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Article

High-performance work systems and job engagement: The mediating role of psychological empowerment

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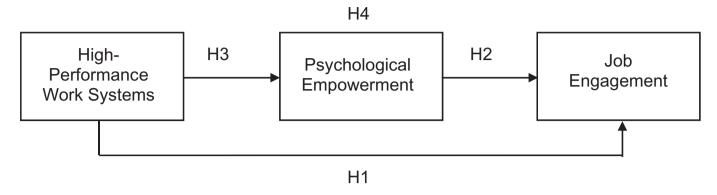
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MANAGEMENT | RESEARCH ARTICLE

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MANAGEMENT | RESEARCH ARTICLE

High-performance work systems and job engagement: The mediating role of psychological empowerment

Md. Shamsul Arefin^{1*}, Md. Shariful Alam², Md. Rakibul Islam¹ and Munmun Rahaman¹

Abstract: Drawing on the social exchange theory, this study aimed to investigate the mediating role of psychological empowerment in the relationship between high-performance work systems and job engagement. Data collected from 287 employees in a large manufacturing organization was analyzed using structural equation modeling and hierarchical regression analysis. The results showed that perceived high-performance work systems and psychological empowerment positively influenced job engagement. The results of the study also revealed that psychological empowerment mediated the influence of high-performance work systems on job engagement. The results further suggest that organizational human resources systems impact job engagement through psychological empowerment. The theoretical contribution and managerial implications have been thoroughly discussed in this paper.

Subjects: Work & Organizational Psychology; Work Motivation; Personnel Selection, Assessment, and Human Resource Management

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PUBLIC INTEREST STATEMENT

While organizations strive to maintain sustained competitive advantages in the industry, it has become essential to get employees engaged in their jobs for organizational advancement in this century. Job engagement has long been considered a vital employee aspect in successful organizational performance. Prior studies suggest that both organizational and individual factors affect employees to be engaged with their jobs. In this study, we propose that high-performance human resources systems indirectly affect job engagement in the manufacturing settings in Bangladesh. More specifically, we examine the mediating role of psychological empowerment in the association between high-performance work systems and job engagement. Previous studies suggest that high-performance work systems can have a significant role in building psychological empowerment and job engagement. Our results suggest that high-performance work systems have significant positive effects on job engagement and psychological empowerment. Besides, high-performance work systems enhance employee perceived psychological empowerment, which in turn improves job engagement.









Keywords: High-performance work systems; job engagement; psychological empowerment; structural equation modeling

1. Introduction

In recent times, organizational researchers have demonstrated a substantial interest in revealing the role of job engagement (Alfes, Shantz, Truss, & Soane, 2013; Boon & Kalshoven, 2014; Gruman & Saks, 2011; Schaufeli, 2012; Zhong, Wayne, & Liden, 2016). Job engagement is a motivational attribute which is reflected in the employees' spontaneous manifestation of inner resources as they contribute towards the organization through their job performance (Kahn, 1990). Employees generally engage themselves in the work if they are satisfied, motivated, committed, and identified with the organization to show in-role and extra-role behavior and reluctant to quit from the organization (Christian, Garza, & Slaughter, 2011; Schaufeli, 2012; Zhong et al., 2016). According to BlessingWhite's 2013 report, out of the 7,068 respondents, only 33% were found to be engaging in their respective jobs. According to the report, China remains the region with the lowest (22%) levels of engagement and India the highest (42%). Albeit the report covered most areas of the world, the engagement levels of Bangladeshi employees remained unexplored. Prior research primarily explored the diversity among the job engagement identifying numerous antecedents and consequences of job engagement. Although extant research has identified the linkage of job engagement with employee attitudes and behaviors, relatively scant research, seldom scrutinized with revealing the organizational and individual factors that have an impact on job engagement. More specifically, few are known about the role of organizational human resource practices as antecedents of job engagement (Crawford, LePine, & Rich, 2010; Saks, 2006; Zhong et al., 2016) and the intervening mechanism through which human resources systems influence job engagement (Cooke, Cooper, Bartram, Wang, & Mei, 2016; Huang, Ma, & Meng, 2018; Zhong et al., 2016).

