

The Effect of Perceived High-performance Human Resource Practices on Business Performance: Role of Organizational Learning

Global Business Review
17(3S) 1S-26S
© 2016 IMI
SAGE Publications
sagepub.in/home.nav
DOI: 10.1177/0972150916631193
<http://gbr.sagepub.com>



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Abstract

The primary purpose of this study is to examine the effect of high-performance human resource (HR) practices, that is, extensive training, performance management, performance appraisal, performance-based compensation, empowerment and competency development, on business performance of employees in telecommunication sector. Further, the role of the organizational learning as a mediator between high-performance HR practices and business performance has also been explored. Census method has been used for data collection from employees working in telecommunication sector in Jammu and Kashmir (North India). Reliability and validity have been proved with the help of confirmatory factor analysis (CFA). Structural equation modelling (SEM) has been used for hypotheses testing. Results indicate that HR practices positively affect business performance. Further, organizational learning act as a mediating variable between high-performance HR practices and business performance. The managerial implications have also been discussed.

Keywords

High-performance human resource practices, organizational learning, business performance

Introduction

During the past few decades, the human resource (HR) practices have received a great deal of attention among the researchers, academicians and practitioners in assessing how well the valuable asset, that is, 'human resource' is performing to achieve the organizational goals (Bhal, 2002). The success of

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any organization, in a competitive era, depends on the competence and skills of the HR; no organization can exist and grow without appropriate HR capabilities. In order to gain sustainable competitive advantage, organizations are adopting the HR practices to manage their valuable and talented employees (Huselid & Becker, 2011). High-performance HR practices is a management approach that integrates different set of HR management practices to improve business performance. In the literature, it is also known as best HR management practices (Gurbuz, 2009), progressive HR management (Huselid, Jackson & Schuler, 1997), innovative HR management (Ichniowski, Shaw & Prensushi, 1997) or modern HR management. High-performance HR practices are different from traditional HR practices. The former encourage employees to recognize the goals of the organization and work hard to achieve these goals (Arthur, 1994) by developing a committed workforce that can be empowered to use their discretion in conducting their tasks in ways that are valuable to the organization (Gould-Williams & Davies, 2005). High-performance HR practices produces synergistic effects, which improves the organizational competency (MacDuffie, 1995). Boxall and Purcell (2003) remarked that organizations that implement set of best practices will achieve better performance. Though there is no consensus about high-performance HR practices in the literature but following practices have been used by majority of researchers as high-performance HR practices: extensive training (Khasawneh & Alzawahreh, 2012; Wei, Han & Hsu, 2010), performance management (Huselid & Becker, 2011; Posthuma, Campion, Masimova & Campion, 2013), performance appraisal (Posthuma et al., 2013), performance-based compensation (Gupta & Singh, 2010; Gurbuz, 2009; Huselid & Becker, 2011; Lopez, Peon & Ordas, 2005; Wei et al., 2010), empowerment (Gupta & Singh, 2010; Gurbuz, 2009) and competency development (Gupta & Singh, 2010).

Further, during the last decades, more than 30 studies have explored the relationship between different HR practices and business performance (Choi & Lee, 2013). Most of the studies have been conducted in developed (Ichniowski & Shaw, 1999) as well as developing countries (Choi & Lee, 2013; Sun, Aryee & Law, 2007; Wei & Lu, 2010). Moreover, very little attention has been paid to high-performance HR practices especially in the knowledge industry such as the telecom sector. HR management plays a great role in service sector for increasing the service quality orientation among employees (Wilkinson, Redman, Snell & Bacon, 2009) in India, which is the fastest growing sector of the Indian economy. It provides employment opportunities, creating competition through different market segmentation and also reflects high standards of service quality and information security through the adoption of best practices. The telecommunication sector has greatly contributed to gross domestic product (GDP) (Chindo, 2013). The argument developed here is that HR practices in telecom sector play an important role in long-term developmental activities which are best for organizational performance.

Further, Jiang et al. (2013) have reviewed 74 papers out of which 69 papers have focused on mediating variables between high-performance HR practices and organizational performance. However, there is a lack of research regarding the mediating variable, that is, organizational learning between high-performance HR practices and business performance relationship. Only Lopez et al. (2005) have explored the impact of four HR practices (selective hiring, strategic training, participation of the employees in decision-making and contingent compensation) on business performance through organizational learning. Setting this article as base, we have examined the impact of bundled high-performance HR practices as well as individual HR practices on business performance through organizational learning. In addition, we have evaluated the dimension-wise mediation of organizational learning between high-performance HR practices and business performance, which stands unexplored in the literature. Further, all the aforesaid mentioned studies have been conducted in manufacturing companies, banks, universities, health sector, etc. No study related to high-performance HR practices has been conducted in telecommunication sector in developed and developing settings. Telecommunication sector, where high-performance HR practices play a very important role in improving the business performance,

has yet to be explored. Thus, the aim of the current study is to examine the bundled effect of high-performance HR practices on business performance through organizational learning (knowledge perspective) in the telecommunication sector of India.

Literature Review

High-performance Human Resource Practices

Rapid changes in globalization, privatization/deregulation, competition and technological advances have compelled management to bring changes in various HRs and other management practices. These environmental changes have forced organizations to adopt high-performance HR practices that enhance sustained competitive advantage (Gurbuz, 2009). Different scholars have identified high-performance HR practices in the literature. High-performance HR practices are those practices which enhance the employees' competencies, skill, ability and ultimately pave way for improving organizational performance through learning (Lopez et al., 2005; Wei et al., 2010). Huselid et al. (1997, p. 171) have referred to high-performance HR practices as 'internally consistent set of policies and practices that a firm's human capital contributes to the achievement of business objectives'. Recent research by Posthuma et al. (2013) identified 61 HR practices being practised as high-performance HR practices, out of which 30 are being commonly practised in five nations, namely, Anglo-American (e.g., United States and Australia), Confucian (e.g., China and Taiwan), Latin Europe (e.g., Spain and Italy), Southern Asian (e.g., India and Thailand) and Eastern Europe (e.g., Russia). Despite wide literature on high-performance HR practices, there is still a lack of consensus in the literature about the type of high-performance HR practices.

The brief concept of these high-performance HR practices is given in Appendix B. These practices have been derived from general HR practices commonly found in a high-performance work system.

Organizational Learning

Organizational learning can be considered as a process through which individuals, groups, teams, communities and the organization itself learn (Aragon, Jimenez-Jimenez & Sanz-Valle, 2014). It is an effective strategy for sustaining and improving a firm's competitive edge and performance (Sinkula, Baker & Noordewier, 1997). Alegra and Chiva (2008) viewed it as a process through which organizations learn and bring change in organizational structure that relates to the improvement or preservation of organizational performance. Slater and Narver (1995) have studied organizational learning in the form of adaptive learning and generative learning. Adaptive learning is known as single-loop learning that helps the companies to identify ways to deliver new products and services to all customers more efficiently and effectively. Generative learning is known as double-loop learning. It helps the company to identify new customers and market to serve and new products and services to offer to existing and potential customers. Besides this, Chung, Zhilin and Huang (2014) defined organizational learning as the development of new knowledge or insights that have the potential to influence behaviour. In simple words, we can say that knowledge is an important base for organizational learning. Lopez et al. (2005) have described organizational learning as multidimensional construct comprising knowledge acquisition, knowledge distribution, knowledge interpretation and organizational memory. This conceptualization is also cemented by Jimenez-Jimenez and Sanz-Valle (2011). Knowledge acquisition refers to

acquisition of new knowledge internally and externally, while knowledge distribution refers to transferring/sharing of the acquired knowledge, knowledge interpretation to incorporate significant aspects of knowledge through shared understanding and co-ordination for effective decision-making and finally organizational memory relates to storing knowledge for future use either in the form of designing organizational system or in the form of rules, procedures, etc.

