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Volunteer High Performance Work Systems and Service Performance: An Empirical Study of Beijing Olympic Volunteers

Abstract This study examines the key human resources factors that affect volunteers’ service performance from the perspectives of volunteers and managers in the Beijing Summer Olympic Games of 2008. Survey data were collected from 1,727 volunteers and 243 managers at the Beijing Olympics test events held at 10 venues between November 2007 and April 2008. Regression analyses and a moderation test were combined to test the hypotheses. A set of high performance work systems (HPWS) for volunteers in the Beijing Summer Olympic Games were developed which include performance management, training, recognition, teamwork and volunteer participation. Volunteer HPWS were positively related to psychological empowerment, which was in turn positively related to service recovery performance. Moreover, transformational leadership moderates the relationship between volunteer HPWS and psychological empowerment in such a way that the relationship is stronger when transformational leadership is at a higher level than when it is at a lower level. Implications and limitations were also discussed.

Keywords Olympic volunteers, high performance work system, service performance, psychological empowerment, transformational leadership

1 Introduction

Over the past few decades, a number of studies have examined the relationship between high performance work systems (HPWS) and organizational performance. This line of research suggests that certain high performance oriented human resource (HR) practices can improve organizational performance both directly and indirectly, and examines the conditions under which HPWS take effect (e.g., Becker and Huselid, 2006; Chadwick, 2007; Li, Zhao and Liu, 2006; Zheng, Morrison and O’Neill, 2006; Zhu and Chen, 2014). As more and more employees work in the service industry, the
examination of HPWS in the service environment has attracted extensive attention from academics. In this research stream, prior literature has shown that the adoption and implementation of employee HPWS could decrease employee resignations and dismissals, and enhance service performance and customer satisfaction (e.g., Batt, 2002; Batt and Colvin, 2011; Liao and Chuang, 2004; Liao, Toya, Lepak and Hong, 2009; Wu, Wei, Zhang, and Han, 2011).

In recent years, an increasingly important component of the service sector—the volunteer workforce—has been both economically and socially significant (Jago and Deery, 2002) and has raised the attention of business communities across the globe (Cavanagh, McNeil and Bartram, 2013; Cunningham, 2010; Fee and Gray, 2013). Studer and Schnurbein (2013) reviewed related literature on volunteer coordination and concluded that management practices, organizational attitudes toward volunteers and structural features are crucial factors that affect volunteering effectiveness. However, there are still some research gaps in this body of literature. For example, the use of HPWS for volunteers may differ from that for the traditional workforce (Fee and Gray, 2013; Lambell, Ramia, Nyland and Michelotti, 2008). Some research has shown that HPWS for volunteers are similar to general HR management (HRM) in its basic forms (e.g., Cuskelly, Taylor, Hoyer and Darcy, 2006; Fisher and Cole, 1993; Ilsley, 1990; Omoto and Snyder, 1993), while other research suggests that these practices cannot be readily adopted in volunteer management (Cnaan and Cascio, 1999). Thus, a set of HPWS practices needs to be developed for volunteer management. In addition, some prior research examines volunteer management in large-scale sports events (e.g., Bang, Alexandris and Ross, 2009; Bang and Chelladurai, 2009; Giannoulakis, Wang and Gray, 2007; Kemp, 2002), but it mainly focuses on the relationship between volunteer management practices and volunteer retention (e.g., Cuskelly et al., 2006). The relationship between volunteer management practices and service performance as well as the underlying mechanism needs further investigation.

This study addresses these gaps in prior research and contributes to the growing body of literature on HPWS and volunteer management. In particular, we empirically examine the effect of a set of HPWS on volunteers’ service performance in the Beijing Olympic Games. The Olympic Games are worldwide sports events that need the support of a large number of well-trained volunteers. The quality of volunteers in such sports events can determine the success of the event and the image of the host country. Therefore, the training and management of volunteers is critical to make the Olympic Games a success. In this research, we use the 2008 Beijing Olympic Games as the research context because of its huge impact and unprecedented large number of volunteers. In 2008, China hosted the Summer Olympics Games for the first time and the government spent millions of dollars on the event. The National Stadium, nick-named the “Bird’s Nest,” and the National Swimming Centre, known as the “Water Cube,” were built for the Olympics. The opening ceremony alone cost the government around 100 million U.S. dollars (Brand and Berkes, 2008). Yet, the huge success of the Beijing Olympics could not have been achieved without the efforts of volunteers. The number of volunteers at the 2008 Beijing Olympic Games—74,615—was the highest to date in all the Olympic Games. These volunteers provided great economic value (Lai, 2008). More importantly, these well-trained volunteers served as the medium for the public relations of the activity and the city of Beijing (Bang and Chelladurai, 2009; Wang, 2008).

The efficient organization and management as well as suitable policy and systems were critical for the success of the Beijing Olympic Games (Yuan, 2015). In this
empirical context, HPWS include a group of interconnected HR practices—e.g., volunteer selection, training, performance appraisal and compensation—designed to enhance the volunteers’ working efficiency and effectiveness. As volunteers typically are not compensated with money, HPWS that motivate them to work hard and improve organizational performance is particularly important. Zhuang and Girginov (2012) studied the Beijing Olympic Games and examined the volunteer selection processes via social, human and political capital. However, they did not examine the follow-up procedures in the HPWS (e.g., training and performance evaluation of volunteers) after the volunteers began to work in the venues. This study extends previous literature by systematically examining the volunteer HPWS in the Beijing Olympic Games based on first-hand survey data and interview results, which have provided both theoretical and practical support in explaining the service performance of volunteers. Our sample includes both volunteers and managers who were matched as dyads, and we have the evaluations of volunteers’ service performance rated by their direct supervisors/managers.

