

# **THE RELATIONSHIP BETWEEN HIGH-PERFORMANCE WORK SYSTEMS AND PROACTIVE BEHAVIORS: THE MEDIATING ROLE OF PERCEIVED ORGANIZATIONAL SUPPORT**

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## **Abstract**

Drawing on social exchange theory, this study explores the relationship between high-performance work systems (HPWS) and proactive work behavior. We also examined whether perceived organizational support (POS) mediated the effects of HPWS on supervisor ratings of followers' proactive behavior. The results from structural equation modeling and hierarchical regression analyses showed that HPWS were positively related to proactive behavior. The results also suggest that POS mediated the relationship between HPWS and proactive behavior. The theoretical and practical implications of these findings are discussed.

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**Keywords:** High-performance work systems; perceived organizational support; proactive behavior

## **Introduction:**

In order to cope with increasingly dynamic environments that demand rapid innovation and continuous changes, organizations shift its work nature to more decentralized, self-directed so that employees can use their initiatives to solve the problems and change the existing organizational settings (Parker, Williams, & Turner, 2006). Organization's success and sustained competitive advantage depend on appropriate human resources (HR) strategies that promote employee well-being and care to foster employees' personal initiatives and proactive behavior (Bateman & Crant, 1993; Parker et al., 2006). Proactive work behaviors refer to the anticipatory actions and initiatives that are undertaken by employee to bring changes or

develop existing situations (Crant, 2000; Grant & Ashford, 2008; Grant, Gino, & Hofmann, 2011). When employees perceive signals from their work environment that they are valued and important, they are more likely to take initiative to solve organizational problems and bring changes to organizational betterment. Drawing on the future research called by Grant and Ashford (2008), we argue that HR systems play an important role to influence employees' intention to display proactive behavior.

As the contextual cue, high-performance work systems (HPWS) impact employee proactive behavior. HPWS can be defined as a group of separate but interconnected human resource (HR) practices that involve selective staffing, extensive training and development, developmental performance appraisal, competitive compensation, flexible job assignments (Takeuchi, Lepak, Wang, & Takeuchi, 2007). Prior research suggests that these practices increase employees' knowledge, skills, and abilities (Delery & Shaw, 2001) and the result is greater job satisfaction, enhanced commitment, lower employee turnover, and higher productivity (Becker, Huselid, Pickus, & Spratt, 1997). However, research reveals that the intended HPWS policies are found different from employee perceived HPWS (Bowen & Ostroff, 2004). Keeping this as evidence, we intended to consider employee perceived HPWS in this study. While the extant research examines the relationship between HPWS and numerous work-related outcomes, it does not explicitly reveal the underlying mechanism through which the systems of HR impact work-related outcomes, especially proactive behaviors. This study, therefore, intends to explore the potential mediating role of perceived organizational support (POS) in the relationship between HPWS and proactive behaviors.

POS, defined as the employees' perceptions of the degree to which organizations worth employees and care about their well-being (Eisenberger, Fasolo, & Davis-Mastro, 1990), is an important construct explaining the basic reason for employee behaviors grounding in social exchange relationships. According social exchange theory (Blau, 1964), when employees perceive benefits from their organization, they are more likely to take initiative to sustain mutually beneficial and long-term relationships with their organization. Empirical research suggests that a high level of POS motivates employees to perform the desired behaviors valued by the organization. Prior research has identified the positive influence of HPWS on employee POS (Allen, Shore, & Griffeth, 2003; Liao, Toya, Lepak, & Hong, 2009; Snape & Redman, 2012; Zhang & Jia, 2010). Although the HPWS-POS linkage is well examined, little is known about how POS mediates the relationship between HPWS and employee proactive behaviors. Drawing on social exchange theory (Blau, 1964), we argue that HPWS adoption motivated employees to experience organizational support and care for their

well-being and in turn, employees are more likely to engage in proactive behaviors.

This study attempts to contribute in extant strategic human resource management (HRM) research, incorporating employee proactive behaviors as a salient outcome of a firm's HR systems. Furthermore, the current study tends to explore the mediating role of POS in the relationship between HPWS and employee proactive behaviors.

