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## From high-performance work systems to retention: The engagement, proactivity, and performance bridge

والأداء والاستباقية المشاركة جسر: الاحتفاظ إلى الأداء عالية العمل أنظمة من

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### Abstract

This quantitative study explores the effects of high-performance work systems on employee retention through individual factors such as job engagement, employee proactive behavior, and employee performance. The study utilizes a sample of 279 employees employed in the healthcare sector in Saudi Arabia. For hypotheses testing, structural equational modeling was used through SmartPLS4. The findings highlight the influence of HPWS on increased employee proactive behavior, employee performance, and job engagement, resulting in increased employee retention. Additionally, a serial indirect effect of employee proactive behavior, job engagement, and employee performance was found to positively influence the relationship between high-performance work systems and employee retention. High-performance work systems can promote job engagement in Saudi organizations by offering challenging work, autonomy, skill development, and performance feedback. Engaged workers stay longer. Job engagement promotes a positive work environment and community, which increases employee retention. Employee proactive behavior also makes employees feel valued and invested in their work, which can increase retention. The study enhances current knowledge on the role of high-performance work systems in the Saudi healthcare sector considering Vision 2030 by examining the potential mediators between high-performance work systems and employee retention.

**Keywords:** High-performance work system, job engagement, employee proactive behavior, employee performance, employee retention.

### خلاصة

سلوك الوظيفي كالاندماج فردية عوامل خلال من الموظفين استبقاء على الأداء العالية العمل أنظمة تأثير الكمية الدراسة هذه تستكشف العربية بالملكة الصحية الرعاية قطاع يعملون موظف 279 من عينة الدراسة استخدمت. الموظفين وأداء، الموظفين لدى المبادرة SmartPLS 4 برنامج خلال من الهيكلية المعادلات نمذجة استخدام تم، الفرضيات لاختبار. السعودية مما الوظيفي واندماجهم، الموظفين أداء، الموظفين لدى المبادرة سلوك زيادة على الأداء عالية العمل أنظمة تأثير على الضوء النتائج تسلط الاندماج، الموظفين لدى المبادرة لسلوك مباشرة الغير الإيجابية التأثيرات من سلسلة وجود، إضافة، الموظفين استبقاء في ارتفاع عنه ينتج تعزيز أن الأداء عالية العمل لأنظمة يمكن. الموظفين واستبقاء الأداء عالية العمل أنظمة بين العلاقة على الموظفين أداء و، الوظيفي الأداء من راجعة وتغذية، مهارات تطوير، استقلالية، تحدي تتطلب أعمال تقديم خلال من السعودية المنظمات في الوظيفي الاندماج أيضاً. الموظفين استبقاء من يزيد مما إيجابي ومجتمع عمل بيئة تعزيز في الوظيفي الاندماج يساهم. أطول فترة يبقون المندمجين الموظفين الدراسة تعزيز. استبقاءهم من يرفع أن الممكن من وذلك عملهم في مستثمرون وأنهم بالقيمة يشعرون يجعلهم الموظفين لدى المبادرة سلوك

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رؤية الاعتبار عين في الأخذ مع السعودية العربية بالمملكة الصحية الرعاية قطاع في الأداء عالية العمل أنظمة دور عن الحالية المعرفة الموظفين واستبقاء الأداء عالية العمل أنظمة بين المحتملة الوسيطة المتغيرات فحص خلال من وذلك 2023 المملكة

الموظفين استبقاء, الموظفين أداء, الموظفين لدى المبادرة سلوك, الوظيفي الاندماج, الأداء عالية العمل أنظمة: **مفتاحية كلمات**

## Introduction

High-performance work systems (HPWS) are integrated human resource methods that boost employee productivity and performance. HPWS is also called a high-commitment work system, high participation work system, and efficient human resource management (Zhu et al., 2018).

HPWS requires selective hiring, employment security, decentralization of decision-making, extensive training, information sharing, and fair compensation (Zhang, 2019).

An employee's proactive behavior (EPB) improves the workplace. Proactive employees solve problems, suggest improvements, and change organizations (Wu, 2019). These employees have better career and personal outcomes, which improves organizational development and performance. Proactivity is essential to an organization's success (Al-Tit, 2020).

