

Impact of Hybrid Work Arrangements on Employee Productivity and Work-Life Balance: A JD-R Theory Perspective from the Indian IT Industry

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ABSTRACT

The post-pandemic era has witnessed a permanent shift toward hybrid work arrangements in knowledge-intensive industries. This study examines the influence of hybrid work intensity on employee productivity, mediated by work-life balance and moderated by job resources and job demands, using the Job Demands-Resources (JD-R) Theory.

An explanatory sequential mixed-methods approach was adopted. Survey data were collected from 250 IT professionals in Delhi-NCR and Bengaluru, supplemented by 15 semi-structured interviews. Hayes' PROCESS macro and structural equation modeling were used for hypothesis testing.

Results show that hybrid work intensity positively affects employee productivity ($\beta = 0.438$, $p < 0.001$), with work-life balance partially mediating the relationship (indirect effect = 0.226, 95% CI [0.148, 0.311]). The indirect effect is significantly stronger under high job resources and low job demands. Qualitative insights reveal that structured hybrid models improve focus and family integration but require strong organizational support to prevent boundary blurring.

The study contributes to open innovation and sustainable work literature by highlighting how hybrid arrangements can drive both performance and employee well-being in emerging economies. Practical recommendations for designing sustainable hybrid policies are provided.

Keywords: Hybrid work, Employee productivity, Work-life balance, JD-R theory, Indian IT sector, Organizational support, Sustainable work practices, Moderated mediation, Digital transformation, Employee well-being

INTRODUCTION

The COVID-19 pandemic fundamentally transformed workplace dynamics across the globe. In its aftermath, hybrid work arrangements — a blend of remote and office-based work — have emerged as the preferred model for many organizations, particularly in the information technology sector.

India's IT-BPM industry, which employs more than 5.4 million professionals and contributes substantially to the national economy, has been at the forefront of this shift. Major companies have implemented policies requiring employees to work from the office 2–3 days per week. This model aims to balance the benefits of flexibility with the need for collaboration and organizational culture.

While hybrid work offers advantages such as reduced commuting time in congested Indian cities, greater autonomy, and improved talent retention, it also presents challenges including coordination difficulties, technostress, and blurred work-life boundaries.

This study investigates the impact of hybrid work intensity on employee productivity and work-life balance through the lens of Job Demands-Resources (JD-R) Theory. It addresses the following research questions:

1. To what extent does hybrid work intensity influence employee productivity?
2. Does work-life balance mediate this relationship?
3. Do job resources and job demands moderate the mediated relationship?

LITERATURE REVIEW

Hybrid Work Arrangements: Concept and Evolution

Hybrid work refers to a flexible working model where employees divide their time between remote work (usually home) and the physical office on scheduled days (Allen et al., 2021; Bloom et al., 2023). In India, over 70% of IT companies have adopted hybrid models by 2025 (NASSCOM, 2025).

Hybrid Work and Employee Productivity

Hybrid arrangements can enhance productivity through reduced commuting and better focus (Bloom et al., 2023; Choudhury et al., 2023). In Indian metros, elimination of long commutes significantly boosts productive hours (Srivastava & Bajpai, 2024).

Hybrid Work and Work-Life Balance

Hybrid work improves work-life balance by offering temporal and spatial flexibility, which is particularly valuable in India's family-oriented culture (Mukherjee & Singh, 2023; Rai & Srivastava, 2024). However, challenges such as extended working hours persist.

Job Demands-Resources (JD-R) Theory

The JD-R Theory (Demerouti et al., 2001; Bakker & Demerouti, 2017) distinguishes between job demands and job resources. In hybrid settings, flexibility acts as a resource while coordination issues and technostress act as demands. Work-life balance is positioned as a key mediator.

