

High Performance Work Systems and Organizational Performance: An Empirical Study on Manufacturing and Service Organizations in Pakistan

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Abstract A two level analysis was conducted to examine the impact of High Performance Work Systems (HPWS) on organizational performance by investigating four most prevailing theories in HPWS literature i.e., human capital (Resource based view), social exchange, relational coordination, employee attitudes and behaviours. It was proposed that HPWS predicts improved organizational performance and this relationship can be strengthened through intervention of human capital development, degree of social exchange among organizations and its members and productive relationships among employees. It was further argued that HPWS results into employee motivation, job satisfaction and organizational citizenship behaviours, which ultimately results into better organizational performance. Results from 17 manufacturing and service organizations confirmed the significance of association of implemented and perceived HPWS with managerial and employee rated organizational performance. Mediation analysis confirmed the contribution of human capital, social exchange, relational coordination and OCB towards organizational performance but no influence was found for employee attitudes on HPWS-performance linkage.

Keywords HPWS · Social exchange theory · Relational coordination · Employee attitudes and behaviours · Organizational performance

Introduction

Organizational performance always has been an essential construct in management studies (Richard et al. 2009). Different approaches has been identified throughout the

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literature for creating organizations that result in maximum outcomes, such as ‘organizational effectiveness approach’, ‘employee benefits approach’ and ‘psychologically healthy workplace approach’ (Grawitch and Barber 2009). Later is associated with bringing changes into the work systems benefiting both employees and organizations through workforce involvement. Here emerges a challenge for researchers about how to deploy the potential of human resources existed in an organization to capture productivity, creativity and cost reduction (Liu et al. 2006). Youndt et al. (1996) and Wood (1999) has identified human resource (HR) practices to enhance firm’s performance while explaining this HRM- Performance link with the help of universal and contingency approach. HR practices boosting up a firm’s performance are called High Performance Work System ‘HPWS’ (Huselid 1995). A plethora of literature and wisdom is available on impact of human resource (HR) practices on different organizational outcomes such as Macduffie (1995); Guest (1997); Chang and Haung (2005); Bowen and Ostroff (2004); Bae and Lawler (2000) and Collins and Smith (2006). Despite of this fact that HR practices are strong predictor of organizational outcomes and presence of large number of studies advocating positive outcomes of HPWS, there is still an issue of ‘Black box’ which means that researchers are now focused on understanding the exact phenomenon through which HR practices are transformed into High performance work systems leading to organizational outcomes (Wright et al. 2003). Blackbox issue is associated with What, Why, How and When of HPWS (Boxall 2012). Boselie et al. (2005), in order to unlock these mechanisms, reviewed 104 articles on high performance practices. He found multiple theories such as contingency theory, resource based view (RBV) theory and AMO framework as building blocks for High Performance but no consensus was made. This is going to be the main focus of this study.

In present study, HRM literature attempting to identify the mechanisms linking HR practices-Performance relationship is divided into different perspectives such as Behavioural perspective (Ramsay et al. 2000 and Tsui et al. 1997), Resource Based View perspective (Hitt et al. 2001; Lepak and Snell 1999), Social Exchange perspective (Masterson et al. 2000; Pennings et al. 1998) and Relational perspective (Gittell et al. 2008; Adler et al. 2008). These perspectives are tested under managerial and employee aspects, in order to identify whether which theory contributes more to the body of HPWS literature in context of Pakistan. Same was the methodology adopted by Wright and MacMahan (1992) in investigating the theoretical perspectives of strategic human resource management.

As already established that organizational performance has always been remained an issue for managers (Richard et al. 2009). The most important studies in this domain are being conducted in developed countries as studies of McDuffie, Becker and Gerhart, Youndt et al. and Huselid but contribution from the part of developing countries like Pakistan is not that much significant. This study attempts to fill this contextual gap as the results can be different because difference in cultures brings differences in management styles (Hofstede) which can vary the results. So, this is an exploration whether same HPWS factors as those working in western countries, predict organizational performance in Pakistan or not?

Recently, Savaneviciene and Stankeviciute (2010) identified that the mechanisms about how, when and why these HR practices contribute to firm’s performance should be the central focus of HRM researchers. This study can be a useful contribution

towards ‘Blackbox’ literature investigating whether which of the four themes (perspectives) is playing role thus helping the academicians in solving out mediating mechanisms and policy makers as well in formulating and executing the right HR practices in a right way at the right place.

Literature Review

High Performance Work Systems (HPWS)

High performance work practices (HPWS), has been grabbing the interest of Human Resource Management (HRM) researchers from last 10–15 years as a system of HR practices that sheds spotlight on the core workers of an organization and makes its way to superior performance (Boxall and Macky 2009; Qiao and Wang 2009). High performance work systems can be supported equally by three strategic perspectives: Universalistic, Contingency and Configurational perspectives with some levels of variations to financial performance (Delery and Doty 1996).

Meta-analysis by Steigenberger (2013) confirms a strong impact of HPWS on value creation, productivity and sustainable competitive advantage through strategic deployment of resources residing within and outside the premises of an organization. Employees (unions) and HR managers are the main stakeholders with competing interests in HPWS (Galang 1999), so this system benefits both managers and employees by incorporating work practices that rationally encourage them to work together. HPWS has been known as a source of both positive psychological outcomes e.g., employee well being and less burnout (Fan et al. 2014) as well as organizational outcomes e.g., Social climate, Innovation and profitability (Razouk 2011; Zhang and Li 2009).

In literature, HPWS is found to be associated with employer-employees relationship (Zhang et al. 2013), social identification (Bartram et al. 2014), employee attitudes (Takeuchi et al. 2009), behaviours e.g., turnover intentions (Jensen et al. 2013), Social structure (Evans and Davis 2005), human resources or capital (Beltran-Martin et al. 2008) and task interdependence (Ramamoorthy et al. 2005). All of these and other important studies are categorized and collaged in a conceptual model and hypotheses are developed and tested in this research study in order to investigate the mechanisms working between HR practices – Performance linkages.

HPWS and Organizational Performance

HPWS has been proved as a source of enhancing labor productivity (Datta et al. 2005), organizational performance (Liu et al. 2006), less turnover among employees (Arthur 1994) as well as low turnover and profit per employee (Guest et al. 2003). HR practices systems organize work in such a way that ensures benefit to employer and employees as well as increased labor efficiency, employee involvement and productivity (Cappelli and Neumark 2001). Similarly, management of human resources was revealed to have a prime impact on performance in manufacturing firms (Youndt et al. 1996). Important studies by Delery and Doty (1996) and Black and Lynch (2001) advocate a positive association between HRM practices and firm performance.