Organizations need job engagement (JE) to boost employee performance, retention, and output. Engaged employees help organizations achieve their goals (Anitha, 2014). Organizations should provide recognition, development, and communication to boost employee engagement (Jaharuddin & Zainol, 2019).

High turnover costs and disrupts a company, so employee retention (ER) is crucial. Organizations should promote work-life balance, a positive work environment, competitive compensation and career development, and exceptional performance to increase JE (Papa et al., 2020). HPWS improves JE, but employee proactivity may also improve it. Proactive employees may boost performance and retention, but only sometimes. Employee proactivity, performance, and retention must be clarified beyond HPWS and JE.

The current study proposes that HPWS (i.e., staffing, training and development, compensation, performance management, career development, and information sharing) influence employee proactive behavior (e.g., problem-solving and identification of opportunities). As a result, employees will engage more in their work and organizational activities by being more enthusiastic regarding their work activities and

focusing on their job. The study also claims that engaged employees have the higher task and contextual performance resulting in employee's willingness to stay with the organization for a longer period.

Saudi Arabia needs HPWS to succeed in infrastructure and economic diversification. HPWS will help Vision 2030 by improving productivity, innovation, and competitiveness through JE, creativity, and continuous improvement. Vision 2030 and the National Transformation Program are increasing private-sector healthcare contributions in Saudi Arabia. By 2030, the number of licensed medical institutions, privatized government services, healthcare, IT, digital records, and qualified Saudi nurses will increase (Rahman & Al-Borie, 2021). This improves operational efficiency, product and service quality, and market adaptability.

## Literature review

### *High-performance work systems*

High-performance work systems (HPWS) are several performance-enhancing activities included in a collection of distinct but linked HR practices that are intended to improve employees' abilities and efforts. HPWS, also called high commitment work practices, high participation work practices, and best HR methods (Zhu et al., 2018). HPWS is a set of HR practices that boost employee productivity, performance, loyalty, and skills, making utilization of human resources to gain an ongoing competitive advantage (Zhu et al., 2018; Pak & Kim, 2016). HPWS's main components are selective hiring, employment security, decentralized decision-making, extensive training, information sharing, and fair payment (Li et al., 2019; Zhu et al., 2018).

### *Employee's proactive behavior*

In the organization, proactivity is a way for employees to improve or change their work environment (Al-Tit, 2020, Arefin et al., 2015). Wu et al. (2019) defined a proactive employee as one who introduces or applies new work ideas, makes suggestions to improve the work environment, and identifies and solves work

performance issues. Such an employee improves organizational effectiveness and career development for himself and the organization (Al-Tit, 2020).

HPWS gives employees resource entitlements. This may be especially beneficial for low-proactivity workers, who may be less inclined to negotiate special arrangements and may rely heavily on HPWS's more structured, collective approach to motivate them (Zhang et al., 2019). HPWS affects EPB because it is linked to positive work behaviors. Proactive employees will get more resources and work better with HPWS. Thus, proactive employees need HPWS to improve performance (Martín et al., 2017). HPWS increases EPB by improving employee motivation, abilities, and performance (Martín et al., 2017). HPWS promotes human capital through recruitment and training and attracts talent through competitive compensation (Teo et al., 2020). As HPWS develops KSA, employees are more likely to take positive action, believing they can improve their work and efficiency (Shin & Jeung, 2019). Thus, the following hypotheses state:

*H<sub>1</sub>: High-performance work system has a positive and significant impact on employee proactive behavior.*

### **Job engagement**

Job engagement is a positive attitude toward the organization and its beliefs (Jaharuddin & Zainol, 2019). JE also refers to the harnessing of engaging employees to their job responsibilities, so when performing at work, people use their bodies, minds, and feelings for expressing themselves. (Ozyilmaz, 2020). It involves enthusiasm, dedication, and absorption while allocating personal resources and energy to work (Eldor et al., 2020).

Conservation of resources (COR) theory states employees invest resources in coping with risky conditions and defending against resource loss to preserve and acquire resources (Hobfoll et al., 2018). When they do not perform well, people get stressed and take more proactive measures to maintain their jobs and stay engaged. They must work hard and be proactive in their careers (Jang et al., 2020).