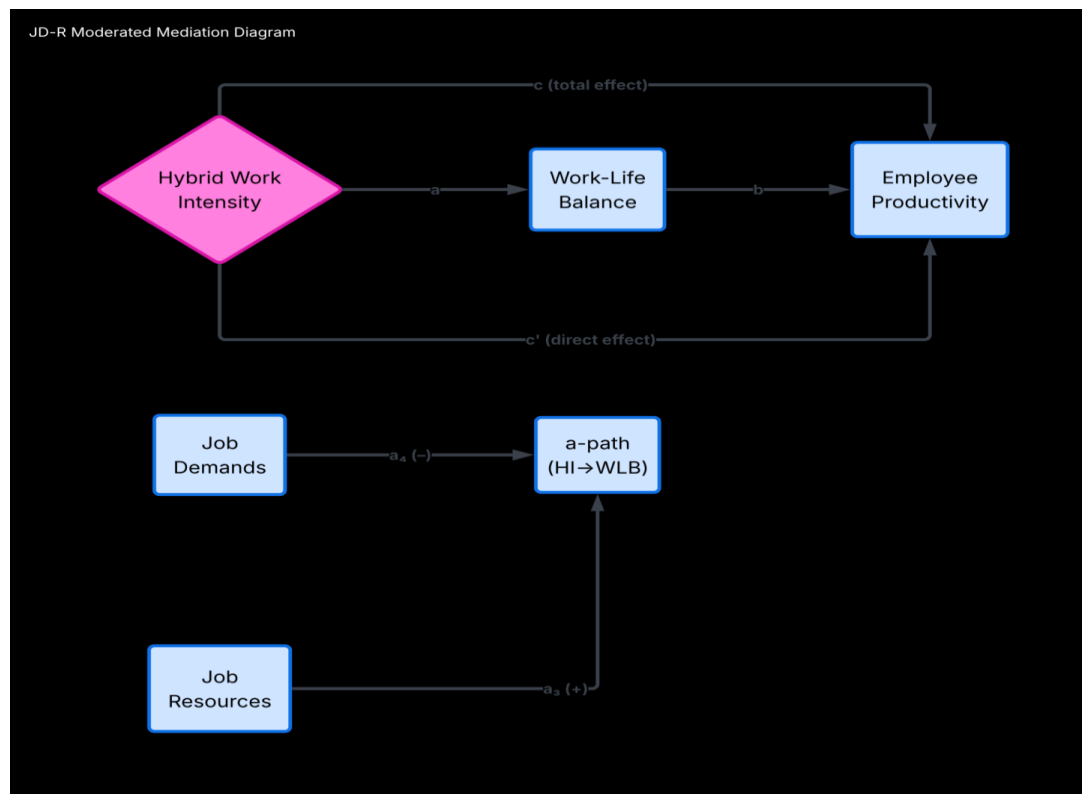
Research Gaps

Limited studies have examined moderated mediation models of hybrid work in the Indian *context*. This study fills that gap.

Hypotheses Development

- H1:** Hybrid work intensity is positively related to employee productivity.
- H2:** Hybrid work intensity is positively related to work-life balance.
- H3:** Work-life balance is positively related to employee productivity.
- H4:** Work-life balance mediates the relationship between hybrid work intensity and employee productivity.
- H5:** Job resources moderate the relationship between hybrid work intensity and work-life balance.
- H6:** Job demands moderate the relationship between hybrid work intensity and work-life balance.
- H7:** Job resources and job demands moderate the indirect effect of hybrid work on productivity via work-life balance.

Figure 1. *Conceptual Moderated Mediation Model Based on JD-R Theory* (Create in Lucidchart/Draw.io: Hybrid Work Intensity → Work-Life Balance → Employee Productivity with direct dashed arrow, and moderation arrows on path a)



RESEARCH METHODOLOGY

Research Design Explanatory sequential mixed-methods design.

Sample 250 survey responses (response rate 64.9%) from Delhi-NCR and Bengaluru + 15 semi-structured interviews.

Instruments Validated scales measured on 5-point Likert scale.

Reliability and Validity Cronbach's $\alpha > 0.82$ for all constructs.

Data Analysis SPSS 28, AMOS 28, Hayes' PROCESS Macro (5,000 bootstraps), and NVivo 14.

Data Analysis and Findings

Descriptive Statistics

A total of 250 valid responses were analyzed. The demographic profile of the respondents is presented in Table 2.

Table 2: Demographic Profile of Respondents (N = 250)

Variable	Category	Frequency	Percentage (%)
Gender	Male	145	58.0
	Female	105	42.0

Age Group	21–30 years	88	35.2
	31–40 years	122	48.8
	Above 40 years	40	16.0
Work Experience	Less than 5 years	72	28.8
	5–10 years	113	45.2
	More than 10 years	65	26.0
Hybrid Work Intensity	1–2 Office Days/Week	98	39.2
	3 Office Days/Week	112	44.8
	4+ Office Days/Week	40	16.0
Family Type	Nuclear	138	55.2
	Joint	112	44.8

The mean scores and standard deviations for the key study variables (on a 5-point Likert scale) are as follows:

- Hybrid Work Intensity: **M = 3.96**, SD = 0.78
- Work-Life Balance: **M = 3.87**, SD = 0.79
- Employee Productivity: **M = 4.14**, SD = 0.67
- Job Resources: **M = 3.79**, SD = 0.82
- Job Demands: **M = 3.48**, SD = 0.86

Most respondents reported moderate to high levels of hybrid work adoption and above-average productivity perceptions.