Furthermore, the role of psychological empowerment in the relationship between volunteer HPWS and service performance was examined. Psychological empowerment is a cognitive state characterized by a sense of perceived control, perceptions of competence, and internalization of the goals and objectives of the organization. Due to the large number of volunteers at mega sports events, it is impossible for supervisors and managers to watch every volunteer closely. Under these circumstances, the authority for certain tasks needs to be delegated to volunteers. Empowerment practices have been introduced in a number of organizations to improve productivity, increase customer satisfaction and enhance competitive advantage (Hardy and Leiba-O’Sullivan, 1998). The psychological processes in empowerment practices can be explained by increased intrinsic task motivation. Many scholars have examined the motivation of volunteers at sports/mega-events (e.g., Bang and Chelladurai, 2009; Jarvis and Blank, 2011; Giannoulakis et al., 2007). Taylor, Darcy, Hoye and Cuskelly (2006) applied psychological contract theory and found that volunteers in community sport clubs were mostly concerned with doing rewarding work in a pleasant social environment under tight time restrictions. Lee, Reisinger, Kim and Yoon (2014) suggested that intrinsic motivation of volunteers could leverage support for mega-events—such as Expo 2012—through enhancing satisfaction and attitudes. Dickson, Darcy, Edwards and Terwiel (2015) conducted comprehensive research on the pre- and post-Games motivation of volunteers and found that the timing of measures of motivations also could influence responses. They suggested a volunteer motivation scale that could be used across all types of sports events. To contribute to the existing research, this study attempts to explore the role of psychological empowerment in motivating volunteers to work actively on their own. The development of volunteer HPWS could facilitate volunteers’ perception of meaning at work and enhance their competence so as to contribute to their service performance.

The role of transformational leadership in the relationship between volunteer HPWS and psychological empowerment was also examined in this study. In the context of the Olympic Games, transformational leadership played an important role in improving the volunteers’ performance. In particular, transformational leaders could utilize participative decision making, provide information to volunteers, explain their decisions and coach them toward better problem solving and performance (Arnold, Arad, Rhoades and Drasgow, 2000). Tuckey, Bakker and Dollard (2012) also indicated that leadership can improve work engagement and optimize working
conditions to enhance vigor, dedication and absorption. Bang (2011) examined the leader-member exchange between volunteer leaders and followers in nonprofit sport organizations, and found it would positively impact volunteers’ job satisfaction and intention to stay. In this paper, we suggest that transformational leadership could leverage the positive effect of HPWS on psychological empowerment and facilitate the implementation of volunteer HPWS. In the following sections, we review relevant theories and literature, and introduce the methods and results. Finally, we conclude the paper, and discuss the limitations and future research directions.

2 Theoretical Background and Hypotheses

2.1 High Performance Work Systems (HPWS) for Volunteers

To attract episodic volunteers, program managers must establish a separate program with its own recruiting, screening, supervision, training, recognition and evaluation (McDuff, 1995). Managing volunteer services is similar to HRM in general terms. Numerous studies have examined the relationship between HR practices and organizational performance, but considerable disagreement remains on the magnitude and nature of the relationship (Wright, Gardner, Moynihan and Allen, 2005). Among these disagreements, a key problem lies in how HPWS affect organizational performance (Becker and Huselid, 2006; Evans and Davis, 2005). Some scholars have examined the direct relationship between HR systems and organizational performance (Wang and Zang, 2005), while others have explored the indirect relationship (Li et al., 2006; Sun, Aryee, and Law, 2007; Zheng et al., 2006) and the conditions for the relationship to exist (Chang and Huang, 2005). A non-linear relationship between HR practices and organizational performance has also been tested (Chadwick, 2007). As there are many environmental factors and personal psychological factors that could affect the relationship, the underlying mechanism of the relationship needs to be explored (Datta, Guthrie, and Wright, 2005; Collins and Smith, 2006). More recent studies of the HR-performance relationship have examined the service industry (Batt, 2002; Batt and Colvin, 2011; Liao and Chuang, 2004; Liao et al., 2009). Building on previous studies (e.g., Pfeffer, 1998; Zacharatos, Barling, and Iverson, 2005), Liao et al. (2009) defined HPWS for service quality as a system of HR practices designed to enhance employees’ competencies, motivation and performance in providing high-quality service to external customers. In their view, HPWS include practices such as extensive service training, information sharing, self-management of service teams and participation, compensation contingent on service quality, job design aimed at producing high-quality work, service-quality-based performance appraisals, internal service, service discretion, selective hiring, employment security and reduced status differentiation.

Volunteers differ from paid staff in a series of aspects, among which the most obvious ones are that volunteers do not sign formal labor contracts with the organization and are not paid for their work except for travel and meal subsidies as appropriate. Thus, HPWS for volunteers will have a different emphasis than general HPWS. Many guides are available for volunteer administrators, helping them to implement HR practices such as careful and planned recruitment, orientation, screening, job placement, supervising, evaluating and providing symbolic rewards (Fisher and Cole, 1993; Irlsley, 1990; Omoto and Snyder, 1993). Based on the empirical programs of the Australian Sports Commission (2000), Cuskelly et al. (2006) developed a volunteer HPWS that included planning, recruitment, screening,
orientation, training and support, performance management and recognition, and they found a positive relationship between HR practices and volunteer retention.

