

*Full Length Research Paper*

# High-performance work practices, innovation and perceived organizational performance: Evidence from the Jordanian service sector

Samer Khasawneh\* and Abdelghafour Alzawahreh

Business Administration Department, Hashemite University, Zarqa, Jordan.

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The primary purpose of this study was to examine the relationship between high-performance work practices, organizational innovation and organizational performance in the Jordanian service sector. The objective was to test the ability of high-performance work practices to account for variance in organizational innovation and subsequent organizational performance, and to examine the role of organizational innovation as a mediator between high-performance work practices and organizational performance. A purposive sample of 170 employees was chosen from the service sector during the year of 2009. Valid and reliable measures were chosen for the study based on established research. Rigorous translation and standardization procedures were followed to eliminate any cultural bias. Results showed that high-performance work practices significantly predicted organizational innovation, and organizational innovation, in turn, significantly predicted organizational performance. The study ended by a conclusion that organizational innovation mediates the relationship between high-performance work practices and organizational performance.

**Key words:** High-performance work practices, innovation, organizational performance, service sector, Jordan.

## INTRODUCTION

In the past two decades, there has been an increased interest in the significance of high-performance work practices (HPWPs) for organizational survival and to gain competitive edge. Organizations, in response to multiple pressures originating from globalization and fluctuations in the marketplace, need to constantly develop HPWPs to enhance flexibility, efficiency, productivity, performance, and the quality of goods and services at the corporate, functional, and individual levels (Ashton and Sung, 2002; Becker et al., 2000; Kintana et al., 2006; Whitfield and Poole, 1997).

There is evidence that carefully implemented HPWPs do impact organizational performance (Arthur, 1994; Becker and Huselid, 1998; Black and Lynch, 2001; Cappelli and Neumark, 2001; Delaney and Huselid 1996; Delery and Doty, 1996; Huselid, 1995; Ichniowski and

Shaw, 2003; Wright and Boswell, 2002). These HPWPs are complex set of distinct, but interrelated innovative workplace policies and practices that are combined into a "bundle" (MacDuffie, 1995), and utilized as a coherent system to select, develop, motivate, and retain a competent workforce to obtain organizational strategic goals and objectives (Way, 2002).

Research suggested that organizations need to use appropriate bundles of high-performance work practices (HPWPs) to realize their synergistic effects, which can lead to multiplicative higher organizational performance than individual practices (Delery, 1998; Huselid, 1995; MacDuffie, 1995; Milgrom and Roberts, 1995; Park et al., 2003). MacDuffie (1995) claimed that "an additive approach to combining HR practices into an index suggests that organizations can improve performance either by increasing the number of practices they employ within the system or by using the practices in the HR system in a more comprehensive and widespread manner. The absence of a practice will not eradicate the

\*Corresponding author. E-mail: [samer70802@yahoo.com](mailto:samer70802@yahoo.com).

effectiveness of all other practices, but will weaken the net effect of the bundle" (MacDuffie, 1995).

High performance work practices include, for example, extensive employee training, results-oriented appraisal, employee participation and empowerment, team working, job rotation, flexible work schedules, internal promotional policies, performance-based compensation, and employment security (Cappelli and Neumark, 2001; Delery and Shaw, 2001; Harley 2002; Hodson, 2004; Huselid, 1995; Macky and Boxall, 2008; Shih et al., 2006; Wang et al., 2003). If management implements a specified set of work practices, then they are believed to be beneficial to all types of organizations leading to higher performance (Boxall and Purcell, 2003). This occurs where HR and work organization practices provide workers with discretion or control over their work, where they are developed to work competently, and where they are supported and rewarded by management to work co-operatively with colleagues (Delaney and Huselid, 1996; VonGlinow et al., 2002).

According to human capital theory, these practices increase employees' knowledge, skills and abilities; which in turn, result in higher organizational benefits in the form of overall performance (Becker and Huselid, 1998; Delery and Shaw, 2001; Lepak and Snell, 1999). From the resource-based theory of the organization, human resources can be treated as a source of sustained competitive advantage because the types of activities performed by employees add value to the organization and the aggregation of employees activities ultimately result in higher organizational performance (Wernerfelt, 1984). Boxall and Purcell (2003) stress on the fact that HPWPs contribute to improvements in employee performance and ultimately to organizational performance through three routes: (a) By developing employees capacity for performance through the development of their knowledge, skills and abilities (KSAs); (b) by increasing employees' motivation for discretionary efforts; and c) by providing employees with the opportunity to maximize their potential on the job (Guest, 1997). The role of human resource practices, then, would be to help the organization attract and develop employee capability through, for example, selective hiring, performance appraisals, and comprehensive training.

