

DOI: <https://doi.org/10.34069/AI/2023.65.05.19>

How to Cite:

Parveen, M., & Alahmadi, S.H. (2023). Maximizing job performance through HRD mechanisms: An empirical investigation of the mediating role of multidimensional capital using PLS-SEM analysis. *Amazonia Investiga*, 12(65), 196-211. <https://doi.org/10.34069/AI/2023.65.05.19>

## Maximizing job performance through HRD mechanisms: An empirical investigation of the mediating role of multidimensional capital using PLS-SEM analysis

زيادة الأداء الوظيفي من خلال آليات الموارد البشرية: استقصاء تجريبي للدور الوسيط لرأس المال متعدد الأبعاد باستخدام تحليل PLS-SEM

Received: April 30, 2023

Accepted: June 2, 2023

Written by:

**Musrrat Parveen<sup>1</sup>**<https://orcid.org/0000-0002-3796-8061>

Web of Science Researcher ID: A-5238-2013

[www.researcherid.com/rid/A-5238-2013](http://www.researcherid.com/rid/A-5238-2013)**Samaher Homoud Alahmadi<sup>2</sup>**<https://orcid.org/0009-0006-0058-8395>**Abstract****نبذة:**

The primary objective of this study was to investigate the effect of HRD mechanisms on human capital (HC), social capital (SC), and psychological capital (PsyC), and their ultimate impact on job performance (JP). The study collected 201 fully completed questionnaires from nurses, pharmacists, dentists, physicians, and psychologists out of 330 healthcare professionals. The survey questionnaire was used to assess the impact of HRD mechanisms on the three capitals, which are human, psychological, and social, and their effect on job performance. The Smart PLS-SEM software was employed to test the research hypotheses and fit the conceptual model of the research. The results revealed that the dimensions of HRD mechanisms have a significant and positive impact on job performance, and human capital, social capital, and psychological capital have an influential mediating role. The findings can assist healthcare settings in enhancing job performance by focusing on the indicators highlighted in the study. This paper provides empirical evidence supporting the theory of HRD mechanism and its impact on psychological, human, and social capital, ultimately leading to enhanced job performance in the healthcare industry. The study presents a comprehensive comparison lens to examine the relative contribution of HRD

الهدف الأساسي من هذه الدراسة هو التحقيق في تأثير آليات تطوير الموارد البشرية على رأس المال البشري، ورأس المال الاجتماعي، ورأس المال النفسي، وتأثيرها النهائي على الأداء الوظيفي. جمعت الدراسة 330 استبيان من أخصائيي الرعاية الصحية ومن خلال هذا العدد 201 استبيان فقط كان مكتمل من الممرضات والصيدلة وأطباء الأسنان وعلماء النفس. تم استخدام استبيان المسح لتقييم تأثير آليات إدارة الموارد البشرية على رأس المال البشري، النفسي والاجتماعي، وتأثيرها على الأداء الوظيفي. تم استخدام برنامج PLS-SEM الذي لاختبار فرضيات البحث وتناسب النموذج المفاهيمي للبحث. كشفت النتائج أن أبعاد آليات تطوير الموارد البشرية لها تأثير كبير وإيجابي على الأداء الوظيفي، ورأس المال البشري والاجتماعي والنفسي له دور وسيط مؤثر. يمكن أن تساعد النتائج في إعدادات الرعاية الصحية في تعزيز الأداء الوظيفي من خلال التركيز على المؤشرات المميزة في الدراسة. يوفر هذا البحث أدلة تجريبية تدعم نظرية آلية الموارد البشرية وتأثيرها على رأس المال النفسي والإنساني والاجتماعي، مما يؤدي في النهاية إلى تعزيز الأداء الوظيفي في مجال الرعاية الصحية. تقدم الدراسة عدسة مقارنة شاملة لدراسة المساهمة النسبية لآليات تطوير الموارد البشرية ورأس المال النفسي والإنساني والاجتماعي لأداء المهنيين في مجال الرعاية الصحية. تساعد هذه المقارنة على تحديد أدوار كل من رأس المال النفسي والإنساني والاجتماعي في قطاعات الرعاية الصحية وتطور

<sup>1</sup> Ph.D, Associate Professor, Faculty of Economics and Administration, Department of Human Resource Management, King Abdulaziz University, Saudi Arabia.

<sup>2</sup> (Student Id No. 2201598) pursuing, Executive Master of Human Resources program (EHRM), Faculty of Economics and Administration, Department of Human Resource Management, King Abdulaziz University, Jeddah, Saudi Arabia



mechanisms and the three capitals to healthcare professionals' job performance. This comparison helps to define the roles of each of the capitals in healthcare sectors and advances the development of theories concerning the significant relationship between HRD mechanisms and the three capitals leading to job performance.

**Keywords:** HRD Mechanism, Human capital, Social capital, Psychological capital, Job performance, Healthcare professionals, Healthcare settings, PLS-SEM analysis.

## Introduction

Capital, including labor, technology, and land, is crucial for organizations' asset accumulation and returns (Dobrowolski et al., 2022). Human capital, comprising education, experience, and skills, enhances organizational effectiveness (Ganguly et al., 2019). Education and experience are critical factors determining knowledge and ability (Hindasah & Nuryakin, 2020). Alongside human capital, other forms of capital foster competitiveness (Huang et al., 2020).

This study explores the impact of HRD mechanisms on human, psychological, and social capital, as well as their influence on job performance (Huang et al., 2020). Psychological capital reflects individuals' psychological state and enhances organizational performance (Park et al., 2017). Social capital encompasses relationships, obligations, norms, and expectations among employees, which also contribute to organizational performance (Tran et al., 2020). The study adopts a three-dimensional conceptual framework, focusing on personnel within organizations. It aims to investigate the relationships between HRD mechanisms, different forms of capital, and job performance. The study will consider various aspects of HRD mechanisms, different dimensions of capital, and explore the mediating role of job performance.

This study aims to explore the influence of human, psychological, and sociological capital on employee work performance in industries with high returns and employee diversity. While the importance of all three capitals in enhancing performance is not extensively researched, integrating them can provide a holistic understanding of their collective impact (Yang & Lin, 2009). By examining these capitals simultaneously, their relative contributions to job performance can be better understood (Huang et al., 2020). Although literature debates the dominant influence among these capitals, the study will investigate the overall impact of all

النظريات المتعلقة بالعلاقة المهمة بين آليات الموارد البشرية ورأس المال النفسي والإنساني والاجتماعي التي تؤدي إلى الأداء الوظيفي.

**كلمات دلالية:** آلية الموارد البشرية ، رأس المال البشري ، رأس المال الاجتماعي ، الأداء الوظيفي ، أخصائيي الرعاية الصحية ، إعدادات الرعاية الصحية ، تحليل PLS-SEM

forms of capital on job performance. To comprehend their differential contributions, this research will compare the relationships and effects of these three capital categories. In evaluating employee performance, it is argued that psychological factors, which are not easily measurable, should be considered alongside employee interactions with colleagues, customers, and service staff (Marchante & Ortega, 2012).

