

High Performance Work System and Human Resource Professionals' Effectiveness: A Lesson from Techno-based Firms of Pakistan

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The inevitability for HR professionals to perform at their best, being creative and effective is very crucial in gaining sustainable competitive advantage in the 21st century. Likewise, HR professionals have to successfully manage human resources, need personal credibility and business knowledge, understanding of the business strategies, adapting with technology changes and the ability to deliver HR services. Despite there being a substantial amount of discussion about HR professionals' effectiveness, which is featuring massive challenges and opportunities in this innovative age, there is a paucity of information concerning the extent of this subject matter in Pakistan. Therefore, the current study responded to fill this research gap in the context of Pakistan. This research surveyed 40 HR professionals in five techno-based firms in Pakistan. Data were analysed through SEM-PLS. The findings of the study showed that high performance work system significantly influences HR professionals' effectiveness. The study contributed to RBV theory by taking HR professionals' effectiveness as a source of competitive advantage for a firm. The study is also important for HR practitioners and organisations as it highlights the importance of comprehensive HR system, i.e. high performance work system to boost HR professionals' effectiveness to sustain competitive advantage.

Keywords: *Human resource professionals' effectiveness, High performance work system, Partial least square – structural equation modelling, Techno-based firms, Pakistan.*



Introduction

In the age of globalisation and highly competitive environment, firms consistently look for superior innovative capabilities to grow into more efficacious in responding to a changing environment and improving their competitiveness. Responding to this subject matter, Levine (1995) advocated that skilful, motivated and flexible employees can help to develop a firm's sustainable core capabilities. Scholars and practitioners are consequently revolving to human resource management (HRM) functions to help implement competitive strategies (Ulrich, 1997) and gain a competitive advantage (Barney & Wright, 1998). The resource-based view (RBV) theory proposes that systems of human resource can add to sustainable competitive advantage by enabling the competencies' advancement which is firm-specific, produces social relationships of complex nature and is rooted in organisational culture and history (Barney, 1992; Wright & McMahan, 1992). Scholars (e.g. Lado & Wilson, 1994; Ulrich & Lake, 1991) have attributed higher organisational and employee performance as well as exceptional organisational capabilities of some of the prominent well-regarded companies to unique abilities for managing their human resources to gain competitive advantage. Further, researchers from the viewpoint of behavioural psychology also addressed the association between competitive advantage and HRM practices. Due to increased and speedy changes in the economic environment around the globe, scholars and managers get motivated to discover new ways to achieve profitability and competitive advantage.

In the row of competitive advantage, the technology, patents, economies of scale have no same value and workforce is getting prominence in terms of its role in motivation, skillfulness and flexibility (Pfeffer, 1994). Therefore, keeping this in view of high performance work system (HPWS) which is defined broadly can be considered as a competitive advantage for not only developing and sustaining core skills but also taking it as an essential step in implementing strategy (Huselid & Becker, 1997). Úbeda-García, Claver-Cortés, Marco-Lajara, Zaragoza-Sáez and García-Lillo (2018) have also examined the association between HPWS and performance. They claimed that recent research studies highlighted the need to advance the research not only in the direction towards results of employees at work but also their role towards the organisation's competencies, e.g. the human resources they hold. Similarly, Karatepe (2013) proposed that forthcoming researchers might test the association between HPWPs (HPWS) and performance outcomes with data from multiple resources, by highlighting the fact that in current global and competitive market conditions, a more detailed and better understanding of a number of HPWPs that might be related to performance outcomes of employees will yet continue to be important.

HPWS has emerged as a topic of prime interest for both practitioners and academician alike. Overall, empirical researches suggest significant benefits from managing effectively human resources (HR) through HPWS; many questions need to be answered though (Delery, 1998).