However, it is believed that the relationship between high performance work practices and organizational performance may be mediated by a number of important factors, one of which is innovation (Kaiser, 2000; Khasawneh et al., 2008). Innovation has generally been defined as the development and/or use of new ideas, behaviors, and processes (Daft, 1978; Walker, 2006; Zaltman et al., 1973) as a mean for organizational adaptation in order to respond to changing market conditions and public demand for higher quality and better products and services (Boyne et al., 2003; Jansen et al., 2006; Roberts and Amit, 2003).

Organizational innovation is determined by effective

work practices and it has been proposed that it is one of the most important determinants of organizational performance (Anderson et al., 2000). For example, it is speculated that HPWPs such as extensive employee training may provide employees with the needed KSAs to develop new ideas related to products and services. This training, when compounded with other work practices such as flexible scheduling, performance-based compensations, and employment security may motivate employees to innovate, which ultimately leads to higher performance on the organizational level.

Previous research supports the aforementioned speculations. For example, Richard and Johnson (2004) based on a study of 80 banks in the United States, indicated that the effectiveness of human resource management practices was able to improve not only the banks' market performance, but also innovation. A quantitative review of the findings of 30 empirical studies from 1984 to 2003 showed that innovation influences performance positively (Walker, 2004). Further, scholars from the field of management have emphasized that superior and sustained organizational performance root in a firm's ability to introduce streams of innovations (He and Wong, 2004; Tushman and O'Reilly, 1996).

So, it is obvious that the relationship between HPWPs and organizational performance may be mediated by innovation, an important outcome variable that has not been previously researched, especially in service organizations located in Jordan. The purpose of this study is to report on an initial exploratory examination of the relationship between HPWPs, organizational innovation and organizational performance.

## LITERATURE REVIEW

The objective of this research paper was to empirically examine the ability of high-performance work practices (HPWPs) to account for variance in organizational innovation and subsequent organizational performance. Another objective of the paper was to examine the role of organizational innovation as a mediator between HPWPs and organizational performance. The research model shown in Figure 1 shows a mediated relationship that views HPWPs as an antecedent that influences innovation which, in turn, affects organizational performance. The researcher believes that organizational innovation represents a potentially important mediator between HPWPs and organizational performance. This conceptualization is consistent with James and Jones (1976) model of organizational functioning in which they argued that climate of innovation is causally tied to outcome criteria such as productivity. Based on that, the following hypotheses are proposed:

H<sub>1</sub>: Employee perceptions of HPWPs will explain a significant amount of the variance in perceptions of

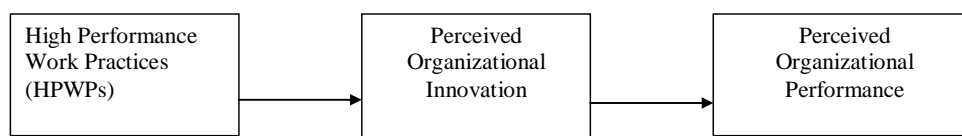


Figure 1. The research model.

organizational performance.

H<sub>2</sub>: Perceptions of HPWPs will explain a significant amount of the variance in organizational innovation.

H<sub>3</sub>: Regression results will support the inference of a mediated model in which organizational innovation mediate the relationship between perceptions of HPWPs and organizational performance.

### Importance of the study

This type of research is important to the international audience of academics and practitioners. Given the fact that most of research on the impact of HPWPs on organizational performance was conducted in western countries, it would be important to know whether the same results apply in Middle-Eastern countries. International organizations wishing to invest in Jordan would be interested to know about the effect of HPWPs on organizational innovation and organizational performance and whether innovation is a necessary condition for performance to take place. Such understanding boost their ability to re-structure their organizational strategies, policies, and management procedures (that is, investment in HPWPs) to boost innovation in products, services, and processes, which will lead to improved performance. Further, the aforementioned research model may be the first step toward the development of theory and practice in the field of management by including other variables.

## METHODOLOGY

### Population and sample

Data for this study were collected from 170 employees employed by 15 different chain restaurants operating in Jordan. Both purposive sampling and convenience sampling were used. A slight majority of the sample was male (62%). Respondents were predominantly 21 to 28 years old (57.6%) and held a bachelor's degree (71.2%). Over 84% of the respondents had four or more years of work experience in their respective organizations.