High performance work systems are investigated to be associated with organizational performance in different industries such as Pharmaceutical industry (Zhang and Li 2009), Semiconductor design firms (Tsai 2006), hospital industry (Zhang et al. 2013; Bonias et al. 2010) and Healthcare sector (Fan et al. 2014). Although HR systems are proved to have strong potential for increasing a firm's economic performance but no agreement is still found among researchers about the exact mechanisms (Becker and Gerhart 1996). The present study attempts to fill this gap and adds a contextual contribution to HPWS literature by focusing on service and manufacturing organizations working in Pakistan. On the basis of above literature, following hypothesis was developed:

H1 (a): *Organizational level High Performance Work System (HPWS) will be significantly associated with organizational performance in service and manufacturing industries in Pakistan.*

H1 (b): *Perceived or employee level High Performance Work System (HPWS) will be significantly associated with organizational performance in service and manufacturing industries in Pakistan.*

HPWS and Human Capital: Resource Based View (RBV)

Resource based view (RBV) has been a strong theoretical support for human resource management (Wright et al. 2001a). VRIO (valuable, rare, inimitable and supported by organization) frame-work helps to predict the resource's potential for competitive advantage (Barney and Wright 1997). In other words, it can be argued that human resources are seen as a potential source of competitive advantage if they are valuable, rare, inimitable and non-substitutable (Wright et al. 2001b). High performance work systems generate such a capable human capital through different practices such as recruitment, selection, research & development, performance management and appraisal that ultimately leads to the higher performance (Takeuchi et al. 2009). HR practices should not only result in individual level outcomes but also on organizational level (Macduffie 1995). HR practices develop human capital that is a source of innovation in organization (De Clercq and Dakhli 2003). HPWS develops highly capable, committed and motivated workforce by encouraging practices such as decision making, training and information sharing leading to performance at higher levels (Zacarhotas et al. 2005). High involvement work systems are characterised by a high investment in human capital (Guthrie 2001) and different levels of HR practices (Staffing, training, performance appraisal and rewards) incorporates different levels of investment in human capital leading to higher manufacturing performance (Snell and Dean 1992).

This study focuses on the mediating mechanism between HR practices – Performance links. The reason for selecting resource based perspective is that it always focuses on performance as a key outcome (Russo and Fouts 1997). HPWS stresses on job tasks that provides learning opportunities and skill development for employees (Takeuchi et al. 2009). On the basis of this literature, following hypotheses were drawn:

H2 (a): *Organizational – level HPWS will be significantly associated with Human Capital.*

H2 (b): *Human Capital will positively mediate the relationship between organizational – level HPWS and Organizational Performance.*

HPWS and Social Exchange Perspective

Social exchange has always been a most important part of organizational behaviour paradigm (Cropanzano and Mitchell 2005) and commitment of employees with their employer is a signal of social exchange among them (Shore et al. 2006). As a result of these social interactions between employee and employer, a mutual bond emerges between them in the form of reciprocal obligations and these obligations are constituents of a psychological contract (Wikhamn and Hall 2012). Employee's positive perception towards HR practices and satisfaction with these practices predicts employee positive responses towards management such as employee engagement based on social exchange theory (Jose and Mampilly 2012). Organizational behaviours demonstrating that it cares for its workforce make feel employees indebted and obligated towards their organizations, for example, 'soft' HR practices (Gould-Williams 2007). Moreover in literature, selection, optimization and compensation (SOC) are found significantly correlated with higher performance (Bajor & Baltes, 2003). Employer – organization relationships influence the linkage between HR practices and outcomes (Kuvaas, 2008). Thus, it was hypothesized that:

H3 (a): *Perceived or Employee-level HPWS will be significantly associated with Social Exchange.*

H3 (b): *Social Exchange will positively mediate the relationship between Employee- level HPWS and Organizational performance.*

HPWS and Relational Coordination

Relational coordination among employees has always been playing a major role in achieving positive organizational outcomes (Gittell et al. 2008). Positive employee relations are the best asset for attaining competitive advantage (Fulmer et al. 2003). HR practices are revealed to ensure an employee's future improved performance (Kamphorst and Swank 2012) but these links of practices with performance are highly mediated by social networks among employees. High performance work systems (HPWS) incorporate such HR practices that encourage a helping and relational workplace environment ultimately influencing the nature of relationships within an organization (Mossholder et al. 2011). These relational coordinations among employees provide employees a psychological safety (Carmeli and Gittell 2009).

In presence of higher task interdependence, management should design HR practices such as selection, training and reward in such a way that formulate strong working relationships among employees as this process of coordination is an important contributor towards outcomes (Gittell 2002). Similarly, in highly interdependent teams performance-based reward practices can be useful (Schippers et al. 2003) but distinction between task interdependence and job design should be in management's mind (Kiggundu 1983). Vogus, (2006) investigated that HR systems cultivate high-quality

interactions which in turns predict high performance. All these important studies of, Gittel 2000; 2002; Gittel et al. (2010); Collins and Clark 2003; Leana and Buren 1999, related to relational perspective of HPWS, fosters the development of following hypotheses:

H4 (a): *Perceived or Employee-level HPWS will be significantly associated with Relational coordination among employees.*

H4 (b): *Relational Coordination will positively mediate the relationship between Employee-level HPWS and organizational performance.*

HPWS – Attitudinal and Behavioural perspectives

When HR practices are perceived to be supportive by employees such as decision making authority, learning opportunities and fair rewards, employees experience high level of organizational commitment and job satisfaction (Allen et al. 2003; Whitner 2001) and organizational commitment is a strong predictor of organizational effectiveness (Angel and Perry 1981; Sutanto 2004). Such employee outcomes positively mediate the link between HPWS and organizational performance (Zhang and Morris 2014). Despite the fact that HR practices leads towards commitment but this link varies among employee groups such as professionals, line managers and workers that's why managers face various challenges in designing HR practices resulting in high level of commitment among employees (Kinnie, Hutchinson, Purcell, Rayton & Swart, 2005).

Compensation practices including both financial and non-financial packages are a source of motivation (Dieleman et al. 2003). In the same way, other HR practices in HPWS result in organizational citizenship behaviour (OCB), lowered turnover and absenteeism (Nishii et al. 2008; Boxall and Macky 2009; Batt and Valcour 2003). Harter et al. (2002) suggested that HRM practices results in high employee satisfaction leading to consequential firm level outcomes. HPWS through the provision of its HR practices such as information sharing, self-managed teams and compensation etc., produces an environment that sponsors organizational citizenship behaviours (OCB) which in turns results in positive responses from the part of employees (Evans and Davis 2005; Snape and Redman, 2010). Overall, it is argued that employee attitudes and behaviours mediate the linkage between HR practices and firm outcomes (Wright, Gardner and Moynihan, 2003). In the light of above literature, hypotheses were developed as;

