization attraction, such as corporate social performance, employer brand, diversity practices, advancement opportunities, organizational culture, familiarity, job

characteristics, and location (e.g. Amber and Barrow, 1996; Turban and Greening, 1997; Highhouse et al., 1999; Lemmink et al., 2003; Lievens et al., 2005; Lievens and Highhouse, 2003: Williamson et al., 2008).

Although previous studies have enhanced our understanding about the effects of numerous organizational attributes on organization attraction and recruitment, little is known about the role of human resource (HR) systems in organization attraction. Examining this issue is important because many organizations use HR systems to improve their recruitment effectiveness. For example, SAS Institute, providing advanced analytics, business intelligence, data management, and predictive analytics, has received overwhelming recognition for its unique working environment, generous perks and benefits, as well as employee-centric culture, and even publicizes its distinction of "Best Place to Work" in their recruitment website (SAS, 2014). Although the effects of some specific HR practices on organizational attraction have been studied (see Highhouse et al., 1999; Lievens and Highhouse, 2003; Turban and Keon, 1993), the effect of the entire HR system has, to our knowledge, not been investigated. Because the analysis of specific practices may not capture the effect of an entire HR system, we believe the influence of high-performance work systems (HPWS) on applicant attitudes and behaviors is an intriguing area of investigation. Accordingly, the present study aims to test the effect of HR systems on organization attraction. Our paper also investigates how bundles of HR practices can differentially attract certain job applicants. We extend prior research in several ways.

First, we propose that HPWS have an important role in organization attraction. HPWS refers to HR practices designed to enhance organizational performance by improving employee capability, commitment, and productivity, as well as by utilizing employees as primary sources of competitiveness (Datta et al., 2005; Theriou and Chatzoglou, 2014). Prospective employees may assess the attractiveness of companies according to their overall HR practices, including their pay, benefits, security, advancement, and working conditions (Bretz and Judge, 1994; Jurgensen, 1978; Wayne and Casper, 2012). As a result, HPWS can be an important facet for employers to communicate their identities and values to outsiders (cf. Lester et al., 2006; Miller and Triana, 2009). Thus, the first goal of this study is to examine the possibility of HPWS as a characteristic for attraction.

Second, we propose that HPWS can be a more effective aspect for organization attraction to certain job applicants. We theorize and test how the vocational interests of prospective employees can serve as boundary conditions that affect the relationship between HPWS and organization attraction. Various studies (e.g. Kristof, 1996; Turban and Keon, 1993; Turban et al., 2001) have found that job applicants decide whether to apply to an organization according to their evaluation of the characteristics of the organization and of their own. In addition, vocational interests can vary across different prospective employees (Kantamneni, 2014), and affect recruitment outcomes (Toker and Ackerman, 2012). Therefore, the effects of HPWS on organization attraction may be moderated by the vocational interests of prospective employees. Aside from extending the nomological net that surrounds HPWS and organization attraction, evidence for this hypothesis may provide practical implications as HPWS may not effectively attract job applicants whose vocational interests do not fit with the system.

To summarize, the capability of HPWS to predict applicant attraction and the extent to which vocational interests mitigate or enhance the relationship between HPWS and organization attraction should both be examined. To achieve these ends, this study conducts a scenario-based experiment with prospective employees to examine the effects of HPWS and vocational interests on organization attraction.

HPWS and organization attraction

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# Theory and hypotheses

Organization attraction

Organization attraction links prospective applicants with organizations because job seekers will not apply to organizations they perceive as unattractive (Gomes and Neves, 2011). A high level of attraction tends to affect the decisions of applicants during the recruitment process (Porter et al., 2004), including their intentions to apply for a certain vacancy, to pursue a job, and to accept an offer. Several researchers (e.g. Cober et al., 2004; Rau and Hyland, 2002) have proposed that organizations use employment inducements as effective recruitment strategies. Employment inducement is a way "to convey the notion of deliberately modifying attributes for the explicit purpose of enhancing the attractiveness of a job to potential applicants" (Rynes and Barber, 1990, p. 294). The researchers suggested that employers can improve organization attraction by increasing starting salaries, improving benefits, offering flexible schedules, providing child or elderly care support, providing internal career advancement opportunities, and improving working conditions. Moreover, individuals are more likely to be attracted to an organization using forced distribution systems when they possessed higher levels of cognitive ability and perceived the system to be fairer (Blume et al., 2013). This study indicated that fitting organizational features with individual characteristics can increase the hiring effectiveness of the firm.

# HPWS and organization attraction

The HPWS concept is built on some of the most influential theories in strategic HR management, such as the behavioral perspective (ability, motivation, and opportunity (AMO)) and the resource-based view of the firm (Wright and McMahan, 1992). The AMO view assumes that the purpose of various HR practices is to transform employee attitudes and behaviors, resulting in desirable outcomes (Wright and Snell, 1998). Organizations use HPWS to develop employee knowledge, skills, and abilities and to enhance employee motivation by providing comprehensive recruitment and selection procedures, incentive compensation, performance management systems, and extensive employee involvement and training (Chuang and Liao, 2010). Many HR studies have demonstrated the universal applicability of HPWS in improving organizational outcomes through promoting employee involvement, commitment, or performance (Ahmad and Allen, 2015; Patel et al., 2013). Nonetheless, little research considers the HPWS as a key predictor of applicant attraction.

