



Remote Working and Its Impact on IT Employees

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ABSTRACT

Working remotely encourages specialists to extend their workday beyond the confines of the traditional office environment. This is based mostly on the idea that there is no need for work to be done in a particular location. This research aims to investigate the job satisfaction and productivity among the IT employee working in Kerala. Kerala is one of the states which has a sizeable workforce in the IT industry working in different work profiles. The target population was IT employee working in Kerala. The research sighted general survey on the level of satisfaction and productive hours used by the employee while working from home while the core part of the study was to find the factors related to job satisfaction and productivity while working from home. Exploratory factor analysis was used for the data collected through structured questionnaire with LIKERT scale. Four factors were generated as part of analysis. The concept of remote working which gain popularity during the COVID-19 pandemic has now led to a new option for work flexibility across different industries of which IT is the dominant sector. With more employee favouring Work from home or remote jobs, the companies could make use of the research results for understanding the pulse of the employee and restructuring the HR policies accordingly.

Keywords: *Remote Work, Job Satisfaction, Productivity, Work from Home, IT employee, Exploratory Factor Analysis*

1. Introduction

The information technology (IT) sector is crucial to the 21st-century knowledge economy, which is technology-driven. India's excellent IT sector has helped it gain recognition as a knowledge economy on a global scale. IT services, IT-enabled services (ITES), e-commerce (online business), software, and hardware goods are the primary components of the IT industry. This sector also contributes significantly to the development of the infrastructure needed to store, process, and communicate information for critical corporate activities and other organisations. In recent years, the concept of remote work has gained momentum as a viable alternative to traditional office-based work. With advancements in technology and changing attitudes towards work-life balance, more and more companies are adopting remote work policies to attract and retain top talent. This shift has been particularly prevalent in the IT sector, where technology and innovation are at the forefront of industry growth. The COVID-19 pandemic has dramatically transformed the way we work and live. The unprecedented lockdowns and social distancing measures have forced many organizations to shift their operations to remote work to ensure business continuity. The IT sector, in particular, has been at the forefront of this shift, given its reliance on technology and digital communication tools. Employees who work remotely find it easier to balance work and personal obligations, and the pauses between workdays provide them time to engage in domestic and recreational pursuits.

Remote work has brought about several changes in the way we work, including the blurring of boundaries between work and personal life, a shift in communication channels, and changes in work routines. While remote work has been hailed for its flexibility and cost-saving benefits, there is a need to examine its impact on employee job satisfaction and productivity. The benefit of remote employment is that a worker can choose assignments that perfectly balance their job and personal lives. However, some employees prefer to fly to the office once a month for face-to-face peer conferences. This allows them to work primarily from home one day per week while still having access to in-person meetings at the office. Another coworking space and sharing economies are on the rise for the location, business, or worker. The coworking spaces are centres of productivity, community, and technology and offer fantastic opportunities for community connectivity to complete tasks. The coworking spaces are located between complete administrative centres and remote or home-based work. By examining the impact of remote work on job satisfaction and productivity, this study aims to contribute to the existing literature on remote work and provide insights into the challenges and opportunities associated with remote work for organizations and employees.

The findings of this study can inform policymakers and organizational leaders on the implications of remote work for employee well-being and organizational performance.

1.1 Statement of the Problem

The increasing trend of remote work has become prevalent in the Information Technology (IT) sector in recent years. However, it is unclear how this shift in work arrangement impacts employees' job satisfaction and productivity. The aim of this study is to focus on the factors that contribute to job satisfaction as well as productivity among IT employees who prefer remote jobs.

1.2 Objectives:

- To assess the level of satisfaction among employees working remotely.
- Factors influencing the Impact of remote work in job satisfaction and job productivity in the IT sector

2. Literature Review

An employee who works remotely does business away from the assigned workplace setting. The offer of remote work to an employee takes careful deliberation and mutual trust, and the peer must also approve the employee's request for remote work. Companies promoted remote work because of the COVID-19 pandemic, which helped to slow the spread of the illness and safeguard families. When done properly, remote work can increase productivity, creativity, and other positive effects for the company (Greenbaum, 2019).