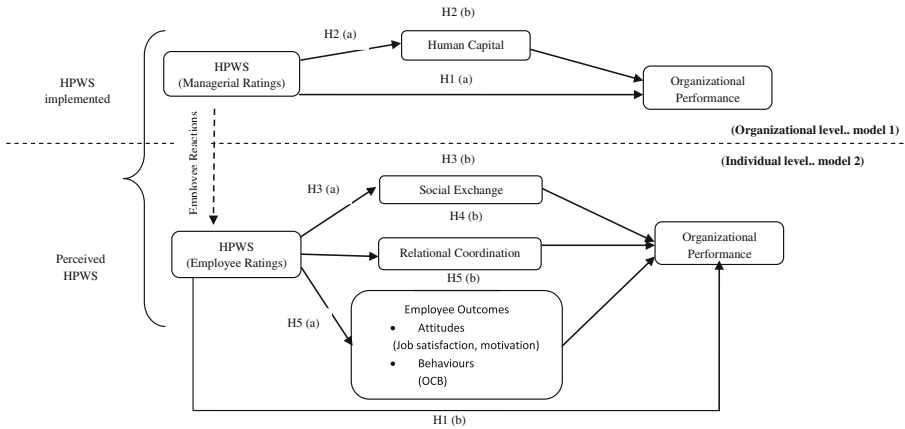
H5 (a): *Perceived or Employee-level HPWS will be significantly associated with employee attitudes (Motivation and job satisfaction) and behaviours (Organizational citizenship behaviour).*

H5 (b): *For employee attitudes Motivation will positively mediate the relationship between employee-level HPWS and organizational performance.*

H5 (c): *For employee attitudes job satisfaction will positively mediate the relationship between employee-level HPWS and organizational performance.*

H5 (d): *For employee behaviours, Organizational citizenship behaviour will positively mediate the relationship between employee-level HPWS and organizational performance.*

Theoretical Framework



Methodology

Both theoretical and empirical progress is required in HRM-performance literature (Becker and Gerhart 1996). To empirically validate this study, a survey was conducted. While selecting for the sample, lots of methodological issues were to be treated. First, considering suggestions of Gerhart, Wright, MacMahan & Snell (2000) regarding biasness generated when data is collected from single source, responses were generated from organizational managers as well as employees. Second, HRM system has multilevel impacts and employee and organizational levels are collectively interlinked, present study was conducted on two levels i.e., individual level and organizational level. Wright & Nishii (2007) identified that HR practices implemented by management results in employee’s perception about those practices that ultimately generate employee reactions and only valid source for providing information about an organization’s HR system are ‘employees’ (Gerhart et al. 2000). Keeping in view these suggestions, study was conducted on multi-levels and with multiple-respondents.

For this research, the theoretical frame work was divided into two models. Model 1 investigated managerial aspect of HPWS and Model 2 examined employee aspect of HPWS. The items of HPWS and organizational performance were same for both studies while the mediating variables were different for each study. 12 organizations has participated giving responses both for managers and employees. Self administered questionnaires were distributed.

Model 1

This model was focused on the impact of HPWS on organizational performance at managerial level keeping in view the resource based perspective in mind, with the mediating role of human capital. The analysis of model 1 is based on responses of 81 managers.

Measures

‘High performance work practices’ were measured by using 20 items after factor analysis by Takeuchi et al. (2009). This measure has responses from organizational level. The original scale was developed by Lepak and Snell (1999). For measuring mediating variable ‘Human capital’, scale by Subramaniam and Youndt (2005) was adopted. ‘Organizational performance’ was measured as an outcome to HR practices (following Delaney and Huselid, 1996) and scale by Singh (2004) was adopted. All of these items were measured on a five point likert scale (ranging from 1=strongly disagree to 5=strongly agree). Control measures were age, gender, education (qualification) and tenure in organization.

Analysis and Results in Model 1

To check reliability of interested variables, reliability test was used. Results showed good carhonbach’s alpha for each variable. Table 1 represents Means, Standard deviation and Correlation statistics among all variables included in study 1. High performance work system (HPWS) is significantly related to organizational performance as well as with mediator human capital.

Tables 2 and 3 shows results of regression analysis. These results lead to the acceptance of hypothesis H1 (a) that organizational level HPWS is significantly associated with organizational performance. Results also indicate that mediating variable Human Capital has also significant association with HPWS, so hypothesis H2 (a) is accepted that organizational level HPWS will be significantly associated with human capital. Results of mediation shows that human capital becomes significant ($\beta=0.312$, $\Delta R^2=0.053$, $p<0.05$, significant) while independent variable HPWS is insignificant ($\beta=-0.002$, $\Delta R^2=0.028$, $p<0.05$, insignificant). These leads to the acceptance of H2 (b) that Human Capital will positively mediate the relationship between organizational – level HPWS and Organizational Performance.

Model 2

The Model 2 of the theoretical framework investigated the relationship between employee level HPWS and organizational performance and the mediating roles of Social exchange, relational coordination, employee attitudes and behaviours. Analysis of model 2 comprised of 113 responses from 113 employees.

Table 1 Means, standard deviation and intercorrelations among variables in Model 1 ($N=81$)

Variables	M	SD	HPWS	HC	OP
HPWS	3.6006	3.6006	(0.872)		
HC	3.7852	3.7852	0.617**	(0.897)	
OP	3.6605	3.6605	0.462**	0.482**	(0.851)

HPWS high performance work systems, HC human capital, OP organizational performance

* $p<.05$, ** $p<.01$

Table 2 Regression analysis for outcomes

Predictors	Human Capital			Organizational Performance		
	β	R ²	ΔR^2	β	R ²	ΔR^2
Main effects:						
HPWS						
Step 1		0.068			0.021	
Control variables						
Step 2	0.643***	0.391	0.324***	3.11**	0.102	0.081**
HPWS						

$N=86$, Control variables are age, education, gender and tenure

** $P<0.01$, *** $p<0.001$

Measures

Same scales for HPWS and organizational performance were used in both studies. Scale by Shore et al. (2006) was adopted to measure ‘Social Exchange’. ‘Relational coordination’ was measured using scale developed by Gittel et al. (2008). Attitudes and behaviours were investigated by measuring job satisfaction and organizational citizenship behaviour (OCB) respectively. Job satisfaction was measured by scale developed by Cammann, Fichman, Jenkins and Klesh (1983) and for OCB scale by Smith, Organ and Near (1983) was adopted. Control variables for this study were also gender, age, education and tenure.

Analysis and Results in Model 2

Table 4 shows Means, Standard deviation and correlation of variables along with the reliability values of these variables. High performance work system is significantly associated with organizational performance.