In addition to that, several studies were conducted in the West in this area (e.g. Guest & Conway, 2001; Hartog & Verburg, 2004; Huselid, 1995), and an interesting question remains whether similar findings are also established in other countries. Although studies have examined the impact of individual HR practices on the efficiency and performance of organisations, yet a little focus is known on these practices collectively. Shin and Konrad (2017) have elevated the concerns over the diffusion of HPWS is still limited despite academic affirmations of the effectiveness. Various studies conducted on HPWP (high performance work practices) and its influence on performance in Europe while missing Asia (Imran, Majeed & Ayub, 2015). Thus, there is a great need to explore the same relationship in developing countries (Mihail, Mac Links & Sarvanidis, 2013) like Pakistan (Imran et al., 2015) which is relatively less explored in the context of HPWS (Rana & Javed, 2017). Moreover, Pakistan's economy is confronted with multiple challenges to resolve numerous issues, absence of proper law and order, political instability and other economic and energy crises (Najaf & Ashraf, 2016). Despite all these, the lack of human resource development (HRD) presents a bigger challenge to Pakistan's economy. Amid change in business environment, organisations in Pakistan are reluctant to invest in human resource development due to some perceived risks and uncertainties associated with it (Janjua & Muhlbacher, 2016).

The novelty of this study is that previous researches have not studied the direct impact of HPWS on HR professionals' effectiveness, despite having a strong relationship between HPWS and employee outcomes (Ananthram, Xerri, Teo & Connell, 2018; Van De Voorde & Beijer, 2015). Further, Van De Voorde and Beijer (2015, p. 62) accredited that 'although research has shown that the use of HPWS is associated with employee outcomes, however, the research on how employees attribute to HPWS and how this system shapes employee outcomes is still limited'. Fan, Cui, Zhang, Zhu, Härtel and Nyland (2014, p. 934) argued that the previous mainstream researches contend on the positive influence of HPWS on employee outcomes, signifying such HR practices help employees by means of more meaningful work, improved communication channels, greater task discretion, higher skills, better income and more secure jobs. Moreover, the telecom sector of Pakistan is found to be constantly evolving (Hashmi & Waqar, 2018). Privatisations, mergers, new entrants, for example, cause structural and functional changes which bring out the need to assess HR professionals' effectiveness in this sector.

Literature Review

The HRM literature emphasises the importance of individuals or employees in enhancing competitive advantage. Consequently, the role of HR professionals in creating sustainable competitive advantage has attracted much attention. Despite the fact, HRM as a unique approach to employee management seeks to attain competitive advantage using the strategic

positioning of highly capable and committed human resources, with an integrated selection of cultural, structural and personnel techniques. In the field of SHRM, many authors argued the existence of so-called high involvement work practices (HIWP) (Delaney & Huselid, 1996) or high-performance work practices (HPWP) (Huselid, 1995) which are likely to give output in increased performance of employees and organisations.

Appelbaum, Bailey and Berg (2000) defined HPWS as groups of separate but interconnected human resource practices, which are designed to increase employee effectiveness. Furthermore, the application of high-performance practices not only develops the employee skills but also motivates them to align for achieving organisational goals. HPWS can affect employee effectiveness by motivation, training, selection and effective organisational structure. Similarly, HPWS is thought to create value for both employees and organisations via costs reduction and productivity enhancement. Conversely, the nonexistence of HPWS in the organisations can create resistance to change and can block both creativity and improvement, also can hinder effective communication, better job engagement and proactive behaviour and importantly the employee involvement in the organisational strategy.

The extant literature expresses that the existing studies on HPWS have either not taken care of the employee outcomes (Boselie, Dietz & Boon, 2005; Farndale, Hope-Hailey & Kelliher, 2011; Paauwe, 2009) or taken these as mediators only in the HPWS–performance relationship (Boselie et al., 2005; Zhang & Morris, 2014). Most of the studies on HPWS have checked from a macro perspective its direct impacts on firm performance (Becker & Huselid, 1998; Combs, Liu, Hall & Ketchen, 2006; Huselid, 1995). Therefore, it is imperative and timely to extend the research considering the micro perspective through examining the relationship between HPWS adoption and employee outcomes specifically related to work (Snape & Redman, 2010; Haar & White, 2013). The social exchange theory taken as a theoretical framework in the previous studies conceptualise HPWS effects on behaviours and attitudes of various employees (Aryee, Budhwar & Chen, 2002; Gong, Chang & Cheung, 2010). Mainly drawing on the social exchange theory, studies claimed that HR management gets improvement in performance primarily by influencing employee behaviours and attitudes, such as employee productivity and effectiveness.

