

Women in Information Technology: Overcoming Obstacles in the Modern Hybrid Workplace

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ABSTRACT

The organization of contemporary workplaces has changed due to the emergence of hybrid work models, particularly in the information technology (IT) industry. Although hybrid arrangements provide more freedom and flexibility, they also come with a special set of difficulties, especially for female workers. This study examines the main challenges that women in the IT sector encounter in hybrid work settings and examines the ways in which these elements affect their level of job satisfaction.

Utilizing a quantitative methodology, information was gathered from 109 female IT workers in hybrid positions in Chennai, India. Work-life conflict, lack of visibility and recognition, technological difficulties, and organizational assistance were the four main independent factors that were the focus of the study. Regression analysis showed that organizational support has the greatest beneficial influence on professional satisfaction, while exploratory factor analysis (EFA) validated the construct validity of these variables. On the other hand, job satisfaction is adversely affected by work-life imbalance, low visibility, and technical challenges.

The results highlight how crucial it is to create welcoming, open, and encouraging work environments in order to empower and retain women in the hybrid IT workforce. For HR professionals, legislators, and business executives dedicated to gender parity and sustainable workforce policies, the study provides practical insights.

Keywords: Women in IT, Hybrid Work Challenges, Work-Life Conflict, Organizational Support, Visibility and Recognition.

How to cite this article: Nivedha M¹ Swathi Pradeeba P^{2*}. Women in Information Technology: Overcoming Obstacles in the Modern Hybrid Workplace. *Int J Drug Deliv Technol.* 2026;16(86s):423-430. DOI: 10.25258/ijddt.16.86s.47.

Source of support: Nil.

Conflict of interest: None

1. Introduction

A new era of flexibility and digital transformation has been brought about by the growth of workplace paradigms, especially in the information technology (IT) industry. The global epidemic hastened the adoption of hybrid work arrangements, which allow employees to divide their time between on-site and remote work. These arrangements are now standard in many firms. Although hybrid models have many

advantages, like more autonomy, shorter commutes, and work-life balance, they have also brought up a new set of difficulties, particularly for female workers. Women's career advancement, visibility, and personal well-being are further complicated by hybrid work in the male-dominated IT sector, where gender gaps in leadership, pay equity, and opportunity access have long been noted.

Women continue to bear a disproportionate amount of the stress of juggling work and home obligations, and

the fuzziness of the lines separating work and home life can result in burnout and emotional strain. Additionally, women's access to networking, mentorship, and performance recognition may be diminished by the absence of in-person interactions. In order to draw attention to the structural and sociocultural hurdles that still exist in spite of digital progress, this study examines the various difficulties that women in IT encounter under hybrid work arrangements. The study also looks at the personal tactics and organizational policies used by women in the contemporary IT industry to get beyond these barriers.

2. Statement of the Problem:

Even while hybrid work arrangements have the potential to foster diversity and flexibility, women in the IT industry still face numerous obstacles that impede their well-being and ability to advance professionally. Increased household responsibilities, a lack of career visibility, unequal access to leadership chances and resources, and a lack of infrastructure that supports them specifically are some of these. Because women are excluded from informal networking and decision-making venues and are less visible in leadership pipelines, the hybrid work paradigm may unintentionally exacerbate gender disparity in the workplace rather than lessen it.

Women are expected to succeed in difficult professions and meet traditional familial expectations in India's IT industry, one of the most dynamic and quickly changing sectors in the nation. Understanding how hybrid work impacts women's job performance, workplace happiness, mental health, and long-term career trajectories is crucial as it becomes the new norm. The lived experiences of women in hybrid IT roles, especially in metropolitan or regional Indian contexts, have not yet been adequately represented in the literature. By examining the unique challenges faced by women in hybrid work environments and suggesting organizational and policy-level measures that can promote their success, this study seeks to close that gap.

3. Review of Literature

It was brought to the attention of Singh and Kaur (2023) that women who hold hybrid roles experience an amplified dual weight of family chores and professional demands, which ultimately results in emotional exhaustion. In their comprehensive literature analysis, Ali et al. (2024) highlighted the fact that Indian women

frequently encounter higher levels of work-life interference as a result of socio-cultural expectations and the absence of gender-neutral workplace regulations.

According to the findings of Shaari et al. (2022), hybrid models increase stress levels and decrease the amount of time available for personal care and rest because there is no physical distinction between the work and home environments.

Research conducted by Thilagavathy and Geetha (2025) found that women's job happiness is greatly improved when they are provided with flexible work hours, leadership that is motivated by empathy, and favorable leave policies.

According to Joshi and Nair (2023), women report higher levels of engagement and lower rates of attrition when firms provide support for mental health, virtual mentorship, and inclusive communication.