Table 3 Regression analysis for mediation

Predictors	Organizational performance		
	β	R ²	ΔR^2
Mediator analyses			
Main effects: high performance work systems			
Step 1			
Control Variable		0.021	
Step 2			
Mediation: human capital			
Human capital	0.312*	0.102	0.053*
Step 3			
High performance work systems	-0.002	0.049	0.028

$N=86$, Control variables are gender, age, education, experience

* $p<.05$

Table 4 Means, standard deviation and correlation among variables

Variables	M	SD	HPWS	SE	RC	MOT	JS	OCB	OP
HPWS	3.3579	0.73426	(0.879)						
SE	3.4530	0.52496	0.573**	(0.701)					
RC	3.6238	0.50979	0.489**	0.466**	(0.692)				
MOT	3.9043	0.69815	0.397**	0.506**	0.508**	(0.661)			
JS	3.6040	0.70192	0.310**	0.454**	0.093*	0.359**	(0.655)		
OCB	3.9604	0.51558	-0.110	0.024*	0.237*	0.383**	0.038	(0.811)	
OP	3.4538	0.67459	0.322**	0.179*	0.242*	0.245*	0.282**	0.191**	(0.774)

HPWS high performance work systems, SE social exchange, RC relational coordination, MOT motivation, JS job satisfaction, OCB organizational citizenship behaviour, OP organizational performance. * $p < 0.05$, ** $p < 0.01$

Tables 5 and 6 shows simple regression results for outcomes. Results shows significant association of employee level HPWS with social exchange, relational coordination, employee attitudes (motivation and job satisfaction) and behaviour (OCB). So the hypotheses H3 (a), H4 (a) and H5 (a) are accepted. Table 7 presents the results of mediation analysis. It is found that when mediation for social exchange ($\beta = 0.217, \Delta R^2 = 0.038, p < 0.05$, significant), relational coordination ($\beta = 0.229, \Delta R^2 = 0.047, p < 0.05$, significant) and OCB ($\beta = 0.262, \Delta R^2 = 0.075, p < 0.01$, significant) is tested, the impact of HPWS on organizational performance becomes insignificant. So the mediation hypotheses H3 (b), H4 (b) and H5 (d) are accepted. As for motivation ($\beta = 0.136$, insignificant) and job satisfaction ($\beta = 0.135$, insignificant), the impact of HPWS on organizational performance becomes significant, so the mediation hypotheses H5 (b) and H5 (c) are rejected.

Comparison of Means for Organizational Level and Employee Level HPWS and Performance

In order to find the difference between organizational and individual level HPWS and performance, their means were compared. Two hypotheses were made.

Table 5 Regression analysis for outcomes social exchange, relational coordination and motivation ($n = 300$)

Predictors	Social Exchange			Relational Coordination			Motivation		
	B	R ²	ΔR^2	β	R ²	ΔR^2	β	R ²	ΔR^2
Main effects:									
HPWS									
Step 1		0.117			0.056			0.178	
Control variables									
Step 2	0.232***	0.349	0.363***	0.302***	0.233	0.177***	0.303***	0.265	0.086***
HPWS									

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, Control variables are gender, age, education, experience, HPWS high performance work system

Table 6 Regression analysis for outcomes attitudes (motivation and job satisfaction), behaviours (OCB) and organizational performance (*n*=300)

Predictors	Job satisfaction			OCB			Organizational Performance		
	β	R ²	ΔR^2	β	R ²	ΔR^2	β	R ²	ΔR^2
Main effects									
Step 1		0.119			0.076			0.041	
Control variables									
Step 2	0.253**	0.178	0.060**	0.010*	0.096	0.020*	0.264**	0.117	0.076**
HPWS									

p*<.05, *p*<0.01,****p*<0.001. Control variables are gender, age, education, experience, *HPWS* high performance work system

H₀: There is no difference between organizational and individual level HPWS and performance.

H₁: There is a difference between organizational and individual level HPWS and performance.

Results lead to the rejection of H₀ and acceptance of H₁, as differences were found between the means of HPWS and organizational performance for both managers and

Table 7 Results for mediation analysis

Predictors	Organizational performance		
	β	R ²	ΔR^2
Mediator Analyses			
Main effects: High performance Work Systems			
Step 1			
Control Variable		0.041	
Step 2			
Mediation: social exchange, relational coordination, motivation, job satisfaction, OCB			
Social Exchange	0.217*	0.123	0.038*
Relational Coordination	0.229*	0.122	0.047**
Motivation	0.136	0.089	0.045*
Job Satisfaction	0.135	0.081	0.040*
OCB	0.262**	0.135	0.075**
Step 3			
HPWS → Social Exchange	0.128	0.085	0.045*
HPWS → Relational Coordination	0.115	0.076	0.035*
HPWS → Motivation	0.261**	0.155	0.066
HPWS → Job satisfaction	0.230**	0.134	0.054*
HPWS → OCB	0.177	0.060	0.019

N=113, Control variables are gender, age, education, experience.**p*<.05, ***p*<0.01

Table 8 Organizational and individual level HPWS and organizational performance

	Status	Mean	Std.Deviation	Std.Deviation Error
HPWS	Employees	3.3075	0.73804	0.06943
	Managers	3.6000	0.70415	0.07593
OP	Employees	3.4115	0.66109	0.06219
	Managers	3.6221	0.72780	0.07848

OP organizational performances N (Managers)=86, N (employees)=113

employees. Managers or the policy makers should try to keep this difference as low as possible because employees perceptions to HPWS are more important Table 8.

Discussion and Conclusion

Managerial and employee aspects of HPWS and organizational performance were investigated through the intervention of resource based view, social exchange, relational coordination, attitudinal and behavioural perspectives of HPWS. Support was found for all the hypotheses except for the attitudinal variables.

Consistent with RBV (Resource based view) theory, human capital was found to significantly predict organizational performance as a result of HPWS (Takeuchi et al. 2009). Exchange relationships between organizations and employees were noted to have a positive impact on organizational performance deriving support social exchange theory. Positive perception of employees towards organizational initiatives such as HR practices results in discretionary efforts for organizational outcomes (Gould-Williams 2007). Relational coordination among employees was found to have relevance with performance related outcomes (Gittell et al. 2008). Results provided no support for role of attitudes (motivation and job satisfaction) predicting organizational performance. These factors found not to be working in context of Pakistan. Results supported that organizational citizenship behaviours (OCB) can result in better organizational performance because such employees are more flexible and productive for an organization (Evans and Davis 2005; Noor 2009).

During conducting interviews from employees, the responses revealed that training & development is only limited to the written policies. HR practices such as training, skill development, promotions were not implemented the way they were intended to. So the reason for rejection of job satisfaction and motivation can be the gap between intended and implemented practices. Secondly, employees cannot find any career path for themselves as promotions in Pakistan are not according to written policies.

