

The role of high-performance work system and human capital in enhancing job performance

High-
performance
work system and
job performance

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Received 26 September 2019
Revised 12 February 2020
Accepted 23 February 2020

Abstract

Purpose – The aim of the current research is to examine how job performance is affected by high-performance work system (HPWS) and human capital. Furthermore, the research focuses on exploring the mediating role played by human capital in HPWS and job performance relationship.

Design/methodology/approach – Data was collected from service sector employees. A sample of 400 respondents was selected from the chosen population using purposive sampling.

Findings – The results reveal that HPWS and human capital positively and significantly affect job performance. The impact of HPWS in creating human capital was also supported. The research also hypothesized mediating role played by human capital in HPWS and job performance relationship, and it was partially supported.

Originality/value – Recent literature is evident of the relationship between performance and HPWS; however, the mechanism between these variables is still unclear (Demirbag *et al.*, 2014). There is a need of identifying the factors that strengthen this relationship. The current research is an attempt to fill this gap by examining the effect of HPWS on job performance. Furthermore, it explores the role played by human capital in strengthening the connection of HPWS and job performance.

Keywords Human capital, Job performance, High-performance work system (HPWS)

Paper type Research paper

Introduction

High-performance work system (HPWS) is considered as an essential factor influencing the performance-related outcomes. Organizations invest heavily in developing such systems in order to boost performance (Combs *et al.*, 2006). It is defined as a system that is integrated and bundles different HR practices (Evans and Davis, 2005). These HR practices should be separate but interconnected and should act as a system (Appelbaum *et al.*, 2000; Boxall and Macky, 2009). The system developed by bundling of HR practices has an important effect on performance (Raineri, 2017). A lot of researchers recently are focusing on the performance outcomes and HPWS relationship (Imran *et al.*, 2015; Imran and Shahab, 2018).

Recent literature is evident of the relationship between HPWS and performance; however, the mechanism between these variables is still unclear (Demirbag *et al.*, 2014). There is a need of identifying the factors that strengthen this relationship. The bundle of HR practices cannot do wonders alone. In order to attain performance outcomes, the contributions made by people selected, trained and developed through such practices are very important. Improved performance is of extreme importance for the organizations; thus, they are redesigning their strategies to develop human resources (Harpan and Draghici, 2014). Human capital approach assumes that organizations adopt HPWS, which helps in human capital creation, thus resulting in increased performance (Wright *et al.*, 2001). The research in this area is still scarce, and a lot of exploration needs to be done to identify this relationship (Hsu *et al.*, 2007; Jiang *et al.*, 2012; Raineri, 2017). Majority of research in this area is in Western context ignoring the Middle Eastern context that has a lot of potential for growth. Researchers have started focusing on the gulf area that is composed of six member states including Saudi Arabia, UAE, Oman, Bahrain, Kuwait and Qatar. However, only few empirical research



studies are available in the area of HPWS and human capital, thus creating a gap to be researched (Fadhil, 2019; Imran and Al-Ansi, 2019; Imran and Shahab, 2018; Qureshi, 2019). The current research is an attempt to fill this gap by examining the effect of HPWS on job performance. Furthermore, it explores the role played by human capital in strengthening the connection of HPWS and job performance. The research aims at finding the answers to following research questions;

- (1) To what extent high-performance work system affect job performance in service sector of Oman?
- (2) What is the role played by human capital in the relationship between high-performance work system and job performance?

Literature review

High-performance work systems (HPWS)

The idea of having HPWSs originated form and had its roots in the last century during US industrial revolution (Barnes, 2001 as cited in Al Anzi and Al Abbadi, 2011). During this period, it was realized that the level of global competition was intense and there is need to rethink about reliable processes. On the other hand, it is argued that HPWS has its roots in HR practices with the Japanese systems (Chaudhuri, 2009). Despite these different perspectives, the main idea of HPWS is to have an effective organization that has involved, committed and empowered employees (Tomer, 2001).