Business Performance

Business performance refers to those activities, which are under the control of the individuals, contribute to the organization's goals and objectives and can be measured according to the individual's level of skills. In other words, it is the quantity and quality of the achievement that an individual or a group contributes to the organization (Schermerhorn, Hunt & Osborn, 2000). According to Absar, Nimalathan and Jilani (2010), business performance is dependent on the skill, knowledge and experience of the employees. Efficient and unique human pool helps the organization to achieve this goal through resource utilization effectiveness, innovation, employees and customers satisfaction and better quality of products or services.

Business performance has been measured in the literature from financial, employee and operational performance perspectives. The financial perspective, which includes measures such as profitability, return on investment (ROI), sales growth and revenue growth, has been used by majority of the researchers (Liao & Wu, 2009; Venkatraman & Ramanujam, 1986). Similarly, employee performance is measured in the literature using measures such as employee satisfaction, employee turnover, employee effectiveness, level of absenteeism, employee participation and overall employee performance (Venkatraman & Ramanujam, 1986). Finally, measures such as number of product/service defects, number of customer complaints, market share and product and service quality are used for operational performance (Venkatraman & Ramanujam, 1986; Wright, Gardner & Moynihan, 2003). To have more comprehensive performance analysis, balanced scorecard developed by Kaplan and Norton (2007) is also used by practitioners to measure business performance with respect to financial, customer, internal business process and learning and growth.

Objectives

1. To evaluate the impact of HR practices on organizational learning and business performance.
2. To evaluate the impact of organizational learning on business performance.
3. To examine the impact of organizational learning as a mediating variable between HR practices and business performance.

Rationale of the Studies

The telecommunication sector has been recognized as an important tool for economic development of a nation (Kathuria, 2000). During the past few years, the Indian telecommunication sector has registered a tremendous growth. After China, India has the largest telephone network in the world (Kurtinaitiene & Gaizutis, 2008). A series of development measures by the government as well as the growth in wireless technology and dynamic involvement of private sector have played a key role in the exponential growth of telecommunication sector in the country.

Telecommunication sector is going competitive each day (Ali et al., 2012) and for this, it requires skilled and knowledgeable employees. These skilled and knowledgeable employees indulge in continuous learning and share new innovative ideas among employees and management. Human resource practices help employees to learn and innovate, which in turn affect overall business performance. In this context, it becomes necessary to study nature and kind of HR practices being practiced in the information technology (IT) sector and their impact on business performance. Further, it will compare the individual HR practices with bundled HR practices and their impact on business performance as well as evaluate the role of organizational learning between bundled HR practices and business performance.

Research Methodology

Measures

All the constructs in the study were measured with a five-point Likert scale, ranging from 5 (strongly agree) to 1 (strongly disagree). Multiple items, adopted from different studies, have been used to measure the selected six high-performance HR practices, such as performance management (sample item: 'The opportunities you have in your job to make full use of your skills and abilities,' Conway & Monks, 2008), performance appraisal (sample item: 'Appraisal is directly related to performance at work,' Chen & Huang, 2009), extensive training (sample item: 'Your company provides individuals' extensive training programme in order to increase skills,' Wei et al., 2010), competency development (sample item: 'Employees develop their skills in order to increase their chances of promotion,' Pare & Tremblay, 2000) and empowerment (sample item: 'Employees are involved in decision making about company issues,' Pare & Tremblay, 2000) and performance-based compensation (sample item: 'Your company offers incentives to its employees related to their performance,' Lopez et al., 2005; Wei et al., 2010). Lopez et al.'s (2005) scale has been used to measure organizational learning, that is, knowledge acquisition (sample item: The company is in touch with professionals and expert technicians), knowledge distribution (sample item: All employees are informed about the aims of the company), knowledge interpretation (sample item: All the members of the organization share the same aim to which they feel committed) and organizational memory (sample item: Databases are always kept up-to-date). The scale by Venkatraman and Ramanujam (1986) is used to measure business performance, such as financial performance (profitability has increased), employee performance (level of satisfaction has increased) and operational performance (service quality has increased) (see Appendix A).

Data Collection

The data were collected from six private telecommunication organizations (Airtel, Aircel, Tata Indicom, Idea, Reliance and Vodafone) operating in Jammu and Kashmir (J&K) (North India). All the middle-level employees of selected telecommunication organizations were contacted during October 2013–January 2014, to generate the research information. Out of 851 questionnaires distributed to the middle-level employees, only 246 questionnaires were returned back. The effective response rate came to 29 per cent.

In the total sample, 79 per cent were males, 67 per cent were between 20 and 30 years of age. Majority of the respondents were married and postgraduates (52 per cent) and about 67 per cent have 1–5 years of work experience. Majority of the respondents belonged to two income groups that is below ₹ 20,000 (41 per cent) and ₹ 20,000–40,000 (41 per cent).

Control Variables

Age, qualification and work experience of the respondents, size of the firm and age of the firm have been taken as control variables as these can possibly influence business performance (Inmyxai & Takahashi, 2010).

Theoretical Framework

High-performance Human Resource Practices and Business Performance

High-performance HR practices have received increased attention in recent years as a source of competitive advantage. High-performance HR practices contribute in facilitating organizational growth and performance (Arthur, 1994; Huselid & Becker, 2011; Sun et al., 2007) in diverse organizational contexts (Figure 1). Various researchers have revealed a positive relationship between high-performance HR practices and business performance including sales growth (Lopez et al., 2005), profitability (Khasawneh & Alzawahreh, 2012; Lopez et al., 2005), level of satisfaction (Gurbuz, 2009), employee turnover (Camps & Luna-Arocas, 2010; Sun et al., 2007) and overall performance (Huselid & Becker, 2011).

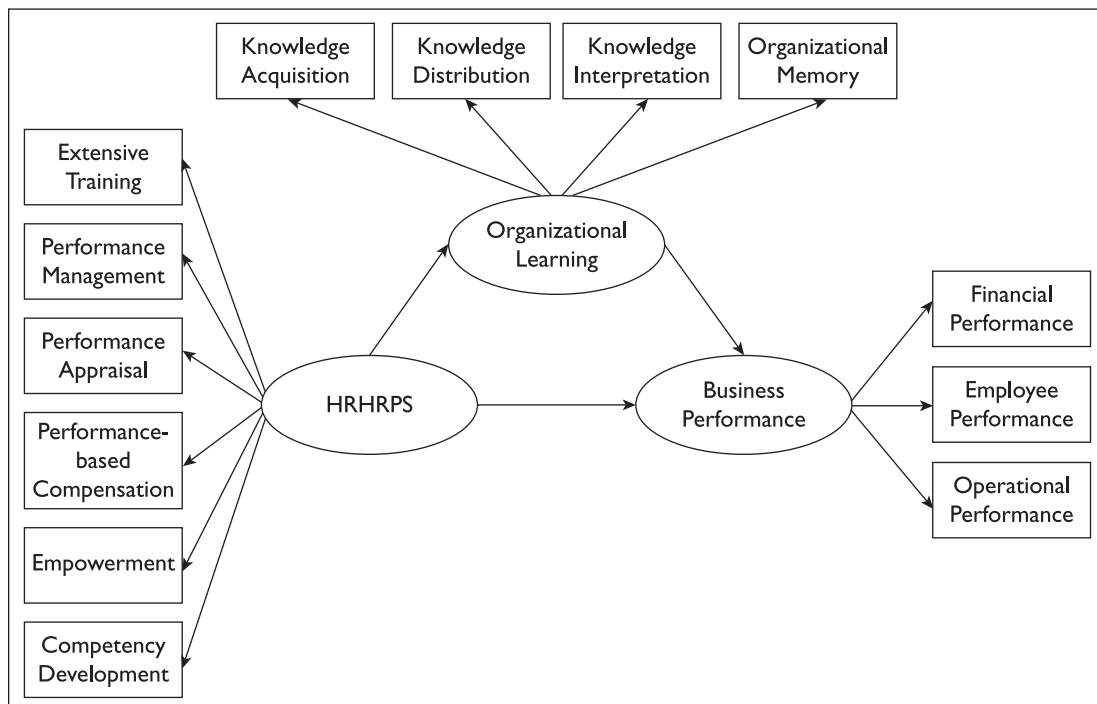


Figure 1. Theoretical Framework

Source: Authors' own.