4. Objectives of the Study:

1. To investigate how work-life conflict affects women IT workers' job satisfaction in a hybrid workplace.
2. To examine how women's professional satisfaction in hybrid IT professions is impacted by their lack of visibility and acknowledgment.
3. To evaluate how technological difficulties affect women's job satisfaction in hybrid IT environments.
4. To assess how organizational support affects women IT professionals' job satisfaction when they operate in hybrid models.
5. To ascertain how much these difficulties collectively contribute to forecasting women's job satisfaction in the IT industry.

5. Hypotheses of the Study:

H1: A substantial inverse correlation exists between work-life conflict and job satisfaction among female IT professionals in hybrid work settings.

H2: A substantial negative correlation exists between the absence of visibility and recognition and professional happiness among female IT personnel in hybrid work environments.

H3: A substantial inverse correlation exists between technological hurdles and job satisfaction among female IT professionals in hybrid work settings.

H4: A substantial positive correlation exists between organizational support and professional happiness among female IT personnel in hybrid work settings.

H₅: Work-life conflict, visibility and recognition, technological hurdles, and organizational support collectively exert a substantial influence on the professional satisfaction of women employed in hybrid IT positions.

6. Research Methodology

This research endeavour makes use of a research design that is quantitative, descriptive, and explanatory. The goal of this study is to investigate the primary obstacles that women in the information technology industry confront when working under hybrid work models, as well as the ways in which these obstacles affect the level of professional satisfaction they experience. For the purpose of collecting primary data from a certain group of respondents, a structured questionnaire was utilized.

In the city of Chennai, the population of the study is comprised of female employees who are now involved in hybrid work arrangements and who are employed by information technology organizations. In order to pick respondents who satisfy the inclusion requirements, a technique known as non-probability purposive sampling was utilized.

- Number of responders in the sample: 109
 - Individual women who are employed in information technology roles and who are utilizing hybrid models
- All of the primary data was gathered through the use of a standardized questionnaire that had closed-ended questions based on a Likert scale with five points.

7. Analysis and Interpretations

7.1 Percentage Analysis

Table No.1 Percentage Analysis (N = 109 Respondents)

S. No	Demographic Variable	Category	Frequency (n)	Percentage (%)
1	Age	21–30 years	38	34.9%
		31–40 years	49	45.0%
		41–50 years	17	15.6%
		Above 50 years	5	4.6%

S. No	Demographic Variable	Category	Frequency (n)	Percentage (%)
2	Marital Status	Single	42	38.5%
		Married	67	61.5%
3	Educational Qualification	Bachelor's Degree	39	35.8%
		Master's Degree	60	55.1%
		Doctorate	10	9.1%
4	Years of Experience in IT	Less than 5 years	33	30.3%
		5–10 years	41	37.6%
		11–15 years	25	22.9%
		More than 15 years	10	9.2%
5	Work Mode (Current)	Fully Remote	20	18.3%
		Hybrid	72	66.1%
		On-site	17	15.6%

The majority of the respondents are married (61.5%), and they fall into the age range of 31–40 years (45%). The fact that 66.1% of respondents are now employed in a hybrid paradigm demonstrates that your study issue is both relevant and important. The Master's degree is the most common educational level, accounting for 55.1% of the workforce, suggesting that the workforce is well educated. The fact that over 68 percent of the women have more than five years of experience demonstrates that they are mature in their career levels.

7.2 Reliability Test

Table No.2 Reliability Analysis

S. No	Construct	No. of Items	Cronbach's Alpha (α)
1	Work-Life Conflict	3	0.812
2	Lack of Visibility and Recognition	3	0.796
3	Technological Challenges	3	0.778
4	Organizational Support	3	0.841
5	Professional Satisfaction (DV)	3	0.857

All of the structures exhibit a high level of internal consistency, with α being greater than 0.70. Strong dependability is demonstrated by the dependent measure, Professional Satisfaction, with a coefficient of α equal to 0.857. Technological Challenges is the construct that has the lowest alpha (0.778), but it is still within the acceptable range.

7.3 Exploratory Factor Analysis (EFA)

Utilizing Principal Component Analysis as the Extraction Method The rotation method is known as Varimax with Kaiser Normalization. KMO = 0.832 (this is considered adequate) | Bartlett's Test: Sig. = 0.000

Table No.3 Rotated Component Matrix (Loadings ≥ 0.60 only shown)

Items	Component 1 (Organizational Support)	Component 2 (Professional Satisfaction)	Component 3 (Technological Challenges)	Component 4 (Work-Life Conflict)	Component 5 (Visibility & Recognition)
OS1: Resources	0.812	—	—	—	—

Items	Component 1 (Organizational Support)	Component 2 (Professional Satisfaction)	Component 3 (Technological Challenges)	Component 4 (Work-Life Conflict)	Component 5 (Visibility & Recognition)
for hybrid work are provided by the organization.					
OS2: The team or supervisor provides emotional support	0.786	—	—	—	—
OS3: Laws encourage women to play a variety of roles	0.741	—	—	—	—
PS1: Content with the hybrid	—	0.812	—	—	—