The concept of high performance of organizations is a relatively subjective concept that largely depends upon the mission and circumstances of the organization. It is described as a system comprised of different managerial practices combined together to build an environment where employees develop feelings of commitment and responsibility (Brown, 2006). HPWS is also defined as HR practices bundled together to be able to attract employees, retain and motivate them (Messer *et al.*, 2010). The practices may include staffing practices, training and development efforts, performance appraisal, job rotation and employee empowerment (Jiang *et al.*, 2012; Lepak *et al.*, 2006).

HPWS has been conceptualized differently by different researchers. Kirkman and Rosen (1999) conceptualized such system as a bundle of five practices such as self-managing work teams, employee involvement practices, organizational learning procedures, integrated production technologies and total quality management. Another study by Yazid *et al.* (2017) only combined employee involvement practices and organizational learning practices to form high-performance systems. Paracha *et al.* (2014) on the other hand identified practices including selecting employees, training and development, appraising performance, planning their careers and an appropriate compensation for them to be bundled together to conceptualize HPWS. Hsu *et al.* (2007) have measured HPWS in a comprehensive way. They identified the bundle to be composed of selective recruitment, training and development, empowerment, performance-based pay, competitive pay and job rotation. This conceptualization of HPWS would be used in the current research.

Job performance

One of the most researched topics in the area of management is performance. It is the central concept for academicians and practitioners and is interpreted differently (Lee *et al.*, 2019). It is the goal or an underlying objective of any business activity. Market competition is one of the reasons that enhanced the importance of performance. Any activity in the organization makes sense only when it contributes to organizational performance (DuBois *et al.*, 2019; Richard *et al.*, 2009). This is the only factor that is widely believed as a tool of success and comparison among rival firms (Richard *et al.*, 2009). It is described as a combination of tasks

and behaviors deemed important to accomplish a job (Ingold *et al.*, 2015). In order to gain high-performance outcomes, organizations depend on the behaviors exhibited by their employees (Huselid, 1995).

Employees are the source of competitive advantage as they have distinctive behaviors and skills. The resource-based view links company resources including human resources as a determinant of competitive advantage. Nowadays employees are the only resource that can differentiate one company from another. If organizations are able to develop specific capabilities of their employees, which are not easily imitated, then they gain competitive advantage over other organizations (Fenech *et al.*, 2019; Wright *et al.*, 1994). Past literature is evident of a number of factors affecting performance; however, HR practices are claimed to be one of the most powerful factors in this regard (Guest, 2011; Marescaux *et al.*, 2013).

Past literature reveals a positive direction of performance and HPWS relationship. However, the relationship is not that simple. A lot of processes translate the impact of HPWS on performance outcomes, and there is still a need to explore them in detail (Guest, 2011; Jiang *et al.*, 2012; Boxall *et al.*, 2016). There are a number of factors that play their role in translating HPWS in performance, and development of human capital is one of them (Messersmith and Guthrie, 2010; Takeuchi *et al.*, 2007).

Human capital

The current state of competition is forcing organizations to maintain their competitive advantage in order to sustain. Organizations are focusing on human capital development in order to cope with this situation. The resource-based view suggests human capital as a way to maximize performance by utilizing existing resources to develop competitive advantage over other organizations (Grant, 1996; Teece *et al.*, 1997; Welch and Nayak, 1992). It has become as a most important tool in the hand of organizations. The main reason behind that is digitalization and evolving toward knowledge-based economies (Faggian *et al.*, 2019; Fenech *et al.*, 2019; Gennaioli *et al.*, 2013). The importance of developing human capital then becomes inevitable (Faggian *et al.*, 2019). Human capital is described as the capability, proficiency and comprehension possessed by individuals within an organization that can lead to create a competitive edge (Hsu *et al.*, 2007).

