

Occupational Self-Efficacy and Employee Psychological Well-Being in the IT Industry: The Influence of Gender and Career Advancement

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Received: 23rd May, 2026; Revised: 2nd June, 2026; Accepted: 6th June, 2026; Available Online: 15th June, 2026

Abstract:

Background: Psychological well-being is an significant construct which is not field exclusive rather universal, the demographic of the present study is employees who works in IT industry which often looks attractive outside but has high intensity work demands and challenges which impact psychological well-being, therefore the main idea of the study is to measure how does occupational self-efficacy explains the variance in psychological well-being.

Method: This is a cross-sectional survey correlation study where 300 employees participated with their own consent in Hyderabad, Telangana India. Occupational self-efficacy is measured by occupational self-efficacy scale (OSE) was used, developed by Sanjot, P; Sushama, C. & Upinder Dhar (1999), Psychological well-being scale, a widely popular scale developed by Carol Ryff (1995) was used to measure psychological well-being, demographic data is collected via questionnaire. Data analysis was conducted using tools like independent t-test, one-way Anova, person correlation analysis and multiple regression analysis on SPSS version 27.

Results: The study findings indicated a weak yet statistically significant positive correlation between occupational self-efficacy and psychological well-being ($r = 0.169$, $p = 0.003$). Further, multiple regression analysis revealed that occupational self-efficacy, gender, work mode, and promotion status significantly predicted psychological well-being, $F(4, 295) = 7.562$, $p < .001$, explaining 9.3% of the variance in PW ($R^2 = 0.093$), women scored higher in both the constructs in comparison with their counterparts, for OSE ($t(298) = -3.463^{***}$, $p = 0.001$) for PW ($t(298) = -3.521^{***}$, $p = 0.001$).

Conclusion: Psychological well-being is an important construct in work settings, and it is important to be uphold by the organizations for employees to be effective and efficient.

Keywords: occupational self-efficacy, psychological wellbeing, promotion status, work mode

How to cite this article: Gowtham K, Raju M. Occupational Self-Efficacy and Employee Psychological Well-Being in the IT Industry: The Influence of Gender and Career Advancement. *Int J Drug Deliv Technol.* 2026;16(59s): 1637-1643. DOI: 10.25258/ijddt.16.59s.185

Source of support: Nil

Conflict of interest: None

Introduction:

India's Information Technology (IT) and IT-enabled Services sector has become one of the strongest pillars of the Indian economy, contributing substantially to exports, employment generation, digital transformation, and global service delivery (National Association of Software and Service Companies [NASSCOM], 2025; Press Information Bureau [PIB], 2025). The sector is projected to reach about US\$283 billion in 2024–25, and NASSCOM reported that India's technology workforce reached around 5.8 million employees in FY2025, showing the sector's continued role in national growth and skilled employment creation (NASSCOM, 2025). In addition to traditional IT services, India has also become a major hub for Global Capability Centers, artificial intelligence, engineering, analytics, and research-based technology operations, making the Indian IT workforce central to both domestic and global digital economies (Reuters, 2026).

Employees are the core resource of the IT industry because the sector depends heavily on human knowledge, problem-solving ability, technical competence, innovation, client communication, and continuous learning. Unlike many traditional industries where output is largely machine-driven, IT work depends on cognitive labour, creativity, teamwork, adaptability, and timely delivery of complex projects. Therefore, employee well-being is not only a personal health issue but also an organizational performance issue. Research on IT employees shows that occupational stress can reduce performance, job satisfaction, and psychological well-being, while increasing fatigue, burnout, absenteeism, and health-related problems (Padma et al., 2015). Hence, maintaining psychological well-being among IT employees is essential for productivity, innovation, employee retention, and long-term organizational sustainability.