Besides traditional HR practices such as performance management, training and recognition, this study also investigated two volunteer-specific practices, namely teamwork and volunteer involvement. Team working is the current name for the use of semi-autonomous work groups, and a number of success stories have shown that working as a team most often leads to the outcomes desired by managers (DeChurch and Mesmer-Magnus, 2010; LePine, Piccolo, Jackson, Mathieu and Saul, 2008). The context of volunteer service determines the group features of the workforce. The task goals cannot be achieved through the efforts of a single volunteer, but demand support and communication among team members as well as coordination between different teams. For example, the media department of the Olympic Committee requires the competition department to distribute printed results to pigeonholes located in the press workroom and awaits the technology department to provide wireless signals in the press areas. Employee involvement is a predictor studied by many scholars as it is thought to improve work performance (Camps and Lana-Arocas, 2009; Shih, Chiang, and Hsu, 2010; Zatzick and Iverson, 2006). Forms of employee involvement fall into categories of task involvement, financial involvement and involvement in decision making. The last category requires the deepest participation (Lewis, Thornhill, and Saunders, 2003). No matter what forms of participation are adopted, the goals are to enhance employees’ job satisfaction and to contribute to productivity and profits (Rose, 1988). For volunteers, participating in discussions of job-related issues, and getting involved in the decision-making process are among the most attractive practices, through which volunteers can better understand the work process and can be more intrinsically driven to work.

2.2 Volunteer Psychological Empowerment

According to Thomas and Velthouse (1990), empowerment is multifaceted and its essence cannot be captured by a one-dimensional concept. They defined psychological empowerment as a motivational construct manifested in four cognitions—meaning, competence, self-determination and impact—which were measured and validated by Spreitzer (1995). Meaning is the value of a work goal or purpose, judged in relation to an individual’s own ideals or standards (Thomas and Velthouse, 1990). It involves a fit between the requirements of a work role and one’s beliefs, values and behaviors (Brief and Nord, 1990; Hackman and Oldham, 1980). Competence, or self-efficacy, is an individual’s belief in his or her capability to perform activities with skill (Gist, 1987). It is analogous to agency beliefs, personal mastery or effort-performance expectancy (Bandura, 1977). Self-determination is an individual’s sense of having choice in initiating and regulating his/her actions (Deci, Connell and Ryan, 1989). Finally, impact is the degree to which an individual can influence strategic, administrative or operating outcomes at work (Ashforth, 1989). Together, these four cognitions reflect an active orientation to a work role in which an individual wishes—and feels able—to shape his or her work role and context.

Studies have indicated that HPWS are likely to enhance psychological empowerment among employees. Mathieu, Gilson and Ruddy (2006) argued that team empowerment develops more readily in settings that provides high-quality formal training with performance feedback. Kirkman and Rosen (1999) proposed that the implementation of team-based HR practices (e.g., compensation based on team membership, training within and across teams, participation in selection) was
positively related to team empowerment. According to Liden and Tewksbury (1995), providing teams with control and responsibility did not result in improved outcomes unless members had the skills and abilities needed to handle the tasks and decisions at hand. Better-trained teams were suggested to be best able to exploit the freedom that empowerment affords (Salas and Cannon-Bowers, 2001). Previous research also suggested that sharing information with employees in relation to the strategic, financial and marketing foci of the business unit, and a participative organizational climate, are antecedents to feelings of psychological empowerment (Spreitzer, 1995, 1996; Messersmith, Patel and Lepak, 2011). In addition, Spreitzer’s work (1995) examined the positive relationship between employees’ feelings of empowerment and rewards, including core compensation systems that emphasize performance-based pay and other forms of merit-based pay.

In a similar vein, volunteer HPWS are likely to motivate volunteers, making them feel the job is meaningful, that they have the competence to finish the job, and that they have choice and influence in initiating and regulating their actions at work. Volunteers learn about their work goals and principles through a series of training events (e.g., service lectures, seminars, team building, etc.), through which they acquire the necessary knowledge, skills and abilities to ensure service competence. The introduction to special events and teamwork could also make volunteers feel their work is of great meaning and social value. Volunteer involvement practices are designed to delegate more power to volunteers and increase their voices and impact on job-related issues, which is further enhanced through teamwork. Thus, the following hypothesis was developed:

**Hypothesis 1.** A volunteer high performance work system is positively related to the psychological empowerment of volunteers.

### 2.3 Transformational Leadership on Volunteers

Transformational leadership is typically conceptualized as a collection of four dimensions of leader behavior: inspirational motivation, idealized influence, intellectual stimulation and individual consideration (Bass, 1985; Bass and Avolio, 2000; Burns, 1978). Inspirational motivation refers to the way in which transformational leaders energize their followers by articulating a compelling vision of the future. Idealized influence involves engaging in charismatic actions that earn respect and cultivate pride, such as discussing important values and beliefs, communicating a sense of purpose and encouraging a focus on collective interests. This dimension broadens that traditional leadership role into that of a “manager of meaning” (Bryman, Gillingwater and McGuinness, 1996). Intellectual stimulation involves challenging followers to question their assumptions and think differently, appealing to followers’ intellect, and inviting innovative and creative solutions to problems. Finally, individualized consideration involves personalizing interactions with followers by providing relevant mentoring and coaching which will enable them to develop and self-actualize.

