

Effects of High Performance Work Systems on Organizational Performance: A case of Banking Sector of Pakistan

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Abstract

This study sets out to determine the effects of high performance work systems (HPWS) and on organizational performance. Previous research in the field of HRM has mainly supported the view that properly designed high performance work systems can enhance organizational performance. This study has been conducted in the banking sector of Pakistan. Primary data was gathered in the form of managers' and employees' perceptions about the extent of HPWS and organizational performance in 340 sample branches. Results have shown that HPWS was significantly related to performance in terms of branch deposits, advances, and overall profitability. The findings from this study contribute to the literature on HPWS and performance, showing how HPWS can affect the performance of banks at unit level. The implications of this study suggest that as important stakeholders, managers, employees and HR function should be engaged in the design of HPWS and the plans for achieving higher levels of performance.

Key words: High performance work systems, resource based view, AMO framework, and Organizational performance.

Introduction

The impact of HRM on organizational performance has become the main research subject in the field. Most of the research in the HRM-performance literature is arranged around various research approaches. Researchers have mostly considered systems and strategic approach on HRM as the two major perspectives in the field of HRM and performance relationship. Research in systems approach has mainly focused on the overall set of HR practices and their effects on organizational performance (Becker & Huselid, 1998; Boxall & Macky, 2007). Strategic approach is based on the notion that HR practices must be aligned horizontally towards organizational goals and must complement each other to accomplish organization's strategy (Wright & Snell, 1991).

Together these two perspectives provide base to explore how HR practices and their effect on employee characteristics can lead to desired performance at organizational level (Bowen & Ostroff, 2004).

Traditionally, researchers have focused on the effects of individual HRM practices on employee performance outcomes such as turnover (e.g. Griffeth *et al.*, 2000) and task performance (e.g. Lock & Latham, 1990). Research in this area has advanced to a more macro-level focus on the systems approach for understanding the effects of HRM on performance outcomes (e.g. Huselid, 1995; Delery & Doty, 1996; Wright, 1998; Lepak *et al.* 2006). Despite immense evidence presented, many researchers (e.g. Guest, 1997; Fleetwood & Hesketh, 2006; Gerhart, 2012) are still critical of the HRM and performance relationship. These researchers highlighted the need to develop theoretical explanations about the linkages between HRM and performance.

Researchers have suggested several types of outcomes such as financial, human resource, organizational, and market outcomes which might apply to research relating to HRM (Dyer & Reeves, 1995). These authors have suggested that an accurate understanding of the relationships between HRM practices and these outcomes is crucial to draw logical inferences with regard to HRM and performance relationship (Ostroff & Bowen, 2000). Furthermore, majority of the research has been carried out in manufacturing context, mostly in developed countries, overlooking the substantial presence of service sector firms (Boselie *et al.*, 2001). There are limited number of studies being carried out to examine the relationship between HRM practices and organizational performance in developing countries like Pakistan. In view of the above issues, this study has taken up an employee perspective to acquaint their actual experiences with the high performance work systems and its effects on organizational performance in the banking sector of Pakistan. Specifically, the research question of this study is:

- To what extent the use of HPWS can influence organizational performance at the branch level in the banking sector of Pakistan?

High Performance Work Systems and Performance

A distinctive feature of HRM research is an emphasis on HR systems, rather than specific individual HR practices as an operative of organizational performance. However, there is a lack of agreement among researchers regarding the nature of HR systems, what HR practices comprise these HR systems, and how these systems operate to influence organizational performance (Lepak *et al.*, 2006). In general, previous studies have reported different terminologies for the very identical processes of HR systems. They have been labelled as ‘high-commitment’ (Wood & De Menezes, 1998; McClean & Collins, 2011), ‘high-involvement’ (Lawler, 1986; Guthrie, 2001), and ‘high-performance work systems’ (Appelbaum *et al.*, 2000; Huselid, 1995; Delaney & Huselid, 1996; Way, 2002).