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In recent years, the psychological position of IT employees has become more vulnerable because of global recessionary pressures, project uncertainty, restructuring, job layoffs, automation, and the rapid penetration of artificial intelligence (Giuntella et al., 2025; Valtonen et al., 2025). Research on job insecurity shows that uncertainty about continued employment is strongly associated with anxiety, depression, emotional exhaustion, and reduced life satisfaction (Llosa et al., 2018). Studies on artificial intelligence and workers' well-being also indicate that AI exposure can increase concerns about job security and personal economic stability, particularly when employees feel that automation may replace or devalue their skills (Giuntella et al., 2025). Although AI can improve productivity when implemented with proper training and role redesign, poorly managed AI adoption may intensify insecurity, fear of redundancy, skill obsolescence, and performance pressure among IT professionals (Valtonen et al., 2025).

IT employees generally face several work stressors, including long working hours, strict deadlines, night shifts, client pressure, role ambiguity, continuous upskilling demands, work-life imbalance, high workload, job insecurity, and sedentary work patterns. Padma et al. (2015) observed that IT employees are prone to stress-related health problems because their work involves continuous mental pressure, prolonged sitting, irregular schedules, and demanding work environments. These stressors may contribute to both psychological and physical health problems such as burnout, anxiety, depression, insomnia, fatigue, hypertension, diabetes, tension headaches, gastrointestinal problems, musculoskeletal pain, and reduced immunity (Padma et al., 2015).

Possible solutions should therefore operate at both individual and organizational levels (Shiri et al., 2023; Richardson & Rothstein, 2008). Evidence-based workplace interventions include stress management training, cognitive-behavioral interventions, mindfulness-based programs, employee assistance programs, counselling services, flexible work arrangements, workload redesign, supervisor support, role clarity, wellness programs, resilience training, and career development or reskilling initiatives (Richardson & Rothstein, 2008; Joyce et al., 2016). Systematic review evidence suggests that workplace health interventions can improve well-being, work ability, general health, and job performance when they are structured and supported by the organization (Shiri et al., 2023). Cognitive-behavioral and mindfulness-based workplace interventions have also shown promise in reducing employee stress and improving mental well-being (Joyce et al., 2016; Bartlett et al., 2019). For IT organizations specifically, interventions should include AI-related reskilling, transparent communication during restructuring, mental health leave policies, confidential counselling, ergonomic support, workload monitoring, and leadership training so that employee well-being

becomes part of organizational strategy rather than a temporary welfare activity (Valtonen et al., 2025).

Psychological well-being refers to an individual's positive psychological functioning and overall experience of living effectively, encompassing dimensions such as self-acceptance, personal growth, autonomy, environmental mastery, purpose in life, and positive relations with others. It reflects more than the absence of distress and emphasizes optimal functioning and fulfillment of one's potential. In the occupational context, psychological well-being represents employees' ability to maintain positive emotional states, adapt to workplace demands, and experience satisfaction and meaning in their work lives. Occupational self-efficacy, derived from social cognitive theory, refers to employees' beliefs in their capability to successfully perform work-related tasks and effectively manage occupational challenges. Individuals with higher occupational self-efficacy tend to approach difficult work situations with greater confidence, persistence, and resilience, which may positively influence motivation, performance, and overall well-being. According to theory and empirical evidence, employees who perceive themselves as capable of meeting job demands are more likely to experience positive psychological outcomes and better adjustment at work (Ryff, 1989; Albert Bandura, 1997).

The present study is primarily based on Social Cognitive Theory (Bandura, 1986), which proposes that beliefs about one's competencies influence behavioral and psychological outcomes. In occupational settings, employees with greater occupational self-efficacy may experience improved psychological well-being because they perceive work demands as manageable. Additionally, the Job Demands-Resources Model (Bakker & Demerouti, 2007) suggests that self-efficacy functions as a personal resource that supports employee well-being, while Conservation of Resources Theory (Hobfoll, 1989) explains that individuals with stronger psychological resources are more likely to maintain positive well-being outcomes.

Methodology:

Research design:

This study is Cross-sectional survey correlational design, where participants have participated with their own consent and one of the main goals of the study is to find the association and the degree of the association between the study variables and find the influence of occupational self-efficacy and other demographic variables on psychological well-being.

Objectives:

1. To investigate the differences in occupational self-efficacy and psychological well-being constructs in employees who are categorized on the labels of gender, work mode (work from office, work from home, Hybrid style), promotion status (promotion received in past one year or not)

2. Study the association between occupational self-efficacy and psychological well-being.
3. Investigate the impact of occupational self-efficacy and psychological well-being.