## Theoretical Framework and Hypothesis Development

The resource-based view (RBV) theory serves as the study's theoretical foundation, highlighting the significance of resources and capabilities in establishing sustainable competitive advantage. Human resources encompass individuals' knowledge, skills, and talents contributing to their productivity (Polyhart et al., 2021). The RBV framework is well suited for examining the effects of HRD methods on developing HC, SC, and PsyC (Mackey & Barney, 2019). It provides a framework to integrate human, psychological, and social capital into job performance. By developing and leveraging unique human, organizational, and physical resources, companies can gain sustainable competitive advantage through the RBV paradigm (Fenech et al., 2019). HRD mechanisms serve as the means to create and enhance employees' human, psychological, and social capital.

HRD mechanisms enhance employees' human, psychological, and social capital. HRD processes develop employees' skills, knowledge, and abilities, enhancing human capital. Positive psychological states like optimism and resilience are fostered through HRD, enhancing psychological capital (Nolan & Garavan, 2016). Similarly, HRD helps establish social relationships and networks, enhancing social capital (Kuchinke, 2014). By developing and

leveraging these capitals, organizations can improve employee work performance. Higher human capital leads to increased productivity and value creation. Greater psychological capital boosts engagement, motivation, and commitment. Higher social capital provides access to resources and support, improving job performance. Integrating these capitals using the resource-based view theory allows organizations to take a comprehensive approach to human resource development, addressing various aspects of employee growth for improved performance. The study aims to assess the impact, significance, and relationship of HRD mechanisms with human, psychological, and social capital and evaluate the mediating role of HRD mechanisms on job performance through these capitals.

### Literature Review

According to Huang et al., (2020), this study assessed HRD mechanisms using indicators like career development, training and development, performance appraisal, and compensation. Descriptive statistics indicated that coaching, individual development strategies, and unbiased career guidance were significant factors in career development. Sinha (2020) emphasizes the need for organizations to provide training for employees' career improvement and personal development. Participants reported receiving appropriate guidance based on their job requirements. Yu et al., (2022) investigated the dimension of training and development in HRD mechanisms, highlighting the importance of knowledge, skills, and training programs. The study found that organizations recognized the value of training programs in meeting employees' training needs across all quality components.

The study focused on performance appraisal, finding that organizations prioritize growth and development. Employee performance is evaluated based on well-defined objectives and measurable outcomes, with quality discussions and feedback during performance reviews. Objective criteria and constructive feedback are deemed important in performance appraisal (Otoo & Mishra, 2018). Compensation was evaluated in terms of remuneration, allowances, job performance, and practices. Descriptive statistics showed that organizations offered competitive remuneration and allowances. Job performance played a crucial role in determining incentives and compensation practices aligned with organizational goals. This aligns with the argument that job performance influences compensation practices (Anitha, 2014).

HRD mechanisms aim to enhance employees' skills, knowledge, competencies, and abilities through approaches like mentoring, training programs, and career development (Jerin, 2021). Career development involves setting goals, identifying skill gaps, and acquiring new knowledge for advancement (Shuck et al., 2018). Performance appraisal, a part of HRD, assesses employees' job performance against established standards and expectations (Dangol, 2021). It provides feedback, identifies training needs, and guides professional development (Dagar, 2014). Performance appraisal results inform targeted HRD strategies for improving performance and achieving career goals (Song, 2022). Compensation is intertwined with HRD, attracting and retaining employees through monetary and non-monetary rewards (Nadarajah et al., 2012). Competitive compensation packages motivate employees and link pay to performance and advancement opportunities. HRD enhances employee skills, increasing their value to the organization and reflecting in their compensation (Torraco & Lundgren, 2020). HRD and compensation work together to improve productivity and retain top talent.

### HRD Mechanisms and the three various capitals

The study evaluated various types of capital, including human capital (HC), psychological capital (PsyC), and social capital (SC), to understand their association with HRD mechanisms. Descriptive statistics revealed that employees' ability to apply new knowledge effectively improves their work performance (Albrecht et al., 2015). HRD mechanisms support employees' learning abilities, enabling them to generate new and innovative ideas.

The study evaluated the impact of HRD on three types of capital: HC, PsyC, and SC. The HC dimension was assessed through respondents' statements about their work performance, skill development, and knowledge acquisition. The results revealed that HRD mechanisms improved the respondents' ability to transform new knowledge into effective beliefs, leading to better work performance. Moreover, HRD facilitated their learning abilities, enabling them to convert current knowledge into innovative concepts.

Regarding the PsyC, the respondents reported that HRD helped them feel more confident in analyzing long-term issues and developing solutions. They also felt more represented in departmental meetings and able to contribute to conversations about the company's direction.

Another notable finding was that employees were psychologically strong enough to devise several solutions in difficult situations and pursue their professional goals with rigor. Based on these attributes, the respondents believed that they were successful in organizing their responsibilities simultaneously, anticipating future challenges, and managing workplace uncertainties. However, they also reported experiencing setbacks and encountering workplace diversity.

These findings are supported by previous research proclaimed by (Reio Jr & Batista, 2014), who noted the positive impact of HRD on PsyC, and (Park et al., 2021), who highlighted the importance of PsyC for problem solving and goal achievement. Muduli et al., (2019) also emphasized the challenges of workplace diversity and the need for HRD to address them effectively.

The SC dimension was assessed through statements related to social relationships, interactions, opportunities realization, behavioral consistency, and helping behavior (Oh et al., 2022). The study found that most employees had close relationships with their colleagues and cooperated with them despite differences in opportunities. The employees also shared the organization's values of helping others (Alagaraja et al., 2015). In addition, effective HRD programs can help employees stay up-to-date with new technologies and trends, enhancing their ability to perform their jobs efficiently and add value to the organization (Wen et al., 2019). Based on these findings, the following hypothesis is proposed:

*H1a.* Human Resource Development mechanisms shows positive impact on human capital.

*H1b.* Human Resource Development mechanisms shows positive impact on psychological capital.

*H1c.* Human Resource Development mechanisms shows positive impact on social performance.

*H1d.* Human Resource Development mechanisms shows positive impact on job performance.

### **Human Capital**

The concept of HC relates to intangible assets, such as knowledge and skills that individuals possess and can use to create economic value. Research has shown that investing in HC can have significant implications for organizations. It

is widely acknowledged that HC is crucial for workers to acquire new skills and knowledge, produce high-quality work, and achieve success in their careers. The HC theory has a significant amount of evidence that supports the importance of HC in determining job performance. HC theory suggests that individuals can gain capital through education, training, and schooling, which can enhance productivity for both individuals and organizations. Although several studies have examined the link between HC and firm performance (Chowdhury et al., 2014), few studies have investigated the impact of HC on individual employee performance (Bontis & Fitzenz, 2002).

Chowdhury et al., (2014) have highlighted that the nature of job tasks is a significant factor in determining the relationship between employees' HC and JP. According to their research, task-specific experience has a greater impact on small firms' revenue productivity than firm-specific HC. Therefore, when examining the relationship between an individual's HC and their JP, it is essential to consider the job's nature (Ozyilmaz, 2020). For instance, employees in customer-facing positions in the hospitality industry need to incorporate emotional intelligence and emotional inputs into their daily work (Wen et al., 2019).