The main purpose of high-commitment oriented HR systems is to enhance efficiency through greater focus on rules, regulations, and strict monitoring to manage employee behaviour (Wood & de Menezes, 1998). Instead of depending on measures such as rules, regulations, and control to reduce costs and enhance efficiency, high-commitment HR systems generate conditions that inspire employees to establish with the objectives of the organization and to apply effort to accomplish them (Whitener, 2001). The main focus in commitment-oriented HR systems is on developing committed employees who can be trusted to use their discretion and perform their jobs in accordance to the organizational goals. High-involvement approach of HR systems mainly focuses on the use of particular HR practices that precisely affect the nature and capacity of the jobs employees perform. In this approach of HR systems, Lawler (1986) using a less restrictive interpretation of high-commitment management, pointed that when employees are given an opportunity to understand their job, it will increase their involvement in the organization.

The term high-performance work systems (HPWS) have received greater attention in the HRM literature (Lepak *et al.*, 2006). HPWS approach is broader in scope as it has the potential to enhance the knowledge, skills and abilities of the firm’s existing and potential employees, develop their motivation, reduce avoiding responsibility, and improve retention of quality employees (Huselid, 1995). HPWS focus attention on the probable competitive advantages that might be accomplished by employees through HR practices that consider employees with respect, devote in their development, and promote trust in management and

commitment toward accomplishing organizational goals. The essential feature in all the discussion of high-commitment, high-involvement, and high-performing management is the comparison with a control type of organization (Wood, 1999).

Despite little agreement as to what constitutes a high performance work system, the systematic reviews of HRM studies suggests that HRM practices are consistently associated with organizational performance (Boselie *et al.*, 2005). Most of the research on HRM systems indicates that human resource practices or systems influence performance through its effect on people in organizations (Ostroff & Bowen, 2000). Explaining the processes through which HRM systems influence performance, researchers have pointed that high performance work practices function through its impact on (a) enhancing employees' skills, knowledge, and abilities, (b) motivating employees to exert their effort, and (c) providing them opportunities to perform their work (Combs *et al.*, 2006). Researchers have argued that the skilled, knowledgeable, and highly motivated workforce will not utilize their talent effectively without a proper organizational structure that provides them with opportunities and scope to express their talent in the performance of their jobs (Huselid, 1995; Combs *et al.*, 2006). The required scope and opportunities to use their discretionary talent and time can be strengthened by HRM practices such as employee participation schemes, sharing information, self-managed work teams, and employee security (Pfeffer, 1998). In general, HRM systems enhance organizational performance by improving the knowledge, skills, and abilities of employees, empowering them to use their efforts for organizational goals, and providing motivation to exert more efforts to perform their jobs. These consequently decrease employee turnover and enhance organizational performance (Becker *et al.*, 1997).

Branch level Performance

A considerable amount of literature has been published on bank performance. Previous studies on bank performance have mostly focused on the overall efficiency of banks at the industry level (Berger & Humphrey, 1997). In general, four different types of performance measurement approaches have been adopted in the evaluation of bank branch performance. These include ratios; econometric models; non-parametric techniques; and integrated systems for performance evaluation. In ratio analysis, ratios related to bank's operations and profitability is seen as preferential and

this attracts further deposits and borrowers. Ratio analysis has been the most widely used method to evaluate bank branch performance (e.g. Cyree *et al.*, 2000; Lau & Sholihin, 2005; Milis & Mercken, 2004). Economic models on the other hand are basically related to statistical distributions and/or certain mathematical techniques that comply with certain parameters such as regression, correlations and factor analysis to accomplish best solutions. In non-parametric techniques, data envelopment analysis has been used by several researchers in the context of measuring the efficiency of bank branches (Dekker & Post, 2001; Paradi and Schaffnit, 2004; Camanho & Dyson, 2005). Data envelopment analysis allows identifying a benchmarking group and aims to classify each decision making unit (DMU) in comparison to other DMUs.

To date researchers have paid greater attention to financial measures such as bank's total deposits, loans and advances, and net profit after taxes for the measurement of branch performance (Lau & Sholihin, 2005; Paradi *et al.*, 2011). Several studies have used non-financial measures such as customer loyalty and satisfaction with the services (Schneider & Bowen, 1985; Golany & Storbeck, 1999) and quality of services (Soteriou & Stavrinides, 2000) provided by the bank in their evaluation of bank branch performance (Bartel, 2004). Overall, financial ratios have been mostly adopted for the reason of its capability to assess bank's management efficiency, liquidity, profitability and bank's capital adequacy (Paradi *et al.*, 2011).