*H<sub>2</sub>: Employee proactive behavior has a positive and significant impact on job engagement.*

### **Employee performance**

Employee performance is a multidimensional phenomenon and a significant element in determining the success or failure of an organization (Sendawula et al., 2018). It covers positive and negative employee activities and behaviors that help achieve the organization's objectives (Singh, 2016). Employee performance is one of the most significant organizational outcomes in work and organizational psychology (Diaz-Vilela et al., 2015). Task and contextual performance are its two main dimensions (Khalid, 2020).

Task performance supports technological core procedures and maintenance, characterized as employee efficacy to achieve organizational goals. Contextual performance effects organizational tasks through contributing to the organizational environment and culture. It involves conflict resolution, and interpersonal cooperation (Sendawula et al., 2018; Khalid, 2020).

Engaged employees exhibit various productive behaviors that enhance synergetic team efforts toward organizational goals (Breevaart et al., 2015). These synergistic efforts boost employee performance (Bakker, 2017). Engaged workers can spread their feelings throughout the organization, which drives their efforts and performance (Bakker & Demerouti, 2014). High JE helps employees handle more work and improve their performance. High JE, persistence, and task focus improve performance (Bal & De Lange, 2015).

*H<sub>3</sub>: Job engagement has a positive and significant impact on employee performance.*

### **Employee retention**

Employee retention refers to the many steps organizations take to retain employees (Papa et al., 2020). Das & Baruah (2013) emphasized that encouraging employees to stay if possible or until the project is finished is the key to success. Industrial globalization has changed employee attitudes toward their organizations. Thus, organizations must retain educated and skilled workers during high turnover (Diah et al., 2020). Retention depends on many factors, including peer support (Ali et al., 2017), recruitment and selection, job preview, awards and recognition, work-life balance, training and development, transformational leadership, and organizational citizenship behavior (Tian et al., 2020).

Nguyen & Duong (2021) found that motivated, competent, and skilled people perform well, which is important for an organization's competitiveness and employee retention. This shows that employees will stay if they feel accomplished (Alshery & Ahmad, 2016). According to Syahreza et al. (2017), if a business manages employee maintenance well, employees will be disciplined, loyal, and work ethic. Maslow's theory of motivation suggests that employees who are satisfied with their needs will be motivated to meet higher-level needs. Retaining staff will motivate them to perform better to meet increased demands (Papa et al., 2020).

*H4: Employee performance has a positive and significant impact on employee retention.*

When any organization applies HPWS then this will lead to influence and effect the performance of employees (Karadas & Karatepe, 2018). HPWS elicit desirable behavior and attitude from employees, such as a desire to learn, an awareness of the objective of their work, an increase in engagement, and proactive initiatives (Jang et al., 2020). These employee actions and attitudes establish a connection to the organization and ensure that the employee will continue to work for the organization while generating effective performance (Bal & De Lange, 2015).

Among the multiple benefits of JE, effective EP, and ER stand out, as engaged employees tend to be more devoted to the organization and its objectives, which leads to enhanced EP and improved outcomes (Pandita & Ray, 2018). JE relates to creativity, workplace vigor, EP, and greater ER (Bal & De Lange, 2015).

Maden (2015) explains the existence of a relationship between HPWS and ER. This relationship is serially mediated by an employee's proactive behavior and JE. Using the principle of conservation of resources (COR), we can construct this relationship (Jang et al., 2020). Some employees may become stressed when they do not perform well; therefore, they will be motivated to improve their proactive behavior so that they are engaged with their work and strive to demonstrate proactive behavior. Consequently, the effect of JE will have a mediated effect on employee performance. There is a favorable connection between JE and EP (Pandita & Ray, 2018). Therefore, we hypothesized:

*H5: The relationship between a high-performance work system and employee retention is serially mediated by employee proactive behavior, job engagement, and employee performance.*