Researchers have found a positive impact of high-performance work practices on performance outcomes in services (Karatepe & Vatankhah, 2014) and business/manufacturing sectors (Choi & Lee, 2013). For instance, performance management helps in directing and sustaining employees to work effectively and efficiently as per organizational needs to enhance the business performance (Huselid & Becker, 2011). Extensive training helps in enhancing the performance of the employees (Birdi et al., 2008) and vis-à-vis improves business performance. Performance-based compensation ensures that the company can attract and retain the high-quality employees by providing them the feeling that the valuable employees are fairly rewarded, and which in turn improves the performance of the business (Huselid & Becker, 2011). Similarly, empowerment boosts employees motivation at work through delegation of authority to the lowest level in an organization where a competent or confidential decision can be made (Gurbuz, 2009) to improve the business performance. Competency development practices improve the efficiency of existing employees and which in turn enhances performance of the business (Pare & Tremblay, 2000).

Bundled High-performance Human Resource Practices and Business Performance

High-performance HR practices are bundle of individual HR practices that increase the skills of the personnel, encourage participation in decision-making and motivate employees to improve the performance (Sun et al., 2007). MacDuffie (1995) suggested that high-performance HR practices are efficient when they are put into practice together as a system or bundled. Bundled practices generate better effect on business performance than individual practices as these create multiple, mutually reinforcing conditions that support employee motivation and skill acquisition. It is established in the literature that bundled HR practices are interconnected with each other and generate synergistic effect (MacDuffie, 1995). In this context, Ichniowski et al. (1993) remarked that adequate focus on the impact of individual HR practices on performance may produce misleading results, with single practice capturing the effect of the entire HR system. This is also supported by Subramony (2009) who revealed that the bundled effect of high-performance HR practices on business performance is better than the individual practices. They believed that individual HR practices will not generate competitive advantage in isolation.

High-performance Human Resource Practices and Organizational Learning

Human resource practices play an important role in the development of organizational learning in present competitive era. Snell, Youndt and Wright (1996) stated that the employees contribute to learning when they have the knowledge and abilities that the company needs and also have the motivation to learn. Previous literature has identified that high-performance HR practices have a positive impact on organizational learning (Camps & Luna-Arocas, 2010; Lopez et al., 2005). For instance, extensive training is a key factor related to the achievement of efficient organizational learning. It mainly focuses on overall development of employees in order to improve the learning of the organization. Besides, it also provides a clear understanding of the company's aims and goals to ensure a right direction for learning processes (Lopez et al., 2006). Further, performance appraisal, the another high-performance HR practices, focuses on long-term objectives in order to recognize acquisition of knowledge and transfer (Lopez et al., 2005). On the other hand, performance management continuously upgrades knowledge, which helps to generate organizational learning. Evans (2003) suggested that performance management is very significant for the firm to enhance knowledge component (acquisition, distribution, interpretation

and organizational memory). Performance-based compensation encourages the employees to hold certain types of job (Wei et al., 2010). Lopez et al. (2005) have suggested that organization must set up incentive-based schemes related to fulfilment of goals and creation of knowledge. Further, effective reward system also motivates the employees to acquire the knowledge and share it with their colleagues, interpretation and storing of the knowledge for future use. Another high-performance HR practices, that is, empowerment, is equally significant in enriching learning culture in the organization. It gives employees responsibility and authority to participate in decision-making (Karatepe & Vatankhah, 2014), enhances their vision and knowledge, which in turn, produces a positive effect on organizational learning. Further, it also recognizes the importance of issues, such as trust and sharing information, which influence organizational learning (Lopez et al., 2005). Finally, competence development practice increases the employees' skill, ability and knowledge (Gupta & Singh, 2010) that help in generating, distributing, transferring and utilizing the knowledge in an organization in general, technical and managerial way.

Organizational Learning and Business Performance

Gonzales (2001) remarked that organizational learning is a powerful technique to improve employees' performance within the organization. In other words, organization learning is an important process to improve business performance and reinforce competitive advantage (Chung et al., 2014). Inkpen and Crossan (1995) believed that organizations, which learn more efficiently, have a better long-term performance than their competitors. The process of organizational learning, that is, knowledge acquisition, knowledge distribution, knowledge interpretation and organizational memory pave way for enhanced business performance (Jimenez-Jimenez & Sanz-Valle, 2011). Many authors, such as Noruzy, Dalfard, Azhdari, Shirkouhi and Rezazadeh (2013), Liao and Wu (2009) and Lopez et al. (2005), have revealed that organizational learning is positively related to business performance in various sectors. Further, Tippins and Sohi (2003) revealed that the five stages of organizational learning process, which include information acquisition, information dissemination, shared interpretation, declarative memory and procedural memory, have a positive influence on firm performance. Decarolis and Deeds (1999) viewed that knowledge generation, accumulation and application can lead to better performance. They found a positive relationship among knowledge flows, stocks and business performance. Bontis, Crossan and Hulland (2002) identified that stocks of learning at all administration levels have a positive relationship with business performance. They also revealed that misconfiguration in an organizational learning system is negatively associated with performance of the business. Lopez et al. (2005) found that the entire process of organizational learning produces better performance. As a consequence, learning organizations are always equipped to cope up with complex challenges or to respond to new challenges than competitors (Slater & Narver, 1995), which help the firms to achieve long-term success.

High-performance Human Resource Practices, Organizational Learning and Business Performance

Many researchers have discussed the presence of missing link, that is, 'black-box' between high-performance HR practices and business performance (Boxall & Purcell, 2003; Huselid et al., 1997). The missing link between high-performance HR practices and business performance illustrates the subsistence of a 'black-box'. The 'black-box' is an unknown and invisible mechanism that enhances the business performance.

Organizational learning has been recognized as the fundamental activity for acquiring, creating, transferring and utilizing the knowledge in an organization. In other words, organization learning is the creation of new knowledge within the organization (Dasgupta & Gupta, 2009) in order to boost up the business performance. Lopez et al. (2005) stated that HR practices can contribute to accomplish sustainable competitiveness with the help of knowledge, skills, attitudes and behaviours that form the basis of organizational learning. They also suggested that HR practices are used to leverage organizational learning in order to influence business performance. Previous studies, namely, Camps and Luna-Arocas (2010) and Lopez et al. (2005), have explored the role of organizational learning as a mediator between high-performance HR practices and business performance. High-performance HR practices can contribute to improve the performance of business through learning process. For instance, extensive training programmes are crucial for employees to promote the learning process in the organization that improve the business performance. Such training programmes motivate the employees to share their experience, generate new knowledge and utilize the gained knowledge that enable business growth (Aragon et al., 2014). In the same way, performance management emphasizes improvement, learning and development to achieve the organizational goals. Further, appraisal process gives the employees continuous feedback about their competencies and knowledge acquired, which subsequently improves the various performance attributes of the organization (Lopez-Cabrales, Perez-Luno & Cabrera, 2009). Performance-based compensation is essential to motivate the employees to take the challenging work, generate and utilize the knowledge effectively that ensure in improving the performance of the business. In addition to this, empowering employees through participation in decision-making motivates them to bring new ideas and exchange knowledge with each other, which in turn increases the business performance. Finally, competency development enables the organization to retain productive employees by enhancing their knowledge, skill and ability to take up future challenging roles (Gupta & Singh, 2010).