We adopted transformational leadership for volunteers for the specific purpose that it will motivate volunteers to achieve performance beyond organizational expectations by transforming volunteers’ attitudes and beliefs and by appealing to the moral values of volunteers (Burns, 1978). We argue that transformational leadership would be ideal for volunteers given the non-monetary nature of the compensation of this workforce, as the motivation of attitudes and beliefs plays a vital part in enhancing the
effectiveness and outcomes for volunteers’ work. Zhang, Cone, Everett and Elkin (2013) have adopted a Confucian perspective to contextualize transformational leadership in Chinese organizations, while our research expands the organizational setting to mega-events to test the role of transformational leadership in work outcomes. Few studies of transformational leadership have been conducted in the sports domain, and leadership research on volunteers is even less. Kent and Chelladurai (2001) used a sample of university athletic department employees and found that transformational leadership was supported by high-quality leader-member exchanges between middle-level managers and third-tier employees. Bang (2011) examined the leader-member exchange between volunteer leaders and followers in nonprofit sport organizations and suggested it would positively impact on volunteers’ job satisfaction and intention to stay.

Transformational leaders formulate and articulate idealized future goals that energize and create a sense of empowerment so that followers will internalize these goals (Kanungo and Mendoca, 1996; Wei, Yuan, and Di, 2010). These goals demonstrate the direction for volunteers and enhance their working enthusiasm and meaning. For example, transformational leaders tell volunteers that their work provides the basic human resource foundations for the overall success of the Olympic Games. They are also told that every individual volunteer’s work makes an essential contribution to the Games overall, and the goal of the Games is the satisfaction of “customers” including athletes, journalists, spectators and distinguished guests. Transformational leadership makes volunteers feel the great meaning inside the seemingly simple and repeated work into which more energies and enthusiasm are invested.

Transformational leaders also value the cognitive needs of followers by expressing confidence in followers’ ability to deliver high performance, and such inspirational motivation enhances feelings of self-efficacy and perceived competence (Conger, Kanungo and Menon, 2000; Dvir, Eden, Avolio and Shamir, 2002; Kark, Shamir and Chen, 2003; Shami, Zakay and Breinin, 1998). Transformational leaders use intellectual stimulation to challenge followers’ assumptions, thoughts and innovation, and enhance followers’ feelings of self-efficacy (Bass, 1999; Rafferty and Griffin, 2004). In the volunteer setting, transformational leaders care about volunteers’ emotions and feelings, promptly listen to their feedback and complaints and encourage teamwork so that volunteers are more likely to feel they are not working alone. They also build confidence within the job tasks through positive emotions and attitudes, communicate regularly with volunteers on how to boost service quality and encourage suggestions from volunteers, which may enhance the volunteers’ self-efficacy.

Individual consideration of followers’ needs for self-actualization can encourage followers to initiate and regulate actions and take on more responsibilities (Bass and Avolio, 2000; Avolio, Zhu, Koh and Bhatia, 2004). Transformational leaders care about the individual needs of all volunteers and adjust management practices based on the distinctive features of each volunteer to reward those providing excellent service. In these circumstances, volunteers can make full use of their advantages, obtain more opportunities to exercise their talents, and thus are more willing to take on responsibilities. For example, the query responsibility system was enacted in the operation of the Beijing Olympics Games of 2008. Under this system, the first volunteer approached by a customer should be responsible for providing a satisfactory answer to any questions raised by the customer. If the volunteer does not know an answer directly, he or she still needs to find the relevant colleagues who could offer
Transformational leaders are more prone to empower volunteers so that the query responsibility system can be better implemented. Based on the above argument, we derive Hypothesis 2.

**Hypothesis 2.** Transformational leadership is positively related to volunteers’ psychological empowerment.

Transformational leadership not only has a direct impact on psychological empowerment, it also interacts with volunteer HPWS in predicting psychological empowerment. It is known that the relationship between volunteer HPWS and psychological empowerment may not be the same for all volunteer teams. The human resource practices are more general and standardized in the context of large-sport events; however, the leadership style differs in each volunteer team, as leadership style depends on the individual characteristics of the supervisors/managers. Transformational leadership could help create a state that favors the expression and adoption of volunteer HPWS. For example, transformational leadership denotes a caring work environment in which employees believe that the leader is concerned with their thoughts, needs and feelings (Avolio et al., 2004; Rafferty and Griffin, 2004). According to social exchange theory (Blau, 1964; Cropanzano and Mitchell, 2005; Zhang and Jia, 2010) and the norm of reciprocity (Gouldner, 1960), when an organization cares about the well-being of its members, the employees are likely to respond with positive feelings in the job activities, and thus tend to be more cooperative with organizational management practices. In addition, transformational leadership encourages intellectual stimulation among followers (Bass, 1999) so that the human resource practices (e.g., organizational training) would yield more positive outcomes, since followers are encouraged intellectually to enhance their service knowledge, skills and abilities that translate into their competence. In a similar vein, other practices in the volunteer HPWS could also be reinforced toward their outcomes through the facilitation of transformation leadership. Thus, we derive the following hypothesis.

**Hypothesis 3.** The relationship between volunteer HPWS and psychological empowerment of volunteers is moderated by transformational leadership in such a way that the relationship is stronger when transformational leadership is at a higher level than when it is at a lower level.

### 2.4 Volunteer Service Performance

The nature of service includes simultaneity of service production and consumption, intangibility of service processes and outcomes, and customer involvement in service production (Bowen and Schneider, 1988). The performance and behaviors of frontline service providers directly influence service quality and customer satisfaction (Liao and Chuang, 2004; Liao et al., 2009). Also, service recovery performance, including making an apology, problem solving, being courteous and prompt handling, is an important service outcome which was found to positively influence customer satisfaction (Liao, Toya, Lepak & Hong, 2009).