### **Theoretical Background and Hypotheses: HPWS and proactive behavior:**

The human resources management system is constituted such HR practices that may motivate employees to exert the desired behavior that is consistent to the organizational strategy. More specifically, HPWS can be defined as a group of separate but interconnected HR practices designed to enhance employee's skills and effort (Datta, Guthrie, & Wright, 2005). HPWS encompass such HR practices that impact employees' ability, motivation and opportunities to develop. Moreover, HPWS play a synergistic role with the organizational strategies that lead to higher performance (Becker & Gerhart, 1996; Schuler & Jackson, 1987). Although researchers debate differently on which HR practices will be included in HR systems, a shared agreement has been argued for those practices which increase employees' ability, motivation, and opportunity to develop (Appelbaum, Bailey, Berg, & Kalleberg, 2000; Wright & Boswell, 2002). In line with this agreement, the present study entails HR practices comprised in HPWS, such as participative management, recruitment, training, performance-based compensation systems, developmental performance appraisal systems, and flexible work environment.

Grant and Ashford (2008) define proactive behavior as anticipatory actions that employees display to change their surroundings. They also described the difference between proactive behaviors and motivated behavior and reactive behavior in two aspects, such as acting in advance and intended impact. Crant (2000) defines proactive behavior as "taking initiative in improving current circumstances; it involves challenging the status quo rather than passively adapting present conditions" (p. 436). Employees can engage in proactive activities as part of their in-role and extra-role behaviors (Crant, 2000). Proactive behavior is a type of motivated and change-focused behavior at work (Bateman & Crant, 1993). Being proactive, employee acts in advance with more anticipative, agentic and mindfulness. On the other side, keeping firm's intention to change the environment, employee aims to bring more visible results. Proactive behaviors are sought by employees to change themselves, their peers, or the environment (Grant & Ashford, 2008). Moreover, proactive behavior entails behaviors such as anticipating,

planning, solving problems and searching ways to change the current circumstances (Parker & Collins, 2010; Parker et al., 2006).

Previous research has revealed the relationship between HPWS and employee work-related behaviors such as job performance, organizational citizenship behavior, and creativity behavior (Kehoe & Wright, 2013; Messersmith, Patel, & Lepak, 2011; Snape & Redman, 2010; Sun, Aryee, & Law, 2007; Chang, Jia, Takeuchi, & Cai, 2014). As the adoption of HPWS motivates employees, it is argued that employees feel responsible to do extra effort beyond their work-related task. We employ social exchange theory (Blau, 1964) to explain the relationships between HPWS and proactive behaviors. According to social exchange theory (Blau, 1964), individuals generally try to pay back those who have helped them. The key proposition of the social exchange theory in POS is that when employees perceive any form of cares from the organization, they would reciprocate with contributions. Furthermore, when employees get benefit from their organization, they are more likely to take initiative to sustain mutually beneficial and long-term relationships with their organization. HPWS send signals from organizations to its employees that employees' capabilities are valued by the organization and in turn, they come forward to solve organizational problems deliberately. Therefore, we can predict the following hypothesis:

*Hypothesis 1: HPWS is positively related to employee proactive behavior.*

### **HPWS and POS:**

The concept of perceived organizational support is rooted in the social exchange approach that describes the exchange of both parties with non-binding obligation. Although POS is developed to explain the development of employee commitment, empirical research has been revealed the relationship between POS and numerous outcomes. Eisenberger and his colleagues (1986) defined POS as the development of employees' "global beliefs concerning the extent to which the organization values their contributions and cares about their well-being" (p.501) and such global belief reflects perceived organizational support. Grounding on social exchange approach, Eisenberger and his colleagues (1986) further argued that once employees feel the commitment of the organization, the employees are likely to have the same belief showing their enhanced commitment toward organizations. When employees experienced enhanced POS, in turn, employees feel a sort of obligation that is not necessarily confined in showing the increased commitment to the organization, but also enhanced behaviors desired by the organization. Moreover, employees try to make a

balance their attitudes and behaviors depending on the degree to which the organization keeps its commitment.

A body of researchers has identified the numerous antecedents of POS. As an organizational context, HPWS influence employees to feel organizational support. Prior research has revealed HPWS, as a set of HR practices and individual HR practices, such as staffing, training, compensation systems, result-oriented performance appraisal, and participation in decision making (Allen, Shore, & Griffeth, 2003; Liao et al., 2009; Snape & Redman, 2012; Zhang & Jia, 2010). HPWS send messages to employees that their efforts are appreciated and valued to organization, in turn, they feel a high level of POS. More specifically, the HR practices included in HPWS are seen as supporting, caring and concern for employees' welfare (Snape & Redman, 2010). On the basis of these studies, we argue that employees will be motivated by the HPWS that affect their understanding of organizational support. Thus, we can hypothesize:

*Hypothesis 2: HPWS is positively related to employee perceived organizational support.*