To attract job seekers to organizations, HPWS may also serve as effective characteristics. To attract applicants, employers strategically take advantage of their strengths (Gomes and Neves, 2011). Throughout this process, numerous personal, job-specific, and organizational attributes can affect how applicants evaluate the attractiveness of an organization (Hannon, 1996). Several HR researchers have found that organization attraction is positively associated with specific HR practices, such as compensation policies (Cable and Judge, 1994) and diversity practices (Williamson et al., 2008). In particular, recruitment studies that have identified potential predictors of company employment image have confirmed that organizational attraction is influenced by applicants' perceptions of job attributes such as pay, opportunities for promotion, career programs, and job variety (Highhouse et al., 1999; Lievens and Highhouse, 2003; Turban and Keon, 1993).

However, no research yet has explored how overall HR systems are related to organization attraction. As part of the organizational characteristics, HR systems can Downloaded by TASHKENT UNIVERSITY OF INFORMATION TECHNOLOGIES At 01:13 07 November 2016 (PT)

affect the attraction of job applicants to potential employers. Because of synergies between HR practices, interactions among practices, and the lack of research on some practices, exploring the effects of the entire HPWS package is necessary. HPWS, as a planned set of HR practices that provide complete and coherent systems to improve employee capability, commitment, and productivity, can affect the perceptions of potential job applicants. HPWS can also be a typical feature for organizational attraction because they can be observed through a company's website and recruitment materials such as brochures and news media. In addition, companies need to devote effort to building HPWS. Because of the heavy investment costs (Cappelli and Neumark, 2001), competitors may not easily imitate the system to attract job applicants. Therefore, HPWS enables organizations to make deliberate, costly efforts to convey a manipulated and inimitable image to affect the perceptions of job applicants toward them. Thus, HPWS can be effective tools to communicate positive organizational characteristics to potential job applicants and help organizations increase their organization attraction:

H1. HPWS are positively associated with organization attraction.

# The moderating role of vocational interests

Although HPWS are hypothesized to lead to high organization attraction, some job applicants may react more or less positively to HPWS when evaluating organization attraction. According to the attraction-selection-attrition model (Schneider, 1987; Schneider et al., 1995), people are differentially attracted to organizations based on the fit between their personal and organizational characteristics. Kristof (1996) posited that job applicants decide whether to apply to an organization by subjectively interpreting organizational attributes according to their own personal characteristics. Highhouse et al. (2007) demonstrated that the social identity concerns of an individual interact with the symbolic inferences about an organization, therefore, subsequently influencing the attraction of applicants toward an organization. In this study, we propose that vocational interests of job applicants can mitigate or enhance the effects of HPWS on organization attraction.

Holland (1997) classified vocational interests into the following six types: realistic, investigative, artistic, social, enterprising, and conventional. Collectively, these six types are referred to as RIASEC. The importance of this framework in predicting the career decisions of individuals has been supported in several studies. For example, people with strong interests in the realistic and investigative categories have a strong fit with occupations related to science, technology, engineering, and mathematics (Gottfredson and Holland, 1996), while those with strong interests in the enterprising and artistic categories tend to become entrepreneurs (Almeida et al., 2014).

People with high social interests prefer activities that influence others, to inform, train, develop, cure, or enlighten and have an aversion to explicit, ordered, systematic, activities involving materials, tools, or machines (Holland, 1997). Enterprising people perceive themselves as assertive, popular, self-confident, social, possessing leadership and speaking abilities, and lacking scientific ability (Holland, 1997). Thus, people with high social and enterprising interests who emphasize sociability in common (Hogan, 1983; Rounds and Tracey, 1993), and thus prefer participative occupations react more sensitively to HPWS that include socialization mechanisms. However, the other vocational interests, such as realistic and investigative (the opposite side of social and enterprising, respectively) are less associated with the socialization feature of HPWS.

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For example, people with strong interests in realistic and investigative categories fit well into engineering positions characterized by practical, hands-on work, and problem-solving (Holland, 1997). Occupations that emphasize realistic interest involves routine tasks and individuals with greater investigative interests are driven to acquire subject matter knowledge and thus may become independent (Huang and Pearce, 2013; Rottinghaus *et al.*, 2002; Schmitt *et al.*, 2008). Therefore, our research hypotheses were developed only for social and enterprising types of vocational interests.