### Instrumentation

#### Innovation

A five-item scale was used to measure perceived organizational innovation. Scale items were drawn from an assessment tool entitled: Assessing strategic leverage for the learning organization

(ASLLO) (Gephart et al., 1997). This scale was designed to measure the perceived ability of an organization to adopt or create new ideas and implement these ideas in the development of new and better products, services and work processes and procedures (Kaiser and Holton, 1998). Sample items of the scale included "we can point to numerous new products/services that have come from new ideas within the organization" and "we are a better organization because we are always thinking of new ways to improve work practices". All scale items were measured on a five-point Likert type scale ranging from 1 "strongly disagree" to 5 "strongly agree". A single score representing the five items was used to describe innovation.

#### High performance work practices (HPWPs)

A 19-item scale was used to measure employees' perceptions of six high performance work practices, which is adapted from Delery and Doty (1996). The first work practice is training, which refers to the extent to which the organization provides comprehensive, formal and continuous training (4 items,  $\alpha = 0.81$ ). A sample item is "employees in this job will normally go through training programs every few years". The second work practice is participation, which refers to the extent to which employees' suggestions are appreciated by the organization (4 items,  $\alpha = 0.73$ ). A sample item is "employees in this job are often asked by their supervisor to participate in decisions". The third work practice is job definition, which refers to the extent by which job descriptions are clear and brief for employees (4 items,  $\alpha = 0.82$ ). A sample item is "the job description for this job contains all of the duties performed by individual employees".

The fourth work practice is performance appraisal, which refers to the extent to which employees' performance are evaluated by objective and quantitative measures (2 items,  $\alpha = 0.81$ ). A sample item is "performance appraisals are based on objective and quantifiable results". The fifth work practice is internal career opportunities, which refers to the extent to which employees can successful progress within the organization (4 items,  $\alpha = 0.71$ ). A sample item is "employees in this job who desire promotion have more than one potential position they could be promoted to". The sixth work practice is employment security, which asked employees the extent to which the management is conservative in lay-off decisions, and was measured with a single item. A sample item is "if the organization is facing economic problems, employees in this job would be the last to get cut".

All of the 20 items representing the above six scales were measured on a five-point Likert-type scale ranging from 1 "strongly disagree" to 5 "strongly agree". Higher scores represent a more extensive adoption of the high-performance work practices. Previous research indicated that the six scales are highly related (from 0.39 to 0.67), so they were aggregated to create a HPWPs index (Park et al., 2003). High-performance work system index (to combine either single or multi-item measures of individual HR practices into a unitary measure representing an entire high-performance work system) is the usual strategy employed by researchers (Bailey et al., 2001; Becker and Huselid, 1998; Delery and Shaw, 2001; Guest, 1999).

### Organizational performance

A five-item scale was used to measure perceived organizational performance. Perceived organizational performance has been reported to represent a good measure because it correlates positively and significantly with objective measures of organizational performance (Delaney and Huselid, 1996; Powell, 1992). The scale items were similar to those used by previous research (Tan and Litschert, 1994; Wang et al., 2003). Respondents from each service organization were asked to assess their own organization's performance compared to their competition based on a five-point Likert scale ranging from 1 "strongly disagree" to 5 "strongly agree". Sample items of the scale included "overall, the performance (that is, profitability) of my organization is better than that of other companies in the industry" and "overall, I think my organization has performed as well as top management has expected".

### The translation procedures

An Arabic version of the three subscales was achieved through a standard three-step protocol. First, the three subscales were translated from English into Arabic language by a professional scholar who is fluent in both English and Arabic languages. Second, the subscales were translated back from Arabic into English language by a second professional scholar who is also competent in both English and Arabic languages. In the final step, a third professional scholar, fluent in both English and Arabic languages compared and evaluated the original English and back translated copies in order to verify the accuracy and validity of translation. Then, nine specialists from the field of management (professionals and faculty members) reviewed the three developed subscales and two of them asked for minor modifications. Further, a pilot study that included 20 employees from the service organizations under study reviewed the final instrument to determine issues of clarity and understanding. Feedback from this pilot test led to minor modifications in the wording of several items and was incorporated in the final instrument.

### Data collection

In the study, the researcher contacted each restaurant manager chosen to participate in the study and asked for their permission to carry out the study. Once permission was obtained, the researcher visited each restaurant, explained to employees the nature and goal of the study, and asked for volunteers to participate in the study. The participants were also insured confidentiality, voluntariness, and anonymity. Further, participants were also informed that the instrument takes approximately 15 to 20 min to complete. Surveys were distributed and collected by the researcher during those visits, which were done in December of 2009.