Building upon prior research, it has been found that job demands and resources moderate the relationship between HC and JP. Specifically, Bakker & Demerouti (2017) found that job resources, such as social support and feedback, could enhance the relationship between HC and JP, while high job demands, such as heavy workload and time pressure, can weaken the relationship. Therefore, in order to maximize the positive impact of HC on JP, organizations should aim to create a work environment that provides employees with sufficient job resources and minimizes job demands (Albrecht et al., 2015). Based on these findings, the following hypothesis is proposed:

*H2:* Human capital has a positive impact on job performance.

### **Psychological Capital**

According to Ivanovic & Ivancevic (2022), having high psychological capital (PsyC) can help individuals consistently succeed and navigate their path in the right direction. Individuals with high PsyC possess qualities such as overcoming obstacles, demonstrating persistence in the face of adversity, and



maintaining a positive attitude towards their achievements in the present and future. Moreover, PsyC is considered a psychological resource that can be objectively evaluated, developed, and managed. Employees with high PsyC can take control of organizational outcomes and are highly effective and determined in achieving their goals. Furthermore, PsyC can enhance employees' confidence in their decision-making abilities, encourage them to take calculated risks, and enable them to sustain the business even in challenging situations.

Research suggests that PsyC has a significant impact on workplace attitudes, as well as creativity and innovation (Luthans et al., 2007). PsyC refers to a set of personal assets that can improve employee well-being and productivity while also reducing workplace stress and burnout. One of the advantages of PsyC is its developmental nature, which means that individuals with lower levels of PsyC can develop or enhance their skills in this area (Luthans et al., 2007). Research from various cultures strongly supports the benefits of PsyC for problem-solving and maintaining organizational competitiveness. Furthermore, having high PsyC can lead to better overall well-being, both inside and outside of work. Based on these findings, we propose the following hypothesis:

*H3.* Psychological capital has a positive impact on job performance.

### Social Capital

Carnevale & Hatak (2020) define "social capital" as a broad concept that encompasses the potential benefits an organization can derive from interactions among its members. They describe social capital as "social networks and the norms of reciprocity and trust that emerge from them." Social capital is considered an intangible asset of any organization, and positive interactions among stakeholders are an essential part of it. When there is mutual trust in connections, social capital can be sustained. Furthermore, as social capital increases, new social equilibria may emerge among participants, leading to higher levels of cooperation, reciprocity, trust, and overall community well-being (Wilton, 2019).

While challenging to obtain, social capital is a vital component for companies and requires effort to develop. Although extensively studied in institutional settings, the causes and effects of social capital remain unclear. Social capital

encompasses factors such as mutual respect and obligation, trust between group members, reciprocity, and the free exchange of information and knowledge, among others. High levels of social capital have been linked to positive organizational outcomes, including increased sales and revenue (Kenedi et al., 2022). Despite growing recognition of its importance, there remain significant gaps in empirical research on social capital. There is a positive correlation between social capital and occupational happiness. Based on this reasoning, we propose the following hypothesis:

*H4:* Social capital has a positive and significant impact on job performance.

### HRD Mechanisms and Job Performance

To explore the relationship between HRD mechanisms and JP, the study examined by (Swanson, 2022) on various aspects of JP, such as specific job opportunities, performance standards and expectations, performance level, job effectiveness, employee comparison, and the quality of work. The results revealed that employees were able to meet their job responsibilities and perform according to established standards and expectations. They reported satisfactory performance levels and were effective in their roles. The study also found that employees outperformed their colleagues in the same position and produced high-quality work.

HRD mechanisms refer to the various methods and processes used to educate, train, and develop employees within an organization. Examples of HRD mechanisms include on-the-job training, mentoring programs, and formal education and development classes. Several studies have shown a positive correlation between HRD mechanisms and JP. However, the role of different types of capital in this relationship has been overlooked due to the varying dimensions of capital (Huang et al., 2020). Regular training and development opportunities can provide employees with the skills and knowledge necessary to perform their job effectively, which can contribute to their job satisfaction and motivation (Marchante & Ortega, 2012).

HRD mechanisms, like training, mentoring, and career development, significantly impact job performance (JP). They enhance employees' knowledge, skills, and abilities, increasing efficiency and effectiveness (Soo et al., 2017). HRD also boosts motivation, satisfaction, and engagement, leading to improved JP (Avey et al.,

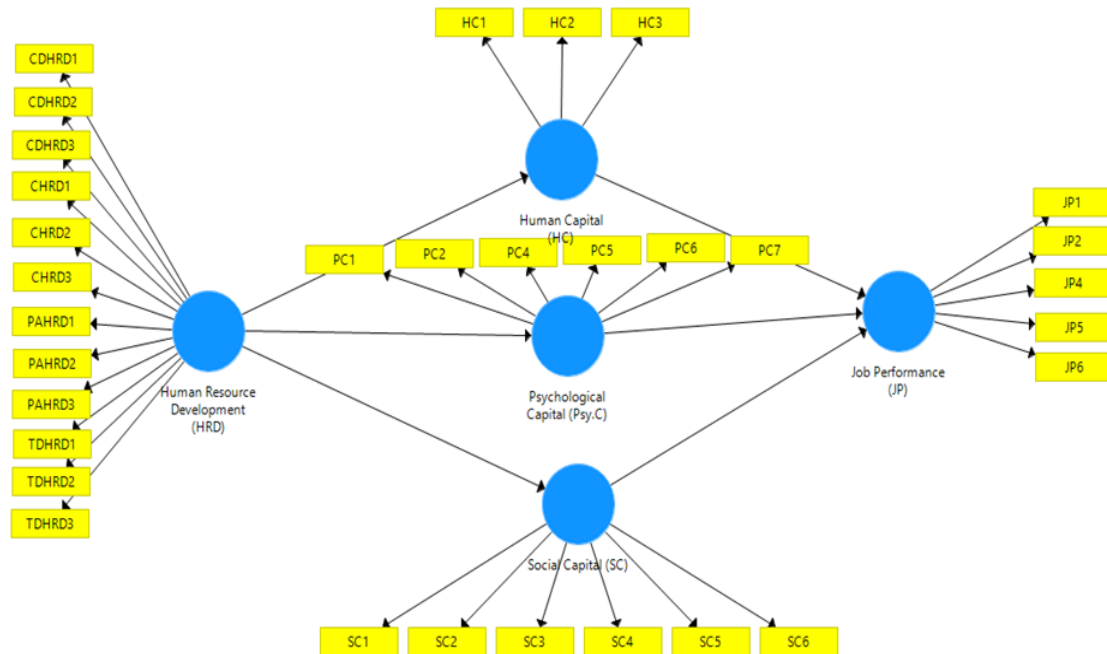
2011). Additionally, HRD helps employees adapt to job changes and new technologies, enhancing JP and organizational value. It can be delivered through on-the-job training, formal education, or e-learning. Customization, regular review, and updates optimize the effectiveness of HRD mechanisms for individuals and organizations (Kim et al., 2017). This aligns with Huang et al.'s (2020) argument that HRD, along with human, psychological, and social capital, helps cope with stressful conditions. Research suggests self-efficacy improves work performance. Therefore,

HRD mechanisms are crucial for supporting employee development, improving JP, and strengthening human, psychological, and social abilities. Thus, we propose the hypothesis:

*H5:* Human capital mediates between HRD mechanism and Job performance.

