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EXPLORING THE ROLE OF PSYCHOLOGICAL CAPITAL BETWEEN HRM PRACTICES AND INNOVATIVE WORK BEHAVIOUR: A STUDY IN AN IT SECTOR

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Abstract

Purpose: The purpose of this study is to investigate the ways in which India's information technology (IT) industry is evolving periodically to remain relevant and capable of serving evolving needs. Thus, the ability to maintain innovation as the main goal of an organisation is essential. Using psychological capital (PsyCap) as an intervening factor, this study examines how HRM practices affect innovative work behaviour (IWB) among employees in the information technology (IT) sector. **Methodology:** Using a cross-sectional research approach, this study examined the relationships between innovative work behaviour (IWB), psychological capital (PsyCap), and HRM practices. Data was gathered through a survey conducted online of 166 employees working in IT sector. The data was analysed using a partial least squares SEM and a bootstrap approach for mediation and moderation. **Findings:** The results of the study showed that psychological capital significantly moderated the relationship between IWB and HRM practices. Furthermore, psychological capital has a substantial mediation influence between IWB and the three facets of HRM practices i.e., training and development, job autonomy, and feedback. **Originality/value:** This modern research study is unique and will make a positive contribution for two reasons. The study first demonstrates the importance of innovation and IWBs in the context of the information technology sector and how training, optimistic thinking, constructive criticism, freedom, and a wide variety of people can all help an individual develop IWBs. Second, it provides fresh perspectives and a thorough grasp of how HRM practices and psychological capital encourage innovation & creativity among employees in the IT sector.

Keywords: HRM Practices, Psychological Capital, Innovative Work Behaviour, IT Professionals, Informational Technology.

INTRODUCTION

Creativity refers to the process by which someone produces original and valuable ideas while innovation is the process through which you translate these ideas into useful solutions, services, or procedures that yield observable advantages within a company (Anderson et al., 2004; Amabile & Pratt, 2016). Nowadays, companies face a volatile economic panorama due to rapid technological advancements in a highly competitive and technologically evolving environment. To sustain or improve their competitiveness, especially in knowledge-intensive industries, organizations depend on innovative work behaviour from their workers in substantially knowledge-based work environments (Anderson et al., 2014; Montani et al., 2014).

That's why employee-driven innovation plays a vital part in company progress and sustainability (Liu et al., 2020) and companies providing services must prioritize innovation and creative thinking in their offerings to stay competitive and flexible for their success (Smith and Tushman, 2005). Research shows that firm-level innovation is one of many factors that stimulate economic development and organizations are expected to require innovation. To remain competitive in the global market of the twenty-first century, they must provide companies & nations with a sustainable competitive advantage (Shahzad et al., 2019; Mahmood & Mubarik, 2020; Ode & Ayavoo, 2020).

In the past few years, innovative work behaviour has emerged as a crucial concept that helps employees to innovate and adapt to technological change (Anderson et al., 2014). Previous studies have examined the impact of human resource management (HRM) practices on innovative work behaviour (Ma Prieto & Pilar Perez-Santana, 2014; Bos-Nehles, 2017; Singh et al., 2021; Datta, 2023). Organizations need to make the most of their Human Resource Management (HRM) practices to foster innovative work behaviour among employees and survive in such a turbulent terrain. Various HRM practices, including staffing, extensive training programs, service empowering, performance-based evaluations, rewards, and participatory decision-making, are acknowledged as accelerators for encouraging employee creativity. These strategies foster an atmosphere that is favourable to creativity and innovation by fostering a culture that promotes taking calculated risks and persistent learning. This eventually boosts organizational growth and helps firms stay one step ahead of the competition (Singh et al., 2021; Jan et al., 2021). A supportive workplace where individuals are inspired and prepared to participate in innovative work behaviour can be established through HRM practices that improve psychological capital and job resources. The JD-R model describes how achieving a balance between work demands and resources can result in favourable effects (Xanthopoulou et al.,2007) such as an increase in innovation.

Based on the job demands-resources (JD-R) model, we argue that HRM practices improve PsyCap by increasing psychological and personal resources. The work environment can be broadly classified into two areas, namely job demands and job resources, based on the JD-R structure (Demerouti et al., 2001). Job demands include the continuous physical, psychological and social components required for task performance, which have physiological and psychological consequences. The organizational psychological, social and physical components of a job that support goal achievement and reduce adverse physiological and psychological effects are called job resources. In this study, psychological capital acts as a personal resource and it might be able to mediate or moderate the relationship between environmental variables and organizational outcomes. They could additionally determine how people view, understand, and react to their surroundings (Judge et al., 1997).