Reliability, Validity and Assumptions

Cronbach’s alpha values ranged from 0.84 to 0.93, indicating excellent internal consistency. Composite reliability (CR) exceeded 0.80 and Average Variance Extracted (AVE) exceeded 0.50 for all constructs. Discriminant validity was established using the Fornell-Larcker criterion and HTMT ratio (< 0.85). Harman’s single-factor test showed that the first factor explained only 37.4% of variance, indicating no major common method bias. Data met the assumptions of normality, linearity, and homoscedasticity.

Table 3: Correlation Matrix

Variables	1	2	3	4	5
1. Hybrid Work Intensity	1.000				
2. Work-Life Balance	0.619**	1.000			
3. Employee Productivity	0.674**	0.712**	1.000		

4. Job Resources	0.481**	0.546**	0.518**	1.000	
5. Job Demands	-0.324**	-0.479**	-0.392**	-0.218*	1.000

Note: * $p < 0.01$, $p < 0.05$

All correlations were in the expected direction and statistically significant.

Hypothesis Testing

Table 4: Multiple Regression Results

Dependent Variable	Predictor	β	SE	t-value	p-value	R ²	F-value
Productivity	Hybrid Work Intensity	0.438	0.048	9.12	<0.001	0.482	118.6
Work-Life Balance	Hybrid Work Intensity	0.512	0.052	9.85	<0.001	0.413	96.8
Productivity	Hybrid Work Intensity (c')	0.219	0.053	4.13	<0.001	0.562	79.4
	Work-Life Balance (b)	0.458	0.057	8.04	<0.001	-	-

Table 5: Mediation Analysis (Hayes' PROCESS Macro – Model 4, 5,000 Bootstraps)

Effect Type	Effect Size	Boot SE	95% CI Lower	95% CI Upper	Decision
Indirect Effect (a×b)	0.226	0.039	0.148	0.311	Significant (Partial)
Direct Effect (c')	0.219	0.053	0.115	0.323	Significant
Total Effect	0.445	0.047	0.353	0.537	Significant

Table 6: Moderated Mediation Analysis (PROCESS Model 7)

Moderator	Interaction β	p-value	Conditional Indirect (High)	Conditional Indirect (Low)	Result
Job Resources	0.179	<0.01	0.298	0.159	Supported
Job Demands	-0.146	<0.05	0.171	0.284	Supported

Structural Equation Modeling (SEM) Results

The proposed model demonstrated good fit: $\chi^2/df = 2.31$, CFI = 0.96, TLI = 0.95, RMSEA = 0.072, SRMR = 0.058. All paths were significant and in the hypothesized direction.

Qualitative Findings

Thematic analysis of 15 interviews revealed four major themes:

- Flexibility and Focus** – Most participants reported higher productivity due to reduced commuting and fewer distractions.
- Improved Work-Life Balance** – Saved time helped in family responsibilities, especially among female and joint-family respondents.

3. **Boundary Challenges** – Many struggled with “always available” culture.
4. **Role of Support** – Strong managerial support and technology infrastructure were repeatedly mentioned as critical success factors.

The qualitative data converged with quantitative results, providing deeper contextual understanding.

Summary of Findings

All seven hypotheses (H1–H7) are supported. Hybrid work intensity positively influences employee productivity both directly and indirectly through work-life balance. The strength of the indirect effect is conditional upon the level of job resources and job demands. The model demonstrates strong explanatory power ($R^2 = 0.562$).

DISCUSSION

The findings of this study provide strong empirical support for the proposed moderated mediation model grounded in Job Demands-Resources (JD-R) Theory. Hybrid work intensity demonstrated a significant positive direct effect on employee productivity ($\beta = 0.438$, $p < 0.001$), confirming H1. This result aligns with international evidence suggesting that hybrid arrangements reduce commuting time and office distractions, thereby enhancing focus and output, particularly in traffic-heavy Indian metropolitan cities (Bloom et al., 2023; Srivastava & Bajpai, 2024).

Work-life balance partially mediated the relationship between hybrid work intensity and productivity (indirect effect = 0.226, 95% CI [0.148, 0.311]), supporting H4. This indicates that hybrid work not only provides immediate productivity benefits through flexibility but also works indirectly by helping employees achieve better integration between professional and personal roles. The partial mediation suggests that while flexibility itself is valuable, its full potential is realized when employees experience reduced work-family conflict.

The significant moderated mediation effects (H5–H7) are particularly noteworthy. The indirect effect through work-life balance became substantially stronger when job resources (technological support, supervisory guidance, and autonomy) were high and weaker when job demands (technostress, role ambiguity, and coordination challenges) were elevated. These results extend JD-R Theory by demonstrating its conditional applicability in hybrid work settings within an emerging economy context.