*H6:* Psychological mediates between HRD mechanism and Job performance.

*H7:* Social capital mediates between HRD mechanism and Job performance.



**Figure 1.** Theoretical Model

**Research Methodology**

**Research Method**

The study employs a quantitative research method to achieve the study's research objectives. The method was chosen because it successfully delivered numerical (or non-textual) information to relate HRD mechanism and job performance through human, psychological and social capital (Huang et al., 2020). The study quantitatively analyzed the HRD methods and its relationship to job performance rather than conducting an in-depth assessment.

**Population and Sampling**

The target population for the study were healthcare professionals who are working in private industries inside the kingdom of Saudi Arabia, and it was distributed within nurses,

pharmacists, dentists, physicians and psychologists exclusively in Jeddah, Dammam and Riyadh. However, given the cost and time constraints, the study employed a representative sample of employees using probability sampling strategy.

**Sample Size**

The study analyzed data from 201 employees (including nurses, pharmacists, dentists, physicians and psychologists) out of the initial 330 participants. These employees had over 3 years of experience and worked in various public and private healthcare settings. The survey included full-time staff members in healthcare professions and public and private healthcare sectors.

## Research Instruments

The study employed survey questionnaire as a research instrument to evaluate the impact of HRD mechanism on the three various capitals which are human, psychological and social, and how it lead to job performance. This study's data collection process was inspired by prior related research related to HRD, SC, PsyC, HC and JP. As the research tool for this study, a survey questionnaire was used which was adopted from the scales of Huang et al. (2020). The rationale for using the instrument is that it allows incorporating measurement procedures that require primary data from respondent by asking questions (Taherdoost, 2016). To outline the overall goal of the questions I started the questionnaire with statement included the purpose, benefits and assurance of anonymity of the respondents. After the statement, there was four parts for the respondents to fill. First part included demographic details to regulate the type of targeted respondents. Second part HRD mechanism, which included four subcategories (Career Development – Training – Performance Appraisal - Compensation). The last parts were specified for each variable separately (HC - PsyC - SC – JP). Given the time span, the study was

conducted using cross-sectional surveys and questions were close ended. The study assessed the survey questionnaire using the 5-point Likert scale that range from strongly disagree to strongly agree.

## Result Analysis

The questionnaire collected demographic data and assessed HRD mechanisms (career development, training, performance appraisal, and compensation), human capital, psychological capital, social capital, and job performance. Frequency descriptive statistics were used to analyze the gathered data and achieve research objectives. The analysis examines the association between HRD mechanisms and job performance, considering human, social, and psychological capital. The subsequent sections provide an overview of the analysis based on respondent information.

Table 1 shows the results related to the demographic characteristics of the statistical sample that was analyzed. These characteristics included gender, age, marital status, working experiences, education, healthcare professionals and healthcare settings of the respondents.

**Table 1.**  
*Demographic Analysis*

		N	%
Gender	Male	76	37.8%
	Female	125	62.2%
Age	18-24 years	18	9.0%
	25-34 years	76	37.8%
	35-44 years	36	17.9%
	45-54 years	37	18.4%
	55-64 years	34	16.9%
Experience	1-3 years	49	24.4%
	4-6 years	31	15.4%
	7-9 years	29	14.4%
	10-12 years	12	6.0%
	13-15 years	80	39.8%
Education	Diploma holder	17	8.5%
	Bachelor	36	17.9%
Marital Status	Master and above	148	73.6%
	Married	138	68.7%
Healthcare Professionals	Unmarried	63	31.3%
	Nurses	51	25.4%
	Pharmacists	10	5.0%
	Dentists	21	10.4%
	Physicians	26	12.9%
Healthcare Settings	Psychologists	93	46.3%
	Private	76	37.8%
	Public	125	62.2%

### Testing Descriptive Statistics

The descriptive analysis has been performed with the help of SPSS software version 25 to test the mean score, standard deviation and normality

assumptions of the gathered data from respondents. For this reason, the study has used the descriptive statistics to demonstrate the measurement items of HRD mechanism, capital and JP.

**Table 2.**  
*Descriptive Statistics & Bivariate Pearson Correlation*

	Descriptive		Bivariate Pearson Correlations				
	Mean	SD	1	2	3	4	5
Gender	1.6219	0.486					
AGE	2.965	1.266					
Marital Status	1.313	0.465					
Working Experience	3.213	1.658					
Education level	2.651	0.630					
Healthcare Professionals	3.497	1.676					
Healthcare Settings	1.621	0.486					
Human Resource Development (HRD)	3.958	0.713	1				
Human Capital (HC)	4.312	0.551	.693**	1			
Psychological Capital (Psy.C)	4.035	0.523	.661**	.702**	1		
Social Capital (SC)	3.999	0.617	.668**	.659**	.746**	1	
Job Performance (JP)	4.325	0.527	.479**	.579**	.610**	.590**	1

*Note 1: \*\*. Correlation is significant at the 0.01 level (2-tailed).*

Table 2 shows that HRD mechanism has been assessed with the help of career development, training and development, performance appraisal and compensation. The table 2 indicates that mean score of all items were greater than 2.5 reflecting general agreement of respondents on the statements (Huang et al., 2020). Whereas

absolute values of Bivariate Pearson Correlations (less than 8) affirm that, there was no violation of normality in the data (Katou, 2009). The standard deviation of the results indicates that they are closely related to the mean, which correlate the significance of the results.



**Table 3.**  
*Fitting Measurement Model*

Constructs	Items	Type	Loadings	$\alpha$	rho-A	CR	AVE	VIF
Human Resource Development	CDHRD1	Reflective	0.768	0.929	0.931	0.939	0.561	2631
	CDHRD1		0.738					2411
	CDHRD1		0.706					1834
	CHRD1		0.624					1724
	CHRD1		0.750					2442
	CHRD1		0.761					2469
	PAHRD1		0.789					2671
	PAHRD1		0.764					2886
	PAHRD1		0.782					2547
	TDHRD1		0.753					2200
	TDHRD1		0.791					2437
	TDHRD1		0.793					2555
Human Capital	HC1	Reflective	0.873	0.801	0.812	0.883	0.716	1918
	HC2		0.783					1495
	HC3		0.879					2035
Psychological Capital	PC1	Reflective	0.710	0.834	0.837	0.878	0.547	1610
	PC2		0.794					2006
	PC4		0.738					1737
	PC5		0.707					1558
	PC6		0.711					1633
	PC7		0.773					1707
Social Capital	SC1	Reflective	0.721	0.834	0.852	0.878	0.549	1737
	SC2		0.652					1599
	SC3		0.607					1407
	SC4		0.828					2224
	SC5		0.793					2184
	SC6		0.815					2570
Job Performance	JP1	Reflective	0.822	0.860	0.867	0.900	0.643	2222
	JP2		0.837					2259
	JP4		0.826					2023
	JP5		0.706					1606
	JP6		0.810					1989

a= cronbach alpha; CR = composite reliability; AVE = average variance extracted; VIF = variance inflation factor; BCCI = bias corrected confidence interval.