Psychological capital refers to a stage of development marked by self-efficacy, optimism, hope, and resilience, allowing people to face difficulties confidently, maintain an optimistic prospect, progress toward goals, and recover from failures (Luthans et al., 2007). Previous studies have examined psychological capital as a mediator or moderator between HRM practices and organizational citizenship behaviors (OCB) (Gupta & Singh, 2010), employees' work engagement (Aybas & Acar, 2017), job engagement (Mansour, 2020), service-oriented OCB (Vuong, 2022), firm financial performance (Byarugaba et al., 2022), employee flourishing-at-work (Peethambaran & Naim, 2024) etc. Also, they have studied psychological capital with innovative work behaviour and work happiness (Etikariena, 2018), task autonomy (Nwanzu & Babalola, 2019), transformational leadership (Karimi, 2023) and leader-member exchange (Ratri, 2024). However, very few studies examined the mechanism of HRM Practices, psychological capital and innovative work behaviour as a whole. Thus, drawing from the JD-R theory the present study will examine the moderating and mediating role of psychological capital between them.

Another gap in the study is that while HRM Practices, psychological capital and innovative work behaviour has seen broad acceptance in the Hospitality industry (Peethambaran & Naim, 2024), Commercial banks (Vuong, 2022; Etikariena, 2018), State Civil Apparatus (Ratri et al., 2024), private companies (Aybas & Acar, 2017), agriculture experts (Karimi et al., 2023) and telecom companies (Mansour, 2020), little has been published about its use in Information

Technology (IT) sector. For example, psychological capital has been studied with other variables in the IT sector (Tyagi, 2021; Malik, 2024). So, the present study will focus on filling this gap. Although these variables are acknowledged to be important, there are several gaps in the literature that currently exist. For a start, it is unclear how PsyCap regulates the association between HRM practices and innovative work behaviour. Furthermore, there has been insufficient investigation of the possible moderating & mediating impacts of PsyCap on this association, especially when it comes to IT enterprises. Filling in these gaps may yield insightful information for both theoretical and applied studies in organizational growth and HR management. As a result, the objectives of this article are threefold:

1. To examine the association between Human Resource Management (HRM) practices and psychological capital;
2. To determine whether psychological capital is associated with innovative work behaviours; and
3. To assess the mediating and moderating roles of psychological capital between HRM practices and innovative work behaviour.

The paper starts with an outline of the conceptual framework and hypotheses that underpin the model. The methodology section goes on to describe the sample, the data collection technique and the construction and validation of measurement tools. Following that, the study gives the empirical findings before concluding with a discussion of the findings, including limitations and recommendations for further research.

LITERATURE REVIEW

HRM practices, Training & Development, Job autonomy, Feedback, Psychological capital and Innovative work behaviour

Innovative work behaviour is reliant on both internal as well as external factor. Rattanawichai et al. (2022) stated that external factors usually refer to a specific characteristic associated with a task or related to social factors like the learning and innovation culture, organisational supportiveness, etc., while internal factors are typically traits of personality, intellectual traits, psychological traits, skill sets, etc. This study focusses on both the internal and external factors that motivate employees to engage in innovative ways. One of the external factors is human resource management (HRM) practices, that are designed to help firms build composite social relationships and gather organizational knowledge to maintain a competitive environment.

Also, it helps an organization guarantee both its survival and the effective accomplishment of its tasks by attracting, developing, motivating and retaining qualified workforces. Based on earlier research, human resource (HR) practices are characterised as staffing, job security, empowerment (job autonomy), teamwork, feedback, training and development, and rewards (Aybas & Acar, 2017; Bos-Nehles, 2017). But the study includes training & development, job autonomy & feedback in this study as they show strong positive link with IWB (Bos-Nehles, 2017). Training is critical to employees' knowledge and skill development. Employee training improves knowledge and abilities, as well as motivation, attitude and which results in engaging employees in IWB (Pratoom and Savatsomboon, 2012). In order to help employees improve their organisational and personal skills, knowledge & capacities, training and development are crucial. Offering training and development shows to the employees that the company values them and is prepared to make an investment in personnel (Tremblay et al., 2010). Employees will feel more equipped to generate new & creative ideas if they believe that training &

development opportunities are beneficial and worthwhile. Training had a significant effect on product and technical system innovation when compared with different HR practices (Shipton et al. 2006). Next, job autonomy is the extent to which a task assigned to an employee gives them significant freedom and independence in doing it. Since then, scholars have broadened their understanding of job autonomy and separated it into three interrelated freedoms: (a) work scheduling; (b) taking decisions; and (c) work practices (Hackman & Oldham, 1976). IWB involves experimenting with work schedules, decision-making processes, and work methodologies. One of the most important aspects of innovation is the generation of ideas, which may result from these tests. According to Charoensukmongkol (2022), the psychological notion of "autonomy" describes people's sense of control, independence and freedom as they strive to define and achieve their unique goals, values, and interests.

Moreover, the employees who have developed psychological capital and have a high degree of professional autonomy are more creative and finish tasks more quickly (Cai et al., 2019). Feedback is info which can be used to analyse a worker's performance on the job. It has been believed to boost performance by offering helpful data for evaluating present tactics and behaviours and to directly affect the selection of particular activities to achieve work-related outcomes (Poortvliet et al., 2009). Because IWB entails a complicated pattern of activities, employees may find it easier to successfully engage in these behaviours if they are exposed to a variety of perspectives, at least from an additional source. In the workplace, individual IWB is described as "the deliberate development, introduction, and implementation of new concepts within a work role, group, or organisation, to enhance role performance, the group, or the organisation" (Janssen, 2000, p. 288).