According to SHRM perspective, both firm and firm performance are affected by a set of HPWPs (Huselid, Jackson & Schuler, 1997). However, HPWPs should induce motivation of employees in effectively performing their jobs (Huselid, 1995). It is not easy to measure increased organisational performance from the perspective of improvement in human resource particularly and the extent of research developed on HPWS is often varying and missing HR improvement (Zhang, Fan & Zhug, 2014). However, Nur (2013) argued that several studies show that HPWS have no strong association with employees' output such as employee effectiveness. Consequently, more studies are needed to analyse the effectiveness

of HPWS to examine the employee and organisational performance in the short-term and long-term. According to Klaas, Semadeni, Klimchak and Ward (2012), high performance work system is primarily designed to enhance employee effectiveness which is set of both individual and interrelated HR practices simultaneously and these consist of selection process, training and development, performance appraisal and compensation. HPWS can also be viewed as part of overall HRM practices to look forward to better outcomes within organisations. It is believed that employees work in a smarter way within high performance systems due to the training and development department, and job rotation practices that increase the opportunity to learn (Zhang & Wang, 2013). The employees with respect to the HPWS dynamic context are expected to work better by utilising different kinds of available resources in order to get enhanced results in the long term. The effects of HPWS emphasise on teamwork, trusting relationships among employees, and innovation. Likewise, the managerial structures of HPWS, like cross-functional teams, employment revolution and high-quality circles, help increase employees' cooperative efforts (Oladapo & Onyeaso, 2013).

Methodology

The data were collected from HR professionals of Pakistani telecom firms using a survey questionnaire. The survey questionnaire was adapted from previous studies. Measurement of HR professionals' effectiveness is adapted from Han, Chou, Chao and Wright (2006) and measured using eleven items. High performance work system is measured via nine items, out of which five items were adapted from Wang and Chen (2013) and four items were adapted from Becker and Huselid (1998). Five-point Likert scale was used to measure the items, where 1 represents strongly disagree and 5 represents strongly agree. Furthermore, the pilot analysis was done to test the reliability and validity of the instrument with 20 HR professionals. The Cronbach's alpha values were calculated through SPSS package (Sekaran, 2003). Alpha values of both constructs are satisfactory as they are above 0.60, "0.805 for HR professionals' effectiveness and 0.755 for high performance work system" which are adequate according to criteria stated by Hair, Black, Babin and Anderson (2010). Current research has applied simple random sampling as the total population of the current study was 110 HR professionals from five telecom firms. The aim of using simple-random sampling technique was to provide the equivalent chance to every HR professional to respond to the survey questionnaire and to maximise the response rate. G*Power technique was used for computing the correct sample size, which is the utmost established sample technique in social sciences (Cohen, 1992). HR professionals in telecom firms are believed to be exceptionally busy in doing their tasks and duties. Therefore, a self-administered survey questionnaire was distributed to 75 HR professionals of telecom firms, out of which 40 completed questionnaires were received, which results in 53.33% response rate.

Statistical Analysis and Results

The analysis has followed the two-step assessment approach, which was recommended by Chin (1998), the assessment of the measurement model and assessment of the structural model. For the purpose of assessing reliability and validity of the measurement, the partial least square-structural equation modelling (PLS-SEM) technique was applied using SmartPLS3 package, which was initially proposed by Wold (1982). According to SEM literature, the assessment of the measurement model is the vital step prior to testing hypotheses (Al-Dhaafri, Al-Swidi & Yusoff, 2016). Further, a thorough review of the management literature exposes that PLS-SEM is widely accepted modelling technique since last decade as it is a non-parametric technique of testing research model (Fareed, Noor, Isa & Salleh, 2016). One of the substantial characteristics of PLS-SEM is its capability of estimating the path models with small sample group and highly skewed data (Al-Dhaafri et al., 2016; Chin & Newsted, 1999; Diamantopoulos & Winkelhofer, 2001; Hair, Sarstedt, Ringle & Mena, 2012). Since the sample size of the current study was 40 HR professionals, which is relatively small when compared to the complexity of the model, PLS-SEM was a suitable technique for the data analysis and for achieving the research objectives. The validity and reliability of the model were confirmed through an assessment of the measurement model prior to the hypotheses testing as detailed in the following section.