Implication of these results can be seen for managers or the policy makers that intend to implement HR practices in an organization. Importance of

human capital for an organization has been increased. From some past years policy makers are facing the issue of 'skill drought', brain drain, dysfunctional career opportunities (Mahroum 2000). Multinational companies are more likely to invest their operations in organizations and countries that put more emphasis on development of human skills and resources (Noorbakhsh and Paloni 2001). Managers should focus on advancement of their human capital to increase their attractiveness, if they want to expand their businesses. Low development of human capital may result into a 'brain drain' (Beine et al. 2008) and managers can retain this intellect for their organizations by providing them a career path through HR policies. Managers should implement HR practices for developing competitive human assets as such organizations are hard to imitate by competitors (Wright and Nishii, 2007). Social exchange and relational coordination are pivot point of success of HPWS as HR practices are not successful until and unless employee perceives them to be useful. According to Norm of reciprocity (Gouldner, 1960) individuals usually favour those who favour them. Managers should be investing more on employees making them feel worthy and valued, this will result into more employee engagement.

When organizations introduce HR policies that make employees come closer to one another in a functional way, they view themselves in a 'family' and exert more efforts for its prosperity. In addition, it should be taken into account by policy makers that effective relationship among individuals leads to creativity and problem sharing ultimately leading to better quality (Gittell 2002). In present era of high competition, having employees with greater OCB is a fundamental part of organizational strategy. Managers should promote policies to make their employees indulged in extra role behaviours, working beyond the call of duty and so on because it is evident from empirical testing that OCB do results in increased performance (Podsakoff et al. 2000).

No investment from organizations in the form of training and innovative task assignments was made thus leading to dissatisfied and demotivated employees. Employees were found to be more likely to leave their jobs if they find a good alternative. These are the serious issues for policy makers to ensure the right implementation of right practices.

Limitations and Future Directions

This study can be an important contextual contribution as not much of work is done focusing on high performance work system in Pakistan. Certain limitations are also associated such as reaching the lower level employees. To target employees that were at the lowest level of organisations couldn't be accessed because of policy issues of organizations. They don't give full access to those working in actual fields. Another major issue is the cross sectional nature of the study. HPWS need research in full depth. This study is based on subjective organizational performance, it would be more appropriate to use objective measures of organizational performance such as operational measures (ROI, ROA, ROE, profitability) that can give a more detailed analysis of an organizations growth.

Appendix

Questionnaire: (To be filled by MANAGERS)

Section A:

- Demographics:
- Gender: _____
 - Age (write age in years): _____
 - Education (write in years): _____
 - Tenure in this organization (in years or months): _____

Section B:

Choose the option that you feel for following questions.
1= strongly disagree 2= disagree 3= neutral 4= agree 5= strongly agree

1) High Performance Work System	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Employees are involved in job rotation.	1	2	3	4	5
2. Employees are empowered to make decisions.	1	2	3	4	5
3. Jobs are designed according to employee skills and capabilities.	1	2	3	4	5
4. Selection is comprehensive (uses interviews, tests, etc.).	1	2	3	4	5
5. Selection emphasizes their ability to join forces and work in teams.	1	2	3	4	5
6. Selection involves screening job candidates.	1	2	3	4	5
7. Selection focuses on selecting the best candidate, regardless of the specific job.	1	2	3	4	5
8. Selection emphasizes promotion.	1	2	3	4	5
9. Selection places main concern on their potential to learn (e.g., aptitude).	1	2	3	4	5
10. Training is on regular basis.	1	2	3	4	5
11. Training programs are comprehensive.	1	2	3	4	5
12. Training programs are to develop firm-specific skills and knowledge.	1	2	3	4	5
13. The training programs emphasize on-the-job experiences.	1	2	3	4	5
14. Performance is based on objective, quantifiable results.	1	2	3	4	5
15. Performance appraisals include feedback.	1	2	3	4	5
16. Incentives are based on team performance.	1	2	3	4	5
17. Compensation packages include an extensive benefits package.	1	2	3	4	5
18. Our compensations include high wages.	1	2	3	4	5
19. The incentive system is associated to skill-based pay.	1	2	3	4	5
20. Our compensation is related to performance.	1	2	3	4	5

<u>Human Capital:</u>	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Our employees are:					
1. Highly skilled.	1	2	3	4	5
2. Widely considered to be best.	1	2	3	4	5
3. Creative and bright.	1	2	3	4	5
4. Experts in their particular jobs and functions.	1	2	3	4	5
5. Develop new ideas and knowledge.	1	2	3	4	5
<u>Organizational Performance:</u>	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. In my organization, return on investment is greater than last year.	1	2	3	4	5
2. In my organization, average productivity per employee is greater than last year	1	2	3	4	5
3. In my organization, time to market for products and services is less than last year.	1	2	3	4	5
4. In my organization, response time for customer complaints is better than last year.	1	2	3	4	5
5. In my organization, market share is greater than last year.	1	2	3	4	5
6. In my organization, the cost per business transaction is less than last year.	1	2	3	4	5
7. In my organization, customer satisfaction is greater than last year	1	2	3	4	5
8. In my organization, the number of suggestions implemented is greater than last year.	1	2	3	4	5
9. In my organization, the number of new products or services is greater than last year.	1	2	3	4	5
10. In my organization, the percentage of skilled workers compared to the total workforce is greater than last year.	1	2	3	4	5
11. In my organization, the percentage of total spending devoted to technology and information processing is greater than last year.	1	2	3	4	5
12. In my organization, the number of individuals learning new skills is greater than last Year.	1	2	3	4	5

Questionnaire: (To be filled by EMPLOYEES)

Section A:

- Demographics:
- Gender: _____
 - Age: _____
 - Education (in years): _____
 - Tenure in this organization (in years or months): _____

Section B:

Choose the option that you feel for following questions.
1= strongly disagree 2= disagree 3= neutral 4= agree 5= strongly agree

High Performance Work Systems:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Employees are involved in job rotation.	1	2	3	4	5
2. Employees are empowered to make decisions.	1	2	3	4	5
3. Jobs are designed according to employee skills and capabilities.	1	2	3	4	5
4. Selection is comprehensive (uses interviews, tests, etc.).	1	2	3	4	5
5. Selection emphasizes their ability to join forces and work in teams.	1	2	3	4	5
6. Selection involves screening job candidates.	1	2	3	4	5
7. Selection focuses on selecting the best candidate, regardless of the specific job.	1	2	3	4	5
8. Selection emphasizes promotion.	1	2	3	4	5
9. Selection places main concern on their potential to learn (e.g., aptitude).	1	2	3	4	5
10. Training is on regular basis.	1	2	3	4	5
11. Training programs are comprehensive.	1	2	3	4	5
12. Training programs are to develop firm-specific skills and knowledge.	1	2	3	4	5
13. The training programs emphasize on-the-job experiences.	1	2	3	4	5
14. Performance is based on objective, quantifiable results.	1	2	3	4	5
15. Performance appraisals include feedback.	1	2	3	4	5
16. Incentives are based on team performance.	1	2	3	4	5
17. Compensation packages include an extensive benefits package.	1	2	3	4	5
18. Our compensations include high wages.	1	2	3	4	5
19. The incentive system is associated to skill-based pay.	1	2	3	4	5
20. Our compensation is related to performance.	1	2	3	4	5