Work-home conflict, loneliness, delay in decision-making, social and family support, job autonomy, work overload, and self-proficiency are the major factors affecting remote work employees (Wang et al., 2021). Previous Literature as sighted the effects of productivity and job satisfaction on remote working in IT industry (Bapuji & Crossnan, 2022; Bock et al, 2021; Kim& Park ,2019). There are published report that show that remote access naturally has consequences for research projects and needs careful managing to ensure that it enhances rather than diminishes the quality of the work or the productivity of those who are still on site most of the time (Philip, 2019). COVID-19 related research when remote working was at it peak, has examined productivity variation in literature with IT sector being the key area of study (Jackson & Hitt, 2021). While working remotely, several individuals have claimed greater job satisfaction and work-life balance (Bellmann and Hübler, 2020).

Some studies have mentioned that social support and productivity were positively related while job level of the employee was not a significant moderator especially during COVID-19 pandemic (Kurdy et al, 2023). Related studies of remote work addressed the challenges and hindrances when collaborating in work along with communication issues in the Indian IT industry (Mahajan & Palvia,2020). While an interesting result found was that remote work did have positive impact on work-life balance and job satisfaction among IT professionals (Mahajan & Palvia,2020; Shah & Shah, 2020). Autonomy, flexibility and reduced commute time were identified as key factors in remote work satisfaction (Shah & Shah,2020). Literature has cited communication is the most influencing factor of creating job satisfaction among remote employees in the IT industry and remote working is becoming the upcoming trend (GigiG & Sangeetha, 2020).

3. Methodology

Research Design : This study aims to understand the jobs satisfaction of employees working remotely in IT industry. We use a descriptive and analytical research design in this study with the help of a structured questionnaire. The study uses convenience sampling for selecting the respondents from the IT industry.

Population Of the Study: The target group were IT employee who worked remotely across the State of Kerala. Kerala is one the states in India which has focus on IT and related services through Techno Park and Infopark operating in the State. The data was gathered in accordance with the responses of 100 candidates who received an online questionnaire and provided a sample size.

Data Collection: Data for this study included both primary and secondary sources. A questionnaire was used to collect the essential information that was distributed to respondents via social media channels like Instagram, WhatsApp, and E-mail. Googler forms was used for data collection. The first part of the questionnaire focused on demographic and general information related to level of satisfaction. The second part focused on the investigation related to factors that impacted job satisfaction and productivity among IT employees who are working remotely. LIKERT scale was used for this part of the questionnaire. This part of the questionnaire was framed with some references from Maslach Burnout Inventory scale which included 22 questions.

Additional inputs for the questionnaire and the research were generated from information gathered from websites, journals, and earlier study *Statistical Tools and Techniques Used for Analysis*: The statistical techniques and tools employed in this study's analysis consists of Google forms. The software used to analyse and interpret the exploratory factor analysis was with the help of SPSS (Statistical Package for The Social Sciences).

4. Results and Discussion

The demographic data collected from survey is given below. Structured questionnaire was used to collect the information from the target population using Google forms. From the demographic data, it clearly shows the majority of the respondents female employee working remotely in IT industry.

Table 1 Gender

Particulars	Percentage
Male	48
Female	50
Prefer not to say	2
Total	100

Table 2 Years of Employment

Particulars	Percentage
Less than year	56
1-5	24
6-10	14
11 years and above	6
Total	100

Majority of the respondents are freshers or have been working around five years in IT field. Since COVID-19, there has been more changes in the technologies used in IT industry and fresh talent has been absorbed in many companies.

4.1 Stressed while working from home

Table 3 Stress level

Particulars	Percentage
Always	8
Often	20
Sometimes	56
Rarely	16
Never	0
Total	100

From the above Table, it was clear that majority of the employees were stressed while working from home while a section of the target group felt lesser impact of stress on them. This shows evidence that Stress has contributed to dissatisfaction and lesser productivity among these groups in the IT sector.

4.2 Satisfaction level of interaction with colleagues and managers while working from home

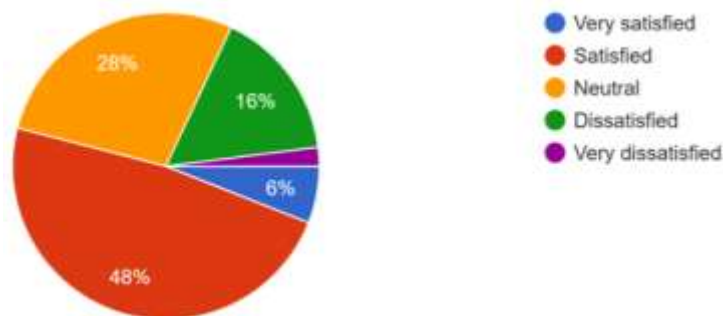


Figure 1 : Satisfaction level with Colleagues and Managers while working remotely

The survey identified that the majority were either satisfied or do not prefer to say regarding their level of satisfaction with peers when working remotely. Only very few are found to be really satisfied with their Work from home tenure while a minority of the respondents were very dissatisfied with the proceedings during remote work.