High-performance work systems (HPWS) comprise a group of separate but interconnected human resource (HR) practices including rigorous recruitment and selection, continuous training and development, developmental performance appraisal, and performance-based compensation system (Takeuchi, Lepak, Wang, & Takeuchi, 2007). These HR practices play a fundamental synergistic role that increases employees' abilities, motivation and developmental opportunities (Delery & Shaw, 2001). HPWS impact employee's job satisfaction, commitment, in-role and extra-role performance (Becker, Huselid, Pickus, & Spratt, 1997). However, it has emerged from the findings of the previous studies that the intended HPWS are different from what employee perceived HPWS (Bowen & Ostroff, 2004). According to the study of Bowen and Ostroff (2004), we consider that the employee perceived HPWS to represent the HR practices of the organization. Based on Kahn's (1990) ethnographic research on job engagement, this study examines how human resource HR systems impact on job engagement. Furthermore, this study investigates the intervening mechanism through which organizational human resource systems influence employee job engagement.

We propose psychological empowerment, which represents the individual's feeling of some control over their surroundings and experience meaning in what they do, may act as a possible mediating mechanism. Psychological empowerment is defined as a motivational factor that explains the individual's perception of empowerment (Menon, 2001; Spreitzer, 1995). Psychological empowerment motivates employees to represent work-related attitudes and behaviors. Although previous research reveals the relationship between employee perceived HPWS and psychological empowerment (Aryee, Walumbwa, Seidu, & Otaye, 2012; Liao, Toya, Lepak, & Hong, 2009), little is known about how psychological empowerment mediates the relationship between HPWS and employee job engagement.

This research contributes to the extant job engagement and strategic human resource management literature through incorporating organizational and individual antecedents of job engagement. First, this study responds to the research call of Tuckey, Bakker, and Dollard (2012) in exploring the



potential influence of organizational variable in job engagement and the mediating mechanism through which organizational variable impact on job engagement. More specifically, this study examines HPWS as organizational variable and employee perceived psychological empowerment as an intervening mechanism between the HPWS and job engagement. Secondly, this study reveals the mediating mechanism through which employee perception of HPWS influences employee job engagement by undertaking psychological empowerment as mediator. Therefore, this study explores why and how employees show job engagement in response to human resource practices.

2. Theoretical background and hypotheses

2.1. High-performance work systems and job engagement

HPWS refer to a bundle of separate but interconnected HR practices, such as selective staffing, extensive training, developmental performance appraisal, performance-based rewards, flexibility, participatory decision making, and empowerment (Sun, Aryee, & Law, 2007). The interrelated HR practices influence each other and act as a synergistic effect as a whole. HPWS send signals about the worth and importance of employees in an organization. HPWS send the message of organizational commitment and support to employees (Gavino, Wayne, & Erdogan, 2012; Takeuchi et al., 2007). According to signaling theory (Spence, 1973), as an environmental cue, HPWS signal to employees that organization emphasizes employee contribution, recognizes their worth, fosters their development, cares about their skills and knowledge, and helps them to interpret the HR practices positively as like the organization (Arefin, Raquib, & Arif, 2015c; Sun et al., 2007; Takeuchi, Chen, & Lepak, 2009). Incorporation of HPWS, such as selective recruitment, rigorous training, enhanced job security, performance-based rewards, and autonomy reflect an organizational intention in investing human resources and treatment of employees as capital (Shaw, Dineen, Fang, & Vellella, 2009; Tsui, Pearce, Porter, & Tripoli, 1997).

The definition of job engagement is found inconsistent across studies (Christian et al., 2011). Kahn (1990) defined job engagement as the "harnessing of organization members' to their work roles; in job engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" (p. 694). Focusing on three dimensions of engagement, Schaufeli, Salanova, González-Romá, and Bakker (2002) define engagement as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (p. 74). Although there is little consensus over the meaning of job engagement, Christian et al. (2011) analyzed the numerous definition of job engagement and suggested a consistent phenomenon that is covered in most research as "high levels of personal investment in the work tasks performed on a job" (p. 89). This study follows Rich, LePine, and Crawford (2010) suggestion based on Kahn's definition of job engagement as "the simultaneous employment and expression of a person's 'preferred self' in task behaviors that promote connections to work and to others, personal presence (physical, cognitive, and emotional), and active, full performances" (Kahn, 1990, p. 700). From Kahn's point of view, job engagement is a multidimensional notion of motivation which requires physical, cognitive and emotional energy of the individual to perform work. Although the multidimensional dimension of engagement is tested in most service organizations, this dimension is also applied in manufacturing organizations. For example, on a sample of UKbased manufacturing organization, Soane et al. (2012) tested Rich et al.'s (2010) three cognitive dimensions of job engagement and found reliable. Soane et al. (2012) termed their newly developed dimension as intellectual engagement that is defined as "the extent to which one is intellectually absorbed in work" (p. 532). Moreover, researches arguably distinguish job engagement from work engagement and personal or employee engagement (Gupta & Shukla, 2018).