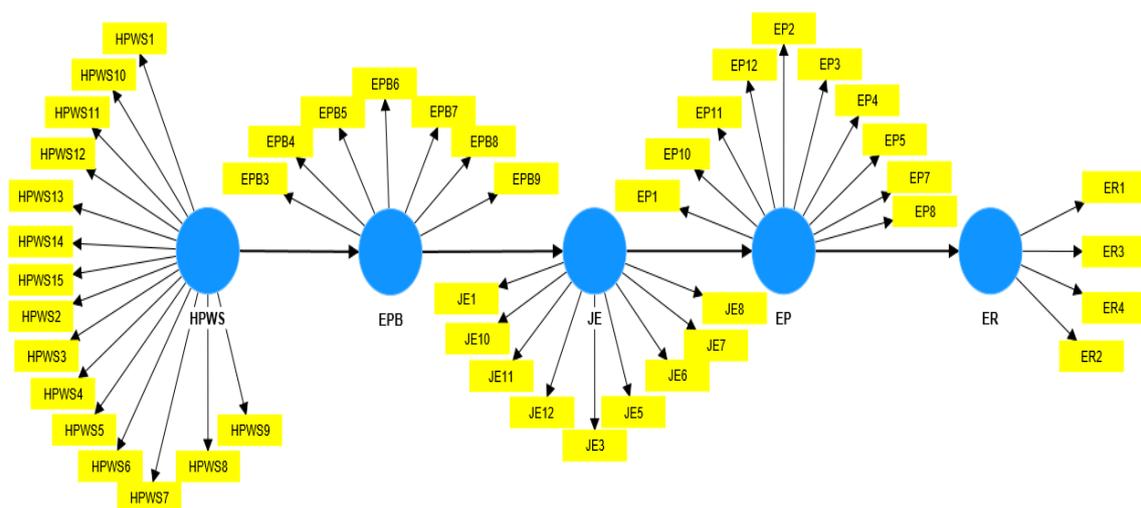


Figure 1. Theoretical Model

**Methodology**

**Data Collection**

This research used a quantitative analysis method. Data were collected in three phases from June 1, 2023, to December 30, 2023, with two months between each phase. The first phase

collected demographic and HPWS data. The second phase collected JE, EPB, and EP data. In the final phase, ER data were gathered. Research assistants and healthcare friends collected the data. To translate scale items from English to Arabic, a special translator officer translated the questionnaire by using back-to-back translation method. With language experts and pilot testing,

sentence meanings were preserved during translation. During the translation process, it was assured with the help of language experts and pilot testing that the meanings of the sentences do not lose their essence.

### ***Sample and procedure***

Saudi doctors, nurses, and administrative staff in public and private healthcare were surveyed using a hard copy and soft copy self-administered survey. Data were collected from Saudi Arabia's four largest cities (i.e., Jeddah, Makkah, Madinah, and Riyadh). The hospital's ethics committee and HR department approved the questionnaire before distribution. This study used purposive sampling. The present study used purposive sampling to select participants most likely to know about the research area so that it can enhance study relevance and accuracy. Thus, sampling aims to represent the population accurately. All variables in this study apply to the healthcare industry to avoid sampling errors caused by data collection and processing errors. A total of 400 questionnaires were distributed in five largest hospitals (i.e., based on numbers of beds), from each city. Twenty questionnaires were distributed to participants (i.e., doctors, nurses, and administrative staff) in each hospital. The questionnaires were personally distributed by email and postal service. Those who did not respond were contacted through three polite reminders, each separated by one week until no further communication was received. To maintain the participant's privacy, empty envelopes were supplied to those who submitted their responses using personal administration or email.

To minimize social desirability bias and common method variance, several strategies were implemented. These included assuring respondents that their information would be used solely for research purposes and would be kept strictly confidential. Additionally, the dependent and independent variable distribution occurred in separate phases and sections. Additionally, the data was gathered in stages to prevent respondents from establishing associations

between their responses and other variables. In the first phase of data collection (including demographic variables, and HPWS items), 384 responses were received. In the second phase of data collection (), 327 responses were received. However, in the last phase, a total of 279 responses were received for final data analysis. From all the three phases of data collection, incomplete responses were removed. After conducting Cook and Leverage distances test (i.e., by removing outliers) only 260 usable responses remain.

The HPWS variable was measured with its dimensions (i.e., selective staffing, internal mobility, employment security, clear job description, and result-oriented appraisal) through a 15-item scale developed by Sun et al. (2007). Employee performance was measured including its two dimensions (i.e., contextual performance and task performance) through a 13-item scale developed by Koopmans et al. (2013). JE was measured through a 12-item scale, which was developed by Drake. (2012). EPB was measured by using 9-items scale developed by Bateman et al. (1993). Whereas, ER was measured through 7-items scale developed by Egan et al., (2004) and Kassim (2006). All variables were measured on a 5-point Likert scale with 1 being strongly disagreed and 5 strongly agree.