Prior literature has examined the link between HR practices and service quality. According to Schneider and White (2004), the extent to which HR practices, policies and procedures are designed to encourage and allow employees to deliver high-quality service is a primary influence on how employees develop their sense of the service
initiative of their organization. Schneider and Bowen (1995) indicated that equipment, procedures and technology could facilitate service delivery in the eyes of both employees and customers. Albrecht and Zemke (1985) suggested that focusing on customers’ needs, developing a service strategy, designing customer-friendly service systems and having well-trained employees at all levels of the organization were related to an organization’s ability to deliver high-quality service. Salanova, Agut and Peiro (2005) suggested that training, autonomy and technology can be positive predictors of service outcomes. Moreover, Gupta and Gannon (2007) showed that management practices influence employees’ service behaviors and capabilities and in turn affect service quality.

Psychological empowerment has been defined as having a sense of voice in helping to mold and influence organizational activities (Spreitzer, 1996, 2007). Company-reported evidence has demonstrated consistent links between the use of empowered work teams and high levels of quality and customer service (Lawler, Mohrman and Ledford, 1995; Manz and Sims, 1993; Wellins, Wilson, Katz, Laughlin, Day and Price, 1990). Empowered teams take responsibility for handling customer complaints directly and often diagnose their own quality problems and issues (Wellins, Byham and Wilson, 1991). To the extent that team members are empowered, they will be freer to plan and organize their work orders, implement different performance strategies, coordinate their own actions and otherwise align their collective efforts with work demands in order to meet their goals (Mathieu et al., 2006). In the service industry, Liao et al. (2009) found that psychological empowerment played a key role in determining service outcomes. For volunteers, psychological empowerment can enhance their essential skills in dealing with service situations, including how to handle conflict and making an apology. Psychological empowerment also can intrinsically motivate volunteers to express positive emotions toward work, especially in circumstances that require them to be courteous and prompt which in turn affects their perception of service delivery and orientation. As such, we derive the following two hypotheses.

**Hypothesis 4.** Volunteer psychological empowerment is positively related to service performance.

**Hypothesis 5.** Volunteer psychological empowerment is positively related to service recovery performance.

Based on the above arguments and hypotheses, the overall framework of the study is shown in Figure 1.
3 Methods

3.1 Sample

The proposed theoretical framework was tested using data from 10 Olympic test events in 10 venues of the Beijing Olympic Games between November 2007 and April 2008. Olympic test events are held one or two years before the Olympic Games to test the Olympic venues’ operations, organizational security, technical systems, equipment and facilities (Beijing Organizing Committee for the Olympic Games, 2006; 2007). These test events are approved by the International Olympic Committee, technically guided by the International Federations and organized by the Olympic Organizing Committee. In Olympic test events, volunteers include those working in general services (e.g., the spectator service), and those working in professional service (e.g., media operations). All these volunteers receive professional training and practice which improves their performance at the Olympic Games.

An example of an Olympic test event is the 2008 “Good Luck Beijing” China Water Polo Open, which was held at the Ying Tung Natatorium in Beijing during March 18-23, 2008. Besides the Ying Tung Natatorium, the other nine Olympic venues in the study include the National Stadium (gymnastics), Peking University Gymnasium (table tennis), Weeklong Stadium (basketball), National Conference Center Fencing Hall (fencing), the Workers’ Gymnasium (boxing), Beijing University of Technology Gymnasium (rhythmic gymnastics), Laotian Bicycle Gymnasium (indoor bicycle), Capital Gymnasium (volleyball) and the Beijing Shooting Range (shooting). The survey data for the study were collected from volunteers working in these venues during the Olympic test events. A total of 1,727 questionnaires were completed by volunteers with a return rate of 91.76%. In addition, 243 surveys were completed by managers (return rate: 81.76%). After matching the volunteer-manager pairs, there were 94 teams including 607 volunteers from the 10 venues. Each team consisted of one manager and at least two volunteers.

To avoid possible common method bias, the volunteers in the sample were randomly divided into three sub-samples (Groups A, B, C) to test the hypotheses. Therefore, for each team, volunteers’ evaluation of HPWS is from Group A; volunteers’ evaluation of transformational leadership style is from Group B; and volunteers’ evaluation of psychological empowerment is from Group C.

3.2 Procedure

All the data were collected from volunteers at the end of their participation in the Olympic test events. It should be noted that between 2007 and 2008, the first author of this study worked as a media manager for the Olympic Organizing Committee, and thus the research team was granted access to all Olympic venues in order to conduct this study. The first author, together with a postgraduate student from a well-known university in Beijing who also worked on the Organizing Committee, distributed the questionnaires at a series of Olympic venues. The authors also received support from the Volunteer Management Department of the Organizing Committee for the data collection. Several research assistants were recruited to help with the data collection from the spectators. Another research assistant was recruited for data input.

To measure the variables of interest, the scales in the previous literature were adapted to the Olympic context. For example, the word “employees” used in the
existing scales was changed to “volunteers,” and the word “organization” was changed to “Olympic venue.” We conducted in-depth interviews with paid staff on the Organizing Committee and focus group interviews with volunteers in the departments of media operations and spectator services. Archival data were also obtained to gain a broad and vivid understanding of volunteer HR practices, and of the volunteers’ perceptions of work and service.

Before the survey, a pilot study in the Olympic Sports Center was conducted for the “Good Luck Beijing” Modern Pentathlon World Cup Final in September 2007. A sample of volunteers from each department completed the preliminary survey. Minor modifications were made to the survey according to the volunteers’ feedback.

In the formal study, the final questionnaires were sent to volunteers at the Olympic venues mentioned earlier. Volunteers were asked to assess the HR practices and leadership styles of the managers on their teams and to report their perceived psychological empowerment. We ensured that they completed the survey at the end of their service period. Managers were asked to complete the manager survey questionnaire to evaluate the service performance (including service recovery performance) of the volunteers on the teams they were responsible for. A research assistant helped code all of the information from the surveys.