Job engagement is linked with employee attitudes and behaviors such as job satisfaction (e.g. Gruman & Saks, 2011; Koyuncu, Burke, & Fiksenbaum, 2006), job behavior, creativity (e.g. Bakker & Xanthopoulou, 2013), innovative behavior, citizenship behavior (Saks, 2006), organizational commitment (Saks, 2006) and active coping style (e.g. Rothmann & Storm, 2003). Further, high levels of engagement are negatively related to burnout, turnover (Shuck, Reio, & Rocco, 2011) and positively



related to employee well-being (Bakker & Demerouti, 2008; Schaufeli & Bakker, 2004). While extant research dealt with identifying the impact of job engagement on employee work-related behavior and organizational outcomes (Christian et al., 2011; Rich et al., 2010), relatively few studies revealed the organizational and individual factors as antecedents of job engagement. For instance, Kahn (1990) studied the psychological conditions of engaged and disengaged employees at work and identified three conditions, such as psychological meaningfulness, psychological safety, and psychological availability. The antecedents factors that linked to job engagement include organizational justice, self-efficacy, organizational tenure, authentic leadership, need for achievement, psychological empowerment (Quiñones, Van Den Broeck, & De Witte, 2013; Ugwu, Onyishi, & Rodríguez-Sánchez, 2014), job resources (Quiñones et al., 2013), perceived supervisor support (Jose & Mampilly, 2015), and organizational trust (Ugwu et al., 2014).

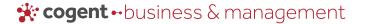
The concept of engagement has attracted the keen interest of both Western and Eastern researchers in the recent past and become generalized across the countries. In the South Asian region, numerous studies unveil the antecedents and consequences of engagement. For instance, in India, Gupta and his colleagues conducted a series of studies (Gupta, 2017; Gupta, Ravindranath, & Kumar, 2018; Gupta & Shukla, 2018) and identified job insecurity, prosocial voice, corporate social responsibility, justice, and trust as antecedents and task performance and organizational commitment as consequences of employee engagement and job engagement. In a study on Indian banking employees, Muduli, Verma, and Datta (2016) found the positive relationship between high-performance work systems and employee engagement. In Pakistan, Islam and Tariq (2018) studied on 563 knowledge workers employed in textile, cement, telecommunications, and banking industries and found the learning environment as an antecedent of employee engagement.

According to the social exchange theory (Blau, 1964), the employees are more likely to reciprocate the positive through work-related behavior, once they perceive organizational favor to them. The adoption of HPWS signals the investment and inducement in favor of employees and thus, motives them to exhibit work-related attitude and behavior that value the organization. Therefore, we propose that the HPWS executed by the organization increases employee job engagement.

Hypothesis 1: Perceived High-performance work systems are positively related to job engagement.

2.2. Perceived psychological empowerment and job engagement

Psychologically empowered employees are more committed to their job and organization (Bordin, Bartram, & Casimir, 2006). The research revealed that psychological empowerment is positively related to organizational commitment, employee job satisfaction, and extra-role behavior (Bordin et al., 2006; Wat & Shaffer, 2005). Psychological empowerment also motivates employees to positively cope with the changed situation and contributes to shaping the work roles and work units (Seibert, Wang, & Courtright, 2011). Moreover, psychological empowerment impacts job engagement and commitment (Albrecht & Andreetta, 2011; Jose & Mampilly, 2015). Psychologically empowered employees feel competent to perform their task and feel satisfied once they find opportunities to express their competencies, show high commitment to their jobs and organizations, perform better than the employees with low levels of psychological empowerment and have lower intention to leave the organization (Meyerson & Kline, 2008). The four dimensions of psychological empowerment, such as meaning, competence, image, self-determination, are associated with job engagement. They signify the perceived value of a task goal in comparison with an individual's own standards (Thomas & Velthouse, 1990). Besides, meaningfulness in work enhances employee motivation and attachment to work, which in turn impacts job engagement (May, Gilson, & Harter, 2004). Competence or selfefficacy describes the individual's belief in his or her knowledge, skills, and abilities to perform organizational tasks. Previous studies showed a positive association between self-efficacy and job engagement (Maslach, Schaufeli, & Leiter, 2001). Self-determination shows autonomy in the initiation and continuation of work behaviors and process (Spreitzer, 1995). Autonomy, as a job resource,