SmartPLS 4 and SPSS version 29 were utilized to perform the data analysis. When examining and predicting variables, partial least squares structural equation modeling (PLS-SEM) is highly recommended (Hair et al., 2020).

## **Results and discusión**

### ***Descriptive and Correlation Statistics***

The demographics indicated that there were 71.4% men and 28.6% women. Most participants (40.3%) were between the ages of 40 and 50, held bachelor's degrees (61.9%), were married (82.1%), and had worked for the same organization for over 20 years (45.3%). Most participants were employed in healthcare.

**Table 1.**  
*Descriptive Statistics and Pearson Correlation Analysis*

Descriptive Statistics			Pearson Correlations Analysis				
	Mean	SD	HPWS	JE	EPB	EP	ER
HPWS	3.586	0.465	1				
JE	4.057	0.375	.474**	1			
EPB	3.950	0.422	.436**	.594**	1		
EP	3.805	0.426	.394**	.607**	.583**	1	
ER	3.818	0.541	.595**	.510**	.435**	.521**	1

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

Table 1 displays the correlations between HPWS, JE, EPB, EP, and ER. JE is significantly correlated with EPB ( $r = 0.594^{**}$ ), EP ( $r = 0.607^{**}$ ), and ER ( $r = 0.510^{**}$ ). There is a significant correlation between employee performance, EPB, and ER ( $r = 0.583^{**}$ ,  $0.435^{**}$ , respectively).

**Assessment of reflective measurements**

To ensure the validity and reliability of the study scale, Confirmatory composite analysis (CCA) is used (Henseler et al., 2014). Table 2 assessment of reflective measurement displays the factor loadings for each research variable. The findings show that each of the factor loadings is more than

the cutoff value of 0.40. (Hair et al., 2020). As shown in Table 2, for all items, factor loading ranges from 0.419 to 0.817. According to studies by Hair et al. (2021), the reliability values (Cronbach alpha, Rho-A, and composite reliability) should exceed 0.7, and the values for the AVE must be higher than 0.5.

**Table 2.**  
*Assessment of Reflective Measurement*

Items	Type	Loadings	CA	rho-A	CR	AVE	VIF
HPWS1-HPWS15	Reflective	0.457-0.756	0.871	0.879	0.891	0.557	1.289 - 2.462
EPB3-EPB9	Reflective	0.419-0.559	0.834	0.843	0.875	0.501	1.409- 1.770
JE1-JE12	Reflective	0.645 - 0.817	0.898	0.904	0.917	0.552	1.699 -2.548
EP1 - EP12	Reflective	0.491-0.632	0.842	0.854	0.876	0.514	1.356 - 1.894
ER1 - ER4	Reflective	0.697 - 0.738	0.781	0.785	0.897	0.511	1.252 - 1.319

Note: CA= Cronbach alpha; CR = Composite reliability; AVE = Average variance extracted; VIF = Variance inflation factor

The range of the CA level is between 0.781 and 0.898. rho\_A's levels fall between 0.785 to 0.904. As a result, the coefficients of CR fall between 0.875 to 0.917. The chosen measures' validity is supported by the AVE numbers (0.501 – 0.557), because each of them is greater than 0.5. (Hair et al., 2020). By demonstrating that each variable has significant inter-scale relations that meet the requirements for convergent validity. Multicollinearity is not a problem in this analysis because collinearity diagnostics were also carried out, and all variance inflation factor (VIF) values were far below 3 (Table 2).

**Discriminant validity**

Fornell-Larcker and Hetro-Trait Mono-Trait criteria are used to measure discriminant validity (Gannon et al., 2021). According to the findings in Table 3, Fornell–Larcker criterion and heterotrait-monotrait (HTMT) demonstrate that the data's discriminant validity is acceptable. Acceptable HTMT values should be less than 0.85, according to research conducted by Henseler et al. (2014). The square root of the construct's AVE must be greater than the correlation values for all the constructs for the Fornell-Larcker criterion results to be considered acceptable (Fornell & Larcker, 1981).