<u>Social Exchange:</u>	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. My organization has made a significant investment in me.	1	2	3	4	5
2. The things I do on the job today will benefit my standing in this organization in the long run.	1	2	3	4	5
3. There is a lot of give and take in my relationship with my organization.	1	2	3	4	5
4. I worry that all my efforts on behalf of my organization will never be rewarded.[R]	1	2	3	4	5
5. I don't mind working hard today – I know I will eventually be rewarded by my organization.	1	2	3	4	5
6. My relationship with my organization is based on mutual trust.	1	2	3	4	5
7. I try to look out for the best interest of the organization because I can rely on my organization to take care of me.	1	2	3	4	5
8. Even though I may not always receive the recognition from my organization I deserve, I know my efforts will be rewarded in the future.	1	2	3	4	5
<u>Relational Coordination:</u>	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I frequently communicate with other employees in group about the work to be done.	1	2	3	4	5
2. Employees in my groups communicate with me in a timely way about the work to be done.	1	2	3	4	5
3. Employees in my groups communicate with me accurately about the work to be done	1	2	3	4	5
4. In case of a mistake, employees in my group blame each other rather than sharing responsibility.	1	2	3	4	5
5. Other employees in my group share my goals for the accomplishment of task.	1	2	3	4	5
6. My group members know about the work I do in joint task.	1	2	3	4	5
7. Employees in my group respect me and my work I do in group task.	1	2	3	4	5
<u>Employee Attitude:</u>	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
(a) Motivation:					
1. I always behave in a way that helps our Company's performance.	1	2	3	4	5
2. I am always contributing in positive ways to The Company's performance.	1	2	3	4	5
3. As compared to our competitors my organization has a highly motivated group of employees.	1	2	3	4	5
(b) Job Satisfaction					
1. All in all, I am satisfied with my job.	1	2	3	4	5
2. In general I do not like my job. (R)	1	2	3	4	5
3. In general, I like working here.	1	2	3	4	5

Employee Behaviours:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
(a) Organizational Citizenship Behaviour:					
I help my colleagues who have been absent from work.	1	2	3	4	5
I remain punctual.	1	2	3	4	5
I guide new people on job.	1	2	3	4	5
I help others who have heavy workloads.	1	2	3	4	5
I do not take extra breaks.	1	2	3	4	5
I assist supervisor with his or her work.	1	2	3	4	5
I make suggestions to improve my department.	1	2	3	4	5

References

- Adler, P. S., Kwon, S. W., & Heckscher, C. (2008). Professional work: the emergence of collaborative community. *Organization Science*, 19(2), 359–376.
- Allen, D. G., Shore, L. M., & Griffeth, R. W. (2003). The role of perceived organizational support and supportive human resource practices in the turnover process. *Journal of Management*, 29(1), 99–118.
- Angel, H. L., Perry, J. L. (1981). An empirical assessment of organisational commitment and organisational effectiveness. *Administrative Science Quarterly*, 1–14.
- Arthur, J. B. (1994). Effects of human resource systems on manufacturing performance and productivity. *Academy of Management Journal*, 37(3), 670–687.
- Bae, J., & Lawler, J. J. (2000). Organizational and HRM strategies in Korea: impact on firm performance in an emerging economy. *Academy of Management Journal*, 43(3), 502–517.
- Bajor, J. K., & Baltes, B. B. (2003). The relationship between selection optimization with compensation, conscientiousness, motivation, and performance. *Journal of Vocational Behavior*, 63(3), 347–367.
- Barney, J. B., & Wright, P. M. (1997). *On becoming a strategic partner: The role of human resources in gaining competitive advantage* (CAHRS Working Paper, No. 97–09). Ithaca: Cornell University, School of Industrial and Labor Relations, Center for Advanced Human Resource Studies.
- Bartram, T., Karimi, L., Leggat, S. G., & Stanton, P. (2014). Social identification: linking high performance work systems, psychological empowerment and patient care. *The International Journal of Human Resource Management*, 25(17), 2401–2419.
- Batt, R., & Valcour, P. M. (2003). Human resources practices as predictors of work-family outcomes and employee turnover. *Industrial Relations: A Journal of Economy and Society*, 42(2), 189–220.
- Becker, B., & Gerhart, B. (1996). The impact of human resource management on organizational performance: progress and prospects. *Academy of Management Journal*, 39(4), 779–801.
- Beine, M., Docquier, F., & Rapoport, H. (2008). Brain drain and human capital formation in developing countries: winners and losers. *The Economic Journal*, 118(528), 631–652.
- Beltran-Martin, I., Roca-Puig, Escrig-Tena, A., & Bou-Llousar. (2008). Human resource flexibility as a mediating variable between high performance work systems and performance. *Journal of Management*, 34(5), 1009–1044.
- Black, S. E., & Lynch, L. M. (2001). How to compete: the impact of workplace practices and information technology on productivity. *Review of Economics and Statistics*, 83(3), 434–445.
- Bonias, D., Bartram, T., Leggat, S. G., & Stanton, P. (2010). Does psychological empowerment mediate the relationship between high performance work systems and patient care quality in hospitals? *Asia Pacific Journal of Human Resources*, 48(3), 319–337.
- Boselle, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in research on human resource management and performance. *Human Resource Management Journal*, 15(3), 67–94.