The Measurement Model Assessment (Outer)

As stated above, the construct validity and reliability were examined through the convergent validity, content validity and discriminant validity. The measurement model, which is also recognised as an outer model is structural correlations among latent variables and their indicators (Hair et al., 2012; Tabachnick & Fidell, 2007).

Convergent Validity

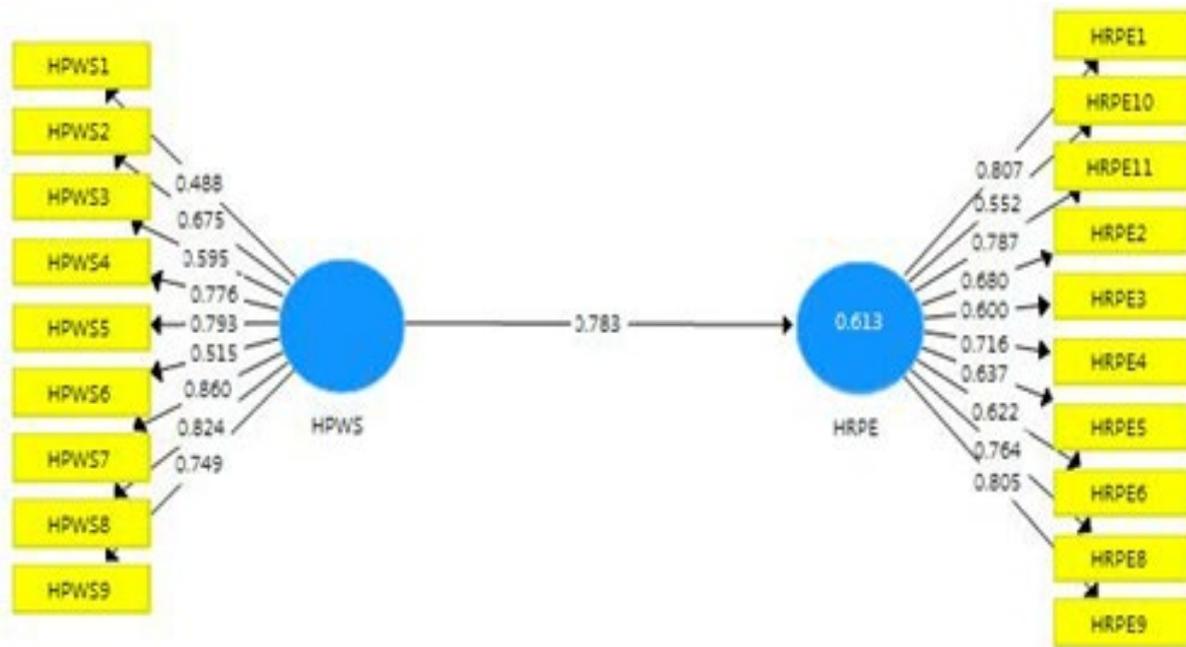
Convergent validity is a point of arrangement between several items in assessing a certain concept (Hair, Hult, Ringle & Sarstedt 2014). However, to evaluate the convergent validity, AVE was applied based on criteria proposed by Fornell and Larcker (1981) and Hair et al. (2010). Referring to Hair et al. (2014), it is inevitable that the latent construct needs to explain a minimum half of the variance in the indicators. In view of that, Hair et al. (2010) proposed that factor loadings of each item must be higher than 0.708, as its square root is equivalent to 0.5. Table 6.10 discloses that the value of AVE for construct has met and surpassed the lowest threshold value suggested by Hair et al. (2014). Hair et al. (2011) and Henseler, Ringle and Sinkovics (2009) recommended the threshold value for individual item loading which has to be larger than 0.70. Conversely, Hulland (1999) proposed the cut-off point of 0.4, and they further expanded that every indicator value with the outer loading

smaller than 0.4 must be removed from the measurement model. Likewise, most recently, Hair et al. (2014) have postulated that those indicators that have outer loadings between 0.40 and 0.70 ought to be eliminated from the measurement model exclusively once removing the indicator will lead to a growth of the values of CR and/or AVE beyond the proposed threshold values.