Results and Analysis

Exploratory Factor Analysis

Exploratory factor analysis (EFA) was conducted to reduce the data into meaningful form with principal component analysis along with orthogonal rotation procedure of Varimax for summarizing the original information with minimum factors and optimal coverage. Items with factor loadings less than 0.5 and factors with eigenvalues less than 1.0 were ignored for the subsequent analysis (Hair, Black, Babin, Anderson & Tatham, 2010; Jyoti & Arora, 2013). Factor analysis was performed on three constructs, that is, high-performance HR practices, organizational learning and business performance. The scale of high-performance HR practices originally consisting of 42 statements got reduced to 32, which converged under six factors. Similarly, organizational learning initially consisted of 25 statements which got reduced to 20 statements under four factors. Finally, business performance scale consisted of 14 statements under three factors. The Kaiser–Meyer–Olkin (KMO) value of all the constructs is above 0.80, total variance explained for all the constructs is above 60 per cent, factor loadings and extracted communalities for all the constructs is above 0.5 and eigenvalues are also greater than 1 for all the constructs (Hair et al., 2010). The details of EFA are presented in Table 1.

Common Method Variance

The data collected were self-reporting in nature, which can cause problem of common method bias (Podsakoff et al., 2003). Therefore, in order to reduce this problem, procedural remedies were undertaken

Table 1. Summary of Result of Exploratory Factor Analysis

Factor	Mean	SD	FL	C	EV	VE (%)	KMO
High-performance HR Practices	4.04					70.467	0.899
Extensive Training	4.01	0.61			2.760	8.627	
EXT1	4.12	0.78	0.659	0.624			
EXT2	4.02	0.81	0.689	0.620			
EXT3	3.90	0.83	0.680	0.584			
EXT4	4.03	0.77	0.589	0.511			
Performance Management	4.07	0.55			10.652	33.286	
PM1	4.22	0.78	0.539	0.593			
PM2	4.02	0.71	0.535	0.548			
PM3	4.14	0.81	0.520	0.518			
PM4	3.97	0.83	0.751	0.657			
PM5	4.13	0.77	0.667	0.527			
PM6	3.94	0.92	0.630	0.521			
PM7	4.11	0.76	0.643	0.624			
Performance Appraisal	4.08	0.53			3.280	10.250	
PA4	3.94	0.83	0.734	0.548			
PA5	4.11	0.84	0.713	0.672			
PA6	4.22	0.71	0.670	0.590			
PA7	4.08	0.79	0.557	0.557			
Performance-based Compensation	4.02	0.67			3.040	9.507	
PBC1	4.13	0.84	0.575	0.646			
PBC2	4.10	0.80	0.546	0.596			
PBC3	4.04	0.82	0.523	0.574			
PBC4	3.87	0.89	0.670	0.689			
PBC5	3.98	0.90	0.512	0.690	1.219	3.808	
Empowerment	4.01	0.54					
EMP1	3.97	0.88	0.585	0.517			
EMP2	4.18	0.68	0.510	0.583			
EMP3	4.07	0.73	0.675	0.601			
EMP4	3.94	0.81	0.534	0.532			
EMP5	3.87	0.82	0.564	0.619			
EMP6	4.04	0.79	0.639	0.545	1.596	4.989	
Competency Development	4.08	0.52					
CD1	4.18	0.82	0.632	0.543			
CD3	4.04	0.89	0.734	0.559			
CD5	4.13	0.85	0.684	0.640			
CD7	3.85	0.78	0.558	0.578			
CD8	3.95	0.82	0.504	0.576			
CD9	4.30	0.69	0.527	0.507			
Organizational Learning	4.06					62.587	0.892
Knowledge Acquisition	4.01	0.51			7.263	36.316	
KA1	4.26	0.77	0.651	0.512			
KA2	3.72	0.86	0.665	0.545			
KA3	3.97	0.79	0.606	0.514			

Factor	Mean	SD	FL	C	EV	VE (%)	KMO
KA4	4.13	0.73	0.589	0.580			
KA5	4.02	0.74	0.657	0.562			
KA6	3.98	0.77	0.652	0.542			
Knowledge Distribution	4.11	0.54			1.423	7.117	
KD1	4.32	0.73	0.578	0.580			
KD2	4.21	0.74	0.635	0.555			
KD3	4.00	0.79	0.587	0.536			
KD4	3.92	0.78	0.639	0.545			
Knowledge Interpretation	4.08	0.59			1.824	9.124	
KI2	4.17	0.75	0.627	0.526			
KI3	3.95	0.92	0.689	0.604			
KI4	4.09	0.73	0.553	0.527			
KI5	4.12	0.85	0.585	0.513			
Organizational Memory	4.03	0.54			2.030	10.030	
OM2	4.16	0.73	0.637	0.515			
OM3	4.01	0.81	0.739	0.660			
OM4	4.12	0.76	0.752	0.620			
OM5	3.91	0.89	0.631	0.598			
OM6	3.89	0.79	0.606	0.572			
OM7	4.13	0.83	0.640	0.636			
Business Performance	3.60					60.824	0.858
Financial Performance	4.10	0.64			5.525	39.464	
FIN1	4.20	0.78	0.753				
FIN2	4.09	0.74	0.827				
FIN3	4.09	0.79	0.836				
FIN4	4.02	0.83	0.702				
Employee Performance	3.40	0.57			1.891	13.507	
EM1	3.89	0.81	0.541				
EM2	2.22	0.90	0.730				
EM3	3.90	0.77	0.565				
EM4	2.29	0.87	0.525				
EM5	4.03	0.84	0.646				
EM6	4.07	0.78	0.582				
Operational Performance	3.31	0.72			1.099	7.853	
OP1	2.61	1.18	0.886				
OP2	4.04	0.82	0.508				
OP3	2.58	1.22	0.894				
OP4	4.02	0.82	0.544				

Source: Primary Data.

Note: FL—Factor Loading; E.V—Eigen Value & V.E—Variance Explained.

to avoid these biases included, that is, protecting respondent confidentiality and reducing item ambiguity. Herman's one factor test was also applied. An EFA was conducted using principal component analysis and varimax rotation for all independent and dependent variables. The total variance explained by various factors ranged between 7 and 2 per cent. Hence, no single major factor emerged to account for a majority of the variances explained by the model, providing preliminary evidence that no substantial

common method bias exists in the data (Liu et al., 2011). Further, confirmatory factor analysis (CFA) helps to remove the problem of common method bias.

Confirmatory Factor Analysis

Confirmatory factor analysis has been used to validate the factors that emerged after EFA. It has been used to test whether a relationship exist between the manifest and latent variables. It is used to provide a confirmatory test to our measurement theory. It is a way of testing how well-measured variables represent latent constructs. Measurement models were developed for all constructs, namely, high-performance HR practices, organizational learning and business performance. The value of standardized regression weights (SRW) are above the threshold value (0.50) for all the constructs. Goodness of fit of the measurement models has been assessed with various global fit indices like goodness of fit index (>0.90), adjusted goodness of fit index (>0.90), comparative fit index (>0.90), normed fit index (>0.90), root mean square error (<0.05) and root mean square error of approximation (<0.08). All the models resulted in excellent fit by meeting all the above described parameters (Table 2).

Reliability and Validity

Reliability of the constructs has been checked through Cronbach's alpha and composite reliability. The values of Cronbach's alpha and composite reliability (CR) equal to or greater than 0.70 indicate

Table 2. Confirmatory Factor Analysis Results of High-performance HR Practices, Organizational Learning and Business Performance

Constructs	χ^2/df	GFI	AGFI	CFI	RMR	RMSEA
ET	0.140	0.999	0.997	0.997	0.004	0.000
PM	2.641	0.958	0.909	0.952	0.030	0.086
PA	1.465	0.997	0.967	0.998	0.009	0.046
PBC	1.612	0.989	0.959	0.992	0.018	0.053
EMP	1.112	0.985	0.966	0.997	0.018	0.023
CD	2.670	0.971	0.925	0.952	0.029	0.087
Bundled HPHRPs	1.404	0.900	0.875	0.958	0.030	0.038
KA	2.591	0.964	0.917	0.947	0.028	0.085
KD	2.473	0.989	0.943	0.982	0.018	0.081
KI	0.200	1.000	0.995	1.000	0.004	0.000
OM	1.925	0.979	0.937	0.981	0.020	0.065
OL	1.776	0.908	0.877	0.917	0.033	0.050
FP	0.834	0.998	0.981	1.000	0.005	0.000
EP	1.502	0.981	0.955	0.986	0.021	0.048
OP	1.324	0.997	0.970	0.999	0.017	0.038
BP	2.165	0.926	0.887	0.943	0.034	0.072

Source: Primary Data.