### Data analysis

Bivariate correlations were calculated to examine the direction and magnitude of inter-variable associations. Hierarchical regression analysis was used to determine whether the mediated model provided a reasonable description of the relations among variables. A mediated model is one in which a variable (the mediator) "accounts for the relation between the predictor and the criterion" (Baron and Kenny, 1986). James and Brett (1984) describe two types of mediators, complete and partial. Complete mediation occurs when the mediating variable "transmits all of the influence of the antecedent X to a consequence Y, which implies that X and Y are indirectly related" and that the relationship between X and Y disappears when the mediator Z is controlled for. Thus, the

independent variable significantly affects the mediator; the mediator significantly affects the dependent variable; and controlling for the mediator produces a non-significant relationship between the independent and dependent variables. Partial mediation occurs when the independent variable has a direct effect on the dependent variable as well as an indirect effect through the mediator (James and Brett, 1984). Partial mediation is suggested when controlling for the mediator does not attenuate the significant relationship between the independent and dependent variables.

The research model in this study suggests a partially mediated ( $X \rightarrow Z \rightarrow Y$ ) linkage in which HPWPs (X) directly influences organizational performance (Y) and organizational innovation (Z) mediates the relationship between HPWPs and organizational performance. To infer support for partial or completely mediated models using hierarchical regression, several statistical conditions must be met (Baron and Kenny, 1986). Specifically, three regression analyses need to be run in order to make inferences about the extent to which organizational innovation functions as a mediator. A fourth regression analysis provides information about the nature of the mediated relationship (complete or partial mediation). In the first analysis, the predictor (HPWPs) is regressed on the measure of organizational performance ( $X \rightarrow Y$ ). Second, the mediator variable (organizational innovation) is regressed on organizational performance ( $Z \rightarrow Y$ ). Third, the predictor (HPWPs) is regressed on the mediator ( $X \rightarrow Z$ ). To infer support for a mediated relationship, each of these regression equations must be significant. Finally, to obtain information about the nature of the mediation (partial or complete) a hierarchical regression analysis is performed in which organizational innovation (the mediator) is regressed on the outcome measure ( $Z \rightarrow Y$ ) and HPWPs (X) is added as a second step. If adding X contributes significantly to the variance explained by the regression equation and ( $Z \rightarrow Y$ ) remains significant, this suggests the presence of partially mediated relationship (that is, one in which there both are direct and mediated effects). If adding X does not yield a significant  $R^2$  increment, and then there is evidence of complete mediation (Bates et al., 2005).

## RESULT

### Descriptive statistics

Analysis of regression diagnostics did not reveal any serious violations of regression assumptions, multicollinearity, or the presence of influential observations. The means, standard deviations, intercorrelations, and reliability estimates for all measures are shown in Table 1. Examination of the intercorrelations suggested several noteworthy patterns. First, the correlation between HPWPs and organizational innovation was the highest ( $r = 0.70$ ,  $p < 0.01$ ), indicating significant positive relationship (Davis, 1971). Second, the correlations among the rest of the variables were generally moderate, positive and significant. Third, all of the associations were in the expected direction.

### Mediated model evaluation

The steps and results of the regression tests for mediation are shown in Table 2. Results from the test of Model 1 show that HPWPs was a significant predictor of organizational performance ( $R^2 = 0.076$ ,  $p < 0.001$ ). This confirms the first hypothesis stating that employee

**Table 1.** Scale means, standard deviations, correlations, and coefficient alphas.

Variable	N	$\alpha$	Mean	SD	1	2	3
HPWPs	170	0.85	3.61	0.460	--	0.28**	0.70**
Organizational performance	170	0.76	4.21	0.50	0.28**	--	0.25**
Organizational innovation	170	0.80	3.80	0.55	0.70**	0.25**	--

\*\* P &lt; 0.01

**Table 2.** Regression analyses testing for mediation.

Regression models	Variables	R <sup>2</sup>	Fmodel	Beta	p-value
Model 1	X→Y	0.076	13.85	0.276	0.000
Model 2	Z→Y	0.064	11.44	0.253	0.001
Model 3	X→Z	0.489	160.99	0.700	0.000
Model 4	Z→Y	0.064	11.44	0.253	0.001
	Z→Y+X	0.072	3.52	0.195	0.062

X: HPWPs; Y: organizational performance; Z: organizational innovation.

perceptions of HPWPs will explain a significant amount of the variance in perceptions of organizational performance. Results from the test of Model 2, in which organizational performance is the dependent variable showed that organizational innovation explained a significant amount of variance in perceived organizational performance ( $R^2 = 0.064$ ,  $p = 0.001$ ). Results of model 3 show that HPWPs was a significant predictor of organizational innovation ( $R^2 = 0.489$ ,  $p < 0.001$ ). These results confirm the second hypothesis stating that perceptions of HPWPs will explain a significant amount of the variance in organizational innovation.