We expect that sociability dimension of vocational interests (social and enterprising interests) moderates the relationship between HPWS and organization attraction. Specifically, people with high social vocational interests tend to react positively to HPWS when evaluating organization attraction. Sociable individuals enjoy helping others, engaging in social activities, and participating in activities that involve educating, informing, or enlightening others (Holland, 1997). They will also prefer to work in organizations that allow employees to communicate and socialize with their colleagues frequently. In addition, people with high enterprising vocational interests (e.g. salespeople) would be attracted to socialization characteristics of HPWS as well because they prefer activities that entail the manipulation of others to attain organizational or economic goals (Holland, 1997). The practices of HPWS focus on empowering and fostering socialization mechanisms that enhance employee commitment to the firm (Tsui et al., 1997). By implementing several practices, such as broadly defined jobs, developmental use of performance management, and decentralized participative decisions, HPWS allow employees to collaborate with one another, participate in decision making, and communicate and socialize with their colleagues. As a result, people with high levels of social and enterprising interests will tend to be more attentive to the intended aspects of HPWS that encourage communication and socialization among colleagues and collaboration with other employees, and thus are more likely to be attracted to the organizations with HPWS:

- H2a. Social vocational interest moderates the relationship between HPWS and organization attraction such that the relationship becomes stronger as the social vocational interest increases.
- H2b. Enterprising vocational interest moderates the relationship between HPWS and organization attraction such that the relationship becomes stronger as the social vocational interest increases.

#### Method

Sample and procedure

A total of 206 participants from a large southern university participated in a scenario-based experiment as part of an in-class assignment. Their responses provided usable data on all study variables. Of these respondents, 57 percent were female, 65 percent were business majors, and 52 percent were senior or graduate students. The respondents had a mean age of 23.9 years (SD = 5.8). All the participants received a questionnaire in their core course from their course instructors (the first author administered the survey in the classes). To ensure their anonymity, the respondents were asked not to write their names anywhere on the questionnaire. As an incentive, the participants were told they would receive an extra course credit upon completing the survey.

The participants were asked to place themselves in the position of a person meeting with the HR manager of a company in a job fair, during which the HR practices and

culture of the organization were explained. All the respondents read four types of scenarios that described detailed HR practices and organizational culture from the perspective of the HR manager. Unknown to the participants, the scenarios varied in terms of whether the HR system of the company was HPWS or non-HPWS; and whether the company culture was innovative or bureaucratic. We used a Latin square design (Fisher, 1935) to counterbalance the presentations of the scenarios, and thus control for the ordering effects of the combinations of HR system and culture types on the survey. After presenting the scenario, the survey assessed the vocational interests and attraction of the participants toward the organization described in each scenario.

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# HPWS and non-HPWS manipulation

We employed a policy-capturing design to test our hypotheses. This research design has been used to study job search and job choice decisions (Judge and Bretz, 1992; Rynes and Lawler, 1983; Rynes et al., 1983; Zedeck, 1977). The level of experimental control in policy-capturing designs boosts causal inferences, enabling researchers to better evaluate the effects of the within-subjects factors (Cable and Judge, 1994). Following previous studies (e.g. Cable and Judge, 1994; Hoffman et al., 1968), we used dichotomous conditions to define the HR systems, and each of the manipulations were derived as follows.

First, based on our extensive search of research on HPWS (e.g. Huselid, 1995; Kochan and Osterman, 1994; MacDuffie, 1995; Posthuma et al., 2013; Wood and de Menezes, 1998), we determined that 12 HR practices best represent HPWS. Although the contents (i.e. the types of practices) of HPWS are subtly different across studies, there is considerable consensus on the practices that are included in HPWS. For example, Chuang and Liao (2010) identified the contents of HPWS as extensive recruiting and selective staffing procedures; performance management systems; incentives; and high utilization of training and development. These systems are usually regarded as useful to improve organizational performance through heightened employee capability, commitment, and productivity (Posthuma et al., 2013).

Specifically, we used "job enlargement and enrichment" and "promotions objectively based on merit" for the "job and work design" and "promotions" categories; "appraisals for development/potential" and "appraisals based on objective results/behaviors" for the "performance management and appraisal" category; "external pay equity/ competitiveness," "pay for performance," and "incentive compensation" for the "compensation and benefits" category; "training extensiveness" and "evaluation of training" for the "training and development" category; and "decentralized participative decisions," "formal information sharing program," and "self-managed work teams" for the "employee relations" and "communication" categories. We believe that HPWS can be put on a continuum of low to high HPWS depending on how many of the high HPWS practices are actually used. We included all practices comprising HPWS in our description of the HPWS scenario to strengthen our manipulation and increase our statistical power. The non-HPWS scenario described the 12 HR practices in an opposite fashion. That is, non-HPWS is a theoretically based HR system that highlights the opposite side of HPWS. The HPWS and non-HPWS scenarios are presented in the Appendix.

Vocational interest. The participants were asked to assess their vocational interests using the Interest Item Pool (Armstrong et al., 2008) version of Holland's (1997) RIASEC framework. The 48-item questionnaire (i.e. each of the six RIASEC marker scales contains eight items) measures how much the participants want to participate in an

activity from each of the six Holland themes by using a five-point Likert-type scale (where 1 = "Strongly disagree" and 5 = "Strongly agree"). The ratings for the items in the social and enterprising domains are averaged, with higher scale scores indicating higher levels of interest in that domain. Sample items for the social domain include "Give career guidance to people," "Do volunteer work at a non-profit organization," and "Help people who have problems with drugs or alcohol" (Cronbach's  $\alpha = 0.85$ ). Sample items for the enterprising domain include "Sell merchandise at a department store," "Manage the operations of a hotel," and "Manage a department within a large company" (Cronbach's  $\alpha = 0.71$ ). The other vocational interests of realistic, investigative, artistic, and conventional were included as covariates and to allow comparisons with past research examining the links of organization attraction with vocation interest (Almeida *et al.*, 2014; Gottfredson and Holland, 1996).