**Table 3.**  
*Discriminant Analysis (HTMT and Fornell-Larcker Criterion)*

Hetro-Trait Mono-Trait (HTMT) Criterion						Fornell-Larcker Criterion				
	HPWS	JE	EPB	EP	ER	HPWS	JE	EPB	EP	ER
<b>HPWS</b>						<b>0.746</b>				
<b>JE</b>	0.529					0.488	<b>0.743</b>			
<b>EPB</b>	0.479	0.695				0.453	0.622	<b>0.707</b>		
<b>EP</b>	0.438	0.705	0.605			0.413	0.628	0.677	<b>0.716</b>	
<b>ER</b>	0.528	0.742	0.443	0.705		0.431	0.593	0.665	0.697	<b>0.715</b>

*Note 1:* The bold numbers in diagonal in Fornell- Larcker section are square root of AVE of each construct, and other numbers are correlation between constructs.

### Hypothesis testing

Table 4 shows the results of testing our hypothesis that was used for the study. HPWS strongly impacts EPB positively, according to calculations of the direct link between the two factors ( $\beta = 0.453$ ,  $t$ -value = 12.326,  $p < 0.000$ ) Thus, H1 was supported. Similarly, table 4 emphasizes the direct influence of EPB on JE ( $\beta = 0.622$ ,  $t$ -value = 14.312,  $p < 0.000$ ), thus

showing a strongly significant and positive impact of EPB on JE. Thus, supporting H2. While, JE has a significant and positive impact on EP ( $\beta = 0.628$ ,  $t$ -value = 14.490,  $p < 0.000$ ), this supports H3. Moreover, the EP has a significant and positive impact on ER ( $\beta = 0.799$ ,  $t$ -value = 32.180,  $p < 0.000$ ), these results support H4.

**Table 4.**  
*Hypothesis Testing*

Hypo-thesis	Direct / Indirect Effect	Path Coefficient	T Value	P Value	Bias	BCCI		Hypothesis Support
						5.00%	95.00%	
H <sub>1</sub>	HPWS -> EPB	0.453	12.362	0.000	0.016	0.366	0.509	Supported
H <sub>2</sub>	EPB -> JE	0.622	14.312	0.000	0.007	0.518	0.694	Supported
H <sub>3</sub>	JE -> EP	0.628	14.490	0.000	0.006	0.53	0.700	Supported
H <sub>4</sub>	EP -> ER	0.797	32.180	0.000	0.002	0.735	0.837	Supported
H <sub>5</sub>	HPWS -> EPB -> JE -> EP -> ER	0.141	5.372	0.000	0.01	0.089	0.185	Supported

*Note:* High Performance Work Systems (HPWS); Job Engagement (JE); Employee Proactive Behavior (EPB); Employee Performance (EP); Employee Retention (ER); Bias Corrected Confidence Intervals (BCCI).

The product coefficient approach (indirect effect) was used to explore the potential mediation effects of EPB, JE, and EP. Using bias-corrected bootstrap confidence intervals (CI), the significance of the indirect effects was evaluated (Gannon et al., 2021). For the sequential mediation between HPWS and ER through EPB, JE, and EP, the results show that the impact of

HPWS on ER is sequentially mediated by EPB, JE, and EP [ $\beta = 0.141$ ,  $p < 0.000$ , CI = (0.089, 0.185)], hence proving H5. Nevertheless, as the HPWS rises, the projected direct relationship's direction shifts, indicating that as ER rises, so do the levels of JE, EPB, and EP. This illustrates the importance of ER's effect on sequential mediation.