Theoretical Perspectives on HPWS--Performance link

The AMO Framework: One of the accepted theoretical bases for the relationship between HRM and organizational performance is the ability, motivation and opportunity (AMO) framework provided by Appelbaum *et al.* (2000). According to the AMO framework, the foremost feature of an effective HPWS is to organize the work processes in such a manner that employees have a real opportunity to provide discretionary effort. Employees can only contribute to the performance of the firm when they are provided authority, responsibility and opportunity to make decisions and solve problems (Batt, 2002). In view of the AMO model, organization's efforts on providing opportunities and encouraging employees to take advantage of initiative, creativity, and job specific knowledge in the best interest of the firm can only be effective when employees possess the appropriate level of knowledge and skills. The AMO model also suggests that

organizations can motivate their employees to use their affectionate knowledge, creativity, keen interest, and imagination through the use of several types of motivation. In general, the AMO model assume that organizations can generate numerous types of financial benefits when they support an HPWS in which employees have the adequate level of skills and abilities, incentives, and sufficient opportunity for participation in decisions. For instance, an efficient HPWS may reduce cost in several ways through efficient cost management, by reducing interruptions of the production process, and enabling employees to process information more efficiently can be more helpful in maintaining the approximate level of production capacity that may lead to more economic gains for the firm.

Resource Based View: Resource based view of the firm (RBV) has been widely used to explain the effects of HRM on firm performance. The RBV approach advocates that organizations should pay more attention to its resources for sources of competitive advantage. According to the RBV, a firm resource must be endowed with four attributes to be considered a source of sustained competitive advantage: (a) valuable; (b) rare; (c) imperfectly imitable; and (d) non-substitutable (Barney, 1991). Resource based view has been described as a major contributing theory that establishes the relationship between HPWS and organizational performance for the reasons that firm's human capital is comprised of employees' knowledge, skills, and abilities. HPWS can play a key role in strengthening the knowledge, skills and motivation of employees. It can help in bringing out the desired behaviour which is essential for the higher performance of the firm (Wright *et al.*, 2001). Results of published studies describing the role of the RBV in strategic management research have initiated legitimacy to human resource's assertion that people are the most valuable and strategically vital resources to organization success (Wright *et al.*, 2001).

Based on theoretical perspectives of AMO framework and resource based view (RBV), this study proposes that the use of HPWS designed to foster the abilities, motivation, and opportunities of employees positively influence branch performance outcomes measured in terms of financial measures including the level of deposits to staff, growth in deposits, growth in advances, profit to staff, advances to deposits, and growth in profit.

Hence, the main research questions in this study focus on addressing the effects of HPWS on branch level performance. The proposed hypotheses of this study are:

Hypothesis 1: The extent of HPWS is positively related to branch level of deposits to staff.

Hypothesis 2: The extent of HPWS is positively related to branch growth in deposits.

Hypothesis 3: The extent of HPWS is positively related to branch growth in advances.

Hypothesis 4: The extent of HPWS is positively related to branch advances to deposits.

Hypothesis 5: The extent of HPWS is positively related to branch profit to staff.

Hypothesis 6: The extent of HPWS is positively related to branch growth in profit.

Conceptual Model

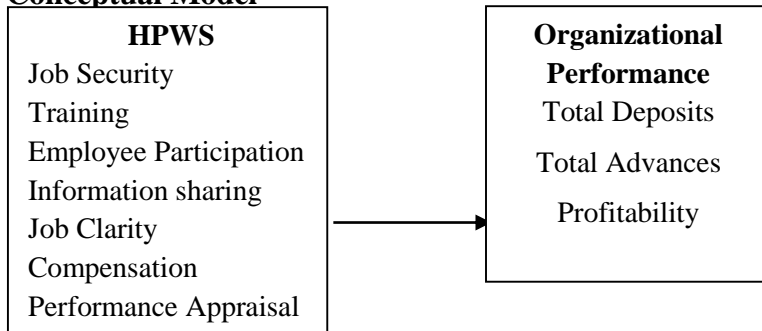


Figure1: Conceptual Framework

The main features of this study include employees' perspective to explain the impact of HPWS on performance outcomes. The perceptions of employees about the firm's HR policies, practices, and procedures are important for the reasons that employees are the ones who observe the daily routines and interact directly with the ultimate customer of the services. This study is conducted in the service sector of a developing country Pakistan with multiple sources of information that can help to test the validation of research findings in different context and settings (Delery & Doty, 1996; Legare, 1998).