The PLS-SEM method utilizes three criteria, namely reliability, convergent validity, and divergent validity, to assess the fitness of measurement models. The model analysis algorithm has yielded the following results. To evaluate reliability, three criteria, namely factor load coefficients, Cronbach's alpha, and combined reliability, have been used. Factor load measurement is indicative of a strong level of significance and high correlation between observation and factor variables. A factor analysis value above 0.5 signifies a well-defined structure. Cronbach's alpha is an acceptable final indicator if the value is above 0.7, but for variables with a small number of questions, a value of 0.6 has been introduced as the limit of Cronbach's alpha coefficient. Combined reliability is more realistic and accurate than Cronbach's alpha because it factors in the

importance of indices with higher factor loads in the calculation of CR. Therefore, CR values provide a more accurate representation of the structure. Convergent validity, the second criterion used to assess the fitness of measurement models in the partial least squares method, has yielded higher average variance extracted (AVE) and composite reliability values. This indicates better construct reliability and validity, leading to results that are more reliable. All Variance Inflation Factor (VIF) values were found to be less than 5, meeting the criteria for independence between the model and variables. The primary objective is to maximize the explained variance in the dependent constructs while also assessing the quality of data based on measurement model characteristics. The indicators suggest that the greater the correlation, the better the fit.

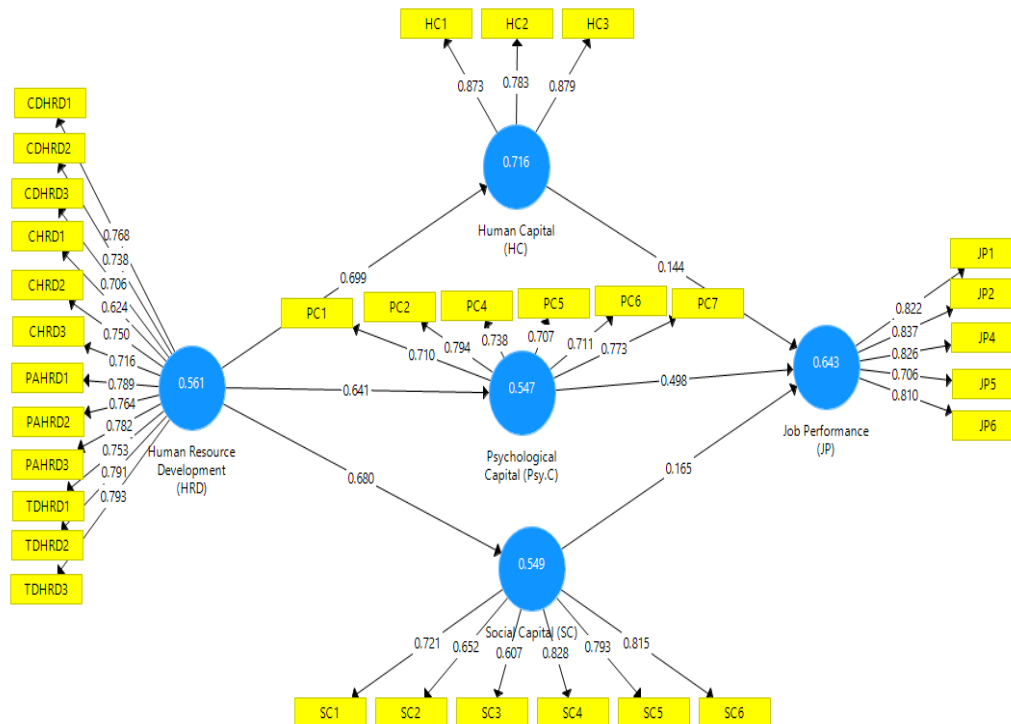


Figure 2. PLS –SEM Algorithm

To address the issue of multicollinearity, a discriminant validity test was conducted using the Fornell-Larcker Criterion and HTMT Criterion technique. The Fornell & Larcker (1981) criterion was utilized to examine the model's discriminant validity, wherein the diagonal values of constructs should be greater than their correlation with other constructs. As

presented in Table 4, the square root of all diagonal values for each construct exceeds its correlation with other constructs. The heterotrait-monotrait (HTMT) approach's accepted values can be lower than 0.85 (Henseler et al., 2015). The results affirm the discriminant validity of the model.

Table 4. Discriminant validity using Fornell-Larcker Criterion and HTMT Criterion

	Fornell-Larcker Criterion					Hetro-Trait Mono -Trait (HTMT) Criterion				
	HC	HRD	JP	Psy.C	SC	HC	HRD	JP	Psy.C	SC
HC	<b>0.846</b>									
HRD	0.699	<b>0.749</b>				0.805				
JP	0.609	0.515	<b>0.802</b>			0.723	0.566			
Psy.C	0.710	0.641	0.720	<b>0.739</b>		0.866	0.721	0.840		
SC	0.676	0.680	0.625	0.728	<b>0.741</b>	0.814	0.749	0.742	0.832	

Note: The bold numbers in diagonal in Fornell-Larcker section are square root of AVE of each construct, and other numbers are correlation between constructs

**Prognostic relevance of study model**

To assess the prognostic relevance of the model, the current study utilized two methods: R2 and cross-validated redundancy. Previous research has utilized R-squared to determine the model's predictive power (Hair, 2011; Henseler et al., 2015). If the R2 value is greater than 0.26, it is considered substantial, while a value within the range of 0.13 to 0.26 is deemed moderate, and a

value within the range of 0.02 to 0.13 is considered weak. In the present study, the R2 values for human capital, psychological capital, social capital, and job performance all fall within the substantial range. Furthermore, cross-validated redundancy is another factor used to assess the quality of the research model. The blindfolding technique in SmartPLS is used to accomplish this, and it requires the researcher to exclude certain data values, which are then

treated as missing values. The blindfolding running technique employs an omission distance of 7, and after this process, certain values are generated and compared to the assumed results to determine how close or far they are from the actual results. The criterion for determining the model's prognostic relevance is that the values

must be above 0, and Table 5 demonstrates that the current study satisfies this criterion. The cross-validated redundancy for human capital is 0.343, for psychological capital, it is 0.218, for social capital, it is 0.247, and for job performance, it is 0.345.