Study Hypothesis:

1. There is a significant mean score difference in occupational self-efficacy and psychological well-being between male and female IT employees.
2. There is a significant mean score difference in occupational self-efficacy and psychological well-being between employees who are categorized by work mode (work from office, work from home, Hybrid style).
3. There is a significant mean score difference in occupational self-efficacy and psychological well-being between IT employees who received promotion and who didn't receive one in last one year.
4. There is a significant correlation between occupational self-efficacy and psychological well-being among the employees.
5. Occupational Self-efficacy is a significant predictor of psychological well-being.
6. Occupational self-efficacy and demographic variables significantly predict psychological well-being.

Method:

Sample selection:

For this study a sample of 300 employees have been

participated who are working as software professionals in IT Industry in Hyderabad, Telangana state, and the snow-ball technique has been used as a sampling method. Data was collected via google forms and through physical forms and assured their data is kept confidential.

Measures:

The demographic questionnaire contained details about independent variables such as Gender, Promotion Status and Work Mode.

To measure the occupational self-efficacy of employee's occupational self-efficacy scale (OSE) was used, developed by Sanjot, P; Sushama, C. & Upinder Dhar (1999), Psychological well-being scale, a widely popular scale developed by Carol Ryff (1995) was used in this study.

Statistical tools:

Based on the hypothesis and demographic groups, concerned statistics tools are applied, which are independent t-test, one-way Anova, product moment correlation and multiple regression analysis, all the analyses are processed with software: IBM SPSS version 27.

Results:

Table 1: Independent sample t-test analysis of gender on occupational self-efficacy and psychological well-being.

DV	Gender	N	M	SD	T	P
OSE	Male	170	76.44	10.82	-3.463***	0.001
	Female	130	80.42	8.49		
PW	Male	170	96.33	13.92	-3.521***	0.001
	Female	130	102.08	14.17		

Significant value: NS – Non-Significant, P < 0.05*, P < 0.01**, P < 0.001***

Results are obtained from independent sample t-test analysis, which compared groups of gender and on occupational Self-Efficacy and psychological well-being.

1. Occupational Self-Efficacy (OSE):

There is a significant mean score difference between men and women employees on OSE (t (298) = -3.463***, p = 0.001). Where women employees (M = 80.42, SD = 8.49) reported significantly higher

occupational self-efficacy compared to men employees (M = 76.44, SD = 10.82).

2. Psychological well-being:

There is a significant difference between men and women employees on psychological well-being (t (298) = -3.521***, p = 0.001). Where, women employees (M = 102.08, SD = 14.17) reported significantly higher psychological well-being compared to men employees (M = 96.33, SD = 13.92).

Table 2:
One-way Anova comparing mean differences across the work experience groups on Occupational Self Efficacy and Psychological well-being.

DV	Work Mode	N	M	SD	F	P
OSE	Work from office	141	78.87	8.5	0.679 ^{NS}	0.508
	Work from home	59	77.27	8.7		
	Hybrid mode	100	77.70	12.4		
PW	Work from office	141	99.02	13.69	1.621 ^{NS}	0.199
	Work from home	59	96.02	16.07		

Hybrid mode	100	100.20	13.92		
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Significant value: NS – Non-Significant, P < 0.05*, P < 0.01**, P < 0.001***

Results are obtained by conducting one-way Anova to observe group differences labelled by work experience of employees.

(2, 297) = 0.679, p = 0.508.

1. Occupational Self-Efficacy (OSE):

The results obtained explain a non-significant mean score difference between the three groups of work experience with respect to occupational self-efficacy, F

2. Psychological well-being (PW):

The results obtained explain a non-significant mean score difference between the three groups of work experience with respect to occupational self-efficacy, F (2,297) = 1.621, p = 0.199

Table 3: Independent sample t-test analysis of promotion status on occupational self-efficacy and psychological well-being.