The concept of human capital is built on a belief that people's contribution is essential for value addition resulting in organizational performance. Moreover, there is a possibility of managing their contribution for better outcomes (Baron, 2011). The concept of human capital has many conceptualizations, and it is categorized differently in different academic fields. First perspective conceptualizes human capital on individual aspects. It means that human capital is linked with knowledge, education, competencies, behavior and skills (Beach, 2009; Youndt *et al.*, 2004). The second perspective stresses on educational activities such as formal education, professional and vocational certificates and so on to enhance knowledge and skills (De la Fuente and Ciccone, 2002). The third perspective links human capital to production. It can be described as an investment in people to increase their productivity. The investment can be in the form of education and training that enhance skills and competencies to increase productivity (Frank and Bemanke, 2007; Sheffin, 2003). However, a recent measurement of human capital by Hsu *et al.* (2007) is consistent with the first perspective and has competence and commitment aspects of individuals as important ingredients.

Development of human capital requires favorable organizational conditions. A lot of contextual factors play their role in development of required human capital for the organizations. In order to build human capital, organizations need to align their practices with their competitive strategy (Pahuja and Dalal, 2012). Having the right talent in the organization is now becoming very important. The only way to survive in the current world is to build competitive advantage, and it comes through developing the human resources

(Normile, 2018; Saddozai, *et al.*, 2017). Strategic attention is required to bring into line human capabilities with work requirements. Specific HR practices should be adopted to develop relevant human capital that is not easily replicated (Li *et al.*, 2019). Organizations need to develop HR systems that contribute in developing a pool of high-potential and high-performing incumbents.

Organizations need to scan their competitive environment and then customize their system accordingly (Becker *et al.*, 2001). Human resource policies are considered very important in this regard. The right mix of HR policies and procedure can aid human capital development, thus leading to performance. The challenge is to develop a bond between motivated and talented employees and particular policies to achieve organizational objectives (Buller and McEvoy, 2012). A customized bundle of these practices can create a HPWS, and development and implementation of an effective HPWS can lead to human capital development (Hsu *et al.*, 2007; Schiemann, 2006). The HPWS plays an important role in enhancing competitive performance through developing and training organization's human resources (Messersmith and Guthrie, 2010; Takeuchi *et al.*, 2007).

On the basis of earlier discussion, following framework can be developed (see Figure 1). Following hypotheses are formulated for current research:

- H1. HPWS positively and significantly affects human capital.
- H2. HPWS positively and significantly affects job performance.
- H3. Human capital positively and significantly affects job performance.
- H4. Human capital plays a mediating role in HPWS and job performance relationship.

Methods

The current research selected organizations in service sector of Sultanate of Oman as their population. Purposive sampling was used to select 400 respondents working in these organizations. The service sector is among the fast-growing sectors in Sultanate of Oman. The vision 2040 of Oman focuses on routing the country toward a diversified economy due to the decreasing oil prices. The focus of the government is on nonoil activities, thus development of service sector takes propriety. The majority of country's workforce is composed of expatriates, and the local human resource is present but still needs development. Many programs and activities are focused on developing the human capital in the service sector. For this purpose, the need to identify an appropriate set of HR practices to develop a HPWS is essential. The sample consisted of respondents from service sector of Oman. The service sector for this research was composed of organizations from six subsectors such as tourism and hospitality, banking, sales, health, education and telecommunication. The data was collected through personally administered questionnaires, and Google drive was used to collect data from different parts of Oman.

The questionnaire was designed adapting items from existing scales. The instrument that was in English language was translated into Arabic language. In order to meet the conditions

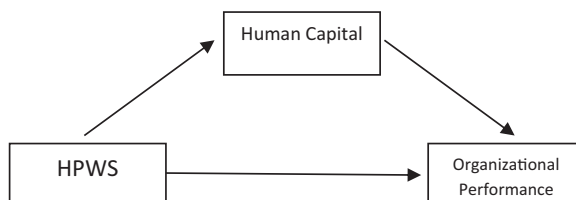


Figure 1.
Conceptual framework

of face and content validity, five academicians and practitioners were consulted. The process of data collection was initiated by distributing 700 questionnaires. To obtain the data the respondents were approached at their workplaces and were briefed about the purpose of the study and ensured confidentiality of provided information. They were asked to participate on voluntary basis. 500 questionnaires out of 700 distributed were received. However, only 400 were found complete in all aspect and useable for analysis.