Organizational attraction. We assessed organizational attraction by using the four-item scale of Turban and Keon (1993), which included "I would exert a great deal of effort to work for this company," "I am interested in pursuing my application with this company," "I would like to work for this company," and "I would accept a job offer." The participants ranked their organization attraction in these four scenarios on a five-point Likert-type scale (where 1 = "Strongly disagree" and 5 = "Strongly agree"). Given that the participants responded to each item four times, we obtained multiple Cronbach's  $\alpha$ s. The averaged Cronbach's  $\alpha$  of the scale in the study was 0.93.

Control variables. Age, sex, and major were controlled to estimate the effects of the hypothesized variables. Age and sex are frequently included as covariates in recruitment-related research to disentangle their effects from those of recruitment (Avery, 2003). The participants in this study mostly comprised undergraduate students who were taking a mandatory business course; thus, the majority of participants were understandably majoring in business. These students are more active and performance oriented than those from other majors because they are more likely to be ambitious in starting their own businesses (Mayrhofer *et al.*, 2005).

In addition, we controlled for organizational culture because previous studies suggest that organizational attraction varies across different cultures (e.g. Den Hartog and Verburg, 2004; Judge and Cable, 1997; Kang and Alcantara, 2011). Specifically, we manipulated two types of culture, innovative and bureaucratic (see the Appendix), by following previous studies on organizational values and culture (cf. Aldrich and Ruef, 2006; O'Reilly *et al.*, 1991). The innovative culture scenario describes the culture of a company as innovative (e.g. promoting adaptability and flexibility, encouraging experimenting and risk taking), whereas the bureaucratic culture scenario describe the culture of the company in an opposite fashion (e.g. promoting stability and consistency, discouraging experimenting and risk taking).

# Manipulation checks

We conducted a pilot study with 43 students (13 doctoral and 30 undergraduate students) to check the effectiveness of the manipulation. We asked the participants to read each scenario and the academic definitions of each HR bundle and culture type. They were then asked to assess the extent to which a scenario described each definition effectively on a five-point Likert-type scale (where 1 = "Strongly disagree" and 5 = "Strongly agree"). As expected, the mean differences of the two sample t-tests indicated that HPWS is significantly different from non-HPWS (for doctoral students,

 $t\!=\!30.99,\; p<0.01;$  for undergraduate students,  $t\!=\!4.05,\; p<0.01).$  Innovative and bureaucratic cultures were also significantly different from each other (for the doctoral students,  $t\!=\!10.23, p<0.01;$  for undergraduate students,  $t\!=\!5.40, p<0.01$ ). Therefore, the HR system and organizational culture were both manipulated successfully.

# Analyses

Given the multilevel nature of the data (i.e. the same person read four types of scenarios and assessed organizational attraction four times), multilevel analyses were conducted using the HLM 6.08 software (Raudenbush *et al.*, 2004) with intra-person at Level 1 (i.e. HPWS, culture, and organizational attraction) and individuals at Level 2 (i.e. age, sex, major, and vocational interest). We followed the procedure recommended by Aiken and West (1991) to test the moderating effects of social and enterprising interest. To examine the nature of the interaction effect, we plotted the simple slopes of HPWS-organizational attraction at one standard deviation below and above the mean of vocational interests, and then tested whether each slope was statistically significant (Aiken and West, 1991).

#### Results

Confirmatory factor analysis was conducted using the AMOS 21.0 software to assess the discriminant validity of the six vocational interests in the RIASEC framework. To reduce the number of indicators, we used three-item parcels for those measures with more than three items to achieve a better item-to-sample size ratio (our ratio is 4.3, which is relatively low (Hair et al., 1995; Hogarty et al., 2005). Parceling can be particularly effective when the items from a unidimensional scale are parceled, and if a research focusses on the relationships among latent variables instead of understanding the relationships among items (Little et al., 2002), which is the case for our study. We evaluated the model fit by using  $\chi^2$  statistics,  $\chi^2$  to degrees of freedom ratio, comparative fit index (CFI), Tucker-Lewis index (TLI), and root-mean square error of approximation (RMSEA). The six-factor model provided a generally favorable fit to the data  $(\chi^2 (120, 171) = 222.36, p < 0.01, CFI = 0.94, RMSEA = 0.07, and TLI = 0.93)$  and demonstrated a better fit than the best-fitting five-factor model (i.e. combining the social and enterprising domains,  $\chi^2$  (126, 171) = 342.36, p < 0.01, CFI = 0.88, RMSEA = 0.09, and TLI = 0.85), the best-fitting four-factor model (i.e. combining artistic in the five-factor model,  $\chi^2$  (129, 171) = 544.53, p < 0.01, CFI = 0.76, RMSEA = 0.13, and TLI = 0.72), and the one-factor model ( $\chi^2$  (135, 171) = 1,337.65, p < 0.01, CFI = 0.31, RMSEA = 0.21, and TLI=0.21). Therefore, the discriminant validity of the adopted constructs was supported.