Table 1: Convergent Validity Analysis

Constructs	Items	Loadings	Cronbach Alpha	CR	AVE
Human Resource Professionals' Effectiveness	HRPE1	0.807	0.883	0.906	0.501
	HRPE2	0.68			
	HRPE3	0.6			
	HRPE4	0.716			
	HRPE5	0.637			
	HRPE6	0.622			
	HRPE8	0.764			
	HRPE9	0.805			
	HRPE10	0.552			
	HRPE11	0.787			
	High Performance Work System	HPWS1			
HPWS2		0.675			
HPWS3		0.595			
HPWS4		0.776			
HPWS5		0.793			
HPWS6		0.515			
HPWS7		0.86			
HPWS8		0.824			
HPWS9		0.749			

Figure 1. Path Coefficient Results



Discriminant Validity

Discriminant validity explains essentially how indicators are demonstrating the constructs, and how much they are different from other constructs (Hair et al., 2014). The discriminant validity is calculated through PLS algorithm established on criteria specified by Fornell and Larcker (1981), who verified that the square root of AVE value for any specific construct must be greater than the relationship of that construct with other constructs in the model. Subsequently, Venkatesh and Morris (2000) also sustained the same argument. Additionally, discriminant validity can be measured through the values of latent variables' factors and cross-loadings similarly. However, corresponding with the square root of AVE, the factor loading of a particular indicator must be greater than the cross-loading of that particular indicator Chin (1998).

Table 2: Discriminant Validity Analysis

Constructs	HRPE	HPWS	AVE
HRPE	0.7078		0.501
HPWS	0.6752	0.7155	0.512

The Structural Model Assessment (Inner)

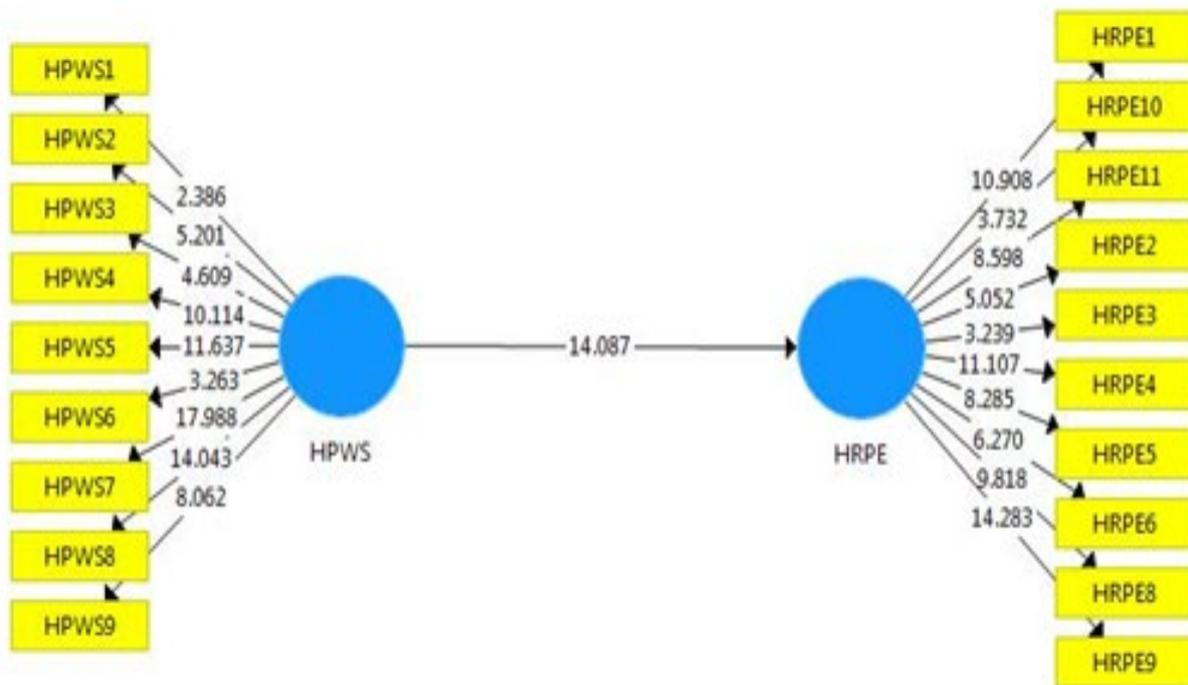
After the successful assessment of the measurement model through construct validity and reliability, proposed hypotheses were tested through assessment of the structural model by