### **POS and proactive behavior:**

Previous studies have found the relationship between POS and employee extra-role behaviors, especially organizational citizenship behavior. Rhoades and Eisenberger (2002) argued that POS is representing the organizational assistance fulfilling employees' socio economic needs, which in turn, employees are more likely to give results by fulfilling organization's interest. This exchange relationship is defined in social exchange theory (Blau, 1964). Moreover, a high level of POS motivates employees to contribute their best toward achieving organizational goals (Coyle-Shapiro & Conway, 2005) and performing at a high level (Rhoades & Eisenberger, 2002). We argue that employees with high POS feel more comfortable and less constrained by their jobs, such that they are more likely to help others and be proactive in their jobs. Thus, we propose the following hypotheses:

*Hypothesis 3: Perceived organizational support is positively related to employee proactive behaviors.*

### **Mediating role of POS:**

Despite the advancement of strategic HRM research, to our knowledge, considerably less research has been devoted to reveal the mediating role of POS in the relationship between HPWS and employee outcomes (for reviews, see Allen et al., 2003; Liao et al., 2009; Zhang & Jia, 2010). Furthermore, HPWS studies examined the mediating role of POS on employee attitudes and job performance neglecting extra-role behaviors such

as proactive behaviors. This study attempts to find out employees' proactive behaviors as the potential outcomes of HPWS and POS.

Allen and his colleagues (2003) demonstrated that employees' perceptions of participation in decision making, fairness of rewards, and growth opportunities were positively related to the development of POS, in turn, they showed more job satisfaction and organizational commitment and lower turnover. Liao and her colleagues (2009) revealed that the perceptions of HPWS motivate employees to develop high level of POS that further affect their service performance. Zhang and Jia (2010) found the significant mediating role of POS in the relationship between high-performance HR practices and corporate entrepreneurship. Based on these research and findings, we reason that POS may mediate the influence of HPWS on employee proactive behavior. HPWS entail such practices that show the importance of employees and care to the organization, which motivates them to develop a high level of POS, and such perceptions, in turn, affect employees' desire to display proactive behaviors. Thus, we hypothesize that:

*Hypothesis 4: The relationship between HPWS and proactive behavior is mediated by perceived organizational support.*

## **Research method**

### **Sample and study design**

To investigate our hypotheses, we collected data from three large private pharmaceutical firms in Bangladesh. All items in the questionnaire were originally in English. Following procedures suggested by Brislin (1980), we back translated into Bengali. The Bengali version questionnaire was back translated into English. Two sets of questionnaires with cover letters were prepared to get the responses. Employees were asked to respond on their perceived HPWS and POS. Employee's supervisor was asked to rate subordinate's proactive behavior. The questionnaires were distributed with the help of human resource manager during the work time. In the cover letter, the purpose of the survey and guidelines to respond were mentioned to get the highest response. Each employee's ID was taken and mentioned on the envelope of each set of questionnaire so that matching with his or her supervisor was tracked. All respondents were assured to keep confidentiality of their responses. We received completed and usable questionnaires from 247 employees, with a response rate of 76 per cent. Among employees, 68% (168) were male. In terms of education, a total of 118 (47.8%) employees had received Higher Secondary School certificate. Most of the employees' age 80.2% (198) were below 40 years and organizational tenure 81.3% (176) were below 10 years.

## Measures

Existing measures from past research were used. All of the constructs were measured using multiple items and anchored by a five-point scale (1 = Strongly disagree to 5 = Strongly agree).

**HPWS:** We measured employee perceived HPWS by using 18 items frequently used in prior research (e.g., Chuang & Liao, 2010; Lepak & Snell, 2002; Sun et al., 2007). Those items include six typical practices of HPWS such as staffing (e.g., “Selection emphasizes traits and abilities required for providing high quality of performance”), training (e.g., “The subsidiary continuously provides training programs”), developmental performance management (e.g., “Performance appraisals provide employees feedback for personal development”), performance-based compensation (e.g., “Employees receive monetary or nonmonetary rewards for great effort and good performance”), flexible work design (e.g., “The company considers employee off-work situations (family, school, etc.) when making schedules”), and participative decision making (e.g., “Employees are often asked to participate in work-related decisions”). We calculated the mean scores of all practices to represent this variable and the Cronbach’s alpha for this measure was .91.

**POS:** We used an eight-item scale developed by Eisenberger et al. (1990) to measure employee POS. A sample item read: “The organization really care about my well-being.” The scale’s Cronbach’s alpha was .89.

**Proactive behaviors:** An eight-item scale developed by Parker et al. (2006) was used to measure employee proactive behaviors rated by supervisor. A sample item read: “The employee implements ideas for improvements by him/herself.” The Cronbach’s alpha was .87.