influences the motivational process of an individual, which impacts on job engagement (Bakker & Demerouti, 2008). Impact denotes organizational involvement and explains the perception of difference that an individual makes over the organization (Spreitzer, Kizilos, & Nason, 1997). It reflects the individual's perception of the progress of goal attainment and the action that make a difference in organizational performance, which ultimately motivates individual to be engaged (Stander & Rothmann, 2010). The association between psychological empowerment and job engagement is inconsistent in previous research. For example, Albrecht and Andreetta (2011) found no association between impact and job engagement. In contrast, Jose and Mampilly (2015) found a positive relationship between psychological empowerment and job engagement. Moreover, very few researches articulated this relationship in a non-western context. Therefore, we anticipate that employees who perceive higher levels of psychological empowerment are more engaged in their work roles.

Hypothesis 2: Perceived psychological empowerment is positively related to job engagement.

2.3. High-performance work systems and psychological empowerment

Employee empowerment is an important component that impacts employee work attitude and behavior. Conger and Kanungo (1988) viewed empowerment as a motivational approach and defined as "a process of enhancing feelings of self-efficacy among organizational members through the identification of conditions that foster powerlessness and through their removal by both formal organizational practices and informal techniques of providing efficacy information" (p. 474). Thomas and Velthouse (1990) defined empowerment as intrinsic motivation demonstrated in four perceptions: meaning, impact, competence, and self-determination. Spreitzer (1995) also suggested four dimensions of psychological empowerment: meaning, competence, impact, and autonomy. Meaning is defined as the feeling of the importance of one's own work. Secondly, competence is defined as the perceived self-confidence of one's own capabilities in performing the task. Impact signifies the perception of influence over the individual's working environment. Autonomy describes the freedom of choosing the way of performing tasks by applying an individual's own discretion. The integration of these four dimensions is important to represent the construct of psychological empowerment. The influence of work context on the psychological empowerment is recognized in the empowerment literature (Grant & Ashford, 2008). Perception of empowerment is influenced by the work environment (Thomas & Velthouse, 1990). Psychological empowerment comes from the organizational program and policies that include quality of work-life, favorable conditions, and human resources practices such as reward system, job security and developmental opportunities (Bordin et al., 2006; Spreitzer, 1995). Empowered employees are more potential to react to the changing organizational environment. Psychologically empowered employees are highly productive and more likely to behave positively fulfilling individual and organizational outcomes (Liden, Wayne, & Sparrowe, 2000). Empowerment literature demonstrates the influence of work context on psychological empowerment (Grant & Ashford, 2008). HPWS are the environmental cues that influence psychological empowerment (Arefin, Arif, & Raquib, 2015a, 2015b). HPWS include HR practices that influence psychological empowerment. For example, high job autonomy influences employees to feel empowered and freedom (Appelbaum, Bailey, Berg, Kalleberg, & Bailey, 2000; Carvalho & Chambel, 2014), performancebased compensation motivates employees to feel self-determined at work (Arefin et al., 2015a, 2015b), extensive training enhances employees capabilities to perform tasks, which further motivates them to show their competencies at work, participative management enables employees to feel more control over their tasks (Arefin et al., 2015a, 2015b). Participative management is embedded with increased job autonomy and empowerment (Seibert et al., 2011). Thus, it can be hypothesized:

Hypothesis 3: High-performance work systems are positively related to psychological empowerment.



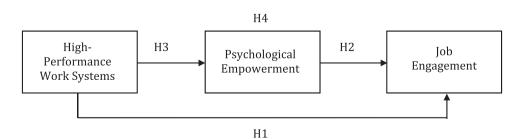
2.4. Mediating role of psychological empowerment