Measures

A 25-item scale developed by [Hsu et al. \(2007\)](#) was adopted to measure the concept of HPWS. HPWS includes empowerment, recruitment, performance-based pay, job rotation, training and development and competition-based pay. The concept of job performance was measured by two dimensions: in-role behavior and task performance. A five-item scale developed by [Williams and Anderson \(1991\)](#) was adopted to measure in-role behavior and five-item scale by [Bott et al. \(2003\)](#) to measure task performance. A six-item scale developed by [Hsu et al. \(2007\)](#) was adopted to measure the concept of human capital. The response scale was Likert-type having a range from 1 as strongly disagree to 5 as strongly agree.

Results

The analysis was conducted on a sample of 400 respondents from service sector of Oman. The sample consisted of 22% respondents from tourism and hospitality, 20% from banking sector, 16% from education, 15% from telecom, 14% from health and 13% from sales subsector of Omani service sector. Moreover, it consisted of 60% expatriates and 40% Omanis out of which 69% were males and 31% females. 49% of the respondents were between 31 and 40 years of age, 20% less than 30 years and 23% above 40 years. The majority of them had diploma (36%) and bachelor's degree (31%). 47% of the respondents were from middle level of management, 35% from line and 18% from top management level. 45% of them had experience between six and ten years, 35 % had less than five years and 20% above ten years of experience.

This section is composed of the preliminary analysis including descriptive statistics and correlation matrix along with confirmatory factor analysis (CFA) displayed in [Table 1](#). The table reveals the mean values ranges from 3.62 to 3.29 where standard deviation lies between 0.730 and 0.610. All the variables were positively and significantly correlated to each other. [Figure 2](#) reveals the results of CFA. The figure suggests that the measurement model explained good fit indices as all the values are above the acceptable range ([Hu and Bentler, 1999](#)).

Common method bias

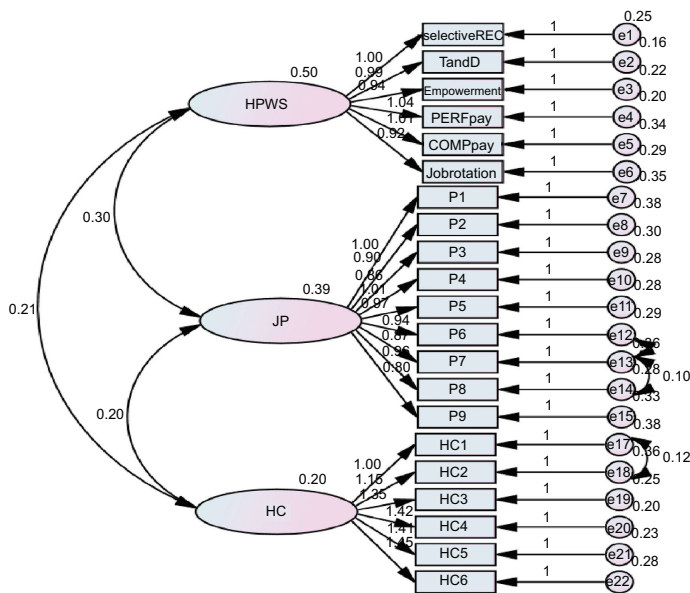
The problem of common method bias is usually with the self-reported data. Harman's one-factor test is used as a remedial measure to inspect the occurrence of this bias ([Bish et al., 2015](#)). The current research was conducted on the scale having 41 items. When it was limited to a single factor, then it contained total variance of 43.085% as shown in [Table 2](#). This

	Scales	Mean	SD	1	2	3
1	Job performance	3.29	0.610	–		
2	HPWS	3.30	0.730	0.599*	–	
3	Human capital	3.62	0.627	0.672*	0.622*	–

Note(s): * $p < 0.001$

Table 1.
Descriptive statistics
and correlation
matrix ($N = 400$)

Figure 2.
CFA
measurement model



CMIN/DF = 3.527
RMR = 0.042
NFI = 0.891
TLI = 0.907
CFI = 0.919
RMSEA = 0.078

Table 2.
One-factor
model (CMV)