- Bowen, D., & Ostroff, C. (2004). Understanding HRM – firm performance linkages: the role of the strength of the HRM system. *Academy of Management Review*, 29(2), 203–221.
- Boxall, P. (2012). High performance work systems: what, why, how and for whom? *Asia Pacific Journal of Human Resources*, 50, 169–186.
- Boxall, P., & Macky, K. (2009). Research and theory on high – performance work systems: progressing the high involvement stream. *Human Resource Management Journal*, 19(1), 3–23.
- Cammann, C., Fichman, M., Jenkins, G. D., Jr., & Klesh, J. R. (1983). Assessing the attitudes and perceptions of organizational members. In S. E. Seashore, E. E. Lawler, P. H. Minis III, & C. Cammann (Eds.), *Assessing organizational change: A guide to methods, measures, and practices* (pp. 71–138). New York: Wiley.
- Cappelli, P., & Neumark, D. (2001). Do “high-performance” work practices improve establishment-level outcomes? *Industrial & Labor Relations Review*, 54(4), 737–775.
- Carmeli, A., & Gittell, J. H. (2009). High-quality relationships, psychological safety, and learning from failures in work organizations. *Journal of Organizational Behavior*, 30(6), 709–729.
- Chang, W. J., & Chun Huang, T. (2005). Relationship between strategic human resource management and firm performance: a contingency perspective. *International Journal of Manpower*, 26(5), 434–449.
- Collins, C. J., & Clark, K. D. (2003). Strategic human resource practices, top management team social networks, and firm performance: the role of human resource practices in creating organizational competitive advantage. *Academy of Management Journal*, 46(6), 740–751.
- Collins, C. J., & Smith, K. G. (2006). Knowledge exchange and combination: the role of human resource practices in the performance of high-technology firms. *Academy of Management Journal*, 49(3), 544–560.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: an interdisciplinary review. *Journal of Management*, 31(6), 874–900.
- Datta, D. K., Guthrie, J. P., & Wright, P. M. (2005). Human resource management and labor productivity: does industry matter? *Academy of Management Journal*, 48(1), 135–145.
- De Clercq, D., & Dakhli, M. (2003). Human Capital, Social Capital, and Innovation: a Multi-Country Study. Vlerick Leuven Gent Working Paper Series, 18.
- Delaney, J. T., & Huselid, M. A. (1996). The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Journal*, 39(4), 949–969.
- Delery, J. E., & Doty, D. H. (1996). Modes of theorizing in strategic human resource management: tests of universalistic, contingency and configurational performance predictors. *Academy of Management Journal*, 39(4), 802–825.
- Dieleman, M., Viet Cuong, P., Anh, L., & Martineau, T. (2003). Identifying factors for job motivation of rural health workers in North Vietnam. *Human Resources for Health*, 1, 10.
- Evans, W. R., & Davis, W. D. (2005). High-performance work systems and organizational performance: the mediating role of internal social structure. *Journal of Management*, 35, 758–775.
- Fan, D., Cui, L., Zhang, M. M., Zhu, C. J., Härtel, C. E., & Nyland, C. (2014). Influence of high performance work systems on employee subjective well-being and job burnout: empirical evidence from the Chinese healthcare sector. *The International Journal of Human Resource Management*, 25(7), 931–950.
- Fulmer, I. S., Gerhart, B., & Scott, K. S. (2003). Are the 100 best better? An empirical investigation of the relationship between being a “great place to work” and firm performance. *Personnel Psychology*, 56(4), 965–993.
- Galang, M. C. (1999). Stakeholders in high-performance work systems. *International Journal of Human Resource Management*, 10(2), 287–305.
- Gerhart, B., Wright, P. M., Mahan, G. C., & Snell, S. A. (2000). Measurement error in research on human resources and firm performance: how much error is there and how does it influence effect size estimates? *Personnel Psychology*, 53(4), 803–834.
- Gittell, J. H. (2000). Organizing work to support relational co-ordination. *International Journal of Human Resource Management*, 11(3), 517–539.
- Gittell, J. H. (2002). Relationships between service providers and their impact on customers. *Journal of Service Research*, 4(4), 299–311.
- Gittell, J. H., Weinberg, D., Pfefferle, S., & Bishop, C. (2008). Impact of relational coordination on job satisfaction and quality outcomes: a study of nursing homes. *Human Resource Management Journal*, 18(2), 154–170.
- Gittell, J. H., Seidner, R., & Wimbush, J. (2010). A relational model of how high-performance work systems work. *Organization Science*, 21(2), 490–506.
- Gouldner, A. W. (1960). The norm of reciprocity: a preliminary statement. *American Sociological Review*, 161–178.

- Gould-Williams, J. (2007). HR practices, organizational climate and employee outcomes: evaluating social exchange relationships in local government. *The International Journal of Human Resource Management*, 18(9), 1627–1647.
- Grawitch, M. J., & Barber, L. K. (2009). *Are You Focusing both on Employee and Organizational Outcomes?* St. Louis: Organizational Health Initiatives.
- Guest, D. E. (1997). Human resource management and performance: a review and research agenda. *International Journal of Human Resource Management Journal*, 8(3), 263–276.
- Guest, D. E., Michie, J., Conway, N., & Sheehan, M. (2003). Human resource management and corporate performance in the UK. *British Journal of Industrial Relations*, 41(2), 291–314.
- Guthrie, J. P. (2001). High involvement work practices, turnover and productivity: evidence from New Zealand. *Academy of Management Journal*, 44(1), 180–190.
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: a meta-analysis. *Journal of Applied Psychology*, 87(2), 268.
- Hitt, M. A., Ireland, R. D., Camp, S. M., & Sexton, D. L. (2001). Strategic entrepreneurship: entrepreneurial strategies for wealth creation. *Strategic Management Journal*, 22(6–7), 479–491.
- Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity and corporate financial performance. *Academy of Management Journal*, 38(3), 635–872.
- Jensen, J. M., Patel, P. C., & Messersmith, J. G. (2013). High-performance work systems and Job control consequences for anxiety, role overload, and turnover intentions. *Journal of Management*, 39(6), 1699–1724.
- Jose, G., & Mampilly, S. R. (2012). Satisfaction with HR practices and employee engagement: a social exchange perspective. *Journal of Economics and Behavioral Studies*, 4(7), 423–430.
- Kamphorst, J., & Swank, O. (2012). The role of performance appraisals in motivating employees (No. TI 2012-034/1, pp. 1–27). Tinbergen Institute Discussion Paper Series.
- Kiggundu, M. N. (1983). Task interdependence and job design: test of a theory. *Organizational Behavior and Human Performance*, 31(2), 145–172.
- Kinnie, N., Hutchinson, S., Purcell, J., Rayton, B., & Swart, J. (2005). Satisfaction with HR practices and commitment to the organisation: why one size does not fit all. *Human Resource Management Journal*, 15(4), 9–29.
- Kuvaas, B. (2008). An exploration of how the employee–organization relationship affects the linkage between perception of developmental human resource practices and employee outcomes. *Journal of Management Studies*, 45(1), 1–25.
- Leana, C. R., & Van Buren, H. J. (1999). Organizational social capital and employment practices. *Academy of Management Review*, 24(3), 538–555.
- Lepak, D., & Snell, S. (1999). The human resource architecture: towards a theory of human resource allocation and development. *Academy of Management Review*, 24(1), 31–48.
- Liu, Y., Hall, A., & Ketchen, D. (2006). How much do high-performance work practices matter? a meta-analysis of their effects on organizational performance. *Personnel Psychology*, 59, 501–528.
- Macduffie, J. P. (1995). Human resource management bundles and manufacturing performance: organizational logic and flexible production systems in the world auto industry. *Industrial and Labor Relations Review*, 48(2), 197–221.
- Mahroum, S. (2000). Highly skilled globetrotters: mapping the international migration of human capital. *R&D Management*, 30(1), 23–32.
- Masterson, S. S., Lewis, K., Goldman, B. M., & Taylor, M. S. (2000). Integrating justice and social exchange: the differing effects of fair procedures and treatment on work relationships. *Academy of Management Journal*, 43(4), 738–748.
- Mossholder, K. W., Richardson, H. A., & Settoon, R. P. (2011). Human resource systems and helping in organizations: a relational perspective. *Academy of Management Review*, 36(1), 33–52.
- Nishii, L. H., Lepak, D. P., & Schneider, B. (2008). Employee attributions of the “why” of HR practices: their effects on employee attitudes and behaviors, and customer satisfaction. *Personnel Psychology*, 61(3), 503–545.
- Noor, A. (2009). Examining organizational citizenship behavior as the outcome of organizational commitment: a study of universities teachers of Pakistan. Army public college of management sciences.
- Noorbakhsh, F., Paloni, A., & Youssef, A. (2001). Human capital and FDI inflows to developing countries: new empirical evidence. *World Development*, 29(9), 1593–1610.
- Pennings, J. M., Lee, K., & Witteloostuijn, A. (1998). Human capital, social capital, and firm dissolution. *Academy of Management Journal*, 41, 425–440.

- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: a critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26(3), 513–563.
- Qiao, J., & Wang, W. (2009). Managerial competencies for middle managers: some empirical findings from China. *Journal of European Industrial Training*, 33(1), 69–81.
- Ramamoorthy, N., Flood, P. C., Slattery, T., & Sardesai, R. (2005). Determinants of innovative work behaviour: development and test of an integrated model. *Creativity and Innovation Management*, 14(2), 142–150.
- Ramsay, H., Scholarios, D., & Harley, B. (2000). Employees and high performance work systems: testing inside the black box. *British Journal of Industrial Relations*, 38(4), 501–531.
- Razouk, A. (2011). High-performance work systems and performance of French small-and medium-sized enterprises: examining causal order. *The International Journal of Human Resource Management*, 22(02), 311–330.
- Richard, P., Devinney, T., Yip, G., & Johnson, G. (2009). Measuring organizational performance: towards methodological best practice. *Journal of Management*, 35, 718–804. doi:10.1177/0149206308330560.
- Russo, M. V., & Fouts, P. A. (1997). A resource based perspective on corporate environmental performance and profitability. *Academy of Management Journal*, 40(3), 534–559.
- Savaneviciene, A., & Stankeviciute, Z. (2010). The models exploring the “black box” between HRM and organizational performance. *Inzinerine Ekonomika-Engineering Economics*, 21(4), 426–434.
- Schippers, M. C., Den Hartog, D. N., Koopman, P. L., & Wienk, J. A. (2003). Diversity and team outcomes: the moderating effects of outcome interdependence and group longevity and the mediating effect of reflexivity. *Journal of Organizational Behavior*, 24(6), 779–802.
- Shore, L. M., Tetrick, L. E., Lynch, P., & Barksdale, K. (2006). Social and economic exchange: construct development and validation. *Journal of Applied Social Psychology*, 36(4), 837–867.
- Singh, K. (2004). Impact of HR practices on perceived firm performance in India. *Asia Pacific Journal of Human Resources*, 42(3), 301–317.
- Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: its nature and antecedents. *Journal of Applied Psychology*, 68(4), 653.
- Snape, E., & Redman, T. (2010). HRM practices, organizational citizenship behaviour, and performance: a multi-level analysis. *Journal of Management Studies*, 47(7), 1219–1247.
- Snell, S. A., & Dean, J. W. (1992). Integrated manufacturing and human resource management: a human capital perspective. *Academy of Management Journal*, 38(3), 467–504.
- Steigenberger, N. (2013). Power shifts in organizations: the role of high-performance work systems. *The International Journal of Human Resource Management*, 24(6), 1165–1185.
- Subramaniam, M., & Youndt, M. A. (2005). The influence of intellectual capital on the types of innovative capabilities. *Academy of Management Journal*, 48(3), 450–463.
- Sutanto, E. M. (2004). The relationship between employee commitment and job performance. *Jurnal Manajemen dan kewirausahaan*, 1(1), 47.
- Takeuchi, R., Chen, G., & Lepak, D. P. (2009). Through the looking glass of a social system: cross-level effects of highperformance work systems on employees’ attitudes. *Personnel Psychology*, 62, 1–29.
- Tsai, C. J. (2006). High performance work systems and organizational performance: an empirical study of Taiwan’s semiconductor’s design firms. *International Journal of Human Resource Management*, 17(9), 1512–1530.
- Tsui, A. S., Pearce, J. L., Porter, L. W., & Tripoli, A. M. (1997). Alternative approaches to the employee-organization relationship: does investment in employees pay off. *Academy of Management Journal*, 40, 1089–1121.
- Vogus, T. J. (2006). What is it about relationships? A behavioral theory of social capital and performance. In *Proceedings Of The Annual Meeting-Labor And Employment Relations Association*, vol. 58 (p. 164). Labor and Employment Relations Association.
- Whitner, E. M. (2001). Do ‘high Commitment’ human resource practices affect employee commitment? A cross-level analysis using heirarchical linear modelling. *Journal of Management*, 27, 515–535.
- Wikhamn, W., & Hall, A. T. (2012). Social Exchange in a Swedish Work Environment. *International*.
- Wood, S. (1999). Human resource management and performance. *International Journal of Management Reviews*, 1(4), 367–413.
- Wright, P. M., & McMahan, G. C. (1992). Theoretical perspectives for strategic human resource management. *Journal of Management*, 18(2), 295–320.
- Wright, P. M., & Nishii, L. H. (2007). Strategic HRM and organizational behavior: Integrating multiple levels of analysis. *CAHRS Working Paper Series*, 468.

- Wright, P. M., Dunford, B. B., & Snell, S. A. (2001a). Human resources and the resource based view of the firm. *Journal of Management*, *27*, 701–721.
- Wright, P. M., Gardner, T. M., Moynihan, L. M., Park, H. J., Gerhart, B., & Delery, J. E. (2001b). Measurement error in research on human resources and firm performance: additional data and suggestions for future research. *Personnel Psychology*, *54*(4), 875–901.
- Wright, P. M., Gardner, T. M., & Moynihan, L. M. (2003). The Impact of HR Practices on the Performance of Business Units. *Human Resource Management Journal*, *13*(3), 21–36.
- Youndt, M. A., Snell, S. A., Dean, J. W., & Lepak, D. P. (1996). Human resource management, manufacturing strategy and firm performance. *Academy of Management Journal*, *39*(4), 836–866.
- Zacarthos, A., Barling, J., & Iverson, I. D. (2005). High-performance work systems and occupational safety. *Journal of Applied Psychology*, *90*(1), 77–93.
- Zhang, Y. C., & Li, S. L. (2009). High performance work practices and firm performance: evidence from the pharmaceutical industry in China. *The International Journal of Human Resource Management*, *20*(11), 2331–2348.
- Zhang, B., & Morris, J. J. (2014). High-performance work systems and organizational performance: testing the mediation role of employee outcomes using evidence from PR China. *The International Journal of Human Resource Management*, *25*(1), 68–90.
- Zhang, M., Zhu, C. J., Dowling, P. J., & Bartram, T. (2013). Exploring the effects of high-performance work systems (HPWS) on the work-related well-being of Chinese hospital employees. *The International Journal of Human Resource Management*, *24*(16), 3196–3212.

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