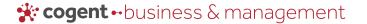
Prior research emphasized the mediating role of psychological empowerment in the association between contextual factors such as organizational policies and practices and employee attitudes and behaviors. More specifically, psychological empowerment acts as a mediating mechanism through which organizational HR practices impact on employee work-related attitudes and behaviors. Arefin et al. (2015a, 2015b) found that psychological empowerment mediated the positive relationship between HPWS and extra-role behaviors such as organizational citizenship behavior, employee proactive behavior. The intervening role of psychological empowerment in the relationship between HPWS and in-role behavior is well established in previous studies (e.g., Aryee et al., 2012; Liao et al., 2009). Albrecht and Andreetta (2011) found that psychological empowerment mediated the influence of empowering leadership on employee engagement. Wang and Liu (2015) studied on a sample of 300 Chinese clinical nurses and found that psychological empowerment mediates the positive relationship between a professional nursing practice environment and nurses' work engagement. Recently, Zhong et al. (2016) found that perceived organizational support mediated the relationship between high-performance HR practices and job engagement. Similarly, Huang et al. (2018) revealed the mediating role of employee's positive mood and job satisfaction in the relationship between HPWS and employee engagement. In a meta-analysis, Chamberlin, Newton, and LePine (2018) found that empowerment and voice transmit the effects of high-performance managerial practices on job performance. Based on these findings, we propose that psychological empowerment may explain why employees show high engagement at work in response to HPWS. We argue that HPWS as a situational factor influences employees to feel high psychological empowerment, that in turn influences them to be engaged.

HPWS that include selective staffing, extensive training, developmental performance appraisal, flexible work settings and performance-based rewards reflect different investments that organizations purposely make in their employees (Shaw et al., 2009; Tsui et al., 1997). According to social exchange theory (Blau, 1964), the investments that organizations provide employees as manifested by HR practices motivate employees to reciprocate by engaging in work-related behaviors that benefit the organization (Gould-Williams, 2007; Mossholder, Richardson, & Settoon, 2011). Therefore, we assume that high-performance HR systems enhance job engagement.

Drawing on social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960), Settoon, Bennett, and Liden (1996) argued that positive, beneficial actions directed at employees by the organization contribute to the establishment of high-quality exchange relationships that create obligations for employees to reciprocate in positive, beneficial ways (p. 219). When employees perceive a high level of psychological empowerment, they are more likely to feel obliged to reciprocate for what their organizations have provided by increasing their efforts to help the organization achieve its goals (Aselage & Eisenberger, 2003). Thus, based on social exchange theory and extant research (Allen, Shore, & Griffeth, 2003; Arefin et al., 2015b), we suggest that high-performance HR systems are positively related to employees' perceptions of psychological empowerment, which, in turn, acts as a mediating role in the relationship between high-performance HR systems and job engagement. The conceptual model of the study is depicted in Figure 1.

Figure 1. Conceptual framework of the study.





Hypothesis 4: Psychological empowerment mediates the positive relationship between high-performance work systems and job engagement.

3. Methodology

3.1. Data collection

The data were collected from a large private pharmaceutical firm in Bangladesh. As for our research sample, we have chosen a pharmaceutical company because pharmaceutical companies practice excellent human resources management in Bangladesh (Arefin & Islam, 2019). The HR department is contacted by both email and postal letter mentioning the purpose of the study. After getting a response from the HR department, personal appointments were made to present the project to the CEO. The CEO was assured that the identification of the employees would remain confidential and classified. Thus the personal information like employees' name, designation, contract address was excluded from the questionnaire. After obtaining the approval from the CEO, all the employees were invited to participate in the survey through posting the information in the company notice board. Each participant was given an envelope within which was encapsulated four questionnaires and a small gift with a monetary value of about sixty Taka (60 TK = 0.8 USD, 0.6 Euro) to increase the response rate. Participants were asked to complete the questionnaires immediately upon receiving, later filling it up and putting the completed questionnaires back into the envelopes and seal them. If some participants were unable to complete them immediately, the researchers reminded them by email that the data will be collected from them, within 3 days. Code numbers were placed on the completed questionnaires by the researchers to ensure anonymity. For greater understanding, we translated the items, which were originally in English form, into Bengali. Following Brislin, 1986), we back-translated the questionnaire into English.

3.2. Analyses

Statistical analyses were conducted using the SPSS 17.0 software (SPSS Inc., Chicago, IL, USA). In order to demonstrate the construct validity of the measures, confirmatory factor analysis (CFA) was performed using the AMOS 21 software package (Arbuckle, 2009). Previous to CFAs, data were inspected for multicollinearity, nonnormality, and outliers. In the first case, correlations higher than 0.85 were indicative of multicollinearity, whereas a skewness index over 3 and a kurtosis index higher than 10 were the criteria for nonnormal data (Weston & Gore, 2006). Scores with 4 standard deviations beyond the mean were considered outliers and eliminated from the analysis. The inspection of the data revealed that there were no multicollinearity issues. The distribution of the variables met the requirements of normality. Finally, only two cases were considered outliers, and therefore, they were not considered in the analyses. To estimate the CFAs maximum likelihood was the chosen technique. A total of four models were calculated. The level of common method variance was also examined by Harman's single-factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) which showed that common method bias was not a threat to our study as the variance explained by a single factor was 32 percent.