Component	Total	Initial eigen values		Extraction sums of squared loadings		
		% of variance	Cumulative %	Total	% of variance	Cumulative %
1	17.665	43.085	43.085	17.665	43.085	43.085
2	3.309	8.071	51.155			
3	1.733	4.228	55.384			
39	0.167	0.407	99.317			
40	0.149	0.364	99.680			
41	0.131	0.320	100.000			

Note(s): Extraction Method: Principal Component Analysis

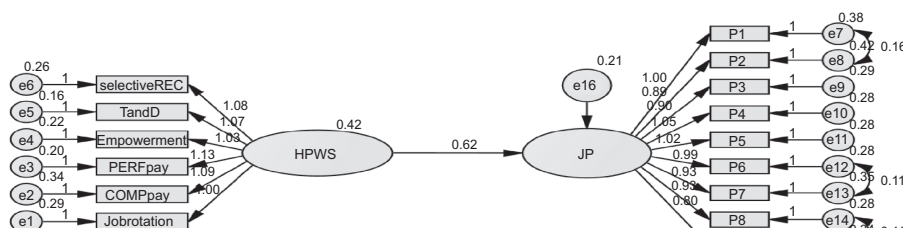
variance is less than the assumed threshold point (<50%). Hence, in the current study, there was no evidence of common method bias.

Evaluation of the model

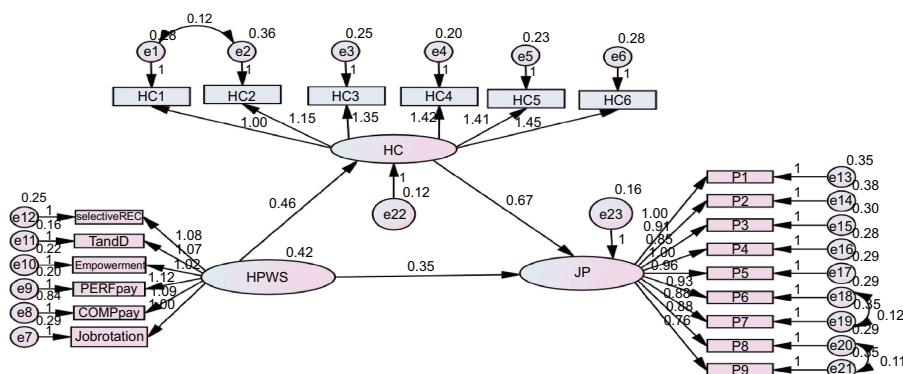
In order to test structural equation modeling, Preacher and Hayes (2008) suggested to use path analysis. Two models are tested in the present study for examining mediation. Direct link between HPWS and job performance is examined in Model 1 shown in Figure 3, and the indirect effect through human capital is examined in Model 2 shown in Figure 4. Table 3 describes fit indices for both the models. As per the results almost all the indices are above fit threshold level (Hair et al., 2006).

Table 4 shows the summary of direct and indirect effects tested in the study. It summarizes all the analysis done earlier. Analysis of the direct path job performance

Figure 3.
Model 1



Note(s): JP = Job performance, HPWS = High Performance Work System *** $p < 0.001$



Note(s): HC = Human Capital, JP = Job performance, HPWS = High Performance Work System, *** $p < 0.001$

Figure 4.
Model 2

Model	CMIN/DF	GFI	AGFI	NFI	CFI	RMR	RMSEA
Model 1	3.326	0.917	0.884	0.931	0.950	0.040	0.074
Model 2	3.488	0.868	0.834	0.892	0.920	0.042	0.077

Table 3.
Fit indices of the model

Hypothesis	Direct effects	Indirect effect	Total effect	Ratio of indirect effect to total effect (%)	Results
HPWS → JP	0.62***				Supported
HPWS → HC	0.46***				Supported
HC → JP	0.67***				Supported
HPWS → HC → JP	0.35**	0.27***	0.62**	43.54	Partial mediation

Table 4.
Direct and indirect effects

Note(s): HC = Human capital, JP = Job performance, HPWS = High-performance work system, *** $p < 0.001$

affects human capital (path coefficient = 0.46, $p < 0.001$) and human capital has a positive effect on job performance (path coefficient = 0.67, $p < 0.001$), supporting second and third hypotheses. The effect of HPWS on performance through human capital had path coefficient of 0.35, $p < 0.001$ with a ratio of indirect effect to total effect as 43.54%. The fourth hypothesis was partially supported.