Note: ET—Extensive Training; PM—Performance Management; PA—Performance Appraisal; PBC—Performance-based Compensation; EMP—Empowerment; CD—Competency Development; HPHRPs—High-performance Human Resource Practices; KA—Knowledge Acquisition; KD—Knowledge Distribution; KI—Knowledge Interpretation; OM—Organizational Memory; OL—Organizational Learning; FP—Financial Performance; EM—Employee Performance; OP—Operational Performance; BP—Business Performance; DF—Degree of Freedom; GFI—Goodness of Fit Index; AGFI—Adjusted Goodness of Fit Index; CFI—Comparative Fit Index; NFI—Normed Fit Index; RMR—Root Mean Square Error; and RMSEA—Root Mean Square Error of Approximation.

Table 3. Reliability and Validity Analysis

Constructs	Dimensions	Standardized Regression Weights	Average Variance Extracted	Composite Reliability	Alpha Value
Bundled HPHRPs			0.863	0.941	0.919
	ET	0.845	0.684	0.848	0.778
	PM	0.794	0.626	0.874	0.822
	PA	0.795	0.673	0.847	0.748
	PBC	0.856	0.674	0.851	0.789
	EMP	0.868	0.617	0.858	0.786
OL	CD	0.989	0.597	0.837	0.776
			0.880	0.952	0.899
	KA	0.919	0.593	0.842	0.761
	KD	0.907	0.624	0.816	0.716
	KI	0.942	0.684	0.841	0.751
BP	OM	0.799	0.645	0.871	0.817
			0.887	0.941	0.887
	FP	0.853	0.735	0.885	0.832
	EP	0.909	0.627	0.853	0.793
	OP	0.902	0.537	0.688	0.670

Source: Primary Data.

Note: ET—Extensive Training; PM—Performance Management; PA—Performance Appraisal; PBC—Performance-based Compensation; EMP—Empowerment; and CD—Competency Development; HPHRPs—High-performance Human Resource Practices; KA—Knowledge Acquisition; KD—Knowledge Distribution; KI—Knowledge Interpretation; OM—Organizational Memory; OL—Organizational Learning; FP—Financial Performance; EM—Employee Performance; OP—Operational Performance; and BP—Business Performance.

good reliability (Hair et al., 2010). In the present study, Cronbach's alpha and composite reliability values of all constructs are greater than 0.70 (Table 3), indicating that the scales are quite reliable. Convergent and discriminant validity were assessed as a part of construct validity. A scale with 0.5 or above average variance extracted (AVE) and SRW values establish convergent validity (Hair et al., 2010). As shown in Table 3, the values of AVE and standardized loadings are all above 0.5. Further, discriminant validity has also been proved by comparing the AVE with squared correlations among different constructs (Hair et al., 2010). The AVE for all the constructs is higher than the squared correlation, thereby proving discriminant validity (Table 4).

Table 4. Discriminant Validity and Correlation Analysis

Constructs	Bundled High-performance Human Resource Practices	Organizational Learning	Business Performance
Bundled High-performance Human Resource Practices	0.863		
Organizational Learning	(0.625) 0.791**	0.880	
Business Performance	(0.386) 0.622**	(0.417) 0.646**	0.887

Source: Primary Data.

Note: Values on the diagonal axis represent AVE and values in parenthesis represent squared correlation between the constructs. The values with an asterisk represent correlations values.

Descriptive Analysis of Constructs

On the basis of responses gathered from the employees, mean score and standard deviation of high-performance HR practices, organizational learning and business performance are presented in Table 1. The high-performance HR practices are being practised in telecommunication organizations ($M = 4.04$, Table 1). High-performance HR practices consisted of six sub-scales, that is, extensive training, performance management, performance appraisal, performance-based compensation, empowerment and competency development. Out of these six sub-scales, the perception of employees about performance appraisal and competency development is high ($M = 4.08$) followed by performance management ($M = 4.07$). Performance appraisal is being followed in telecommunication sector to evaluate performance of employees on individual as well as on group basis to assess the respective level of achievements. It is also observed that efforts are being made for the development of competencies and skills among employees to a great extent in the telecommunication organizations. Further, performance management reveals that the organizations not only manage the employees' performance but also give them the opportunity to make full use of skills and abilities and to discuss the job related issues with his/her manager. The mean score of extensive training (4.01) indicates that extensive training programmes are conducted by the management in order to increase the performance. Further, employees viewed that diverse training programmes are offered for different training needs ($M = 4.12$). The mean derived from performance-based compensation is 4.02. Organizations pay incentives, reward and bonuses to the employees on the basis of performance and competence level. The mean value of empowerment is 4.01. It has been found that the employees take initiatives to solve problems and make sound professional decisions. This indicates that employees' empowerment is highly valued in the organization.

Similarly, employees viewed that there is a high level of organizational learning ($M = 4.06$, Table 1). Knowledge acquisition is an important source of new knowledge of the firm ($M = 4.01$). It is found that management is in touch with professionals and expert technicians in order to acquire new knowledge.

The perception of employees about knowledge distribution is also high ($M = 4.11$) as the superiors discuss with their employees latest innovations and inform them about the aims of the organization and spread knowledge and information across different departments that help in achieving the organizations' goal. Further, knowledge interpretation is an important part of organizational learning ($M = 4.08$). Employees explain and discuss their new experiences and knowledge between each other for continuous analysis. Further, telecommunication organizations also stress on maintaining and updating organizational memory ($M = 4.03$). These organizations maintain databases to stock its experiences and knowledge to use them later. Further directories or e-mail databases are also maintained according to the specialization fields, which make it easy for employees and management to find an expert on specific concrete issues at any time.

Further, business performance is also above average ($M = 3.60$, Table 1). It consists of financial performance, employee performance and operational performance. The mean value of financial performance is high ($M = 4.10$) followed by employee performance ($M = 3.40$) and operational performance ($M = 3.31$). The analysis revealed that the profitability, sales growth and revenue growth show positive trend in telecommunication sector with respect to financial performance. Moreover, increase in the level of employees' satisfaction and the employees' effectiveness is also observed in the telecommunication organizations. Finally, the mean of operational performance is moderate (3.31) in telecommunication sector because of the low score of items measuring customer complaints and products and services defects. Employees viewed that these areas are not being looked properly.

Comparative Effect of Individual High-performance Human Resource Practices and Bundled High-performance Human Resource Practices on Business Performance

In order to evaluate the comparative effect of individual and bundled high-performance HR practices on business performance, two structural models have been prepared with the help of AMOS, 17 version (a structural equation modelling [SEM] software). Two models were used to evaluate the individual impact of high-performance HR practices (Model 1) and bundled impact of high-performance HR practices (Model 2) on business performance. The findings revealed that bundled high-performance HR practices explained more variances ($R^2 = 0.522$) than individual practices ($R^2 = 0.381$) in business performance. Further, Models 1 and 2 are statistically different too ($\chi^2 > 3.84, p < 0.05$). The reason can be that the bundled high-performance HR practices exert additive and multiplicative influence and, hence, generate synergistic effect (MacDuffie, 1995). Furthermore, a bundle of interrelated HR practices provide several ways for workers to acquire skills (e.g., off-the-job and on-the-job training, job rotation and problem-solving groups) and multiple incentives to boost motivation (e.g., extrinsic rewards, such as performance-based pay and intrinsic rewards from participating in decision-making and good job design), which help in achieving higher business performance.