**Table 5.**  
*Prognostic accuracy and relevance of the model*

Variables	R-Squared (R2)	(Q2)
Human Capital	0.488	0.343
Psychological Capital	0.411	0.218
Socail Capital	0.462	0.247
Job Performance	0.549	0.345

### Hypothesis Testing

Table 6 displays the beta values that indicate the strength and significance of the positive relationship between the independent and dependent variables, as well as the mediators. The results show that Human resource development has a substantial impact on Job performance ( $\beta = 0.532$ , mean 0.537, SD = 0.040,  $t = 13.389$ ,  $p = 0.000$ ), and it also has a positive and significant effect on Human capital ( $\beta = 0.699$ , mean 0.701, SD = 0.032,  $t = 22.16$ ,  $P = 0.000$ ), Psychological capital ( $\beta = 0.641$ , mean 0.647, SD = 0.042,  $t = 15.34$ ,  $P = 0.000$ ), and Social capital ( $\beta = 0.680$ , mean 0.701, SD = 0.032,  $t = 22.16$ ,  $P = 0.000$ ). Moreover, Human capital has a positive and significant effect on Job performance ( $\beta = 0.144$ , mean 0.143, SD = 0.078,  $t = 1.836$ ,  $P = 0.018$ ), while Psychological capital ( $\beta = 0.498$ , mean 0.504, SD = 0.083,  $t = 6.022$ ,  $P = 0.000$ ) and Social capital ( $\beta = 0.165$ , mean 0.162, SD = 0.072,  $t = 2.361$ ,  $P = 0.019$ ) also have significant effects on Job performance.

The findings indicates that Human capital mediates the link between human resource development and job performance. The values of indirect effects ( $\beta = 0.100$ ,  $t = 1.840$ ,  $P = 0.000$ ) are significant, which clearly depicts that human capital partially mediates the impact of human resource development on job performance. Hence, the findings support H2.

Secondly, the outcomes also reveals that Psychological capital mediates the link between human resource development and job performance. The results reveal that indirect effects ( $\beta = 0.326$ ,  $t = 5.461$ ,  $p = 0.000$ ) are significant and support H3.

Finally, the results also suggest that Social capital partially mediates these effects, because the indirect effect ( $\beta = 0.110$ ,  $t = 2.336$ ,  $p = 0.020$ ) are significant. Therefore, H4 is accepted. Overall, all the hypothesis are significant and acceptable.

**Table 6.**  
*Results of Hypothesis Testing*

Hypothesis	Direct / Indirect Effect	Sample Mean	STDEV	T Value	P values	Bias	Bias Corrected		Hypothesis Supported
							5.00%	95.00%	
H1a	HRD -> HC	0.701	0.032	22.16	0.000	0.003	0.628	0.754	Supported
H1b	HRD -> Psy.C	0.647	0.042	15.340	0.000	0.006	0.558	0.716	Supported
H1c	HRD -> SC	0.682	0.036	19.134	0.000	0.002	0.602	0.739	Supported
H1d	HRD -> JP	0.537	0.040	13.389	0.000	0.005	0.440	0.597	Supported
H2	HC -> JP	0.143	0.078	1.836	0.018	-0.001	-0.006	0.308	Supported
H3	Psy.C -> JP	0.504	0.083	6.022	0.000	0.006	0.310	0.642	Supported
H4	SC -> JP	0.162	0.072	2.361	0.019	-0.003	0.030	0.316	Supported
H5	HRD -> HC -> JP	0.100	0.055	1.840	0.000	-0.001	0.000	0.210	Supported
H6	HRD -> Psy.C -> JP	0.326	0.058	5.461	0.000	0.007	0.198	0.429	Supported
H7	HRD -> SC -> JP	0.110	0.048	2.336	0.020	-0.002	0.021	0.220	Supported

Note: HRD denotes Human Resource Development; HC denotes Human Capital; Psy.C denotes Psychological Capital; SC denotes Social Capital; JP denotes Job Performance

**Discussion**

The primary objective of this study was to examine how the implementation of HRD (Human Resource Development) mechanism affects the human, psychological, and social capital of healthcare professionals working in public and private healthcare facilities in Saudi Arabia, and how this ultimately affects their job performance. The research conducted was both descriptive and quantitative in nature. The above-mentioned literature's theories were utilized and incorporated to improve our comprehension of how HRD impacts social, psychological, human capital, and job performance.

The findings indicate that the HRD mechanism has significant and substantial impact on job performance. These results are in agreement with a previous study by Soo et al., (2017), which suggests that the HRD mechanism has a significant effect on job performance in healthcare settings. The results demonstrate that Human Resource Development has a significant effect on Job performance ( $\beta = 0.532$ , mean 0.537, SD = 0.040,  $t = 13.389$ ,  $p = 0.000$ ), providing support for our hypothesis H1d.

Avey et al., (2011) research suggests that Human Resource Development has a positive and significant impact on Human capital ( $\beta = 0.699$ , mean 0.701, SD = 0.032,  $t = 22.16$ ,  $P = 0.000$ ), which supports hypothesis H1a. Similarly, (Reio & Batista, 2014) found that Human Resource Development has a positive influence on psychological capital ( $\beta = 0.641$ , mean 0.647, SD = 0.042,  $t = 15.34$ ,  $P = 0.000$ ), thus supporting hypothesis H1b. Alagaraja et al., (2015) revealed that Human Resource Development significantly affects social capital ( $\beta = 0.680$ , mean 0.701, SD = 0.032,  $t = 22.16$ ,  $P = 0.000$ ), lending support to hypothesis H1c. Finally, Albrecht's et al., (2015) study discloses that Human capital has a positive

and significant effect on Job performance ( $\beta = 0.144$ , mean 0.143, SD = 0.078,  $t = 1.836$ ,  $P = 0.018$ ), thereby supporting hypothesis H5.

Park's et al., (2021) research indicated that psychological capital has a significant impact on Job performance ( $\beta = 0.498$ , mean 0.504, SD = 0.083,  $t = 6.022$ ,  $P = 0.000$ ), providing evidence in support of hypothesis H6. Furthermore, research by (Jeong et al. 2022) demonstrated that Social capital has a significant effect on Job performance ( $\beta = 0.165$ , mean 0.162, SD = 0.072,  $t = 2.361$ ,  $P = 0.019$ ), thus confirming hypothesis H7.

Table 6 reveals that the outcomes illustrate how social, psychological, and human capital serve as mediators in the association between HRD mechanism and Job performance. Both the direct and indirect effects are meaningful, indicating partial mediation, which corresponds to (Huang et al., 2020) research.

The current study used two things to determine the prognostic relevance of our model; first is R2 and the second is cross-validated redundancy. The findings in table 5 indicates that HRD mechanism have a Strong and significant effect on human, psychological, social and Job performance. In the current research, R2 values of human capital, psychological capital, social capital and job performance lies in substantial case. However, the criterion of the predictive relevance of model by cross-validated redundancy (Q2) is that values must be above than 0, and Table 5 shows that the current study fulfills this criterion. Cross-validated redundancy for Human capital is 0.343, Psychological capital is 0.218, Social capital is 0.247 and Job performance is 0.345. Table 7 clearly shows the SRMR value (0.071) and NFI value (0.921) further validated a good fit model.