running PLS algorithm and bootstrapping in Smart-PLS3. Table 3 illustrates the results of the hypothesised model. As depicted in Table 3, high performance work system was found to have a very strong and significant effect on the hypothesised relationship ($\beta = 0.783$, $t = 14.087$, $p < 0.000$).

Table 3: Hypothesis Testing

Hypothesis	Path Coefficient	STDEV	T Statistics	P-Value	Decision
HPWS -> HRPE	0.783	0.056	14.087	0.000	Supported

Figure 2. Hypothesis Testing Results



Discussion

The primary objective of this study was to investigate the influence of high performance work system on HR professionals' effectiveness. Due to limited studies available in the phenomena studied, current research attempted to explain better the relationship between high performance work system and HR professionals' effectiveness. Consequently, the current study was focused on contributing to the infancy literature obtainable on HR professionals' effectiveness as well as high performance work system in the background of Pakistan. Table 3 reports the resilient and significant influence of high performance work system on HR professionals' effectiveness as the path coefficient of high performance work system is 0.783 which is significant at the 0.000 level as t-value and p-value are 14.087 and 0.000 respectively. As it is evident in Figure 1, the research model is accounted for 61.3 per

cent of the variance of HR professionals' effectiveness, and it meets significantly the benchmark stated by Cohen (1988). The findings of the study reveal that the high performance work system expressing extensive HR practices (Shin & Konrad, 2017) can assist organisations to advance HR professionals' effectiveness and expand sustainable competitive advantage. Findings have shown the significant positive relationship between high performance work system and HR professionals' effectiveness. One way to look at this significant findings is that telecom firms of Pakistan are customising high performance work system as a comprehensive HR system to develop the core competencies of their HR professionals to advance their effectiveness. These findings are in line with the RBV theory (Barney, 1991; Shin & Konrad, 2017) and previous literature (Huselid, 1995; Ichniowski, Shaw & Prennushi, 1997; Way, 2002 cited in Zacharatos, Barling & Iverson, 2005), which specifies that organisations attempt to create such HR practices that are unique, rare, valued and non-substitutable in order to create a competitive advantage (Barney, 1991).

Conclusion

As the techno-based industry continues to grow at a hasty pace, the significance of human resource professionals increases effectively to sustain the competitive advantage. Nonetheless, how to systematically manage human resources to attain high performance is not fully understood in the previous literature. The current study addresses this issue by investigating the linkage mechanisms through which high performance work systems influence the effectiveness of human resource professionals. The study intended to explain the significant relationship of high performance work system with human resource professionals' effectiveness in the techno-based organisations of Pakistan. Statistical findings found the significant and positive impact of high performance work system on human resource professionals' effectiveness. Findings reveal that techno-based organisations should use high performance work system for delivering distinctive and consistent human resource practices to enhance human resource effectiveness. Such visibility of human resource practices is crucial for organisations to achieve a higher level of human resource effectiveness and to sustain the competitive advantage. Upcoming studies might explore other contextual factors which can contribute to human resource effectiveness. Future research might also include other sectors or industries along with obtaining data from diverse levels of employees to draw attention to the experiences interrelated to the effectiveness of different levels of employees.

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