#### Descriptive statistics

The descriptive statistics, reliability estimates, and correlations for all measures are reported in Table I. All the reliability estimates were above 0.70. As expected, HPWS was positively and significantly correlated with organization attraction (r = 0.45, p < 0.01), which indicated that more than 20 percent of the variance in choosing organizations can be explained by the type of HR system. The social and enterprising domains were positively correlated with each other (r = 0.24, p < 0.01), consistent with past findings on the closeness of the set of vocational types (e.g. Gati, 1991; McKay and Tokar, 2012).

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	M SD	SD	1	2	3	4	5	9	7	8	6
1-1: Among Level-1 variables  1. HPWS (0 = non-HPWS, 1 = HPWS)  2. Organizational culture (0 = Bureaucratic, 1 = Innovative)  3. Organizational attractiveness	0.50 0.50 3.47	0.50 0.50 1.05	0.00** 0.45**	- 0.04	(0.93)						
1-2: Among Level-2 variables $23.91$ $583$ -         1. Age $0.50$ $0.67$ $0.02$ -         2. Sex (0 = Male, 1 = Female) $0.57$ $0.64$ $0.48$ -0.11 $0.00$ 4. Social $3.44$ $0.78$ $-0.02$ $0.17*$ 5. Enterprising $3.21$ $0.63$ $-0.02$ $0.17*$ 6. Realistic $2.86$ $0.93$ $0.02$ $-0.33**$ 7. Investigative $2.86$ $0.93$ $0.02$ $-0.13*$ 8. Artistic $3.17$ $0.85$ $-0.19**$ $-0.02$ 9. Conventional $3.09$ $0.77$ $-0.03$ $0.08$ Notes: $n = 824$ (Level-1); 206 (Level-2). Reliabilities are in parentheses. * $p < 0.05$ ; ** $p < 0.05$ ; ** $p < 0.05$	23.91 0.57 0.64 3.44 3.21 2.48 2.86 3.17 3.09 renthes	5.83 0.50 0.48 0.78 0.63 0.85 0.93 0.85 es. *p	- 0.02 -0.01 -0.02 -0.05 -0.02 -0.02 -0.03 < 0.03	$\begin{array}{c} -\\ 0.00\\ 0.17*\\ 0.09\\ -0.33***\\ -0.13\\ -0.02\\ 0.08\\ b<0.01\end{array}$	_ 0.02 0.03 0.01 0.19** 0.11	(0.85) 0.24** -0.02 0.23** 0.39**	(0.71) 0.23*** 0.17* 0.24***	(0.87) 0.38*** 0.11 0.29***	(0.89) 0.35**	(0.85)	(0.86)

**Table I.**Means, standard deviations, and correlations among variables

H1 predicted that HPWS are positively associated with organization attraction. Consistent with H1, the HLM results demonstrated a significant association between HPWS and organization attraction, as shown in Model 1 in Table II ( $\gamma = 0.93$ , p < 0.01). Therefore, H1 was supported.

H2a proposed that social vocational interest moderates the relationship between HPWS and organization attraction in such a way that the relationship becomes stronger as the social vocational interest increases. Table II shows that the relationship between HPWS and organization attraction is strengthened as social interest increases. This finding is demonstrated by the positive sign of the interaction term ( $\gamma = 0.16$ , p < 0.05). The tests of the simple slopes indicated that the positive relationship between HPWS and organization attraction was statistically significant when the level of social interest was low (simple slope = 0.81, p < 0.01), and became stronger at a high level of social interest (simple slope = 1.06, p < 0.01), supporting H2a. These simple slopes are shown in Figure 1.

H2b stated that enterprising vocational interest moderates the relationship between HPWS and organization attraction in such a way that the relationship becomes stronger as the enterprising vocational interest increases. Model 3 in Table II shows that the interaction terms between HPWS and enterprising interest were insignificant ( $\gamma = 0.02$ , ns). Therefore, H2b was not supported.

As a supplementary analysis, we tested the two-way interaction between HPWS and the rest of the RIASEC framework and dimensions. The results are almost identical to our current ones; there was no significant result in the two-way interaction terms

	Or Model 1	ganizational attractiveness Model 2	Model 3
Level-1 variables			
Intercept	3.89**	3.83**	3.83**
HPWS	0.93**	0.93**	0.93**
Organizational culture	0.08	0.08	0.08
Level-2 variables			
Age	-0.02*	-0.01*	-0.01*
Sex $(0 = Male, 1 = Female)$	0.01	0.03	0.03
Major $(0 = Others, 1 = Business)$	-0.10	-0.15	-0.15
Social		-0.04	-0.04
Enterprising		0.08	-0.08
Realistic		0.05	0.05
Investigative		0.03	0.03
Artistic		0.07	0.07
Conventional		0.16**	0.16**
Cross-level variables			
HPWS × Social			0.16*
HPWS × Enterprising			0.02
Pseudo $\Delta R^2$ within-individual <sup>a</sup>	0.20	0.02	0.01
Pseudo $\Delta R^2$ between-individual	0.99	0.94	0.99
Deviance	2,230.60	2,235.55	2,237.00