Impact of Bundled High-performance Human Resource Practices on Business Performance: Role of Organizational Learning—Structural Modelling Approach

Structural equation modelling is considered as one of the important techniques for testing the hypothesized relations. It refers to the relationship of one or more independent variables with one or more dependent variables (Hair et al., 2010). In this study, we have one mediating effect, that is, organizational learning between bundled high-performance HR practices and business performance. In order to test the mediating effect, a series of three contrasting models, that is, no mediation, partial mediation and full mediation were examined using the procedure recommended by Kelloway (1998). In the no-mediating model (Figure 2), the direct impact of high-performance HR practices on business performance is explored which is significant ($p < 0.001$).

In the partial mediation model (Figure 3), both direct (from high-performance HR practices to business performance) and indirect path relationships from high-performance HR practices to business performance have been examined.

In the full mediation model (Figure 4), indirect relationship between high-performance HR practices and business performance (i.e., paths from high-performance HR practices to organizational learning and from organizational learning to business performance) has been analyzed.

The selection between the three contrasting models is done on the basis of chi-square difference test, which revealed insignificant difference between full and partial mediation models ($\Delta\chi^2 = 0.819, p < 0.05$) but significant difference between no mediation with full models ($\Delta\chi^2 = 39.447, p > 0.05$) and no mediation with partial mediation models ($\Delta\chi^2 = 207.355, p > 0.05$). This indicates that organizational learning mediates the relationship between bundled high-performance HR practices and business performance. Further, to check the significance of indirect relationship, Sobel (1982) test was applied through Sobel calculator. The value of Sobel statistics was significant for indirect effects in case of partial (Sobel statistics = 2.96, $p < 0.05$) as well as full mediation models (Sobel statistics = 6.67, $p < 0.05$), thereby confirming the hypothesis 4, that is, organizational learning mediates the relationship between high-performance HR practices and business performance.

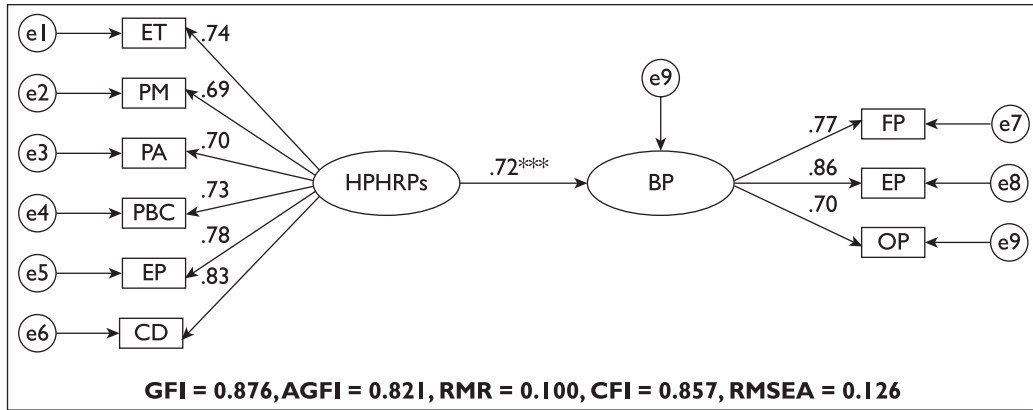


Figure 2. No Mediation

Source: Authors' own.

Note: ET—Extensive Training; PM—Performance Management; PA—Performance Appraisal; PBC—Performance-based Compensation; EMP—Empowerment; CD—Competency Development; HPHRPs—High-performance Human Resource Practices; FP—Financial Performance; EM—Employee Performance; OP—Operational Performance; and BP—Business Performance; *** $p < 0.001$.

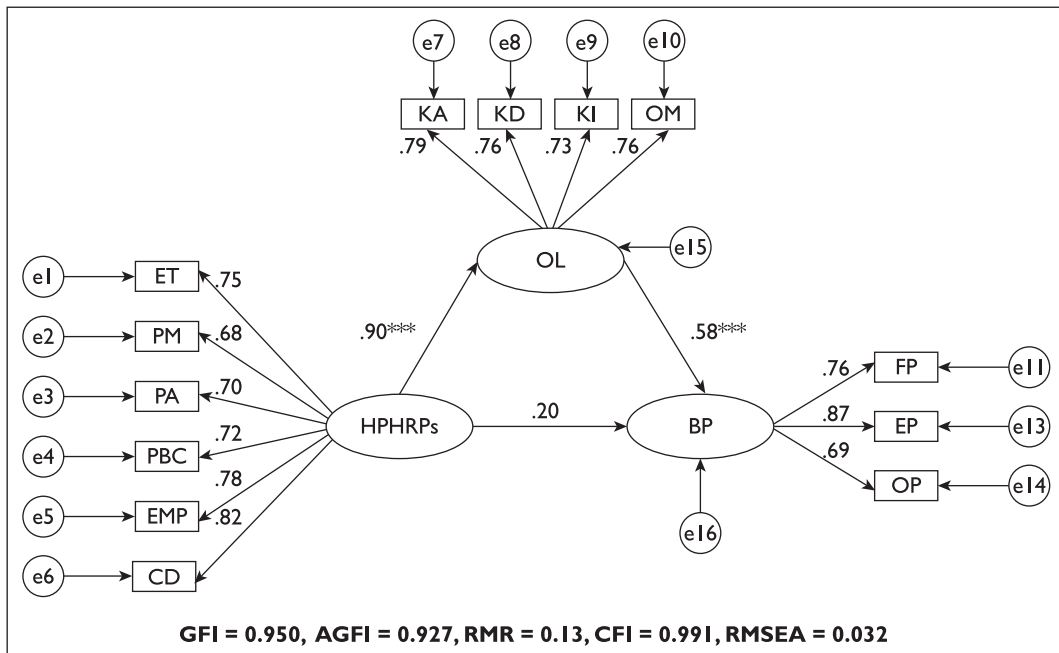


Figure 3. Partial Mediation

Source: Authors' own.

Note: ET—Extensive Training; PM—Performance Management; PA—Performance Appraisal; PBC—Performance-based Compensation; EMP—Empowerment; CD—Competency Development; HPHRPs—High-performance Human Resource Practices; KA—Knowledge Acquisition; KD—Knowledge Distribution; KI—Knowledge Interpretation; OM—Organizational Memory; OL—Organizational Learning; FP—Financial Performance; EM—Employee Performance; OP—Operational Performance; and BP—Business Performance; *** $p < 0.001$.

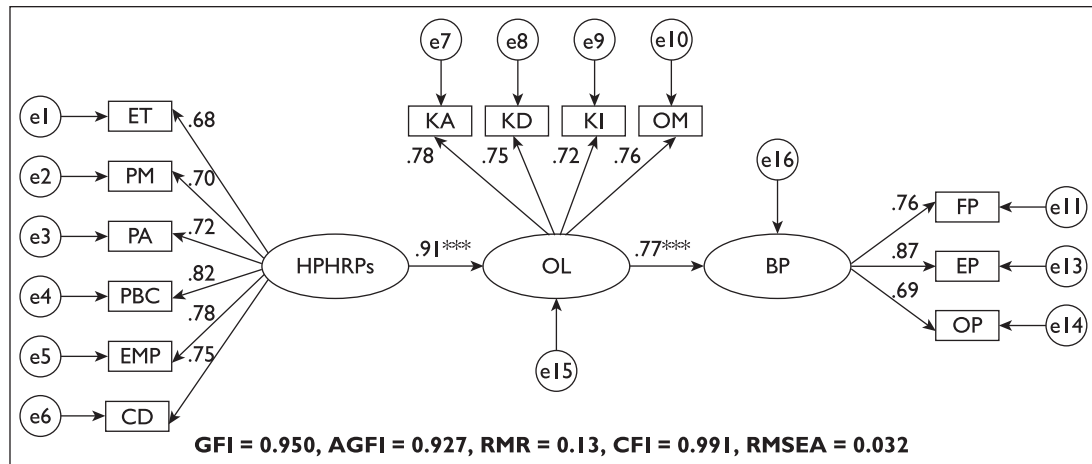


Figure 4. Full Mediation

Source: Authors' own.