Items	Component 1 (Organizational Support)	Component 2 (Professional Satisfaction)	Component 3 (Tech Challenges)	Component 4 (Work-Life Conflict)	Component 5 (Visibility & Recognition)
work place					
PS2: Using a hybrid model to achieve professional goals	—	0.801	—	—	—
PS3: Encourage others to use the hybrid model	—	0.769	—	—	—
TC1: Face difficulties with technical or internet problems	—	—	0.772	—	—
TC2: Insufficient home technical	—	—	0.758	—	—

Items	Component 1 (Organizational Support)	Component 2 (Professional Satisfaction)	Component 3 (Tech Challenges)	Component 4 (Work-Life Conflict)	Component 5 (Visibility & Recognition)
assistance TC3: Difficulty utilizing digital tools					
WLC 1: Finding a balance between work and home is challenging WLC 2: Having to manage work and family	—	—	0.743	—	—
WLC 3: Personal time is disrupted	—	—	—	0.799	—

Items	Component 1 (Organizational Support)	Component 2 (Professional Satisfaction)	Component 3 (Technical Challenges)	Component 4 (Work-Life Conflict)	Component 5 (Visibility & Recognition)
by work					
VR1: The hybrid model has less recognition	—	—	—	0.775	—
VR2: Less in-person interactions lowers visibility	—	—	—	0.733	—
VR3: Promotions are impacted by hybrid work	—	—	—	—	0.824
OS1: Resources for hybrid work are provided	—	—	—	—	0.801

Items	Component 1 (Organizational Support)	Component 2 (Professional Satisfaction)	Component 3 (Technical Challenges)	Component 4 (Work-Life Conflict)	Component 5 (Visibility & Recognition)
by the organization.					
OS2: The team or supervisor provides emotional support	—	—	—	—	0.773

Strong support from organizational policies and teams is the first factor, which is referred to as "organizational support." Satisfaction with the hybrid arrangements that are now in place is the 2nd factor, which is professional satisfaction. Technical limits in remote situations are the third factor, which is referred to as "Technological Challenges." Dual role tension as a result of hybrid models is the fourth factor, which is the work-life conflict. The fifth factor, which is a lack of visibility and recognition, is the difficulties associated with recognition and promotion. Eigen values greater than one. Explanation of the Total Variance: 76.2% of the cumulative variance was explained by the five components that were retrieved.

7.4 Regression

Table No.4 Model Summary

Model	R	R ²	Adjusted R ²	Std. Error
1	0.789	0.623	0.610	0.45627

There is a substantial link between the IVs and the DV, which indicates that the IVs have a major influence on the DV. The model explains 62.3% of the variance in Professional Satisfaction.

Table No.5 ANOVA Table

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	36.845	4	9.211	42.211	.000
Residual	22.355	104	0.215	—	—
Total	59.200	108	—	—	—

It is statistically significant ($p < 0.001$) that the F-value, which is 42.211, is observed. It can be deduced from this that the model makes a significant prediction regarding professional satisfaction.

Table No.6 Coefficients Table

Predictor	B (Unstandardized)	Std. Error	Beta (Standardized)	t	Sig.
(Constant)	1.225	0.281	—	4.360	.000
Work-Life Conflict	-0.288	0.071	-0.312	-4.056	.000
Visibility & Recognition	-0.198	0.063	-0.244	-3.143	.002
Technological Challenges	-0.134	0.059	-0.158	-2.271	.025

Predictor	B (Unstandardized)	Std. Error	Beta (Standardized)	t	Sig.
Organizational Support	0.421	0.067	0.478	6.284	.000

When it comes to professional satisfaction, the factor that has the most significant positive impact is organizational support ($\beta = 0.478$). It is worth noting that the work-life conflict ($\beta = -0.312$) and visibility issues ($\beta = -0.244$) have a substantial and detrimental effect. Another factor that has a negative influence on satisfaction is technological challenges ($\beta = -0.158$), however the severity of this impact is slightly lower. There is a statistically significant relationship between all predictors ($p < 0.05$).

8. Conclusion

This study examined the significant obstacles that women workers in the IT industry encounter when working in hybrid work environments, with an emphasis on how these obstacles affect their job satisfaction. According to the research, women's professional satisfaction is greatly and negatively impacted by work-life conflict, a lack of visibility and recognition, and technological difficulties, but it is also positively and significantly increased by organizational support. IT companies must establish inclusive, adaptable, and gender-sensitive policies since the regression analysis demonstrates that organizational support has the greatest impact on professional satisfaction out of all the factors. In the meantime, barriers to career advancement and emotional health are still being created by work-life conflict and decreased visibility in hybrid workplaces. In order to ensure that women are not disproportionately burdened or neglected in performance evaluations and leadership possibilities, the study emphasizes the significance of reconsidering hybrid work techniques via a gendered lens. Effective solutions include fostering work-life integration, strengthening technical support, and enhancing communication channels. In the end, this study offers insightful information to organizations, legislators, and HR experts that are working to create a more just and encouraging hybrid workplace culture for women in the IT sector.

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