Discussion

The aim of the current research was to identify the impact of HPWS on job performance through human capital. HPWS is considered a bundle of tools that can create a brand value for the organization in the eyes of employees. Findings present considerable evidence to prove that HPWS has a significant effect on job performance. HPWS also helps in development and retention of human capital that in turn has an effect on job performance. The results of this research are aligned with past researches. HPWS is considered as one of the most important factors affecting the performance outcomes. Recently this link is getting considerable attention (Boxall, 2013; Guest, 2011; Marescaux *et al.*, 2013; Monks *et al.*, 2013). Researches exploring HPWS show that such practices mold employee behaviors in a manner that required performance outcomes to be achieved (Lepak *et al.*, 2006; Jiang *et al.*, 2012). Individual dimensions of HPWS also positively affect the job performance (Imran *et al.*, 2015; Imran and Shahab, 2018).

The bundle of HR practices facilitates the development of competitive advantage. The bundle itself is not a direct tool rather the advantages of this tool reveal in the form of satisfied and developed human resource. HPWS creates human capital (Hsu *et al.*, 2007; Becker *et al.*, 2001; Schiemann, 2006). HPWS is considered as a strategy that is helpful in human capital development (Danford *et al.*, 2004; Drummond and Stone, 2007; Jiang *et al.*, 2012). The organizations adopt human capital approach to achieve higher levels of performance (Wright *et al.*, 2001). The organizations focusing on the development of human capital result in higher performance of their employees (Chadwick, 2017). The organizations adopt appropriate HPWS to develop human capital that results in higher level of performance (Subramony *et al.*, 2018; Zeb *et al.*, 2018).

Conclusion

The current research has a special contribution to the existing literature of HPWS by sampling service sector firms in Oman. The research raised a number of interesting issues including the role of HPWS in creating human capital and introducing human capital as a mediator between HPWS and performance relationship. The findings provide evidence that HPWS and human capital have positive and significant effect on job performance. The impact of HPWS in creating human capital was also supported. However, the hypothesized role of human capital as a mediator in HPWS and job performance relationship was partially supported.

Limitations and future research

Despite its novelty the research is subject to certain limitations that need to be highlighted. First, the research had a cross-sectional study design; however, this kind of relationship requires longitudinal study. The research contributes through detecting a mediation path of human capital in HPWS–performance relationship; however, its strength and exact causal direction require more in-depth research. Future studies should conduct this research in a longitudinal design. Second limitation of this research is that the data is collected from single source that might not give the exact picture of the said relationship. Future researches should have a dyadic approach for similar kind of study. Finally, the research did not study the effect of different subsectors in the service sector on HPWS–performance relationship. The organizations need to adapt the HPWS according to the local as well as their industrial context and market environment for development of human capital.

The culture difference, industry norms, legal system and prevailing policies can affect the said relationship. Future research should not only focus on these factors but also do a sector-wise comparison in order to reach on a consensus as to which HR practices can form a bundle that is suitable for creating HPWS in service sector specifically in Omani context.

Practical implications

The findings of this research have certain implications for the researchers and managers working in service sector organizations in Oman. From the theoretical perspective it gives an understanding of HPWS and performance relationship. Moreover, it also highlights the importance of human capital in HPWS and performance relationship. This research is one of the pioneering researches in this area opening new avenues of further exploration.

From practical perspective the organizations are advised to invest in customized set of HR activities appropriate to their organizational setup. Furthermore, the organizations should develop human capital for gaining competitive advantage and higher performance. The organizations should develop relevant bundle of HR practices for better employee development. The HR managers should invest in procedures for human capital development and increased performance.

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