The study also focuses on internal factors i.e., psychological capital. Psychological capital is “an individual’s positive psychological state of development” (Luthans et al., 2007). Research has shown a substantial correlation between PsyCap and IWB (Sweetman et al., 2011). The following hypotheses has been tested: *Hypotheses development*

H1. Training & development will positively influence employees’ PsyCap in the IT companies.

H2. Job autonomy will positively influence employees’ PsyCap in the IT companies.

H3. Feedback will positively influence employees’ PsyCap in the IT companies.

H4. PsyCap will positively influence employees’ IWB in the IT companies.

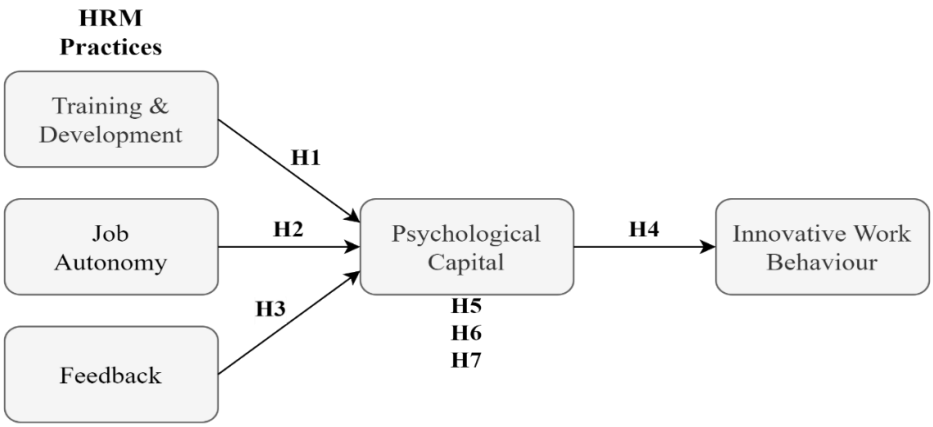

Figure 1: Proposed Model 1 (Mediating Effect);
Source: Author’s own work

PsyCap as a mediator & moderator between HRM Practices and IWB

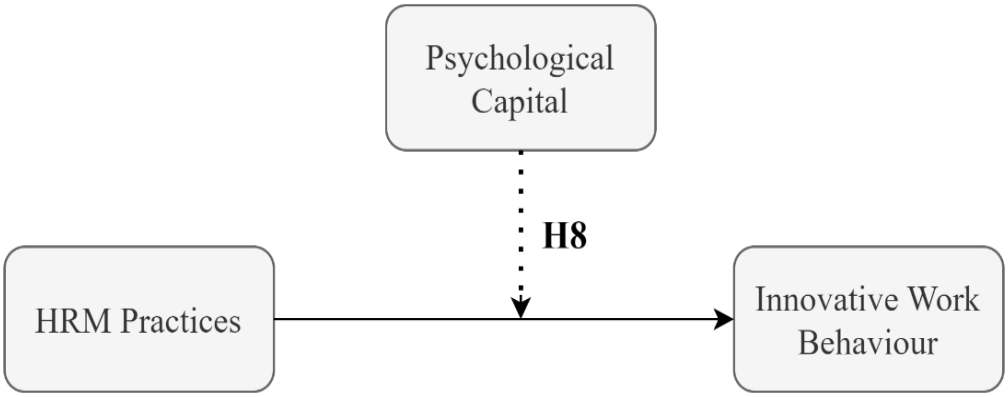

Figure 2: Proposed Model 2 (Moderating Effect);
Source: Author's own work

The construct Positive psychological capital is described as "an individual's positive psychological state of development that is characterized by: self-efficacy, optimism, hope, resilience" (Luthans et al., 2007).

More specifically, self-efficacy refers to "have the confidence to take on and put in the necessary effort to succeed at challenging tasks"; Resilience involves "when beset by problems and adversity, sustaining and bouncing back even beyond to attain success"; Optimism means "make a positive attribution about succeeding now and in the future"; hope means "persevere towards goals and, when necessary, redirecting paths to goals to succeed" (Luthans et al., 2015).

Luthans et al. (2015) further contended that workers with high positive psychological capital may "perceive what they are now by understanding their potentials and strengths; these employees can also foresee what they are capable of becoming." Thus, employees may be more inclined to engage in extra-role behaviour if they have positive psychological capital.

Organisations that implement good HRM procedures also encourage employees to achieve their objectives. As a result, employees would become more committed to their work and engage in extracurricular activities since they find fulfilment in it (Xanthopoulou et al., 2007). The association between environmental variables and organisational outcomes may be mediated or moderated by personal resources (Xanthopoulou et al., 2007).

They may even influence how individuals perceive, interpret, and respond to their surroundings. Gupta (2014) studies the relationship between employee creativity and psychological capital (PsyCap), which is comprised of optimism, self-efficacy, resilience, and hope.