3.3. Measures

3.3.1. High-performance work systems

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). These items involve six typical practices of HPWS-staffing (e.g., The selection process is comprehensive"), training (e.g., The company continuously provides training programs), developmental performance management (e.g., Performance appraisals are based on objective, quantifiable results), motivational compensation (e.g., The company attaches importance to the fairness of compensation/rewards", flexible work design (e.g., The company has its ways or methods to help employees alleviate work stress), and participative decision making (e.g., If a decision made might affect employees, the company asks them for opinions in advance). To measure this construct, this study used a 5-point Likert-type



scale that ranged from 1 (strongly disagree) to 5 (strongly agree). The mean scores of all practices were measured to represent this variable and the Cronbach's alpha was 0.85.

3.3.2. Psychological empowerment

Psychological empowerment was measured using the 12-item psychological empowerment scale by Spreitzer (1995). This measures the extent to which workers believe they are empowered in their jobs, using four cognitive aspects of empowerment: meaning, competence, self-determination, and impact. Prior studies (Albrecht & Andreetta, 2011; Bhatnagar, 2012) have created a chain of evidence in support of this scale as a highly reliable measure for examining employees' perceptions of psychological empowerment. The responses were obtained using a 5-point Likert-type scale that ranged from 1 (strongly disagree) to 5 (strongly agree). Cronbach's alpha for the entire scale was 0.94.

3.3.3. Job engagement

Job engagement was measured with a 12-item scale adapted from Rich et al. (2010). This scale has three dimensions—physical, emotional, and cognitive engagement—which are loaded on a higher-order global construct to represent an overall measure of job engagement. Following the suggestions of Rich et al. (2010) and Zhong et al. (2016), we aggregated all the items to measure overall job engagement. A sample item is, "I feel positive about my work." The response scale ranged from 1 (strongly disagree) to 5 (strongly agree). Internal consistency was 0.96.

3.4. Control variables

Previous evidence reveals that the demographic variables such as age, gender, and educational level may be important predictors of engagement and psychological empowerment (Schaufeli, 2012; Seibert et al., 2011).

4. Results

4.1. Measurement issues

To identify the discriminant validity, we run the confirmatory factor analyses in Amos 21. The confirmatory factor analysis is generally used to distinguish the study constructs by comparing the chi-square of the hypothesized model with the alternative model. If the chi-square of the hypothesized model is significantly smaller, discriminant validity is shown (Segars, 1997). A total of four alternative models were compared with the hypothesized three-factor model. Table 1 shows the result of the confirmatory factor analysis describing a significantly well data fit for the hypothesized three-factor model ($\chi 2 = 1458.135$, df = 807, $\chi 2/df = 1.81$, p < .01, CFI = 0.92, TLI = 0.912,

Table 1. Con	firmatory fac	tor analysis				
Model	χ²	df	χ²/df	CFI	TLI	RMSEA
Null model	8784.126	861				
Three-factor model	1458.135	807	1.81	0.918	0.912	0.053
Two-factor model A	1963.75	809	2.47	0.87	0.85	0.10
Two-factor model B	2521.32	813	3.10	0.81	0.78	0.12
Two-factor model C	3173.64	818	3.87	0.77	0.75	0.13
One-factor model	3847.83	821	4.69	0.71	0.65	0.14

Notes. CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation. Two-factor model A: HPWS and job engagement were combined into one factor; Two-factor model B: psychological empowerment and HPWS were combined into one factor; Two-factor model C: psychological empowerment and job engagement were combined into one factor; One-factor model: HPWS, psychological empowerment and job engagement were combined into one factor.



RMSEA = 0. 53) and confirms the cutoff value of 0.08 or less for RMSEA, less than 3 for $\chi 2/df$ ratio, greater than 0.90 for CFI and TLI for good model fit (Kline, 2015). Therefore, it seems the results satisfy the conditions for discriminant validity. Means, standard deviations, and correlations of all variables are depicted in Table 2.