3.3 Measures

*High performance work systems (HPWS).* To obtain volunteers’ ratings of the manager’s HPWS, a 19-item scale was adopted (Delery and Doty, 1996) (e.g., all volunteers’ contributions are recognized and praised). A factor analysis was conducted, and it was found that a single factor explained 60.92% of the total variance. Thus, a unidimensional operationalization was appropriate. The Cronbach’s alpha was 0.93, indicating that the scale had high reliability.

*Transformational leadership.* Volunteers’ evaluation of the manager’s transformational leadership was measured by a 14-item scale (Bass and Avolio, 2000) (e.g., “Providing support to us when we face challenges in work.”). The Cronbach’s alpha was 0.96.

*Psychological empowerment.* Volunteers’ evaluation of the psychological empowerment of the team was measured by a six-item scale developed by Spreitze (1995). The original scale was adapted to the Olympic volunteering context. This scale assessed volunteer-perceived meaning (e.g., “The volunteer service work I do is meaningful to me”) and competence (e.g., “I am self-assured about my capacity to perform my activities in Olympic service”). The Cronbach’s alpha was 0.88.

*Service performance.* Managers’ evaluation of volunteers’ service performance was defined as “their behaviors of serving and helping customers” (Liao and Chuang, 2004). An 18-item scale (Liao and Chuang, 2004) was adopted (e.g., “Volunteers are willing to listen respectfully to customers”), and the Cronbach’s alpha was 0.90.

*Service recovery performance.* Managers’ evaluation of volunteers’ service recovery performance was measured by a 15-item scale (Liao et al., 2009) (e.g., “Volunteers are able to make a clear explanation”). The Cronbach’s alpha was 0.95.

All the scales adopted were six-point Likert scales (1= strongly disagree; 6= strongly agree). An ordinary least squares (OLS) regression analysis was used in addition to a multivariate analysis of variance for the moderation effect.

4 Results

The descriptive statistics of the key variables as well as the correlations between them
are presented in Table 1. It was found that volunteer HPWS had significantly positive correlations with service performance, service recovery performance, and psychological empowerment. Furthermore, psychological empowerment was also positively correlated with service recovery performance, although its correlation with service performance was not statistically significant. These findings provided preliminary evidence for some of the hypotheses.

Table 1  Descriptive Statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Service performance</td>
<td>5.42</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Service recovery performance</td>
<td>5.38</td>
<td>0.62</td>
<td>0.63***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Psychological empowerment</td>
<td>5.58</td>
<td>0.29</td>
<td>0.05</td>
<td>0.23*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Volunteer HPWS</td>
<td>5.28</td>
<td>0.73</td>
<td>0.44***</td>
<td>0.71***</td>
<td>0.27*</td>
<td></td>
</tr>
<tr>
<td>5 Transformational leadership</td>
<td>5.58</td>
<td>0.34</td>
<td>0.04</td>
<td>0.04</td>
<td>0.34**</td>
<td>0.06</td>
</tr>
</tbody>
</table>

Notes. *p < .05, **p < .01, ***p < .001.

Regression analyses were used to test Hypotheses 1-3. The estimation results are shown in Table 2. In model 1, the independent variables were volunteer HPWS and transformational leadership, while in model 2 the interaction between these two variables was also included. The results showed that volunteer HPWS were positively related to volunteer psychological empowerment ($p < .10$), and thus Hypothesis 1 is supported. Although there was a positive relationship between transformational leadership and volunteer psychological empowerment, this effect was not statistically significant. Thus, Hypothesis 2 is not supported. In model 2, the interaction effect of volunteer HPWS and transformational leadership on psychological empowerment was examined. It was found that transformational leadership significantly moderated the relationship between volunteer HPWS and psychological empowerment ($p < .01$). To better understand the interaction effect, a multivariate analysis of variance was conducted (see Figure 2). It was found that the relationship between volunteer HPWS and psychological empowerment was stronger when transformational leadership was at a higher level than when it was at a lower level. Thus, Hypothesis 3 is supported.

Table 2  The Results of the Regression Analyses on Psychological Empowerment

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer HPWS</td>
<td>0.213†</td>
<td>0.355**</td>
</tr>
<tr>
<td>Transformational leadership</td>
<td>0.025</td>
<td>0.050</td>
</tr>
<tr>
<td>Volunteer HPWS * Transformational leadership</td>
<td>0.049</td>
<td>0.139</td>
</tr>
<tr>
<td>R²</td>
<td>2.024</td>
<td>4.139**</td>
</tr>
<tr>
<td>△R²</td>
<td>0.909**</td>
<td></td>
</tr>
<tr>
<td>△F</td>
<td>8.005**</td>
<td></td>
</tr>
</tbody>
</table>

Notes. N=94, †p < .10, *p < .05, **p < .01.
To examine the consequences of psychological empowerment, a regression analysis was conducted on service performance (see Table 3). However, it was found that psychological empowerment was not significantly linked to service performance; thus Hypothesis 4 is not supported. In contrast, in the regression analysis of service recovery performance, it was found that neither volunteer HPWS, transformational leadership or their interactions was significantly related to service recovery performance; however, psychological empowerment was positively related to service recovery performance ($p < .05$). Table 4 shows the results of the regression analyses on service recovery performance.