**Notes:** n = 206 individuals. <sup>a</sup>These pseudo  $\Delta R^2$  was compared to the previous model. Mode 1 was compared to the null model. \*p < 0.05; \*\*p < 0.01

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**Table II.**Results from the hierarchical linear modeling

ER 38,5 except the HPWS and social type: realistic and HPWS ( $\gamma = 0.03$ , ns), investigative and HPWS ( $\gamma = -0.06$ , ns), artistic and HPWS ( $\gamma = -0.03$ , ns), social and HPWS ( $\gamma = 0.09$ , p < 0.05), enterprising and HPWS ( $\gamma = 0.02$ , ns), and conventional and HPWS ( $\gamma = -0.03$ , ns).

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#### Discussion

Organization attraction is a popular topic of interest for HR researchers because it is presumed to have an important role in recruiting highly qualified job applicants and in enhancing organizational performance. The current paper contributes to this area of study by showing that HPWS is positively associated with organization attraction and that social vocational interests moderate the relationship. Our findings offer several important theoretical implications for studies on HPWS and organization attraction, as well as suggest additional opportunities for future research.

First, we demonstrated that HPWS is an important feature for organization attraction. Previous studies have mostly deemed HPWS as a set of HR practices that enhances organizational performance in terms of occupational safety (Zacharatos *et al.*, 2005), customer service (Chuang and Liao, 2010), and productivity (Michaelis *et al.*, 2015). Kaifeng *et al.* (2012) demonstrated the effects of HPWS on employee outcomes (i.e. motivation, voluntary turnover, and financial outcomes). We extended this line of research by showing that HPWS can effectively attract highly qualified applicants, which, in turn, can improve organizational outcomes.

Despite the generally positive linkage between HPWS and organization attraction, the most important implication of our findings is that job applicants also have an important role in responding to the features being used by a firm to attract applicants through HPWS. For example, potential job applicants with higher (rather than lower) social vocational interests are more likely to be attracted to the HPWS of firms. These findings generally contribute to a developing research area that reveals the important role of job applicants in the recruitment process (e.g. Kristof, 1996; Newman and Lyon, 2009; Turban and Keon, 1993; Turban *et al.*, 2001). These results are important to the development and refinement of attraction theory, which pertains to how potential job applicants respond to the recruitment strategies of firms. However, additional research on this issue must be conducted. For example, *H2b* may have been not supported (i.e. the enterprising vocational interest of potential job applicants do not complement

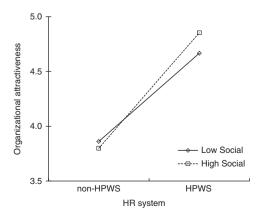


Figure 1.
Simple slope for the effect of HR system on organizational attractiveness at levels of applicant's socialness

the effects of HPWS) because among the various aspects of HPWS, the sociability component may not appeal to enterprising people.

Our findings also contribute to the literature on vocational interests. Over the last several decades, numerous studies have addressed the relationships between the theories of Holland (1959, 1997) on vocational interests and career choices. For example, the experiment of Helms (1996) showed the linkage between each Holland type and its representative job, specifically, realistic-plumber, investigative-medical technology, artistic-designer, social-elementary teacher, enterprising-sales person, and conventional-accountant. However, only few studies have focussed on the potential value of vocational interests for HR systems in the recruitment context. This study contributes to the literature on vocational interest by showing that vocational interest can also affect the responses of job applicants to the recruitment strategies of firms, that is, sociable people are more attracted to firms with HPWS.

Our results also have practical implications for organizations and managers. Organizations that wish to enhance their attractiveness and improve their recruitment performance should utilize HPWS as a tool to potential applicants when applicable. That is, those that use HPWS should make this fact salient to all recruits. For example, the use of the HPWS system should be an important part of all realistic job previews, should be emphasized on the firm's website, and should be explicitly mentioned to employees who may be informally recruiting their friends and acquaintances as part of an employee referral program. Although HPWS is expensive to facilitate, it can effectively attract applicants and motivate current employees, subsequently increasing the chances of firms to recruit highly qualified applicants. Our results also suggested that targeted recruiting can be performed by using HPWS. Specifically, HPWS becomes even more effective when firms need highly sociable employees. If companies believe that individuals with low social interests fit better with their culture, HPWS may not be as an effective tool for attracting the right job applicants.

Moreover, practitioners benefit from our research findings by considering HR systems for their recruitment advertisements. To attract applicants, firms use various recruitment activities such as printed recruitment advertisements (Collins and Stevens, 2002) and recruitment websites (Allen *et al.*, 2007). Because information-rich-recruitment practices increase applicants' knowledge of the employer (Baum and Kabst, 2014), contents of recruitment media are an important aspect of applicant attraction. However, typical job postings include job title, responsibilities, desired skills, and a company profile. Information about a firm's HPWS systems, when applicable, will inform potential employees about work practices and career opportunities that our study shows are viewed positively by recruits. Thus, we suggest that HR practitioners consider HPWS as important advertisement points.