**Control variables:** We controlled for employees’ age, gender, education, and organizational tenure. Age was measured on a scale from 1 (18 years to 29 years) to 6 (70 years and above) with 10-year intervals. Gender was measured as a dichotomous variable (i.e., 1 = male, 0 = female). Education level included five categories ranging from “1 = middle school or below” to “5 = master’s degree or above”. Organizational tenure was measured in years.

Table 1. Confirmatory factor analysis

Model	$\chi^2$	df	$\chi^2/df$	CFI	TLI	RMSEA
Null model	4257.23	243				
Three-factor model	543.67	210	2.60	0.92	0.91	0.05
Two-factor model A	757.43	212	3.57	0.85	0.84	0.08
Two-factor model B	879.64	212	4.15	0.83	0.82	0.11
Two-factor model C	963.48	212	4.54	0.80	0.78	0.14
One-factor model	1437.35	215	6.70	0.73	0.61	0.17

Notes: CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean square error of approximation. Two-factor model A: HPWS and proactive behavior were

combined into one factor; Two-factor model B: perceived organizational support and HPWS were combined into one factor; Two-factor model C: perceived organizational support and proactive behavior were combined into one factor; One-factor model: HPWS, perceived organizational support and proactive behavior were combined into one factor.

**Results**

A series of maximum likelihood confirmatory factor analyses (CFAs) in Amos 17 was tested finding the discriminant validity of all constructs. We compared fit of the hypothesized three-factor model with four alternative models. Table 1 shows the result of confirmatory factor analysis describing a significantly well data fit for hypothesized three-factor model ( $\chi^2 = 543.67$ ,  $df = 210$ ,  $\chi^2/df = 2.60$ ,  $p < .01$ , CFI = 0.92, TLI = 0.91, RMSEA = 0.05). Therefore, the conditions for discriminant validity are satisfied. Table 2 displays the descriptive statistics and correlations among all variables.

Table 2. Means, standard deviations, and correlations

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Age	1.98	0.73							
2. Gender <sup>a</sup>	0.68	0.47	0.01						
3. Education level	4.02	0.83	0.00	-0.14*					
4. Organization tenure	2.88	1.15	0.64***	0.07	-0.14*				
5. HPWS	4.11	0.48	0.02	-0.05	0.05	0.02	(.91)		
6. POS	4.17	0.54	0.05	0.03	0.02	0.03	0.38***	(.93)	
7. PB	4.26	0.64	-0.01	-0.01	0.03	-0.00	0.55***	0.47***	(.87)

Notes. *N* = 247 employees. Reliabilities (coefficient alpha) appear in parentheses on the diagonal. HPWS = high-performance work systems, POS = perceived organizational support, PB = proactive behavior.

<sup>a</sup> Male = 1, female = 0

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

To test all Hypotheses, we analyzed the data using regression analysis. As we predicted, Hypothesis 1, which states that HPWS is positively related to proactive behavior, was supported ( $\beta = 0.74$ ,  $t$ -statistic = 10.31,  $p < 0.001$ , Model 2 in Table 3). Hypothesis 2 was also supported, showing that HPWS is positively linked to POS ( $\beta = 0.43$ ,  $t$ -statistic = 5.23,  $p < 0.001$ , Model 1).

Table 3. Hierarchical regression analysis

Variables	POS		PB	
	Model 1	Model 2	Model 3	Model 4
<i>Control variables</i>				
Age	0.01(0.05)	-0.01(0.06)	-0.01(0.06)	-0.01(0.05)
Gender <sup>a</sup>	0.07(0.06)	0.03(0.07)	-0.03(0.08)	-0.03(0.08)
Education level	0.04(0.03)	-0.00(0.04)	0.01(0.04)	0.00(0.04)
Organization tenure	0.03(0.04)	-0.00(0.04)	-0.00(0.05)	-0.01(0.04)
<i>Independent Variables</i>				
HPWS	0.43*** (0.06)	0.74*** (0.07)		0.48*** (0.07)
POS			0.45*** (0.08)	0.29*** (0.09)



<i>F</i>	15.37***	21.32***	12.53***	23.67***
<i>R</i> <sup>2</sup>	0.23	0.31	0.24	0.43
Adjusted <i>R</i> <sup>2</sup>	0.21	0.29	0.21	0.39
$\Delta R^2$				0.10

Notes. Values in parentheses are standard errors; entries are unstandardized coefficients.

HPWS = high-performance work systems, POS = perceived organizational support, PB = proactive behaviors.