Method

Sample: The banks in the study are among the largest banks in Pakistan. A nationwide branch network and agency relationship with banks worldwide, the banks operates in all major cities and business centres across the main regions and provinces of Pakistan (State bank of Pakistan, 2012).

Information about the extent of HPWS was obtained from managers and officers working in operations, credit and cash functions at the branch level. Employees working at the branch level are directly involved in the use of high performance work practices. The use of multiple sources for HPWS provides vindication for the criticism over reliance on single source of information such as CEO or senior HR manager (Wall & Wood, 2005). To address these concerns, in this study a large sample of 340 branches were selected through a two-step stratified proportionate random sample using the following procedure. Keeping in view the distinct geographical location of the bank, it was not feasible to reach all employees in these branches. Therefore, it was decided to include bank branches from central Punjab, federal areas Islamabad, and Khyber Pakhtunkhwa for the survey.

Table 1 presents the information about the number of branches included in the study. On the basis of 45% proportionate sampling, a sample of 340 branches was drawn from a total of 755 branches in Punjab, Islamabad, and KPK. These branches were surveyed during August to October 2012. HPWS surveys were administered to all employees falling in four categories of managers, officers in operations, credit and cash functions. Completed surveys were received from 218 branches with a response rate of 38% in central Punjab, 85% in federal areas Islamabad including Azad Kashmir, and 89% in the regions of KPK areas. Overall response rate for the HPWS survey was 64%.

Table 1. *Sampling of the Bank Branches*

Areas	Conventional Banking	Islamic Banking	Total
Number of Branches in Region	540	215	755
Surveyed Branches	243	97	340
Received HPWS Branches	132	86	218
HPWS and Performance	81	39	120

The survey was administered in English language to managers and employees in 340 branches. Overall 3500 questionnaires were distributed among employees in 340 sample branches. Respondents were asked to respond voluntarily and were given substantial time to complete the survey. In total, 2280 questionnaires were returned, of which only 1563 questionnaires were usable. The remaining was discarded due to large extent of missing information. Data gathered from less than four employees including manager were discarded and not included in further analysis. In this way, usable HPWS data were obtained from 218 branches, making a response rate of 64%.

Following the completion of HPWS survey, branch performance measures were collected six month following the survey in March 2013. All branches (218) were contacted again through regional offices and in some cases main branches to obtain key performance indicators about the branches. In order to have the matched performance indicators for all branches, identical measures of performance were sorted for each branch. Overall, 120 branches provided performance data that matched the performance criteria of common key performance indicators.

Measures

High Performance Work Systems: This study focus on seven important and most relevant high performance work practices to different group of employees which may influence performance. These practices includes: 1) job security, 2) extensive training, 3) employee participation, 4) job description as role clarity, 5) information sharing, 6) performance based compensation, and 7) performance appraisal. These practices were measured with the already well-established scales used in the HR research. Responses were measured on a 5-point likert scale ranging from strongly disagree (1) to strongly agree (5). This study follows an additive approach for aggregating high performance work practices into an index (Guest, 1999; Lepak *et al.*, 2006). In the first instance, subscale scores were calculated by averaging across all items of the same HR practice (e.g., job security). An average across the seven individual practices was used to create an index of HPWS for each respondent.

Branch Performance Measures: Based on the approaches used in measuring the performance of the banks at the branch level, in this study bank branches are evaluated in terms of capital adequacy, efficiency, liquidity, and profitability. More specifically, these branches are assessed on the basis of how well the branches are able to generate profits from their best utilization of assets, capital and work force. The performances of these branches are measured in terms of total deposits, loans and advances, and branch profitability. Overall, these financial measures have been adopted for the reason of its capability to assess bank management efficiency, liquidity, profitability and bank's capital adequacy (Paradi *et al.*, 2011). The bank's regional offices and in some cases main branches provided branch level of deposits, advances and profit for the year 2010, 2011 and 2012.