# Limitations and directions for future research

As with all investigations, this study has limitations that must be considered. First, although we suggest an HR system as a possible predictor of organization attraction, there are many factors that can influence the applicant attraction to organizations that are entertained in the context of recruiting. In their meta-analysis, Chapman *et al.* (2005) showed that applicant attraction outcomes were predicted by job-organization characteristics, recruiter behaviors, perceptions of the recruiting process, perceived fit and hiring expectancies. Moreover, because we already know that specific HR practices

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have a positive impact on organization attraction; our finding is not counter-intuitive. nor particularly ground breaking. However we do believe that it is important. As we have previously stated, no research vet has explored how specific HR systems are related to organization attraction. As part of the organizational characteristics, HR systems can affect the attraction of job applicants to potential employers. Because of synergies between practices, interactions among practices, and the lack of research on some practices (Chadwick, 2010), exploring the effects of the entire HPWS package is necessary. That is, although there is evidence that some of the pieces relate to organizational attractiveness, we do not yet have evidence that the HPWS bundle as a whole does. It is possible that the overall result may be affected by some interactions that negate the effects of the individual practices. The fact that we find that the overall HPWS system has a strong effect on organizational attraction, provides definitive evidence that the bundle as a whole has such an effect. This is important because there is currently a great deal of attention given to HPWS as a whole and this is an issue that needed to be resolved. We believe that this in itself is important although the resolution is as expected. The overall findings are as expected but cannot reveal what is happening at the individual practice level and interactions among a few practices at a time. Future studies should examine how synergy or independence in HR systems is related to organization attraction.

Related with this point, we treated HPWS as a unidimensional construct. Although we demonstrated how a planned set of HR practices might differentially attract certain job applicants, people with different vocational interests would likely be more or less attracted to different dimensions of HPWS. For example, people with social interests would be more attracted to the use of self-managed work teams compared with other components of HPWS such as pay for performance. Given the study design, it is unclear whether the attraction effects are driven by HPWS as a whole or whether they are being driven by any single or a specific configuration of several components of HPWS. We still really do not know about different varieties of synergy in HRM systems and its impact on the overall performance of specific HR system (Chadwick, 2010). Future research needs to consider examining how specific practices are matched with specific vocational interests by using multiple scenarios where they bundle different HPWS. Doing so would have significantly understanding of which specific practices affect attraction and for whom.

A second limitation of our study is that the adopted scenario methodology has inherent limitations. Greenberg and Eskew (1993) argued that the scenario methodology typically requires little involvement from the respondents by requiring them to imagine themselves in a situation related to the HR systems and culture of a firm, and then to evaluate the attractiveness of the firm. Previous studies show that a written scenario is an acceptable methodology for testing theories by allowing participants to encounter situations that they experience regularly (Maute and Dubé, 1999; Schmitt et al., 1992; Thaler, 1985; Wehner et al., 2012). Our scenario-based experiment is deemed suitable for testing our hypotheses because our sample is mostly comprised of junior or senior students who are getting closer to enter the job market and thus should pay attention to knowing which organizations are attractive, and their HRM practices. However, future research should consider using highly engaging materials, such as videos and recruitment web pages, to manipulate organizational features to enhance the involvement of participants or to validate our findings using data in real recruiting situations (e.g. a field experiment to manipulate HPWS and non-HPWS with actual job applicants).

Furthermore, our depiction of non-HPWS practices may not have been in the most realistic of fashions, since applicants may learn about them from numerous other sources. Although our within-subject design is reflective of what actually happens to individuals at job fairs and in general when looking for a job with various companies, companies that are on the low end of the HPWS continuum may not be as proactive in making their specific HR practices known. We do believe, though, that applicants may learn about such practices from other sources, such as friends, acquaintances, etc. Thus, the actual practices we suggested are realistic, but that the manner that the subjects learned about them may not be. Because realistic situations are important to participants in mental simulation (Maute and Dubé, 1999; Schmitt et al., 1992), we further suggest that future research compare these results to cases when the applicants have no information about the practices, which may be more likely when firms offer practices on the low end of the HPWS continuum.

Third, we hypothesized that sociability dimension of vocational interests (social and enterprising interests) among the six vocational interests moderates the relationship between HPWS and organization attraction. Our limitation is that the interactive effect is small and only for one of the two vocational interests (i.e. social). Although we find this counter-intuitive to our hypotheses, it does suggest an important finding, namely, that the effect of HPWS on attraction is strong and very robust. Thus, we feel that this non-finding provides further evidence of the power of HPWS and is an important finding. Overall, we believe our manuscript makes a strong case for the viability of HPWS on attraction and therefore provides important information for firms choosing their HR strategy. Another potential concern could be found in the small  $\Delta R^2$  produced by our two-way interactions (about 1.0 percent, Cohen's d=0.20) for Model 3 in the Table II. This suggests that the effect of HPWS on attraction is statistically different but similar in practical applications for low vs high social vocational interest. Although the effect size is small, our study used a two-level analysis to control for the within- and between-variance of individuals' vocational interests; hence, error terms were not biased systematically. Our study also used a broad set of control variables. Specifically, we controlled for age, sex, major, culture, and another type of vocational interests. Given these observations, we believe that the interaction we observed is robust and meaningful. In addition, since we found that the one individual characteristic had a small effect, this finding provides evidence that individual characteristics can moderate the HPWS-organizational attractiveness relationship. When future research determines which of the numerous other possible individual characteristics moderate the relationship, the moderating effect of individual characteristics in their entirety is likely to be large.