4.2. Hypotheses testing

To test all Hypotheses, we conducted regression analyses. The first hypothesis describes the relationship between HPWS and job engagement. As per our prediction in Table 3, Model 4, we found a significantly positive relationship between HPWS and job engagement (θ = 0.59, t-statistic = 9.33, p < 0.001). Hence, hypothesis 1 receives support. In our second hypothesis, we assumed that HPWS might be related to psychological empowerment. The results reveal that HPWS are positively related to psychological empowerment ($\theta = 0.40$, t-statistic = 5.95, p < 0.001, Model 2). Thus, hypothesis 2 is supported. In Hypothesis 3, we predicted the influence of psychological empowerment on job engagement. The analyses of the study suggest a significantly positive relationship between psychological empowerment and job engagement ($\theta = 0.52$, t-statistic = 9.98, p < 0.001, Model 5). Therefore, hypothesis 3 is supported. In hypothesis 4, we proposed the mediating role of psychological empowerment in the influence of HPWS on job engagement. Baron and Kenny's (1986) procedures were followed to measure the mediating impact. The results suggest the partial mediating role of psychological empowerment in the impact of HPWS on job engagement, as the impact of HPWS on job engagement was decreased (from θ = 0.59 to θ = 0.43) when psychological empowerment and HPWS were both predicted in Model 6. Furthermore, following Baron and Kenny (1986) procedure, the Sobel test (Sobel, 1982) was conducted to measure the indirect effect's significant level. The outcomes indicated that the test statistic for HPWS (z = 4.65, SE = 0.03, p < 0.001) predicted psychological empowerment as a significant mediator.

5. Discussion

The objective of this research is to identify the mediating role of psychological empowerment in associating high-performance work systems with job engagement. Based on social exchange theory (Blau, 1964) and norm of reciprocity (Gouldner, 1960), we proposed that HR systems not only affect job engagement directly but also affect job engagement indirectly through psychological empowerment. The results of this research support the association between HPWS and job engagement in the manufacturing industry in Bangladesh, which is consistent with other researchers' findings (Alfes et al., 2013; Boon & Kalshoven, 2014; Zhong et al., 2016). This emphasizes the significance of HPWS in improving job engagement. Besides, a positive relationship between HPWS and psychological empowerment was identified. The results show that HPWS predicted psychological empowerment that is aligned with past study outcomes (Arefin et al., 2015a, 2015b). The incorporation of HPWS might motivate employees to feel psychologically empowered in their work. The results of this study also revealed that psychological empowerment predicted job engagement. This is similar to the findings from the previous research studies (Albrecht & Andreetta, 2011; Bhatnagar, 2012) that found a positive relationship between employees' perceived psychological empowerment and job engagement. Our results show that psychological empowerment mediated the relationship between HPWS and job engagement. Anchored in social exchange theory, previous research found the indirect relationship between HPWS and job engagement (Cooke et al., 2016; Huang et al., 2018; Zhong et al., 2016). This finding helps us to understand how HPWS could affect employees' psychological empowerment and job engagement.

5.1. Theoretical contributions

This study intensifies the previous studies of employee engagement by examining the mediating role of psychological empowerment on the relationship between HPWS and job engagement. The model examined within this research suggests that HPWS indirectly affect job engagement when psychological empowerment is added as the mediator. The key contribution of the article comes from the investigation of psychological empowerment as a mediator in the relationship between HPWS and job engagement. Thus, this study establishes theoretically and empirically an

I dole 2. Medils, s	tallaara aeviatioi	Table 2. Medils, stalladra deviduolis, dila corretations	0					
Variables	W	as	1	2	m	7	2	9
1. Age	32.32	2.16						
2. Gender ^a	1.24	0.42	- 0.32					
3. Education level	2.21	0.98	0.47**	0.04				
4. High- performance work	3.41	0.77	70.0	90:0-	-0.09	(.85)		
5. Psychological empowerment	3.76	0.58	0.08	-0.01	-0.01	0.34***	(56.)	
6. Job Engagement	4.04	0.61	0.01	0.03	-0.12*	0.52***	0.49***	(96.)
-			-	-				

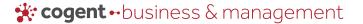
Notes. N = 287 employees. Reliabilities (coefficient alpha) appear in parentheses on the diagonal.

 $^{\alpha}$ Male = 1, female = 2

* p < .05.** p < .01. *** p < .001.