Control Variables: Several control variables were included in the analyses to eliminate alternative explanations of the findings. At the branch level of analysis, the study controlled for age, qualification, experience, gender, department, and length of service in bank branch. These variables were considered important for the reason that they might influence the perceptions of employees about the level of HPWS and in turn influence firm performance (Wood, 1999; Chang, 2005; Boselie *et al.*, 2005).

Results

The relationship between the extent of HPWS and performance measures were investigated through regression analysis with controlled variables including age, qualification, experience in the banking sector, gender, function, and length of service in branch. Tables 2 and 3 reports the means, SD, and correlations for the high performance work systems.

Table 2. *Descriptive and Inter-correlation of HR practices for Conventional banking*

	M	SD	1	2	3	4	5	6
ES	3.49	.734	-					
TR	3.86	.708	.42**	-				
EP	3.30	.836	.36**	.33**	-			
JD	3.59	.876	.30**	.34**	.44**	-		
IS	3.69	.695	.33**	.37**	.45**	.53**	-	
CC	3.12	.809	.30**	.29**	.32**	.26**	.30**	-
PA	3.43	.833	.30**	.38**	.50**	.47**	.47**	.39**

Note. ES: Employ Security, TR: Training, EP: Employee Participation, JD: Job Description, IS: Information Sharing, CC: Contingent Compensation, PA: Performance Appraisal, N: 645

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3. Descriptive and Inter-correlation of HR practices for Islamic banking

	M	SD	1	2	3	4	5	6
ES	3.58	.727	-					
TR	3.94	.670	.23**	-				
EP	3.48	.838	.22**	.35**	-			
JD	3.75	.858	.17**	.32**	.40**	-		
IS	3.80	.688	.20**	.23**	.38**	.44**	-	
CC	3.20	.856	.35**	.279**	.276**	.23**	.17**	-
PA	3.50	.830	.24**	.38**	.44**	.58**	.44**	.41**

N: 242, **. Correlation is significant at the 0.01 level (2-tailed).

Table 4 presents the summary statistics for the regression analysis of HPWS with branch performance measures including level of deposits to staff; growth in deposits, growth in advances; advances to deposits; profit to staff; and growth in profit. Regression results indicated that the extent of HPWS was significantly associated with various measures of branch level performance. Results indicated significant positive association between the extent of HPWS and level of deposits to staff ($\beta = 45.38$, $p < 0.001$). The magnitude of significant relationship of 45.38 suggests that for a branch at the mean level of deposits to staff, a one point change in HPWS would correspond to an increase of more than forty five hundred thousand Pak rupees per accounting period in deposits to staff performance.

Growth in the deposits of branches also showed significant positive relationship with the extent of HPWS ($\beta = 16.38$, $p < .001$). The estimated effect suggests that a one unit change in HPWS would result in a growth of 16.38 percent per accounting period in the branch deposits level. This can be considered a relatively large amount of growth in deposits for these branches. The results revealed that the extent of HPWS showed negative association with growth in advances ($\beta = -20.50$, $p < 0.001$) suggesting that positive association between the extent of HPWS and growth in advances cannot be supported.

The regression coefficients showed that the extent of HPWS was significantly associated with advances to deposits considered as the liquidity of the branch. The coefficient on high performance work systems ($\beta = -0.30$, $p < 0.001$) suggests that at the mean level of advances to deposits for a branch, a one unit change in the extent of HPWS would correspond to decrease the

risk of being short of liquidity by a proportion of 1 to 0.3 ratio. The regression coefficient ($\beta = 1.13$, $p < 0.001$) indicated significant positive association between the extent of HPWS and profit to staff. Regression results analysing the effect of HPWS on the growth in branch profit also revealed significant positive association between the extent of HPWS and growth in profit ($\beta = 74.20$, $p < 0.001$). The estimated effect of 74.20 suggests that for a branch at the mean level of profit, a change of one unit in HPWS would generate a large growth of 74.2 percent per accounting period in the profit of the branch.