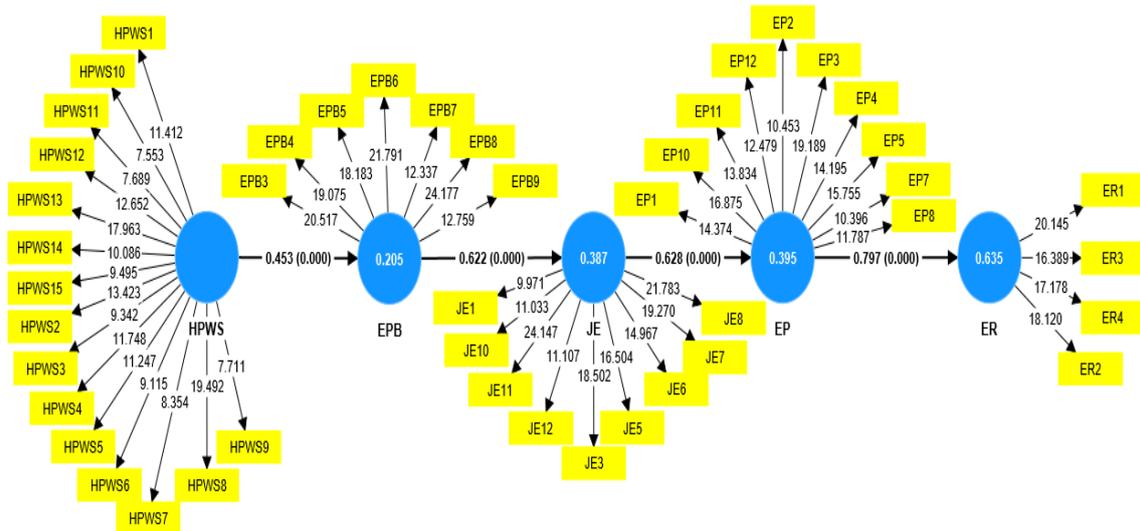


Figure 2. Results (Hypothesis Testing)

Model evaluation

The findings of the assessment of the structural model are presented in Table 5. Evaluation of a model's predictive ability should mainly concentrate on one major target variable which is (HPWS). Construct cross-validity redundancy is displayed in Table 5. Numerous criteria were used to explain and predict the fluctuation in endogenous variables caused by exogenous variables (HPWS), as recommended by (Hair et al., 2020). The fact that all the Q<sup>2</sup>predict are

significantly more than (0.00) for NFI must be (greater than 0.90), and the SRMR score should be (less than 0.08). As we can see in Table 5 the endogenous variables (EPB, JE, EP, and ER) are having a large predictive relevance as Q<sup>2</sup>predict values for all the endogenous variables is higher than 0.350, means that the study model accurately represents the empirical data and has a great capacity for prediction (Shmueli et al., 2019). Regarding the value of SRMR, it is (0.078) and the NFI value is (0.919) this gives additional proof that the model fit is sufficient.

Table 5. Model Evaluation

Variables	SRMR	NFI	Q <sup>2</sup> Predict	Q <sup>2</sup> Effect
High Performance Work Systems				
Job Engagement			0.364	Large
Employee Proactive Behavior	0.078	0.919	0.483	Large
Employee Performance			0.395	Large
Employee Retention			0.461	Large

Note: SRMR (Standardized Root Mean Square Residual); NFI (Normed Fit Index); Q<sup>2</sup> for Predictive Relevance

This study aimed to investigate the sequential mediation process that links HPWS to ER by looking at the roles of EPB, JE, and EP. The results obtained provide empirical evidence of a significant indirect sequential mediation effect of HPWS on ER via these mediators. It was discovered that HPWS influences EPB positively, suggesting that organizations with effective work systems are more likely to encourage employees to take initiative. This finding is consistent with prior research highlighting the positive influence of HPWS on employee behaviors and attitudes (Arefin et al., 2015; Karadas & Karatepe, 2018; Li et al., 2019;

Zhang et al. 2019). The positive relationship between EPB and JE suggests that proactive employees are more likely to be engaged in their work, contributing to their overall job satisfaction and organizational commitment (Jang et al., 2020; Hobfoll et al., 2018).

Moreover, JE was positively associated with EP, highlighting the significance of the psychological state of employees in enhancing their performance. These results are consistent with previous research demonstrating the positive impact of JE on a variety of organizational outcomes (Bal & De Lange, 2015; Jaharuddin &

Zainol, 2019; Pandita & Ray, 2018). The results indicate a positive correlation between JE and EP, indicating that engaged employees tend to demonstrate higher levels of performance in their roles. This finding supports previous research showing a positive correlation between JE and EP (Chada et al., 2022).

Overall, the results of this study demonstrate the importance of HPWS in fostering EPB, which ultimately results in increased JE and enhanced EP. In addition, the sequential mediation model demonstrates that EPB, JE, and EP mediate the relationship between HPWS and ER.