According to the study, PsyCap moderates and mediates the association between a variety of organizational and personal attributes and employee creativity. In a nutshell, higher PsyCap values help employees be more creative and act as a safeguard against undesirable influences. Given the JDR model, which views psychological capital as a personal resource and HR practices as job resources, it is hypothesised that psychological capital will have the capacity to influence employees' innovative work behaviour as impacted by HR practices, thereby mediating and moderating the relationships between HR practices and innovative work behaviour.

The following hypotheses has been tested: *Hypotheses development*

H5. PsyCap will mediate the positive association between training & development and IWB in the context of IT companies.

H6. PsyCap will mediate the positive association between job autonomy and IWB in the context of IT companies.

H7. PsyCap will mediate the positive association between feedback and IWB in the context of IT companies.

H8. PsyCap will moderate the positive association between HRM practices and IWB such that it will strengthen their positive relationship.

The proposed conceptual framework is visually depicted in Figure 1 & 2, illustrating the hypothesized relationships among variables.

RESEARCH METHODOLOGY

Sampling Procedure and collection

Data were obtained from employees working in the IT sector. The chosen organizations were primarily located in Northern India and classified under the IT Consulting & Services category. The link to the Google Form was used for sending the questionnaire to the participant and collect the data online. A brief description of each variable was included in the survey. There were two sections in the survey questionnaire. Demographic information i.e., age, gender, education level, and work experience were acquired in the 1st part. Measures of innovative work behaviour, psychological capital, and HRM practices were included in the 2nd part. In addition, using a combination of purposive and random snowball sampling strategies, participants were urged to forward the survey link to other qualified members in their networks. It was explicitly stated that the information gathered would not be utilized for profit and guaranteed the privacy and confidentiality of the participants as well as the organizations they worked for. With the help of this technique, a total of 185 responses were received. In order to exclude responses with substantial missing values and outliers, a thorough data screening procedure was then carried out. Finally, it was decided that a refined sample set of 166 participants would be appropriate for the concluding analysis. Table 1 provides specific details about this sample set's characteristics.

Measures

HRM Practice. consist of 3 dimensions i.e., training & development, job Autonomy & feedback and are measured using a 15-item scale adapted from Singh, 2004; Schouteten & Benders, 2004; Morgeson-Humphrey, 2006. A five-point Likert scale ranging from 1 'Strongly disagree' to 5 'Strongly agree' was used. Sample items include (e.g., *"Training needs identified are realistic, useful, and based on the business strategy of the organization*" *or* "*The job itself provides feedback on my performance*" etc).

Psychological Capital (PsyCap). consists of 4 dimensions i.e. Self-efficacy, hope, optimism, resilience. It was measured using a 24-item scale adapted from Luthans et al., 2007. A five-point Likert scale ranging from 1 'Strongly disagree' to 5 'Strongly agree 'was used. Sample items include (e.g., *"I feel confident analyzing a long-term problem to find a solution" or "I can be "on my own" at work if necessary*" etc).

Innovative work behaviour (IWB). was measured using a 10-item scale taken from De Jong and Den Hartog, 2010.A five-point Likert scale ranging from 1 ("never") to 5 ("always") was

used. Sample items include (e.g., *"I put effort into the development of new things" or "I generate original solutions for problems*" etc).

Control variables. Based on previous studies, demographic variables such as age, gender, marital status, education level, and total job experience are included as control variables in this study (Singh et al., 2020).

RESULTS

Table 1: Demographic Profile of Employees(N=166)

Demographic Variable	Frequency	Percentage
Gender		
Male	98	59%
Female	68	41%
Marital Status		
Married	51	30.7%
Unmarried/Single	115	69.3%
Age		
18-25 years	45	27.1%
26-35 years	107	64.5%
36-45 years	13	7.8%
46-59 years	1	0.6%
60 years & above	0	0%
Educational Qualification		
Graduate	64	38.6%
Post-Graduate	86	51.8%
Professional Course	10	6%
Others	6	3.6%
Total Work Experience		
1-5 years	111	66.9%
6-10 years	33	19.9%
11-15 years	14	8.4%
16-20 years	7	4.2%
21 years & above	1	0.6%

Source: Author's own work

Measurement Model

The reliability analysis determines the consistency of items, ensuring that they consistently assess the same construct. Cronbach's alpha (α) & composite reliability was examined to assess the construct's reliability. The Cronbach's alpha value was used to evaluate internal consistency. A questionnaire is considered credible if its Cronbach's alpha value is more than 0.70, as stated by Morgan et al. (2013). Thus, the reliability and trustworthiness of the questionnaire are shown by a high Cronbach's alpha. Besides Cronbach's alpha, the CR values were higher than the suggested threshold of 0.70 (Hair et al., 2019).