To compare the effects of HPWS on performance, banks were classified into conventional and Islamic banking system. Tables 4a and 4b provides results about the effects of HPWS on performance. Results indicated that the regression coefficients of HPWS were significantly associated with level of deposits to staff, growth in deposits, advances to deposits ratio, profit to staff, and growth in profit. HPWS did not showed significant relationship with growth in advances. Although the effects of HPWS on performance in Islamic banks were relatively smaller than conventional banks, still it could be argued that the results are encouraging keeping in view the size and level of Islamic banking system in the country. Specifically, the growth in profit of Islamic banking is relatively close to the growth in profit of conventional banking branches.

Overall, the results from hierarchical regression provided strong support for hypotheses 1, 2, 4, 5, and 6 indicating that HPWS is positively related to branch level of deposits to staff; growth in deposits; profit to staff; and growth in profit. However, most surprisingly regression results revealed negative relationship between the extent of HPWS and growth in advances. Accordingly, the hypothesis 3 suggesting positive association between the extent of HPWS and growth in advances was not supported by the data analysis.

Table 4. Regression results testing the relationships between HPWS and Branch Performance

Variables	Level of deposits to staff		Growth in Deposits		Growth in Advances		Advances to Deposits		Profit to Staff		Growth in Profit	
	M1	M2	M1	M2	M1	M2	M1	M2	M1	M2	M1	M2
Age	-16.15	-13.47	-.38	.59	11.88	10.67	.04	.03	-.51	-.44	13.58	17.96
Qualification	-4.53	-2.18	-3.70	-2.85	2.03	.96	.07	.06	-.26	-.21	3.21	7.07
Experience	18.54	15.70*	3.25	2.22	-15.86**	-14.58*	-.05	-.03	.39	.32	7.16	2.52
Gender	-21.0	19.35***	-4.35	-3.75	-.44	-1.19	.03	.02	-.44*	-.40*	-4.89	-2.18
Function	6.58	4.97	-1.70	-2.28	-1.23	-.50	.03	.04	.09	.05	7.53	4.89
Length service	2.20	1.09	4.88	4.48	1.69	2.19	-.06	-.06	.40*	.38*	4.02	2.22
HPWS	--	45.38***	--	16.38***	--	-20.50***	--	-.30***	--	1.13***	--	74.20***
R	.16	.25	.11	.17	.89	.15	.08	.17	.13	.20	.07	.18
R ²	.025	.061	.011	.030	.010	.020	.010	.030	.021	.040	.011	.031
Adjusted R ²	.019	.054	.004	.021	.001	.014	.01	.02	.011	.031	.002	.025
ΔR ²	--	.04	--	.02	--	.01	--	.02	--	.02	--	.03
F	3.81***	8.22***	1.64	3.74***	1.18	2.74**	.93	3.57***	2.70*	5.05***	.78	4.30***
ΔF	--	33.78***	--	16.21***	--	12.02***	--	19.31***	-	18.88***	--	25.27***

Control variables: age, qualification, experience, gender, function, and length of service in branch

Independent variable: High performance work Systems (HPWS)

Dependent variable: Deposit to staff, Growth in deposits, Growth in advances, Advances to deposits, Profit to staff and Growth in profit

N = 887, Total branches = 120, *P < .05; **p < .01; ***p < .001

Table 4a. Regression results testing the relationships between HPWS and Branch Performance for Conventional Banks