DV	Promotion status	N	M	SD	T	P
OSE	Promotion received	122	80.01	9.1	2.655**	0.008
	Promotion not received	178	76.90	10.4		
PW	Promotion received	122	96.45	15.6	-2.319*	0.021
	Promotion not received	178	100.45	13.0		

Significant value: NS – Non-Significant, P < 0.05*, P < 0.01**, P < 0.001***

Results are obtained from independent sample t-test analysis, which compared on promotion status on occupational Self-Efficacy and psychological well-being.

higher occupational self-efficacy compared to employees who did not receive one (M = 76.90, SD = 10.4).

1. Occupational Self-Efficacy (OSE):

There is a significant mean score difference between employees who received promotion for the last one year and employees who did not receive one, OSE (t (298) = 2.655**, p = 0.008). Where employees who received promotion (M = 80.01, SD = 9.1) reported significantly

2. Psychological wellbeing:

There is a significant difference between men and women employees on psychological well-being (t (298) = -2.319*, p = 0.02). Where employees who did not receive promotion (M = 100.45, SD = 13.0) reported significantly higher psychological well-being compared to employees who received one (M = 96.45, SD = 15.6).

Table 4: Correlation between occupational self-Efficacy and psychological well-being.

Variable	Occupational Self-Efficacy	Psychological well-being
Occupational Self-Efficacy	Pearson Correlation	1
	Sig. (2-tailed)	0.169**
	N	300
	Person Correlation	0.169**
Psychological well-being	Sig. (2-tailed)	0.003
	N	300
		300

Significant value: NS – Non-Significant, P < 0.05*, P < 0.01**, P < 0.001***

By performing person product moment correlation analysis, results were obtained and explains that there is a weak positive correlation between occupational self-efficacy and psychological well-being (r = 0.169**, p = 0.003), which indicates that as occupational self-efficacy increases, psychological well-being also slightly increase, which tell us that both the variables move in the same direction and the strength is weak.

Table 5: Multiple regression analysis predicting psychological well-being by occupational self-efficacy and demographic variables (Gender, Work mode, promotion status).

Model	Predictor	B	Std. Error	Beta	T	P	R ²	ΔR ²	F
1	Constant	62.187	7.6	-	8.126	0.001	0.093	0.081	7.562***
	OSE	0.23	0.08	0.162	2.836	0.005			
	Gender	5.5	1.65	0.194	3.377	0.001			
	Work Mode	1.26	0.90	0.07	1.388	0.166			

Promotion Status	5.20	1.63	0.17	3.187	0.002			
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Significant value: NS – Non-Significant, P < 0.05*, P < 0.01**, P < 0.001***

A multiple regression analysis was conducted to determine whether Occupational Self-Efficacy (OSE), gender, promotion status (demographic variables) significantly predict Psychological Well-Being (PW). The overall regression model was statistically significant, $F(4, 295) = 7.562, p < .001$, explaining 9.3% of the variance in PW ($R^2 = 0.093$). Occupational Self-Efficacy significantly and positively predicted Psychological Well-Being ($\beta = 0.162, p = 0.005$) but explained a very small variance in psychological well-being ($R^2 = 0.028, 2.8\%$). Gender ($\beta = 0.194, p = 0.001$) and promotion status ($\beta = 0.179, p = 0.002$) were also significant predictors. However, Work mode did not significantly predict PW ($\beta = 0.078, p = 0.166$). Among all predictors, gender emerged as the strongest predictor of Psychological Well-Being.

Discussion:

Results from table 1 indicate there is a significant mean difference between the groups of men and women on the measure of occupational self-efficacy construct and psychological well-being construct, where women scored higher in both the constructs in comparison with their counterparts, so H1 is accepted. The plausible internal factors like independence, emotional stability and emotional intelligence might greatly influence in determination of development of self-efficacy and psychological well-being in women. M. Chopra and A. S. Srivastava (2024) examined self-efficacy and work engagement among private service sector employees and found that there is a significant mean difference men and women employee group with respect to self-efficacy were men having higher self-efficacy construct than women. Arpita Nema and Urvashi Sharma examined gender differences in job satisfaction and psychological well-being among private sector employees in Jabalpur and found there is no significant difference between male and female employes in comparison with psychological well-being. Results from table 2 indicate there is no significant mean difference between the groups of work modes: work from office, work from home and hybrid work style on the measure of occupational self-efficacy construct and psychological well-being construct, so H2 is rejected. This suggests that the mode of work alone may not substantially influence employees’ confidence in handling occupational responsibilities or their overall psychological well-being. Roshan Lal and Ritu Sekhri (2016) examined occupational self-efficacy among traditional and telecommuting workers and found that occupational self-efficacy was scored higher by the employees who are working from office than the employees who have opted for work from home mode. Results from table 3 indicate there is a significant mean score difference between employees who received a promotion in the past one year and employees who did