**Table 7.**  
*Model assessment through Blindfolding effect*

Variables	SRMR	NFI	SSO	SSE	Q <sup>2</sup>	Q <sup>2</sup> Effect
<b>HRD</b>	0.071	0.921				
<b>HC</b>			603.00	396.47	0.343	Medium
<b>Psy.C</b>			1206.00	942.60	0.218	Medium
<b>SC</b>			1206.00	908.59	0.247	Medium
<b>JP</b>			1005.00	658.53	0.345	Medium

Note: SRMR(Standardized Root Mean Square Residual); NFI (Normed Fit Index); SSO (Sum of Squares of Observations); SSE (Sum of Squares of Errors)

## Conclusion

Our study confirms the significant impact of HRD mechanisms and the three forms of capital on healthcare professionals in public and private sectors. It identifies key HRD practices and the mediating effect of psychological, social, and human capital on job performance. The findings suggest organizations can improve job performance by focusing on these capitals. The study contributes to theory, methodology, and practice, emphasizing the importance of satisfied, social employees for productivity. Employee psychological and sociological factors play a crucial role in enhancing job performance through HRD mechanisms.

### *Theoretical implication*

This study offers empirical evidence supporting the theory of HRD mechanism and its impact on Psychological, Human, and social capital, ultimately leading to enhanced job performance in the healthcare industry. The results highlight the usefulness of HRD mechanisms such as training, coaching, and career development in significantly influencing job performance by enabling employees to acquire the necessary knowledge, skills, and abilities to perform their jobs effectively (Soo et al., 2017). Moreover, these mechanisms can improve employee motivation, job satisfaction, and engagement, resulting in better job performance (Avey et al., 2011). HRD mechanisms enhance employee adaptability, job performance, and organizational value. Methods like on-the-job training, formal education, and e-learning can be effective. Customized and regularly updated HRD approaches align with individual and organizational needs, ensuring relevance and effectiveness (Kim et al., 2017).

Overall, HRD mechanisms enhance job performance by strengthening human, psychological, and social abilities. This study explores the individual effects of the three capitals on performance, highlighting their importance in improving service employee performance. Previous research supports the critical role of all three capitals in employee development (Wen et al., 2019).

### *Practical implications*

PLS analysis provided practical insights for healthcare professionals in Saudi Arabia, guiding managers on improving job performance through HRD and capital forms. Professionals acknowledged the value of HRD for their

development and maintaining work-life balance. Organizations can leverage this model to achieve long-term goals and pursue further progress.

### *Limitations of the Study*

Limitations include not using all subscales and treating variables as a single summarization. Future research should explore specific subscales like career development, compensation, and performance appraisal. Longitudinal studies with larger, more detailed data are recommended. Increasing the number of respondents beyond 201 would yield results that are more accurate.

## Bibliographic references

- Alagaraja, M., Cumberland, D.M., & Choi, N. (2015). The mediating role of leadership and people management practices on HRD and organizational performance. *Human Resource Development International*, 18(3), 220-234.7  
<https://doi.org/10.1080/13678868.2014.997139>
- Albrecht, S.L., Bakker, A.B., Gruman, J.A., Macey W.H., & Saks, A.M. (2015). Employee engagement, human resource management practices and competitive advantage: An integrated approach. *Journal of Organizational Effectiveness: People and Performance*.  
<https://doi.org/10.1108/JOEPP-08-2014-0042>
- Anitha, J. (2014). Determinants of employee engagement and their impact on employee performance. *International journal of productivity and performance management*.  
<https://doi.org/10.1108/IJPPM-01-2013-0008>
- Avey, J.B., Reichard, R.J., Luthans, F., & Mhatre, K.H. (2011). Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. *Human resource development quarterly*, 22(2), pp.127-152. <https://doi.org/10.1002/hrdq.20070>
- Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273-285. <https://doi.org/10.1037/ocp0000056>
- Bontis, N., & Fitz-enz, J. (2002), "Intellectual capital ROI: a causal map of human capital antecedents and consequents", *Journal of Intellectual Capital*, 3(3), 223-247. <https://doi.org/10.1108/14691930210435589>
- Carnevale, J.B., & Hatak, I. (2020). Employee adjustment and well-being in the era of



- COVID-19: Implications for human resource management. *Journal of business research*, 116, 183-187. <https://doi.org/10.1016/j.jbusres.2020.05.037>
- Chowdhury, S., Schulz, E., Milner, M., & Van De Voort, D. (2014). Core employee based human capital and revenue productivity in small firms: An empirical investigation. *Journal of Business Research*, 67(11), 2473-2479. <https://doi.org/10.1016/j.jbusres.2014.03.007>
- Dagar, A. (2014). Review of performance appraisal techniques. *International Research Journal of Commerce Arts and Science*, 5(10), 16 <https://doi.org/10.32804/CASIRJ>
- Dangol, P. (2021). Role of performance appraisal system and its impact on employees motivation. *Quantitative Economics and Management Studies*, 2(1), 13-26. <https://doi.org/10.35877/454RI.qems119>
- Dobrowolski, Z., Drozdowski, G., Panait, M., & Babczuk, A. (2022). Can the economic value added Be used as the universal financial metric?. *Sustainability*, 14(5), 2967. <https://doi.org/10.3390/su14052967>
- Fenech, R., Baguant, P., & Ivanov, D. (2019). The changing role of human resource management in an era of digital transformation. *Journal of Management Information & Decision Sciences*, 22(2). [http://dx.doi.org/10.21511/ppm.21\(1\).2023.02](http://dx.doi.org/10.21511/ppm.21(1).2023.02)
- Fornell, C., & Larcker, D.F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18, 39-50. <https://doi.org/10.1177/002224378101800104>
- Ganguly, A., Talukdar, A., & Chatterjee, D. (2019). Evaluating the role of social capital, tacit knowledge sharing, knowledge quality and reciprocity in determining innovation capability of an organization. *Journal of knowledge management*. <https://doi.org/10.1108/JKM-03-2018-0190>
- Hair, J. F. (2011). *Multivariate data analysis: A global perspective* (7th ed.). Pearson Education.
- Henseler, J., Ringle, C.M., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling. *Journal of the Academy of Marketing Science*, 43, 115-135. <https://doi.org/10.1007/s11747-014-0403-8>
- Hindasah, L., & Nuryakin, N. (2020). The relationship between organizational capability, organizational learning and financial performance. *The Journal of Asian Finance, Economics and Business*, 7(8), 625-633. <https://doi.org/10.13106/jafeb.2020.vol7.no8.625>
- Huang, S.S., Yu, Z., Shao, Y., Yu, M., & Li, Z. (2020). Relative effects of human capital, social capital and psychological capital on hotel employees' job performance. *International Journal of Contemporary Hospitality Management*. <https://doi.org/10.1108/IJCHM-07-2020-0650>
- Ivanovic, T., & Ivancevic, S. (2022). Human resource management. In *Encyclopedia of Tourism Management and Marketing* (pp. 621-624). Edward Elgar Publishing. Retrieved from <https://www.e-elgar.com>
- Jerin, V.A. (2021). Potential Appraisal and Development in Human Resource Development (HRD): A Review. *Asian Journal of Agricultural Extension, Economics & Sociology*, 39(2), 111-117. <http://dx.doi.org/10.9734/ajaees/2021/v39i230536>
- Katou, A.A. (2009). The impact of human resource development on organisational performance: Test of a causal model. *Journal of Behavioral and Applied Management*, 10(3), 335-356. <https://doi.org/10.21818/001c.17264>
- Kenedi, J., Satriawan, B., & Khaddafi, M. (2022). The Effect Of Organizational Culture On Employee Performance. *International Journal of Educational Review, Law And Social Sciences (IJERLAS)*, 2(6), 817-826. <https://doi.org/10.54443/ijerlas.v2i6.443>
- Kim, T.T., Karatepe, O.M., Lee, G., Lee, S., Hur, K., & Xijing, C. (2017). Does hotel employees' quality of work life mediate the effect of psychological capital on job outcomes. *International Journal of Contemporary Hospitality Management*. <http://dx.doi.org/10.1108/IJCHM-04-2016-0224>
- Kuchinke, K.P. (2014). Perspectives on the concept of development for HRD. *Handbook of human resource development*, 112-124. <https://doi.org/10.1002/9781118839881.ch7>
- Luthans, F., Avolio, B., Avey, J., & Norman, S. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60(3), 541-572. <https://doi.org/10.1111/j.1744-6570.2007.00083.x>