In validity analysis, both convergent and discriminant validity are examined. Initially, factor loadings of each item were assessed to check the convergent validity & all of the items in this study were retained since they all exceeded the cut off threshold of 0.5 (Hair et al., 2017a). Next, each construct's Average Variance Extracted (AVE) was assessed, with a minimal threshold of 0.50 (Hair et al., 2019). AVE scores in this study varied from 0.560 for psychological capital to a high of 0.705 for training and development. The values for α, CR, AVE, and factor loadings for each construct are shown in Table 2.

Table 2: Outer loadings, average variance extracted (AVE) & composite reliability (CR)

Constructs	Items	Loadings	Cronbach's alpha (α)	CR	AVE
1. Training &Development (TD)	TD1	0.859	0.86	0.90	0.705
	TD2	0.840			
	TD3	0.790			
	TD4	0.868			
2. Job Autonomy (JA)	JA1	0.787	0.92	0.93	0.654
	JA2	0.781			
	JA3	0.824			
	JA4	0.804			
	JA5	0.800			
	JA6	0.865			
	JA7	0.813			
	JA8	0.793			
3. Feedback (F)	F1	0.874	0.88	0.92	0.812
	F2	0.920			
	F3	0.909			
4. Psychological Capital (PC)	PC1	0.794	0.93	0.95	0.560
	PC2	0.769			
	PC3	0.757			
	PC4	0.787			
	PC5	0.739			
	PC6	0.722			
	PC7	0.749			
	PC8	0.793			
	PC9	0.852			
	PC10	0.699			
	PC11	0.817			
	PC12	0.800			
	PC13*	0.543			
	PC14	0.766			
	PC15	0.721			
	PC16	0.788			
	PC17	0.782			
	PC18	0.766			
	PC19	0.794			
	PC20*	0.529			
	PC21	0.827			
	PC22	0.816			
	PC23*	0.508			
	PC24	0.716			
5. Innovative Work Behaviour (IWB)	IWB1	0.513	0.92	0.93	0.597
	IWB2	0.799			
	IWB3	0.770			
	IWB4	0.791			
	IWB5	0.851			
	IWB6	0.813			
	IWB7	0.772			
	IWB8	0.745			
	IWB9	0.815			
	IWB10	0.803			

Source: Author's own work

The study explains discriminant validity by applying the Heterotrait-Monotrait (HTMT) ratio and the Fornell-Larcker criterion (Hair et al., 2019). Under two circumstances, the analyses revealed no problems with validity: (a) Heseler et al., (2015) recommended utilizing the HTMT ratio, with 0.85 and 0.90 as the cut-off values.

All HTMT ratio values as shown in the table 3 indicates that values remained below the crucial 0.85 threshold which is the cut-off used to verify discriminant validity. (b) The study used the Fornell-Larcker criterion in addition to the HTMT ratio (table 4). This criterion states that a construct's square root of the AVE should be bigger than its correlation with any other construct.

Table 3: Discriminant Validity using HTMT

	TD	JA	F	PC	IWB
TD	{}				
JA	0.660	{}			
F	0.698	0.790	{}		
PC	0.682	0.755	0.794	{}	
IWB	0.258	0.389	0.381	0.550	{}

Note. The diagonal value indicates the average variance extract's square root, while other values represent the correlation. **Source:** Author's own work

Table 4: Discriminant Validity using Fornell-Larcker

	TD	JA	F	PC	IWB
TD	**0.840**				
JA	0.591	**0.809**			
F	0.616	0.716	**0.901**		
PC	0.627	0.718	0.740	**0.748**	
IWB	0.234	0.358	0.348	0.526	**0.772**

Note. The diagonal value indicates discriminant validity i.e. average variance extract's square root (bold diagonal value) is greater than other values representing the model's distinctiveness. Source: Author's own work

Assessment of structural model

The structural model gets evaluated after the measurement model assessment is considered acceptable in assessing PLS-SEM results. The coefficient of determination (R^2), the statistical significance and the applicability of the path coefficients are key analysis criteria. R-square values provide insight into how well the independent variable explains the dependent variables.

The R^2 value for psychological capital is 0.642, for IWB is 0.276 for model 1, as the suggested threshold value of R^2 is 0.10 (Ozili, 2023) and for model 2 R^2 value of IWB is 0.434. To examine the direct correlations between HRM training and development, job autonomy, feedback, psychological capital, and IWB and to assess the significance of path coefficients, PLS-SEM bootstrapping (5000-resample) was applied to generate standard errors, bootstrap t-statistics, and p-values.

The findings of the structural model support the conceptual framework's hypotheses. The values of the path coefficient, sample means, standard deviation, T value, and P values are shown in Table 5 to explain which hypotheses are accepted and which are rejected.