not, in respect to occupational self-efficacy and psychological well-being constructs where occupational self-efficacy was higher for employees who received a promotion and psychological well-being was higher for employees who did not receive a promotion, this could be possibly promotion status bring the feeling of validation which supports efficacy and brings responsibility and work load which might effect psychological well-being, Hence H3 is accepted. The findings indicate the importance of organizational support mechanisms for newly promoted employees. While promotion may enhance employees’ confidence, organizations consider providing psychological support, workload management, and adjustment assistance to maintain employee well-being after promotion. A study by Ng, Eby, Sorensen, and Feldman (2005) conducted a meta-analysis on predictors of career success and found that promotions were positively associated with indicators of subjective career success, confidence, and self-perceptions of competence. Employees who achieved promotions often reported greater feelings of accomplishment and capability, which aligns with your finding that occupational self-efficacy was higher among promoted employees. Results from table 4 indicate that there is a weak positive correlation between occupational self-efficacy and psychological well-being ($r = 0.169^{**}, p = 0.003$), the modest strength of the relationship indicates that psychological well-being is likely influenced by additional occupational and personal factors beyond self-efficacy alone. So H4 is accepted. In the IT work environment, factors such as workload, organizational support, work–life balance, and job stress may contribute substantially to employee well-being. Furthermore, occupational self-efficacy may exert indirect effects through mechanisms such as work engagement and job satisfaction, which were not examined in the present study. Orgambidez, Borrego, and Vázquez-Aguado (2020) found that self-efficacy was positively associated with employees’ quality of working life; however, this relationship was not entirely direct. Their findings showed that work engagement acted as a mediating variable, meaning that employees with higher self-efficacy tended to become more engaged at work, which subsequently improved job satisfaction and broader well-being outcomes. Results from table 5 indicate occupational self-efficacy as a valid predictor statistically but explains a very low variance in psychological well-being, however the model explained 9.3% of the variance in psychological well-being, suggesting that the variables contribute to well-being, while other factors not included in the study may also play an important role. Gender emerged as the strongest predictor, highlighting possible differences in workplace experiences and well-being across gender groups. Promotion status also with psychological well-being, suggesting that career advancement may enhance

employees' sense of achievement and overall well-being, so H5 and H6 are accepted. A study by Williams, Shelley-Ann and colleagues (2010) found that self-efficacy significantly predicted psychological well-being among public sector employees. Their multiple regression analysis showed that self-efficacy, together with work-related contextual factors, contributed significantly to psychological outcomes such as life satisfaction and engagement.

Conclusion:

The study established the association between the two study variables; occupational self-efficacy and psychological well-being among IT employees which is weak in nature and from regression model it can be drawn that occupational self-efficacy as significant predictor but with low explained variance in psychological well-being and there was gender differences with respect to occupational self-efficacy and psychological well-being, where female employees has higher occupational self-efficacy and psychological well-being measures. Occupational self-efficacy was found to be higher for employees who received promotion in past one year rather than employees who did not receive it conversely psychological well-being was higher for employees who didn't receive promotion. Occupational self-efficacy and psychological well-being are important psychological constructs that should be maintained and promoted among IT employees to support both employee functioning and organizational outcomes.”

DATA AVAILABILITY STATEMENT

Data files are available with a request.

FUNDING

This research received no external funding.

ACKNOWLEDGEMENT

The authors gratefully acknowledge the cooperation of HR managers and employees of multiple IT companies who facilitated data Collection.

CONFLICT OF INTEREST: There is no conflict of interest to disclose.

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