In addition, the results from the analysis of these three models support the inference that organizational innovation as measured in this study mediated the relationship between HPWPs and perceived organizational performance. To test the third hypothesis, we need to obtain additional information about the nature of the mediation. For this reason, a fourth regression analysis was performed. This required the use of hierarchical regression in which organization innovation variable was regressed on organizational performance with HPWPs entered as a second step. Results showed that organizational innovation was a significant predictor of organizational performance ( $R^2 = 0.064$ ,  $p = 0.001$ ) and the addition of HPWPs did not significantly increased the variance explained ( $R^2 = 0.072$ ,  $p = 0.062$ ). These findings support the third hypothesis and the inference of a fully mediated model in which HPWPs had a direct effect on organizational innovation, and organizational innovation, in turn, influences organizational performance.

## DISCUSSION

There is extensive evidence in previous research on the positive impact of high-performance work practices (HPWPs) on organizational performance (Arthur, 1994; Becker and Huselid, 1998; Black and Lynch, 2001; Cappelli and Neumark, 2001; Delaney and Huselid, 1996; Delery and Doty, 1996; Huselid, 1995; Ichniowski and Shaw, 2003; Wright and Boswell, 2002). However, it is speculated by researchers that this important relationship may be mediated by important organizational functioning variables such as innovation (Kaiser, 2000; Khasawneh et al., 2008). Innovation is an important variable that has been found to be influenced by effective work practices and is one of the most important determinants of organizational performance (Anderson et al., 2004; Mumford, 2000).

This study took the perspective that HPWPs and organizational innovation are principal processes in organizational performance. Based on that, this study was carried out to examine the relationship between HPWPs, organizational innovation, and organizational performance. Specifically, this study examined the ability of HPWPs to account for variance in organizational innovation and subsequent organizational performance. Another primary purpose of the study was to examine the role of organizational innovation as a mediator between HPWPs and perceived organizational performance. The results supported all hypothesized relationships. Findings indicated that HPWPs can significantly and highly predict organizational innovation, and that organizational innovation can account for significant variance in the perceived

performance of an organization. In other words, organizational performance may not be achieved unless HPWPs practiced by the organization lead to important innovations in products, services and processes.

The results of this study are important for several reasons. First, the study extends what is known about HPWPs and its link to important organizational outcomes such as innovation and performance. The results of this study are particularly interesting because it suggests, first, the bundles of work practices such as extensive employee training, employee participation in decision-making, clear job roles, objective measures of performance appraisal, possibilities for internal career promotions, and job security can indeed influence organizational innovation. This result is consistent with the previous views, which asserted that work practices emphasizing skill development, decentralization of decision-making, and effective use of knowledge, skills and abilities can trigger employees' motivation to innovate (Boxall and Purcell, 2000; Jones and Wright, 1992; Pfeffer, 1998; Tomer, 2001). Second, this study demonstrated the value of using both bundles of effective work practices in conjunction with innovation in products, services, and processes to understand organizational performance. Examination of both of these organizational elements (HPWPs and innovation) provides insight into what may be needed to foster an ultimate important outcome that all types of organizations seek to accomplish, which is performance. To help improve their performance, organizations introduce innovations in the organization's production or operating systems (products, services, processes) (Camison-Zornoza et al., 2004; Edquist et al., 2001; Hipp et al., 2000).

Based on the preceding discussion, it is recommended that organizations in the service industry should constantly trigger various innovations in products, services, and processes to remain competitive and to achieve higher performance. So, the ability to innovate is of considerable practical and theoretical significance. One method for coping with this challenge is to use various bundles of high-performance work practices that suit employees and motivate them to exert discretionary effort. Second, top management in the service industry should develop effective strategies for managing different bundles of HPWPs and to determine other combinations of work practices that foster innovation most effectively. Third, other research studies should be carried out to determine the impact of other mediators that foster organizational performance such as organizational culture and learning transfer climate. Advanced statistical techniques such structural equation modeling may be utilized along with qualitative methodology to gain deeper insight of the model studied.

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