Independent			Dependen	Dependent Variables		
Variables	Psychological	Psychological Empowerment		Job Eng	Job Engagement	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Step 1 Control variables						
Age	0.03(0.03)	0.01(0.02)	0.04(0.03)	0.02(0.02)	0.03 (0.02)	0.02 (0.02)
Gender	-0.07(0.11)	-0.09 (0.10)	0.06(0.11)	0.04 (0.10)	0.10 (0.10)	0.07(0.09)
Education level	-0.09(0.05)	-0.08 (0.05)	-0.14(0.05)	-0.11 (0.05)	-0.09 (0.05)	-0.08(0.04)
Step 2 Independent Variable						
High-performance work systems		0.40***(0.07)		0.59***(0.06)		0.43***(0.06)
Step 3 Mediating Variable						
Psychological empowerment					0.52***(0.05)	0.40***(0.05)
F	1.33	10.04***	2.43	24.09***	27.34***	23.67***
R^2	0.01	0.13	0.03	0.26	0.28	0.39
Adjusted R ²	0.00	0.11	0.02	0.24	0.27	0.38
Δ R ²		0.12		0.23	0.01	0.11

Notes. Values in parentheses are standard errors; entries are unstandardized coefficients. * p < .05.** p < .01. *** p < .001.



explanatory mechanism for HR systems to act upon job engagement. To our knowledge, these relationships have not been investigated in prior research. The findings of the study supported the notion of universalistic impact of HPWS, which is primarily applied in the West. Since multinational organizations are operating throughout the world and applying the Western HR systems in emerging Eastern countries, the adoption of HR systems becomes common across cultures.

The results of this study provide support for the positive relationship between HPWS and job engagement. The result indicates that HPWS significantly predict job engagement in the Bangladeshi context. As a result, employees who perceived HPWS positively are more likely to be found engaging in their jobs. Employees invest energy into their jobs and enjoy carrying out the tasks associated with their jobs when they feel important in response to HPWS. HPWS are an important cue that influences employees in maintaining psychological involvement with the organization. Upon comprehending the social exchange theory, it can be argued that HR systems produce a reciprocal relationship in which employees feel emotionally connected and are obligated to repay or reciprocate their organization.

The key contribution of this article comes from the investigation of psychological empowerment as a mediating factor in the relationship between HPWS and job engagement. Although past studies have established the links between HPWS and job engagement (Zhong et al., 2016), it is important to uncover the psychological mechanisms underlying the relationship. Our findings indicate that the link between HPWS and job engagement is mediated by psychological empowerment. The finding of the study about the mediating effect of employee psychological empowerment aids answering how HPWS impact job engagement and reveals the black box of how HR systems influence employee attitudes and behaviors (Ramsay, Scholarios, & Harley, 2000). According to the social exchange theory (Blau, 1964), the norm of reciprocity (Gouldner, 1960), and signaling theory (Spence, 1973), HPWS implementation signals employees about the importance of people in the organization, which influences employees to feel empowered, in turn, impacts employees to be more engaged in their jobs.

5.2. Managerial implications

From a practical perspective, the findings of our study have several managerial implications. First, our results indicated that organizations might seek to improve employees' psychological empowerment in order to impact job engagement. Moreover, when managers endeavor to increase employee job engagement using high-performance HR systems, they should focus on establishing employees' psychological empowerment by signaling consistent information to show that the organization values their contributions and cares about their well-being (Cooke et al., 2016; Huang et al., 2018; Zhong et al., 2016). Second, in motivating and engaging employees in performance behaviors, high-performance HR systems do matter. Specifically, our results suggested that HPWS have the capacity to engender a high level of psychological empowerment, which in turn, motivates employees to work with a high level of job engagement. Thus, when implemented, HPWS should not only function as a coherent and synergistic system (Becker & Huselid, 2006) but should also be portrayed by the organization as a winwin strategy benefitting both employees and the organization (Guest, 2002; Paauwe, 2009). Third, if managers attempt to enhance employee job engagement, they should pay attention to both organizational and individual factors that could affect the job engagement given that HPWS and psychological empowerment strengthen job engagement.

5.3. Limitations and conclusions

This study found the mediating role of psychological empowerment in the positive relationship between HPWS and job engagement in the Bangladeshi context. This study is not free from limitations. This study included cross-sectional information on the relationships among study variables, and so inferences of causality could not be drawn on the mediating role of psychological empowerment. Longitudinal studies may explore the causal relationship among the study variables. The data were gathered only from a large manufacturing organization in Bangladesh, and this would also affect the



generalizability. Furthermore, only one possible mediating variable has been considered. It is most likely that other mediating variables are also relevant in explaining the outcome variable. The data used in the study collected from one source, i.e., employees. Further study may collect data from multiple sources, such as data on HPWS may be taken from the incumbent managers in different organizations. Further research may also incorporate employee behaviors, such as in-role and extrarole behaviors to identify the possible consequences of job engagement.

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