Note: ET-Extensive Training; PM-Performance Management; PA-Performance Appraisal; PBC-Performance-based Compensation; EMP-Empowerment; CD—Competency Development; HPHRPs—High-performance Human Resource Practices; KA—Knowledge Acquisition; KD—Knowledge Distribution; KI—Knowledge Interpretation; OM—Organizational Memory; OL—Organizational Learning; FP—Financial Performance; EM—Employee Performance; OP—Operational Performance; and BP—Business Performance; *** $p < 0.001$.

Further, we have also checked the dimension-wise mediation of organizational learning between high-performance HR practices and business performance relationship and found that all dimensions of organizational learning, namely, knowledge acquisition, knowledge distribution, knowledge interpretation and organizational memory, act as a partial mediator variable between high-performance HR practices and business performance. Furthermore, although the results of main mediation models revealed no significant difference in partial and full mediation models but dimension-wise evaluation of mediation models revealed that goodness of fit of partial mediation models is better than full mediation models. Hence, the fact that organizational learning partially mediates the relationship between high-performance HR practices and business performance is confirmed.

Discussion

This article investigates, empirically, the relationship between bundled high-performance HR practices and business performance through organizational learning in telecommunication sector in J&K (North India). Our results revealed that the bundled high-performance HR practices affect business performance more as compared to individual high-performance HR practices. A major stream of empirical research in the field of strategic HR management has focused on examining the performance effects associated with a set or bundle of HR practices, known as high-performance work system. The rationale of the high-performance work system–performance linkage is that high-performance work system promotes the value, uniqueness and inimitability of employees' knowledge and skill (Wright et al., 2003), which in turn generates competitive advantage and better performance. Our study also supports the basic assumption of high-performance HR practices that there exists bundle HR practices that result in superior business performance (Boxall & Purcell, 2003). Bundle of complementary high-performance

HR practices are held to produce substantially greater performance effects than individual HR practices (Ichniowski et al., 1997).

It is also observed that bundled high-performance HR practices exercise more influence on business performance as compared to individual practices because bundled high-performance HR practices jointly contribute to the attainment of the organization's strategies for matching resources and organizational needs, which result in achieving competitive advantage and superior firm performance (Armstrong, 2006).

Further, the study also revealed that high-performance HR practices positively affect organizational learning, which is supported by the previous studies as HR practices generate the healthy attitudes in the employees towards learning (Lopez et al., 2005). Moreover, high-performance HR practices prepare employees in the organization for knowledge generation through the sharing of ideas, opinions and experience (Monavvarian & Khamda, 2010).

The study also found a positive impact of organizational learning on business performance, which can be attributed to enrich knowledge and better understanding of business through various components of organizational learning, which is in line with earlier research by Lopez et al. (2005). The level of organizational learning in the organizations is an important criterion for formative development and success. The organizations, which stress organizational learning, have higher performance levels (Dasgupta & Gupta, 2009). In addition, the organizations with employees having ability to learn quickly gain a higher planned potential that facilitate the path towards competitive advantage and boost long-term performance (Noruzy et al., 2013).

In addition to above, the study also found that organizational learning mediates the relationship between high-performance HR practices and business performance. This finding is consistent with the results of Lopez et al. (2005), who suggested that high-performance HR practices can contribute to improve organizational learning, which in turn enhances the performance. The different dimensions of organizational learning, such as knowledge acquisition, knowledge distribution, knowledge interpretation and organizational memory, are also partially mediating the relationship between high-performance HR practices and business performance. High-performance HR practices provides a clear understanding about the company's aims and goals will help ensure a right direction for learning processes (acquisition, distribution, interpretation and organizational memory) in turn to enhance the business performance (Lopez et al., 2005).

Furthermore, the effect size of the linkage between high-performance HR practices and organizational learning was greater than that between high-performance HR practices and business performance. The high-performance HR practices explained more variances in organizational learning (81 per cent) than in business performance (52 per cent). These findings support the notion that high-performance HR practices had the most significant impact on organizational learning and a less significant impact on business performance. Organizational learning was also found to be partially mediators in the high-performance HR practices–business performance linkage. This meant that high-performance HR practices relied on organizational learning to contribute to business performance. Further, when the control variable, that is, age of the firm is entered into the equation, there is no change in cause and effect relation among the various dependent and independent variables (Hui, Radzi, Jenatabadi, Kasim & Radu, 2013). Therefore, the control variable is not shown in the model.

Implications

Theoretical Implications

The study has several theoretical contributions. The study adds to already existing literature on HR practices by validating the bundled high-performance HR practices construct, which can be used by

researchers and academicians for future research. The present research is contributing to prior research by providing a support for better impact of bundled high-performance HR practices on business performance in comparison to individual high-performance HR practices. The study has empirically established the mediating effect of organizational learning between bundled high-performance HR practices and business performance. Theoretically, our findings implied that organizational learning acts as a mediating variable between bundled high-performance HR practices and business performance. The study helped to identify the black box using organizational learning to understand high-performance HR practices and business performance relationship. Finally, we have evaluated the dimension-wise mediating effect of organizational learning between bundled high-performance HR practices and business performance. All the dimensions of organizational learning, namely, knowledge acquisition, knowledge distribution, knowledge interpretation and organizational memory, mediate the relationship between high-performance HR practices and business performance.

Managerial Implications

This study has various implications which are important for practitioners as well as academicians. These are discussed as follows.

To cope up with technology development and new innovations in telecommunication sector, job training related to job instruction, computer-based training, etc. should be provided to the employees on regular basis and need to be implemented more effectively. It will lead to better employees' performance through reduced customer complaints, which in turn will improve the business performance. This will also help the employees to update and increase their knowledge about latest advancements and enhance their technical competence to cope up with the extant challenges and get themselves prepared for further promotions. Enhanced competences increase the thinking horizon and vision of the employees and hence be able to think out of box to generate and disseminate more new ideas, which consequently improve the business performance.

Further, managers should provide employees with empowerment and rewards that would make them feel obliged to respond to the organization via prominent levels of work environment and performance outcomes. Therefore, it is suggested that management must empower employees by encouraging them to participate in concerned investment decisions of organizations that can help in accelerating their thought process. Besides, organizations should also make provisions of award for best suggestions to encourage valuable suggestions from the employees and also keep loyalty rewards for employees, who are in organization for a long time period. Such awards or rewards can increase employees' confidence and strengthen their bounding with the organization. Subsequently, this will also increase the employee participation as well as satisfaction in the long period.

Based on extant findings, it is also found that job enrichment must be done regularly to increase the competency of the employees. Organization should encourage multitasking approach to enrich the employees' knowledge about various jobs in the organization and reduces the boredom and make their jobs more interesting.

Similarly, knowledge acquisition is found to be an important component of organizational learning. Hence, it is suggested that organizations should organize informal meetings and also invite suggestions from the personnel of the allied industries, such as software industries, IT etc., to generate innovative ideas and information for the core and supplementary services of the telecommunication companies.

It is also suggested that organizations should stress on prompt and quick availability of databases to the employees for quick dissemination of available information for strategic decision-making and improving different organizational processes.

It is well established that satisfied employees are productive employees (Saari & Judge, 2004) but the telecommunication employees in our study are found to be less satisfied. Therefore, it is suggested that to improve the level of employees' satisfaction, they should be provided both the intrinsic and the extrinsic benefits. Intrinsic benefits can be in the form of participation of employees in decision-making, recognition (praise from superiors and co-workers), autonomy, feedback, giving challenging task, achievement, responsibility as well as personal and professional growth, whereas extrinsic benefits can be in the form of pay rise, bonuses, paid leaves, competitive salaries, annual recreational plans, fringe benefits, job security, promotions, free internet facilities, flexitime/place of work, private office space, social climate, etc.