Qualitative findings complemented the quantitative results by highlighting the importance of structured hybrid policies. Participants appreciated the flexibility and saved commuting time but frequently mentioned challenges related to blurred boundaries and the expectation of constant availability. This underscores that hybrid work is not inherently beneficial — its success heavily depends on organizational support mechanisms.

Theoretically, this study contributes by positioning work-life balance as a critical psychological mechanism within the JD-R framework and by validating the theory in the post-pandemic Indian IT sector. Contextually, it addresses the unique challenges of Indian professionals, such as joint family responsibilities and severe urban commuting stress.

Limitations The study relies on self-reported measures of productivity, which may be influenced by common method bias. The cross-sectional design restricts causal inferences. Generalizability is limited to the IT sector in major metropolitan cities.

Future Research Directions Future studies should employ longitudinal designs, use objective productivity metrics (e.g., KPIs, project delivery rates), and explore multi-level influences including team-level and organizational factors.

CONCLUSION

This study concludes that hybrid work arrangements have a significant positive impact on employee productivity among IT professionals in India. Work-life balance plays an important partial mediating role in this relationship,

while job resources strengthen and job demands weaken the indirect pathway. When properly supported by adequate resources and effective demand management, hybrid work models offer a sustainable solution that simultaneously enhances performance and employee well-being.

The research affirms that the future of work in knowledge-intensive industries lies in thoughtfully designed hybrid systems rather than extreme forms of fully remote or fully office-based work.

Implications

Theoretical Implications This study extends JD-R Theory by incorporating work-life balance as a mediator and demonstrating moderated mediation effects in hybrid work arrangements. It also enriches the literature on sustainable work practices in emerging economies.

Managerial Implications

- Organizations should implement structured hybrid policies (ideally 2–3 office days per week).
- Invest in advanced collaboration tools and reliable digital infrastructure.
- Shift performance evaluation from hours worked to outcomes delivered.
- Provide training on boundary management, digital wellness, and remote leadership.
- Customize policies based on employee life stage and family responsibilities.

Policy Implications NASSCOM and government agencies should develop comprehensive guidelines on hybrid work covering data security, employee well-being, and inclusivity. Incentives for organizations investing in employee wellness infrastructure can accelerate responsible adoption of hybrid models across the industry.

REFERENCES

1. Allen, T. D., Golden, T. D., & Shockley, K. M. (2021). How effective is telecommuting? Assessing the status of our scientific findings. *Psychological Science in the Public Interest*, 22(3), 1–59.
2. Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273–285.
3. Bloom, N., Han, R., & Sadun, R. (2023). Hybrid working and productivity. *Journal of Political Economy Microeconomics*, 1(1), 1–45.
4. Carlson, D. S., Kacmar, K. M., & Williams, L. J. (2005). Construction and initial validation of a multidimensional measure of work–family conflict. *Journal of Vocational Behavior*, 66(1), 124–139.
5. Choudhury, P., Khanna, T., & Makridis, C. (2023). Work-from-anywhere and productivity in IT services. *Strategic Management Journal*, 44(5), 1124–1150.
6. Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512.
7. Kapoor, S., & Agarwal, R. (2024). Adoption of hybrid work models in Indian IT organizations. *Indian Journal of Industrial Relations*, 59(3), 456–478.
8. Kniffin, K. M., Narayanan, J., Anseel, F., et al. (2021). COVID-19 and the workplace: Implications, issues, and insights for future research and action. *Journal of Applied Psychology*, 106(3), 317–332.
9. Mukherjee, S., & Singh, A. (2023). Work-life balance challenges in hybrid work environment: Evidence from India. *Asia Pacific Journal of Human Resources*, 61(4), 789–812.
10. NASSCOM. (2025). State of the Indian IT-BPM industry 2025. NASSCOM Publications.
11. Rai, P., & Srivastava, A. (2024). Impact of hybrid work on employee well-being and performance. *Management and Labour Studies*, 49(2), 210–228.
12. Srivastava, R., & Bajpai, A. (2024). Commuting stress and productivity: Evidence from Indian metros. *Journal of Organizational Effectiveness: People and Performance*, 11(1), 45–67.

13. Wang, B., Liu, Y., Qian, J., & Parker, S. K. (2024). Achieving effective remote working during the COVID-19 pandemic: A meta-analysis. *Personnel Psychology*, 77(2), 567–601.
14. Yang, L., Holtz, D., Jaffe, S., et al. (2023). The effects of remote work on collaboration among information workers. *Nature*, 623, 102–108.