In Hypothesis 3, we expected and found the positive relationship between POS and proactive behavior ( $\beta = 0.37$ ,  $t$ -statistic = 6.84,  $p < 0.001$ , Model 3). Hypothesis 4 proposes that POS is a mediator of the relationship between HPWS and proactive behavior. To test this hypothesis, we followed the procedure outlined in Baron and Kenny (1986) and found that the results provide support for a partially mediating influence of POS on the relationship between HPWS and proactive behavior. As shown in Table 3, HPWS is positively related to POS (Hypothesis 2), and POS is also a significant predictor of proactive behavior (Hypothesis 3). However, when HPWS and POS were both entered, in Model 4, the effect size of HPWS on proactive behavior was reduced (from  $\beta = 0.74$  to 0.48), though its effect remains significant. In other words, the significant relationship between HPWS and proactive behavior declines slightly when POS is added to the equation. Thus, POS partially mediated the relationship between HPWS and proactive behavior. Following the procedure of Baron and Kenny (1986), we further attempted to examine the mediation effect of POS. We used the Sobel test (Sobel, 1982) to identify the significance level of the indirect effects. The outcomes indicated that the test statistic for HPWS ( $z = 2.94$ ,  $p < 0.01$ ) predicted POS as a significant mediator.

### Discussion:

The primary objective of our study was to investigate how HPWS lead to employee POS that, in turn, influence employee proactive behavior. We illustrated that HPWS motivate employees to have a positive POS and influences them to display proactive behavior. According to our hypothesis, we found a significant positive relationship between POS and proactive behavior. Further, we posited and found that POS mediated the positive relationship between HPWS and employee proactive behavior.

This study contributes to strategic HRM literature by explaining how HPWS impact employee proactive behavior. In prior research it was not clear the linkage between HPWS and employee proactive behavior. Although past research reveals the relationship between HPWS and employee in-role and extra-role behaviors and creativity behavior (Kehoe & Wright, 2013; Messersmith, Patel, & Lepak, 2011; Snape & Redman, 2010; Sun, Aryee, & Law, 2007; Chang, Jia, Takeuchi, & Cai, 2014), the results of

the study suggest employee proactive behavior as an outcome of HPWS. As per our prediction and analyses, we found a positive relationship between employee perceived HPWS and proactive behavior. Furthermore, this study reveals that employee perceived HPWS is positively related to perceived organizational support. This finding is analogous with the previous researches (Allen, Shore, & Griffeth, 2003; Liao et al., 2009; Snape & Redman, 2012; Zhang & Jia, 2010), which identified employee experienced HPWS as situational cues motivates employee to experience high level of POS. Moreover, few studies examined the impact of HPWS on employee POS in the past research, such as in USA (Allen, Shore, & Griffeth, 2003; Gavino, Wayne, & Erdogan, 2012), in China (Zhang & Jia, 2010) and in Japan (Liao et al., 2009). This study confirms the linkage between HPWS and POS in Bangladesh context, an emerging country in South Asia.

Moreover, we posited employee proactive behavior as an important consequence of employee's POS, which states the motivational impact on employee's job-related behavior. This study reveals that the feeling of care and well-being influence employees to exhibit proactive behavior. The result is similar to the work of Liu, Lee, Hui, Kwan, and Wu (2013), who have found the positive relationship between POS and proactive behaviors. Although previous studies examined the mediating role of POS in the relationship between HPWS and employee's service performance (Liao et al., 2009), a complete ignorance has been paid revealing employee proactive behavior as an important outcome. The current study posited and found that employee's POS mediated the relationship between employee experienced HPWS and employee proactive behavior.

Like any study, this research is not without limitations. Firstly, this study is cross-sectional nature, so the causal relationships among the variables cannot be ensured. Future study can replicate the model with longitudinal data to identify the causal link. Secondly, to reduce the common method bias, this study sought sample from both employees and their immediate supervisors. Furthermore, the discriminant analyses also revealed that common method bias is not a serious problem in the current study. Thirdly, as the sample of the present study has been drawn from Bangladesh, an emerging country in South Asia, we cannot endorse the generalizability of the findings to the western countries.

### **Conclusion:**

In present study was designed to determine the mediating effect of perceived organizational support in the relationship between the employee perceptions of HPWS and proactive behavior. The evidence from this study suggests that managers should be aware of designing HPWS in their organization. Furthermore, accessibility to information and consistence

practices of HPWS may motivate employees to perceive positive support from the organization. When employees are experienced of their valuation to the organization, they are more intent to solve organizational problem and engage in change-oriented behavior. This study enlightens the impact of situational variables, such as HPWS, on proactive behaviors explaining the mediating role of perceived organizational support.

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