Table 3  The Results of Regression Analyses on Service Performance

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer HPWS</td>
<td>0.242*</td>
<td>0.235*</td>
<td>0.227*</td>
</tr>
<tr>
<td>Transformational leadership</td>
<td>-0.214+</td>
<td>-0.216+</td>
<td>-0.221+</td>
</tr>
<tr>
<td>Volunteer HPWS *</td>
<td>0.018</td>
<td></td>
<td>0.016</td>
</tr>
<tr>
<td>Transformational leadership</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological empowerment</td>
<td></td>
<td></td>
<td>0.037</td>
</tr>
<tr>
<td>R²</td>
<td>0.072</td>
<td>0.072</td>
<td>0.074</td>
</tr>
<tr>
<td>F</td>
<td>3.067</td>
<td>2.206</td>
<td>1.528</td>
</tr>
<tr>
<td>△R²</td>
<td>0.000</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td>△F</td>
<td>0.021</td>
<td>0.102</td>
<td></td>
</tr>
</tbody>
</table>


Table 4  The Results of the Regression Analyses on Service Recovery Performance

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer HPWS</td>
<td>0.163</td>
<td>0.192</td>
<td>0.138</td>
</tr>
<tr>
<td>Transformational leadership</td>
<td>-0.151</td>
<td>-0.147</td>
<td>-0.175</td>
</tr>
<tr>
<td>Volunteer HPWS *</td>
<td>-0.069</td>
<td>-0.083</td>
<td></td>
</tr>
<tr>
<td>Transformational leadership</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological empowerment</td>
<td></td>
<td></td>
<td>0.236*</td>
</tr>
<tr>
<td>R²</td>
<td>0.035</td>
<td>0.038</td>
<td>0.089</td>
</tr>
<tr>
<td>F</td>
<td>1.430</td>
<td>1.051</td>
<td>1.894</td>
</tr>
<tr>
<td>△R²</td>
<td>0.004</td>
<td>0.050*</td>
<td></td>
</tr>
<tr>
<td>△F</td>
<td>0.318</td>
<td>4.290*</td>
<td></td>
</tr>
</tbody>
</table>
To summarize the results of the analyses above, all of the supported relationships in Figure 3 are presented below.

![Figure 3: The Supported Relationships in the Framework](image)

5 Discussion and Conclusions

This paper developed a set of volunteer HPWS in the Beijing Olympic Games through the first-hand survey data from volunteers and their direct managers. The HPWS included performance management, training, recognition, teamwork and volunteer participation. It was found that volunteer HPWS were positively related to psychological empowerment, which was in turn positively related to service recovery performance. Moreover, transformational leadership moderated the relationship between volunteer HPWS and psychological empowerment in such a way that the relationship was stronger when transformational leadership was at a higher level than when it was at a lower level. This finding indicates that both leadership and HR practices would be key factors in determining volunteers’ service outcomes.

5.1 Theoretical Implications

Theoretically, this study extends prior literature in several respects. First, this research provides empirical support for prior literature on HPWS. For example, the findings from this paper support Liao et al.’s findings (2009) that HPWS plays a key role in predicting service performance. The results also provide support to previous research on volunteering in nonprofit organizations that found that HR practices could make a difference in predicting organizational performance (Ridder, Peining and Baluch, 2012). In addition, this study echoed the findings of Cuskelly et al.’s study of training, recognition and performance management (2006) which were treated as key volunteer management practices, although they used a different outcome variable (volunteer retention). This study found that even simple work tasks were treated cautiously due to the importance and distinctiveness of the Olympic context. When volunteers
encountered an issue they could not personally resolve, they were required to report it to their manager, and if the manager could not resolve the issue either, he/she was expected to report it to the head of department. In terms of rewards, more individual-level rewards were adopted for volunteers, such as the Outstanding Volunteer award, and excellent volunteers often were assigned more important positions.

Second, this paper extends the prior literature by investigating the important role of empowerment in volunteer management. In addition to the HR practices discussed, Studer and Schnurbin (2013) raised another factor affecting volunteering work: organizational values toward volunteers as well as the organization’s embedded values. In this study, the organizational values were conveyed to volunteers through empowerment and leadership. In line with the results of Liao et al. (2009), this study found that volunteers should be intrinsically motivated in order to yield better service outcomes. Interestingly, Rodell (2013) found that volunteering was associated with volunteer and job meaningfulness. In this study, it had been suggested that volunteering would be more likely to induce meaning in the workforce compared with paid work. In fact, two embedded factors within psychological empowerment were emphasized in this study—meaning and competence—rather than self-determination and impact. The reason for this is that volunteers would be encouraged to demonstrate their behaviors in line with the organization’s goals and purposes, and to enhance their knowledge, skills and abilities, while they were not encouraged to take actions by themselves. Meanwhile, volunteers usually completed work tasks in teams, and seldom did they implement organizational strategy and complete operational objectives on their own. Psychological empowerment was found to be the factor bridging volunteer HPWS and service recovery performance. In line with previous studies (e.g., Manz and Sims, 1993; Mathieu et al., 2006), this study suggests that psychological empowerment could be positively linked to service performance based on the volunteer sample. If the organization could psychologically empower volunteers, enhance their meaning and competence, volunteers would be more engaged in their work and their productivity would increase.

Finally, this research also examined the moderating role of leadership. The findings suggest that transformational leadership moderated the relationship between volunteer HPWS and psychological empowerment. It can be inferred that in order to make the HPWS effective for volunteers, the existence of transformational leadership would foster the implementation of the HR system so that volunteers would be more likely to feel empowered and engaged in their work (Tuckey et al., 2012). This can explain why some volunteer teams were superior to others in performance although they were adopting the same pattern of volunteer HPWS in the same Olympic venue. It is possible that they had a powerful transformational leader on their team who provided inspirational motivation to followers, stimulated followers’ intellectual development, cared about followers’ individual consideration, and had an idealized influence on volunteers’ work morale and productivity (Li and Shi, 2008).