A fourth limitation is that our failure to control for key variables that can influence both vocational interests and organization attraction may have undermined the internal validity of our findings. Larson et al. (2002) demonstrated the significant associations between vocational interests – typically conceptualized and measured as the RIASEC domains of Holland (1997) – and the personality traits of the Big Five model. Newman and Lyon (2009) also demonstrated how the features of organizational image can attract applicants with particular job-related personalities and abilities. Thus, future studies that control for key variables such as personality may provide a more rigorous test of our model.

Finally, several limitations are also found in the characteristics of our data. For example, the majority of our participants were senior and junior undergraduate students majoring in Business. Although they are highly interested in recruitment

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issues, the participants have a limited understanding of HR systems. In addition, people with higher education may be more attracted to HPWS because higher education can increase the expectations of applications for an effective HR system. Future studies should collect data from people with various work experiences or educational background to investigate further the relationships tested in this research.

#### Conclusion

This study contributes to our knowledge of the effects of HPWS on organization attraction. In addition, job applicants' social vocational interest plays an important role in strengthening the relationship between HPWS and organization attraction. We call for future research to develop a more responsive theory to shed light on how specific HR practices or bundles interactively affect organization attraction. It would be also interesting to examine how job applicants' other characteristics beyond vocational interests such as socio-demographic characteristics and personality play its roles in responding to organizations' HR practices or bundles during the job search processes.

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#### Appendix

HPWS and innovative culture condition scenario

Your job will be a set of broadly defined goals, which require a wide variety of skills. Your promotion will not be based on your seniority but on your performance; that is, we value your abilities, creativity, and hard work. You won't be bored because your job is dynamic and challenging. You will be promoted as long as you maintain a high level of performance.

Our performance management is for developmental use. Performance appraisals are used for raises and many decisions. We pay you high wages and extensive benefits compared to other companies. We emphasize high pay variation among employees (i.e. many employees are paid different amounts). Most of your pay is performance based, which means your salary is volatile because your pay is significantly contingent on your and the organization's performance. Because your job is complex and needs high skills, we offer you extensive training for general and specialized skills.

Finally, we expect you to participate in "management" decisions. We require that you have great communication/socialization skills with other employees. We not only care that your job is done successfully, but also encourage you to be involved in others' jobs.

In sum, our company gives you high wages and extensive training and allows you to define the best way to do your job. We believe our HR system is the best way to increase employee creativity and performance. Many employees love our company because they are challenged and have autonomy in their job. This is a big edge for our company.

Regarding their organizational culture, the HR manager continues talking; our company promotes adaptability and flexibility. We believe our employees maximize their performance when they have more autonomy in doing their jobs, so formal procedures defined by rules and regulations are minimized. This reduces stagnation and apathy. Thus, our culture discourages attention to detail and rule-following, and instead encourages experimenting and risk taking. We evaluate your performance based on criteria such as innovation and flexibility. In summary, our culture ultimately cultivates innovation and creativity.

#### Non-HPWS and bureaucratic culture condition scenario

Your job will be a set of narrow tasks, which require only basic skills. Your promotion will not be based on your performance, but on your seniority; that is, we value your loyalty. Your job is low stress because it is straightforward and stable. You will be promoted over time.

Our performance management is generally not for developmental but for administrative use. Performance appraisals are not used for raises or many decisions. Although we pay you competitive wages and benefits compared to other companies, others may pay more. We emphasize low pay variation among employees (i.e. everyone is paid a similar amount). Most of your pay is base pay, which means your salary is stable because your pay is not contingent on your or the organization's performance. Because your job is straightforward and

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needs only basic skills, we offer you little training. However, we will train you on company policies and procedures.

Finally, we do not expect employees to influence "management" decisions. We do not require you to have great communication/socialization skills with other employees. We only care that your job is done appropriately and efficiently, with supervisors helping you do this. In sum, our company gives you competitive wages, requires minimal training, and provides you with clear directions on how to perform your jobs. We believe our HR system is the best way to achieve process improvement and efficiency. Many employees love our company because they have little stress related to job performance, and they have great job stability. This is a big edge for our company.

Regarding their organizational culture, the HR manager continues talking; our company promotes stability and consistency. We believe our employees maximize their performance when they have clear job descriptions and procedures that are formally defined by rules and regulations. This reduces confusion and conflict among tasks. Thus, our culture discourages experimenting and risk taking, and instead encourages attention to detail and rule-following. We evaluate your performance based on criteria such as precision and timeliness. In summary, our culture ultimately cultivates stability and reliability.

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