### ***Theoretical implications***

HPWS is designed to provide employees with a range of resources and benefits that can increase their motivation and commitment to the organization (Zhu et al., 2018). HPWS may provide employees with opportunities for skill development, feedback on their performance, autonomy in decision-making, and access to valuable information and resources (Sun et al., 2007). Social exchange theory (SET) states that these resources and benefits can be seen as "inputs" that employees contribute to their organization, with the expectation of receiving "outputs" in return, such as job security, career advancement, and other forms of recognition or compensation (Blau, 2017). When employees perceive that their organization is meeting their expectations and providing them with valuable inputs and outputs, they are more likely to engage in proactive behaviors (Cropanzano et al., 2017; Imran & Atiya, 2020). The SET implies that HPWS can positively influence ER through EPB, JE, and EP by providing employees with valuable resources and benefits (Tian et al., 2020). When employees perceive that their organization is investing in their development and well-being, they are more likely to reciprocate by engaging in positive work behaviors, which can contribute to their retention (Jang et al., 2020; Teo et al., 2020).

### ***Practical implications***

HPWS involve a collection of HR processes intended to enhance organizational performance by stimulating employee skills, motivation, and involvement. In the healthcare sector, where employee retention and turnover are key issues, understanding the association among HPWS, JE, EPB, and performance is crucial. The research findings on HPWS recommend that organizations that implement these practices can

attain a wide range of benefits, including increased productivity, profitability, EP, and ER.

In Saudi Arabia, organizations can implement HPWS and can improve the quality of human capital by promoting employee development and training. This is particularly important in Saudi Arabia, where there is a shortage of skilled workers in certain industries. HPWS can help organizations to attract and retain talented employees by offering opportunities for career advancement and skill-building.

The implementation of HPWS can have a positive impact on ER in Saudi organizations through the promotion of JE, EPB, and EP. HPWS can promote JE by providing employees with challenging work, autonomy, opportunities for skill development, and feedback on their performance. Engaged workers are more committed and loyal to the organization because they feel purpose and satisfaction. Thus, HPWS can boost JE in Saudi Arabian healthcare organizations, lowering turnover and retaining talent. Therefore, by promoting JE, organizations may foster a supportive workplace culture and a feeling of belonging within their workforce, leading to increased retention.

Employee proactivity is a significant factor in determining ER. A HPWS encourages employees to be proactive, creative, and engaged. HPWS can foster ownership and involvement by letting employees speak up, make decisions, and solve problems. Valued and empowered employees are likelier to take the initiative and improve their workplace. This EPB fosters employee loyalty and ownership. Encouraging EPB also helps employees feel more invested in their work and feel that their contributions are valued, which can lead to increased retention.

The relationship between EP and retention is strong. HPWS emphasize skill development, feedback, and performance standards. Saudi healthcare organizations can improve staff skills by investing in training and development. Engaged and proactive employees with the right skills and resources perform better and provide better patient care. Employee performance improves organizational outcomes, job satisfaction, and turnover intentions. HPWS can help Saudi Arabian healthcare organizations retain skilled and motivated employees by increasing job engagement, proactive behavior, and performance. This improves organizational performance, patient care, and workforce sustainability.

### Future direction and limitation

The results above have several limitations. First, data were collected in three two-month phases. Cross-sectional studies show temporal causation but not causality. Thus, future studies should test for reversed effects and validate the conceptual model's hypotheses using cross-lagged panel or longitudinal designs. Second, we conducted an individual-level evaluation of HPWS. Complex organizations with many managers and non-managers may have HPWS agreement issues due to within-group and between-group agreements. Thus, future studies may need a multi-level approach to agreement issues. Thirdly, information was gathered from the Saudi Arabian health sector. Limits generalization. Our HPWS may not be as important in other service scenarios as in health. Future research should tailor HPWS to the sample-taking service. Finally, including turnover and absenteeism in the model would help future studies.

### Conclusion

The research indicates that HPWS have an important and positive effect on EPB, JE, EP, and ER in the healthcare industry of Saudi Arabia. This study results emphasizes the wide-ranging benefits of HPWS that range beyond its direct impacts. This sequential mediation underscores the significance of job engagement and proactive behaviors in utilizing HPWS to improve retention and performance. The results also depict that HPWS can significantly improve the healthcare industry's capacity to provide high-quality care by fostering a stable and engaged workforce by promoting a supportive work environment.

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