Variables	Deposits to staff		Growth in Deposits		Growth in Advances		Advances to Deposits		Profit to Staff		Growth in Profit	
	M1	M2	M1	M2	M1	M2	M1	M2	M1	M2	M1	M2
Age	-3.73	-3.77	-2.05	-2.08	17.01**	17.03**	.011	.011	-.555	-.55	5.50	5.41
Qualification	-13.79*	-12.3*	-2.44	-1.40	.58	-.37	.078	.061	-.54*	-.49*	3.81	7.40
Experience	3.52	1.75	5.09	3.85	-17.57	-16.42**	-.07	-.055	.073	.022	-3.13	-7.41
Gender	-13.9**	-12.62**	-4.09	-3.15	-1.87	-2.74	.033	.018	-.193	-.154	-3.75	-.51
Function	3.87	2.40	-2.49	-3.52	-1.01	-.05	.048	.064	.051	.008	8.78	5.20
Length service	8.85	7.93	6.23	5.57	1.27	1.87	-.098	-.087	.67**	.64**	5.30	3.06
HPWS	--	27.94***	--	19.63***	--	-18.09***	--	-.322***	--	.803**	--	67.64***
R	.169	.233	.107	.182	.129	.190	.106	.183	.162	.194	.066	.288
R ²	.028	.054	.011	.033	.017	.036	.011	.033	.026	.038	.004	.083
Adjusted R ²	.019	.044	.002	.023	.007	.025	.002	.023	.017	.027	-.005	.073
ΔR ²	--	.026	--	.022	--	.019	--	.022	--	.011	--	.078
F	3.12**	17.38***	1.23	3.13**	1.8	3.41***	1.214	3.15***	2.85**	3.56***	.46	8.21***
ΔF	--	5.224***	--	14.35***	--	12.83***	--	14.61***	-	7.61**	--	54.49***

Control variables: age, qualification, experience, gender, function, and length of service in branch, Independent variable: High performance work Systems (HPWS)

Dependent variable: Deposit to staff, Growth in deposits, Growth in advances, Advances to deposits, Profit to staff and Growth in profit, N = 887, Total branches = 120,

*P < .05; **p < .01; ***p < .001

Table 4b

Regression results testing the relationships between HPWS and Branch Performance for Islamic Banks

Variables	Level of deposits to staff		Growth in Deposits		Growth in Advances		Advances to Deposits		Profit to Staff		Growth in Profit	
	M1	M2	M1	M2	M1	M2	M1	M2	M1	M2	M1	M2
Age	-38.09	-22.49	2.64	3.91	7.85	-1.13	.053	.039	-.57	-.15	27.75	34.77
Qualification	11.15	14.49	-6.04*	-5.77*	7.82	5.89	.029	.026	.19	.28	3.60	5.10
Experience	45.44*	36.36	-1.96	-2.70	-5.67	-.44	.015	.023	.81	.56	50.15	46.07
Gender	-55.7***	-49.58**	-2.95	-2.44	-13.75	-17.30	.086	.080	-1. **	-1.15**	-54.36	-51.59
Function	7.20	7.99	1.47	1.53	-5.33	-5.79	-.004	-.005	.064	.08	-7.06	-6.70
Length service	-8.33	-11.41	.52	.27	12.26	14.03	-.003	-.001	-.179	-.26	29.18	27.79
HPWS	--	114.90***	--	9.34*	--	-66.21***	--	-.104	--	3.08***	--	51.69
R	.26	.378	.157	.200	.137	.264	.123	.141	.243	.400	.219	.227
R ²	.068	.143	.025	.040	.019	.070	.015	.020	.059	.160	.048	.052
Adjusted R ²	.044	.117	.001	.011	-.006	.042	-.010	-.09	.035	.135	.024	.023
ΔR ²	--	.075	--	.015	--	.051	--	.005	--	.101	--	.004
F	2.83*	5.56***	.994	1.396	.75	2.51**	.606	.679	2.45*	6.36***	1.97	1.81
ΔF	--	20.52***	--	3.74*	--	12.84***	--	1.15	-	28.11***	--	.868

Control variables: age, qualification, experience, gender, function, and length of service in branch

Independent variable: High performance work Systems (HPWS), Dependent variable: Deposit to staff, Growth in deposits, Growth in advances, Advances to deposits, Profit to staff and Growth in profit, N = 887, Total branches = 120, *P < .05; **p < .01; ***p < .001