- Mackey, A., & Barney, J.B. (2019). Towards a human-capital resource-based theory of the firm. In *Handbook of Research on Strategic Human Capital Resources* (pp. 307-313). Edward Elgar Publishing. <https://doi.org/10.4337/9781788116695.00031>
- Marchante, A.J., & Ortega, B. (2012). Human capital and labor productivity: A study for the hotel industry. *Cornell Hospitality Quarterly*, 53(1), 20-30. <https://doi.org/10.1177/1938965511427698>
- Muduli, A., Abichandani, Y., Bhaduri, R.M., & Chaudhuri, S. (2019). Changing perceptions of HRD in India. *Human Resource Development International*, pp.1-13. <https://doi.org/10.1080/13678868.2019.1664179>
- Nadarajah, S., Kadiresan, V., Kumar, R., Kamil, N.N.A. & Yusoff, Y.M. (2012). The relationship of HR practices and job performance of academicians towards career development in Malaysian private higher institutions. *Procedia-Social and Behavioral Sciences*, 57, 102-118. <https://doi.org/10.1016/j.sbspro.2012.09.1163>
- Nolan, C.T., & Garavan, T.N. (2016). Human resource development in SMEs: A systematic review of the literature. *International Journal of Management Reviews*, 18(1), 85-107. <https://doi.org/10.1111/ijmr.12062>
- Oh, J., Jeong, S., Yoon, S.W., & Cho, D. (2022). The link between HRD professionals' social capital and career adaptability: a moderated mediation analysis of social network. *European Journal of Training and Development*. <http://dx.doi.org/10.1108/EJTD-09-2021-0134>
- Otoo, F.N.K., & Mishra, M., (2018). Measuring the impact of human resource development (HRD) practices on employee performance in small and medium scale enterprises. *European Journal of Training and Development*. <https://doi.org/10.1108/EJTD-07-2017-0061>
- Ozyilmaz, A. (2020). Hope and human capital enhance job engagement to improve workplace outcomes. *Journal of Occupational and Organizational Psychology*, 93(1), 187-214. <https://doi.org/10.1111/joop.12289>
- Park, J.G., Kim, J.S., Yoon, S.W., & Joo, B.K. (2017). The effects of empowering leadership on psychological well-being and job engagement: The mediating role of psychological capital. *Leadership & Organization Development Journal*. <https://doi.org/10.1108/EJTD-02-2022-0016>
- Park, S., Jeong, S., & Chai, D.S. (2021). Remote e-workers' psychological well-being and career development in the era of COVID-19: challenges, success factors, and the roles of HRD professionals. *Advances in Developing Human Resources*, 23(3), 222-236. <https://doi.org/10.1177/15234223211017849>
- Polyhart, R. E., Shepherd, W. J., & Strizver, S. D. (2021). The COVID-19 pandemic and new hire engagement: Relationships with unemployment rates, state restrictions, and organizational tenure. *Journal of Applied Psychology*, 106(4), 518-529. <https://doi.org/10.1037/apl0000917>
- Reio Jr, T.G., & Batista, L.C. (2014). Psychological foundations of HRD. *Handbook of human resource development*, 1-20. <https://doi.org/10.1002/9781118839881.fmatter>
- Shuck, B., McDonald, K., Rocco, T.S., Byrd, M. & Dawes, E. (2018). Human resources development and career development: Where are we, and where do we need to go. *New Horizons in Adult Education and Human Resource Development*, 30(1), pp.3-18. <https://doi.org/10.1002/nha3.20205>
- Sinha, R. (2020). Career development: An enabler for job satisfaction. In *Career development and job satisfaction*. IntechOpen, pp. 7. <http://dx.doi.org/10.5772/intechopen.91683>
- Song, Y. (2022). Discussion on the construction and application of performance appraisal in human resource management under the background of big data. *Int. J. Front. Sociol*, 4, pp.21-27. <http://dx.doi.org/10.25236/IJFS.2022.040105>
- Soo, C., Tian, A.W., Teo, S.T., & Cordery, J. (2017). Intellectual capital-enhancing HR, absorptive capacity, and innovation. *Human resource management*, 56(3), 431-454. <https://doi.org/10.1002/hrm.21783>
- Swanson, R.A. (2022). *Foundations of human resource development*. Berrett-Koehler Publishers. Retrieved from <https://bkconnection.com>
- Taherdoost, H. (2016). Validity and reliability of the research instrument; how to test the validation of a questionnaire/survey in a research. How to test the validation of a questionnaire/survey in research (August 10, 2016). <http://dx.doi.org/10.2139/ssrn.3205040>
- Torraco, R.J., & Lundgren, H. (2020). What HRD is doing—What HRD should be doing:

- The case for transforming HRD. *Human Resource Development Review*, 19(1), pp.39-65.  
<https://doi.org/10.1177/1534484319877058>
- Tran, D.T., Lee, L.Y., Nguyen, P.T., & Srisittiratkl, W. (2020). How leader characteristics and leader member exchange lead to social capital and job performance. *The Journal of Asian Finance, Economics and Business*, 7(1), 269-278.  
<https://doi.org/10.13106/jafeb.2020.vol7.no1.269>
- Wen, J., Huang, S.S., & Hou, P. (2019). Emotional intelligence, emotional labor, perceived organizational support, and job satisfaction: A moderated mediation model. *International Journal of Hospitality Management*, 81, 120-130.  
<https://doi.org/10.1016/j.ijhm.2019.01.009>
- Wilton, N. (2019). *An introduction to human resource management*. Sage Publications Ltd., 1-632.  
<https://openstax.org/books/principles-management/pages/1-introduction>
- Yang, C.C., & Lin, C.Y.Y. (2009). Does intellectual capital mediate the relationship between HRM and organizational performance? Perspective of a healthcare industry in Taiwan. *The International Journal of Human Resource Management*, 20(9), 1965-1984.  
<https://doi.org/10.1080/09585190903142415>
- Yu, C., Jia, N., Li, W., & Wu, R. (2022). Digital inclusive finance and rural consumption structure—evidence from Peking University digital inclusive financial index and China household finance survey. *China Agricultural Economic Review*, 14(1), pp.165-183.  
<http://dx.doi.org/10.1108/CAER-10-2020-0255>