Table 5: Hypotheses testing

Hypothesis	Relationship	Beta value	R^2	S. E	Confidence interval		T-Statistics	p-value	Decision
					LL	UL			
Direct Effects (Model 1)									
H1	TD->PC	0.197	0.642	0.059	0.101	0.294	3.337	0.000	Accepted
H2	JA->PC	0.325		0.073	0.209	0.449	4.420	0.000	Accepted
H3	F->PC	0.387		0.074	0.258	0.501	5.220	0.000	Accepted
H4	PC->IWB	0.526	0.276	0.111	0.327	0.716	4.724	0.000	Accepted
Indirect Effects									
H5	TD->PC->IWB	0.103		0.041	0.046	0.179	2.549	0.005	Accepted
H6	JA->PC->IWB	0.171		0.051	0.096	0.263	3.339	0.000	Accepted
H7	F->PC->IWB	0.203		0.055	0.119	0.299	3.694	0.000	Accepted
Moderating Effects (Model 2)									
H8	PCx HRM Practices -> IWB	0.181	0.434	0.068	0.062	0.285	2.676	0.004	Accepted

Note. *TD, Training &Development; JA, Job autonomy; F, Feedback; PC, Psychological capital; IWB, Innovative work behaviour; At 95% Confidence Interval, LL: Lower limit, UL: Upper limit.*
Source: Author's own work

Direct effects

Hypotheses 1. Training & development will positively influence employees' PsyCap in the IT companies.

A structural equation modelling approach was used to test our proposed hypotheses (refer to Figure 1). Hypothesis 1 was proposed to investigate the relationship between HRM training& development on employees' psychological capital. The result highlighted a favourable association between these constructs; hence hypotheses was supported ($\beta = .197$, $t = 3.337$, $p < 0.01$, $f2=0.062$). This shows that more the employees are given training & development they are going to foster a more resilient, optimistic, and capable workforce, ultimately driving better business outcomes.

Hypotheses 2. Job autonomy will positively influence employees' PsyCap in the IT companies.

Hypotheses 2 was proposed to examine the relationship between job autonomy and psychological capital. The result highlighted a favourable association between these constructs ($\beta=.325$, $t = 4.420$, $p < 0.01$, $f2=0.133$) and thus the hypothesis was supported. It means that if employees experience more autonomy within their workspace that will help to improve confidence, optimism and increase overall psychological well-being.

H3. Feedback will positively influence employees' PsyCap in the IT companies.

Hypothesis 3 examines the impact of feedback on psychological capital. The result highlights the favourable association between these constructs ($\beta= .387$, $t = 5.220$, $p < 0.01$, $f2=0.180$), thus the hypothesis is supported.

H4. PsyCap will positively influence employees' IWB in the IT companies.

Hypothesis 4 examined psychological capital with IWB. The result highlights the favourable association among the constructs ($\beta= .526$, $t = 4.724$, $p < 0.01$, $f2=0.382$) and thus the hypothesis was supported. Employees are therefore engaged in IWB when they demonstrate psychological capital for the work. Enhanced PsyCap can lead to better performance, reduce rate of employment, and overall improved organizational effectiveness.