5.2 Managerial Implications

Managerially, this research contributes to the development of the growing body of literature on the volunteer workforce in the transitional economy of China, as there are many large events where volunteers have been of great value. Since volunteerism has been described as the behavior for maintaining, organizing and interacting with society that creates beneficial advantages for the organization in question (Waikayi,
Fearon, Morris and McLaughlin, 2012), it has become a major platform for people to assist with and support public affairs—especially in the case of large events for society (Burns, 2010). Volunteers have contributed a great deal to the development of society and charity (Boezeman and Ellemers, 2007). With the continued decline of participation in volunteer organizations (Cuskelly, 2005), this study has developed a set of volunteers’ HPWS that can be adopted in large sports events to enhance the efficiency of volunteer management and team operations. In terms of intrinsic motivation, managers should aim at enhancing volunteers’ meaning of their work and job competence (i.e., psychological empowerment). In addition, there also is room for volunteers to improve their self-determination and impact toward their work. Besides work practices as suggested in the volunteer HPWS, a strong transformational leader would also be necessary in the workplace to provide visionary guidance. In addition, the management practices should vary according to volunteers’ departments and positions (Cuskelly et al., 2006). In this study, volunteers were divided into general and professional categories. For the Beijing Olympic Games, there were two large divisions where volunteers worked: general services and professional services. Volunteers in general services, such as spectator service, had to meet the basic qualifications for selection (e.g., passing recruitment examinations and possessing appropriate language skills), while volunteers in professional services needed to possess other specific skills and professional knowledge for certain jobs. Different management styles were needed to handle these two types of volunteers. HR practices were designed to enhance general volunteers’ work passion and attitudes, while the HR practices were there to build on work capabilities and competence for professional volunteers.

In practice, some of the large events are well organized such as the Beijing Summer Olympics Games of 2008, the Shanghai Expo of 2012 and the upcoming Beijing Winter Olympics Games of 2020, while others are unexpected or even emergent crises such as the Sichuan Wenchuan earthquake in 2008 and the Sichuan Ya’an earthquake in 2013. The development of the volunteer HPWS and the examination on volunteer intrinsic motivation could facilitate the management of volunteers in other mega-events. To complement prior research on volunteer selection for the Beijing Olympic Games, this study systematically examined all the follow-up procedures in the HR system by evaluating key practices with quantitative data. It is worth noting that there are some distinctive features of Chinese volunteers. For instance, many university students in Beijing were selected as the volunteers for the Beijing Olympic Games (Zhuang and Girginov, 2012) because they had the time, they were skillful in foreign languages and they were experienced in volunteerism. Also, political consideration was a factor in student volunteer selection, as student prefects or (probationary) members of the Chinese Communist Party had a better chance of being selected as an Olympic volunteer. In a similar vein, it can be inferred that political consideration may also be related to a student volunteer’s motivation, as the experience in serving at the Olympics could bring political capital for future career development. The Beijing Olympics were seen as the whole nation’s task as China organized numerous resources and human capital to ensure the success of this mega-event in all aspects—including politics, economics and culture. The president of the International Olympic Committee, Jacques Rogge, also commented that the Beijing Olympics were well executed and distinctive. These distinctions have been kept as legacies (Bladen, 2010) to be passed on to the latter Olympic Games, e.g., London 2012 (Darcy, Dickson and Benson, 2014) and Rio 2016. Noordegraaf and Celebi (2015) listed the challenges in the volunteering process in terms of
sustainability, e.g., lack of qualified volunteers, institutionalization and support from the government. Among the legacies, the sustainability and management of a large number of volunteers for the Beijing Olympics provided invaluable experience that can assist the future organization of mega-events.

5.3 Limitations and Future Research

The underlying relationship between volunteer HPWS and service performance is complex. This research only examined several key variables given the scope of the current study and the availability of usable data which leaves several other factors to be examined in future research. Studer and Schnurbein (2013) reviewed a third factor affecting volunteering work, which was volunteer coordination and structural features. Also, the organizational context should be taken into consideration in future research as well. For example, employees’ perceived organizational support has been found to impact organizational commitment, turnover and service performance (Gavino, Wayne and Erdogan, 2012; Liao et al., 2009; Newman, Thanacoody and Hui, 2012; Zhang and Jia, 2010) which also can be applied to the volunteering sample in future research (Boezeman and Ellemers, 2007; Farmer and Fedor, 1999). Some methodological issues need to be addressed in future research. For example, in order to explore how volunteers experience the HPWS, the HPWS may be measured by reports of both volunteers and their direct managers at the dyad level. This could help detect any differences between the perceptions of both parties, since managers and volunteers may place a different emphasis on intrinsic job characteristics according to psychological contract theory (Taylor et al., 2006). In order to get more objective responses, it is useful to get customers’ ratings on the service outcomes, manifested by spectators, journalists, athletes and so on in the sports events. In addition, Dickson et al. (2015) highlighted the timing of measures of volunteers’ pre- and post-event motivation. Thus a longitudinal study of volunteers’ intrinsic motivation could be adopted in future research.

In conclusion, the high performance work systems (HPWS) in the setting of mega-events such as the Beijing Olympic Games can significantly improve volunteer performance. Specifically, volunteer HPWS were positively related to psychological empowerment, which was in turn positively related to service recovery performance. This research provides important implications for volunteer management in large-scale events. The study also contributes to the literature on HPWS and volunteer management.

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