Discussion

The goal of this study was to use an extensive sample using employee perspective to examine the extent to which HPWS influence organizational performance in the context of Pakistani banking sector. The results of this study suggest that HPWS positively influence organizational performance at the unit level. The results presented sufficient endorsement for the assertion that the extent of HPWS is positively related to branch level performance outcomes. The results of this study indicated full support for the hypotheses, as the overall extent of HPWS achieved higher level of deposits to staff performance ($\beta = 45.38$, $p < 0.01$), higher growth in deposits ($\beta = 16.38$, $p < 0.001$), better advances to deposit performance ($\beta = -0.30$, $p < 0.001$), higher profit to staff ($\beta = 1.13$, $p < 0.001$), and growth in profit per accounting period at the branch level ($\beta = 74.20$, $p < 0.001$) for overall banks. In terms of Islamic and conventional banking system, the study found that the effects of HPWS on performance were equally positive and significant for both Islamic and conventional banking systems. Although the magnitude of effects of HPWS on performance was relatively less in Islamic banks compared to conventional, still the results are much encouraging and could be argued for the important role of HPWS in generating positive effects on bank performance. These findings provide empirical support for the vital role of HPWS and its influence on organizational performance, consistent with those of Wright *et al.* (2003); Vlachos (2008) & Guthrie *et al.* (2009).

The present study also indicated three important findings regarding the extent of HPWS and performance relationship. First, the seven high performance practices collected a single underlying construct as a HPWS. This provides acknowledgment to the earlier findings of other high performance work systems at the firm level (e.g. Wood, 1999; Becker & Huselid, 1998; Zacharatos *et al.*, 2005). Second, the findings of this study characterize earlier studies showing that HPWS at the organizational level are linked with firm performance. Third, in this study the extent of HPWS was significantly related to an increase in the level of deposits to staff, growth in deposits, reduced level of advances to deposits, increase in profit to staff, and growth in profit per accounting period performance ($\beta = 45.38$, $\beta = 16.38$, $\beta = -0.30$, $\beta = 1.13$ and $\beta = 74.2$ respectively) at the unit level, identifying a considerable predictor of organizational performance. Overall, the findings in

this study suggest that the use of HPWS account for a significant fraction of variance in the HPWS and performance relationship at the branch level, although HPWS did not show significant influence with growth in branch advances. Despite the variation in the performance outcomes, the results of this study are in consistence with the findings of previous research (e.g. Huselid, 1995; Guthrie *et al.*, 2009; Liao *et al.*, 2009; McClean & Collins, 2011).

Implications

These findings have important implications for HPWS and performance research in several ways. Previous studies in HRM research placed huge insistence on the content of an HRM system and how it was associated with organizational performance (Combs *et al.*, 2006). In consistence with a number of recent studies (Guest *et al.*, 2003; Katou & Budhwar, 2009; Gittell *et al.*, 2010), this study extend HPWS and performance literature by examining the perspectives of managers and employees with regards to the extent of HPWS and how it relates to organizational performance.

It also has implications for the conceptualization of these variables. Despite the fact that certain HR practices such as selective recruitment, training, employee compensation, and performance appraisal have been extensively comprised in human resource management studies, while other HR practices have not been focused in most of the studies conducted in both service and manufacturing contexts. However, in this study all HRM practices included in the HPWS indicated significant association with performance outcomes at unit levels within the bank branches studied. These findings highlights that what comprises an effective HPWS may not necessarily be identical in terms of specific HR practices across different contexts. Therefore, it can be assumed that the definition of high performance work systems may persist to progress as new HR practices are refined and focused by researchers. Additionally, the findings of this study also endorse the analysis of Combs *et al.* (2006) suggesting that some practices are more or less pertinent to accomplish performance in service and manufacturing contexts and further research may foster from following this consideration when composing high performance work systems. Particularly, managers and HR function can have an essential input into the design of HPWS to make sure processes are

suited to help people accomplish their own objectives and set up effective achievement of the firm strategy.

Conclusion

This present study was designed to determine the effects of HPWS on organizational performance in the banking sector of Pakistan. Based on the AMO framework, this study focused on the potential of HPWS to influence employees' abilities, motivation and opportunities to express their efficiency in job performance. The sampling frame comprises managers and all officer cadre employees working in operations, credit and cash functions of the bank branch. The results of the study showed that the extent of HPWS was significantly related to various measures of branch level performance. This study has made far-reaching implications for managers, bank management and HR professionals by providing insights into the process underlying the HPWS and performance relationships. The empirical evidence has presented support for the crucial role of important stakeholders in the design of HPWS and plans for accomplishing organizational performance.

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