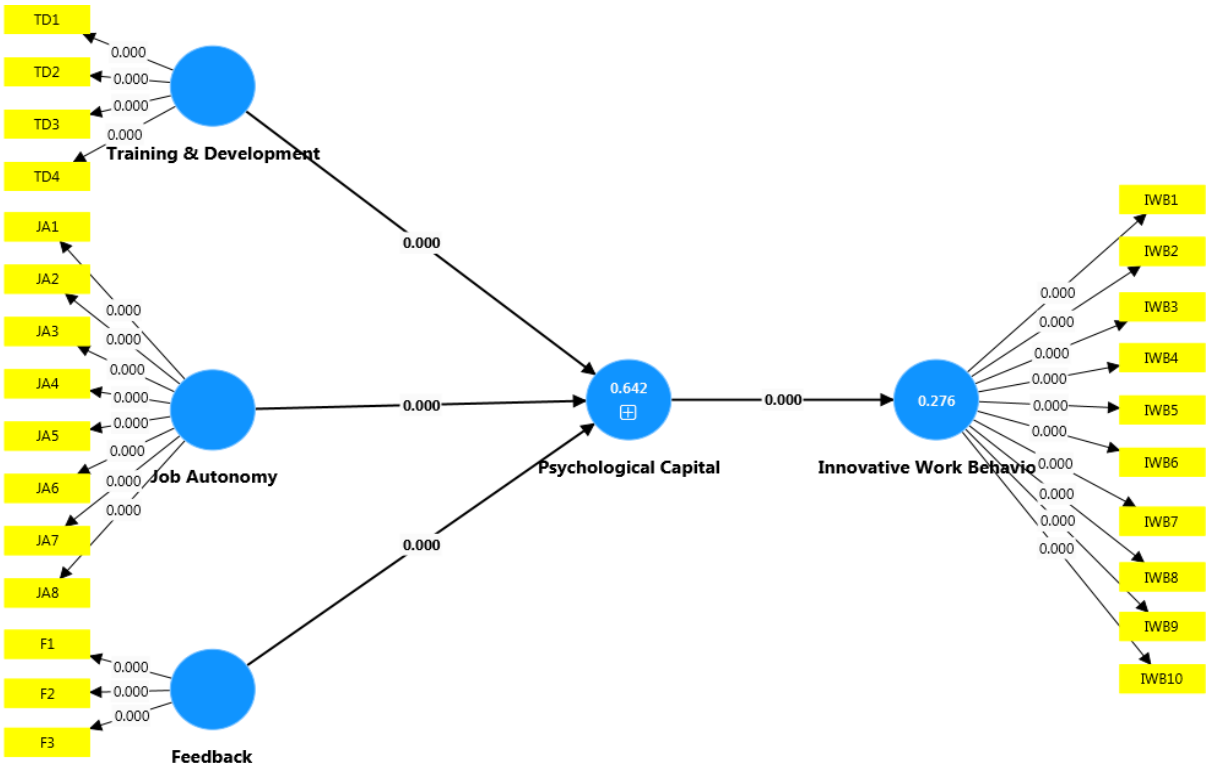

Figure 3: Structural model

Mediation effects or Indirect effects

When an independent variable indirectly affects a dependent variable through one or more mediators—intervening variables—mediation takes place and this assessment is used in this study (Preacher & Hayes, 2008). Mediation is essential for understanding causal relationships, as it explains how one variable affects another through intervening variables. The findings of the H5–H7 mediation analysis are presented in Table 5.

H5. PsyCap will mediate the positive association between training & development and IWB in the context of IT companies.

H5 was formed to investigate the role that psychological capital plays as a mediator between IWB and training and development. The findings of the t-statistics and path coefficients indicate the significance of this relationship ($\beta = .103$, $t = 2.549$, $p < 0.01$, CI 95%, LL = 0.046 and UL = 0.179), thus Hypothesis 5 is accepted.

H6. PsyCap will mediate the positive association between job autonomy and IWB in the context of IT companies.

Similarly, Hypotheses 6 was formed to investigates the role of psychological capital which acts as a mediator in the association between job autonomy and IWB, was supported ($\beta = .171$, $t = 3.339$, $p < 0.01$, CI 95%, LL = 0.096 and UL = 0.263).

H7. PsyCap will mediate the positive association between feedback and IWB in the context of IT companies.

H7 was formed to investigate the role that psychological capital plays as a mediator between IWB and feedback. The findings of the t-statistics and path coefficients indicate the significance of this relationship ($\beta = .203$, $t = 3.694$, $p < 0.01$, CI 95%, LL = 0.119 and UL = 0.299). Thus, the hypothesis 7 is accepted as shown in figure 3.

Moderation effects

Hypothesis 8. PsyCap will moderate the positive association between HRM practices and IWB such that it will strengthen their positive relationship.

In H8 Psychological capital acts a moderator between HRM Practices and IWB. The findings of the t-statistics and path coefficients indicate the significance of this relationship (β = .181, t = 2.676, p < 0.01, CI 95% LL = 0.062 and UL = 0.285). Thus, the hypothesis 8 is accepted (Figure 4).

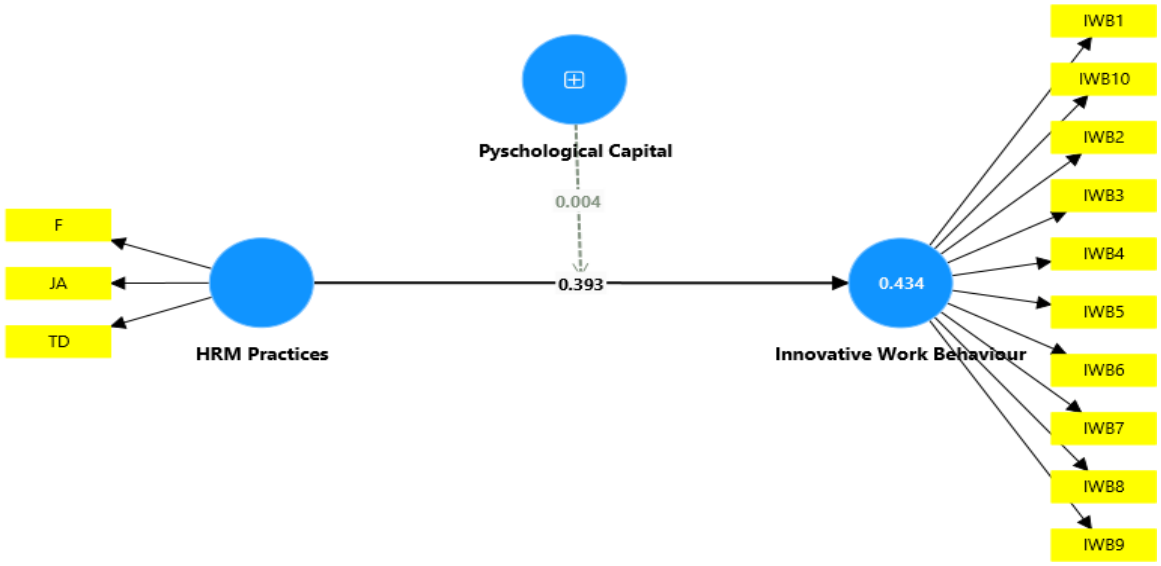

Figure 4: Results for moderation analysis

DISCUSSION

The findings of the present study were consistent with those of previous studies. The results of the present study confirmed that there was a substantial and positive association between each of the constructs. First, this study looked at the relationship between psychological capital and three aspects of HRM practices: training and development, job autonomy, and feedback. The findings show that all three HR practices are significant predictors of psychological capital among employees. The perception of HRM practices by middle management personnel in the IT sector is known to have encouraged them to participate in their work and find joy in doing so.