Limitations and Future Research of the Study

All the precautionary efforts were made to ensure the objectivity, reliability and validity of the study; yet, certain limitations could not be ruled out. These limitations need to be considered for any future references regarding the findings and implementations of the study. The major limitations include the following: first, the study is conducted only in the private telecommunication sector (Airtel, Aircel, Tata Indicom, Idea, Reliance and Vodafone) in J&K (North India). For future research, it is suggested to examine the high-performance HR practices in public sectors, such as Bharat Sanchar Nigam Limited (BSNL) and Mahanagar Telecom Nigam Limited (MTNL). Besides, comparison between public and private sectors can also be examined. Further, the study being limited to telecommunication sector can be extended in other sectors, such as insurance, banking, healthcare, education, etc. Second, the lack of personal contact with the employees of telecommunication sector as field visit was not permitted by the company managers adds to another limitation. Third, the study is cross-sectional in nature and need to be extended to include longitudinal data in future. Finally, besides the six high-performance HR practices examined, other practices, such as recruiting and selection, information sharing, employment security, work-life balance and grievance handling procedures, can also be considered to understand more comprehensively the bundled effect of HR practices.

Appendix A

Variables	Items
Extensive Training	Your company offers employees diverse training programme for different training needs. Your organization structures training process systematically. Your company encourages employees to undertake continuous training. Your company provides individuals extensive training programme in order to increase skills.
Performance Management	The way in which your performance is managed. The information given to you about your job and the ways in which a position can be reached. The opportunities you have in your job to make full use of your skills and abilities. The effort made by the company to promote employees from within the company. The opportunities you have to discuss your job with your manager. Your promotion opportunities. The opportunities that you have to discuss significant aspects of your performance with your manager.

Variables	Items
Performance Appraisal	<p>Appraisal is directly related to performance at work.</p> <p>Appraisal rating is focused on the individual's performance not personality.</p> <p>Performance appraisal is based on objective quantifiable criteria.</p> <p>Employee appraisals emphasize long-term and group-based achievement.</p> <p>Fair appraisal practices for everyone.</p> <p>Employees are appraised by seniors.</p> <p>Employees are appraised by experts.</p> <p>Employees are appraised by juniors.</p> <p>Employees are appraised by customers.</p> <p>Employees are appraised by multiple persons.</p> <p>Employees are appraised by themselves also.</p>
Performance-based Compensation	<p>Your company offers incentives to its employees related to their performance.</p> <p>Your company has a competency-based pay system.</p> <p>The rewards received are directly related to the performance and contribution to work.</p> <p>Your company grants bonuses based on the team performance.</p> <p>Employee's compensation increases as their performance increases.</p>
Empowerment	<p>Employees are involved in decision-making about company issues.</p> <p>Employees have an effective process for making group decisions and solving problems.</p> <p>Employees take steps to solve problems.</p> <p>Employees empowerment is highly valued in the company.</p> <p>Employees are regularly consulted in technological investment decisions in the company.</p> <p>Employees are trusted to make sound professional decisions.</p>
Competency Development	<p>Superior usually gives responsibilities to employees according to their respective background and interest.</p> <p>Employees develop their skills in order to increase their chances of promotion.</p> <p>Workshops, Conferences and Seminars are organized by company to improve the knowledge of employees.</p> <p>Proficiency courses, such as specialized technical courses, are encouraged by supervisor.</p> <p>Opportunities for advancement within telecommunication professional are available to you.</p> <p>Job rotation is done for employee development.</p> <p>Job enrichment is undertaken to give employee autonomy.</p> <p>Job loading (vertical) is done to make employee multiskilled.</p> <p>Several professional development activities, such as coaching and training etc., are offered to employees to improve their skills and knowledge.</p>
Knowledge Acquisition	<p>The company is in touch with professionals and expert technicians.</p> <p>The company encourages employee to join formal or informal nets made up by people from outside the company.</p> <p>There is a consolidated and resourceful research and development (R&D) policy.</p> <p>New ideas and approaches on work performance are experimented continuously.</p> <p>Organization systems and procedures support innovation.</p> <p>Co-operation agreements with other companies, universities, technical colleges, etc., are fomented.</p> <p>The employees attend trade fairs and exhibitions regularly.</p>

(Appendix A continued)

(Appendix A continued)

Variables	Items
Knowledge Distribution	<p>All employees are informed about the aims of the company.</p> <p>Meetings are periodically held to inform all the employees about the latest innovations in the company.</p> <p>The company has formal mechanisms to guarantee the sharing of the best practices among the different fields of the activity.</p> <p>There are within the organization individuals who take part in several teams or divisions and who also act as link between them.</p> <p>There are individuals responsible for collecting, assembling and distributing internally employee's suggestions.</p>
Knowledge Interpretation	<p>All the member of the organization share the same aim to which they feel committed.</p> <p>Employees share knowledge and experience by talking to each other.</p> <p>Teamwork is very common practice in the company.</p> <p>The company develops internal rotation programme so as to facilitate the shift of the employees from one department or function to another.</p> <p>The company offers other opportunities to learn (visits to other parts of the organization, internal training programme, etc.) so as to make individual aware of other people or departments' duties.</p>
Organizational Memory	<p>The company has databases to stock its experiences and knowledge so as to be able to use them later on.</p> <p>The company has directories or e-mails filed according to the field they belong to so as to find an expert on a concrete issue at any time.</p> <p>The company updates its client databases.</p> <p>Databases are always kept up-to-date.</p> <p>All the employees in the organization have access to the organization's databases.</p> <p>Employees often consult the databases.</p> <p>The codification and knowledge administration system makes work easier for the employees.</p> <p>There is access to the organization's database and documents through some kind of network (lotus notes, intranet, etc.)</p>
Financial Performance	<p>Sales growth has increased.</p> <p>Profitability has increased.</p> <p>Revenue growth has increased.</p> <p>Return on investment has increased.</p>
Employee Performance	<p>Level of satisfaction has increased.</p> <p>Employee turnover has decreased.</p> <p>Employee effectiveness has increased.</p> <p>Level of absenteeism has decreased.</p> <p>Employee participation has increased.</p> <p>Overall performance has increased.</p>
Operational Performance	<p>Number of product/service defects has decreased.</p> <p>Service quality has increased.</p> <p>Number of customer complaints has decreased.</p> <p>Market share has increased.</p>

Appendix B: Definition of Various High-performance HR Practices Used in This Study

Human Resource Practices	Description
Extensive Training	It is a continuous process, which provides a wide range of development opportunities for all employees (Birdi et al., 2008). It is planned and formalized training programmes for employees to facilitate the learning of job-related knowledge, skills and behaviour (Khasawneh & Alzawahreh, 2012; Wei et al., 2010).
Performance Management	It is an ongoing process of communication between supervisor and employee and the emphasis is on performance improvement of individual and the organization with the help of analysis, review and development (Pareek & Rao, 2007; Posthuma, 2013).
Performance Appraisal	It is periodic evaluation of personnel by the superiors or others regarding employee performance, which is used for promotion, rewards or identifying training and development needs (Pareek & Rao, 2007).
Performance-based Compensation	It includes all forms of pay and rewards received by an employee on the basis of his/her job performance (Gurbuz, 2009).
Empowerment	It gives an authority to an individual to think, behave, take action, control work and decision-making in autonomous way (Gurbuz, 2009). It includes power, knowledge, right to work, information and communication.
Competency Development	It encompasses all activities carried out by an organization and its employees to maintain and enhance the employees' knowledge, skill and attitude in technical, behavioural and conceptual areas (Gupta & Singh, 2010).

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