The study finding is in line with the previous literature as this shows that, more the employees are given training & development they are going to foster a more resilient, optimistic, and capable workforce, ultimately driving better business outcomes (Shipton et al. 2006; Pratoom and Savatsomboon, 2012). And, if employees experience more autonomy within their workspace that will help to improve confidence, optimism and increase overall psychological well-being. Moreover, the employees who have developed psychological capital and have a high degree of professional autonomy are more creative and finish tasks more quickly (Cai et al., 2019). Employees are therefore engaged in IWB when they demonstrate psychological capital for the work.

According to Luthans et al. (2008), people in psychological capital exhibit traits including perseverance, optimism, hope, and confidence and feel hopeful. Karimi et al. (2023) demonstrated a clear and favourable correlation between IWB and PsyCap. One of the many

distinctive features of Psycap, according to Luthans and Youssef-Morgan (2007), is its openness to change or evolution. Therefore, PSC improves IWB as well. That's why enhanced PsyCap can lead to better performance, reduce rate of employment, and overall improved organizational effectiveness. On the basis of JD-R theory, we have demonstrated that HRM practices can lead to innovative work behaviour with the help of job resource psychological capital.

Theoretical implications

The study provided key additions to the literature and provided a thorough insight of its theoretical implications. Initially, it highlighted the basis of the relationship between employees' perspectives on HRM practices, psychological capital, and innovative work behaviour. Additionally, prior studies have focused primarily on examining the relationship between HRM practices, PsyCap, and IWB in the hospitality sector (Peethambaran & Naim, 2024), commercial banks (Vuong, 2022; Etikariena, 2018), state civil apparatus (Ratri et al., 2024), private enterprises (Aybas & Acar, 2017), agricultural specialists (Karimi et al., 2023), and telecom firms (Mansour, 2020). However, there is either no empirical proof for this association or it has not yet been confirmed in the information technology sector. Thus, this study's results covered the gap.

Secondly, this study underpins the JD-R theory in advancing the association between HRM practices and innovative work behaviour with the help of psychological capital as intervening variable in IT sector. Our study shows that psychological capital plays a significant role as a mediator and moderator between HRM practices, such as job autonomy, training and development, feedback, and IWB, as hypothesised. This theory suggests that personal resources are essential in bringing psychological qualities, such as optimism, hope, resilience, and self-efficacy, to the workplace (Xanthopoulou et al., 2007). The implications can direct future studies and methodologies, spurring improvements in HRM, innovation tactics, and organisational behaviour.

Practical implications

The current study has ramifications for organisations, organisational managers, and human resources professionals. Given that PsyCap is formed with resource abilities and is subject to improvement, managers can help their staff members improve their PsyCap through various training programs. This will help them find new and creative methods for accomplishing their objectives. This study is important for organisations in the IT field because they can use these elements to plan how to encourage creative thinking in their personnel, which will raise their IWB. Regular performance reviews should be implemented by the organisation to constructively assess its strengths and opportunities for development.

Employees in organisations that receive creativity training may benefit from improved problem-solving skills that lead to more creative solutions to current issues and concerns. Furthermore, they must be provided with contemporary technology, power, and independence to generate creative concepts and experiments and ensure their success is universally applicable. If needed, HR professionals should evaluate the creative techniques currently used by the businesses to see if they adequately support the abilities of the employees. Additionally, suggestions must be viewed and valued favourably by executives, which means that innovative ideas and concepts should be welcomed and that there should be no criticism or punishment imposed out if they are rejected. This will encourage people to intentionally come up with new ideas.

CONCLUSION

The findings show that the three HRM practices—training and development, job autonomy, and feedback—have a good impact on psychological capital, which in turn has a significant impact on innovative work behaviour. The findings also suggest that the association between HRM practices and innovative work behaviour is mediated and moderated by psychological capital. Therefore, this study shown that when HRM practices are improved, employees in IT companies will exhibit a good, motivating attitude towards their work, which will increase their innovative work behaviour & psychological capital. So, the present study accomplished the study objectives.

To begin with limitation of the study, the limited sample size creates concerns about how broadly it can be applied. Future studies should expand the sample size in order to verify the results. Second, data is gathered via surveys, which may be biassed by common methods. Thirdly, this study is focused on IT professionals in northern India, which makes them particular to the region, industry, and location. Because of this, the study's findings might not apply to other cultures or countries because all of the participants were Indian. Intercultural studies are necessary. So, there is need for more research on different sectors as well as in other countries and locations, which might provide a more comprehensive and better image of the research. Fourth, because this study is cross-sectional in nature, it is not possible to follow respondents over time. Therefore, a longitudinal research technique might be used to investigate the links between constructs over time.

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