4.3 Hours of productivity when working from home

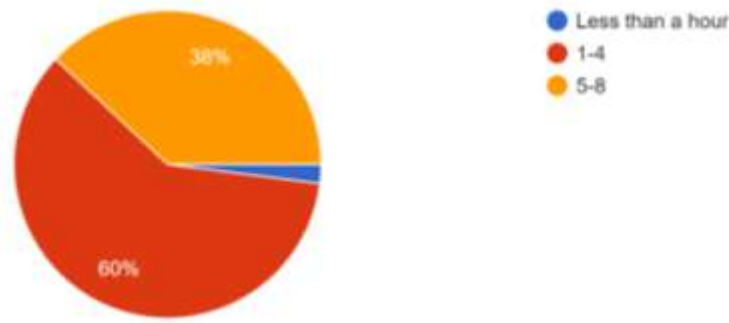


Fig 2: Productive Hours while working remotely

The Pie chart has been able to prove that remote work was highly productive with majority able to use their 8 hours of work effectively. Remote work was able to remove the commuting time to office which was a challenge for employees. Due to the new normal way of working, people were able to adapt to more productive use of their work time even when at home along with able to complete the duties at home. A few respondents found that the productive time was very low.

4.4 Factor Analysis: Impact of remote work in job satisfaction and job productivity in the IT sector

Exploratory factor analysis was done using IBM SPSS ver. 23 which generated the KMO and Bartlett’s test tables and Rotated Matrix Components for the 20 LIKERT scale variables in the questionnaire.

Table 4: KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.779
Bartlett's Test of Sphericity	Approx. Chi-Square	1466.866
	df	190
	Sig.	.000

Bartlett’s test of sphericity, which tests the overall significance of all the correlations within the correlation matrix, was significant ($\chi^2(190) = 1466.866, p < 0.05$), indicating that it was appropriate to use the factor analytic model on this set of data. The Kaiser-Meyer-Olkin measure of sampling adequacy indicated that the strength of the relationships among variables was high ($KMO = .779$), thus it was acceptable to proceed with the analysis. Initially, 10 factors with eigenvalues greater than one were extruded. A series of factor analyses were conducted which indicated that four factors gave the most interpretable solution.

Table 5: Rotated Component Matrix, Eigen Values and Total Variance Percentage for Components Loadings obtained by Principal Component Analysis with Varimax Rotation Method(20 Items* of Survey)

	Component			
	1	2	3	4
Job is hardening me emotionally	0.867			
Really care what happens to some recipients	0.768			
Become more callos toward people since	0.743	0.33		
Working with people is a stress	0.725			
I'm at the end of my rope	0.711		0.317	
Working with people is a strain	0.68			0.485
Positively influencing other peoples lives through work		0.83		
Easily create a relaxed atmosphere with my recipients		0.802		
Feel very energetic		0.769		
Effectively deal with the problems of my recipients		0.749		0.404
Easily understand how my recipients feel		0.727		
Deal with emotional problems very calmly		0.712	0.347	

Exhilarated after working closely with my recipients		0.673		
Recipients blame me for some of their problems		0.309	0.819	
Emotionally drained from work	0.499		0.729	
Burned out from work	0.465		0.694	
Feel fatigued to face another day on the job	0.346		0.638	0.466
Feel used up at the end of the workday	0.445		0.577	
Working too hard on my job		0.346	0.574	0.409
Frustrated by job	0.427		0.368	0.697
Eigenvalues	8.115	3.45	1.353	1.066
Percentage of total variance	40.577	17.251	6.763	5.33

*Loadings > 0.3

From the table above, The first factor was robust, with a high eigenvalue of 8.115, and it accounted for 40.577% of the variance in the data. Factor two had an eigenvalue of 3.45 and accounted for a further 17.251% of the variance. The eigenvalues for factors three and four were 1.353 and 1.066 respectively, together accounting for a further 12.09 % of the total variance.

The first Factor was identified as “Emotional Exhaustion” based on the characteristics of the variables included in the list. The variables were - job is hardening them emotionally, they really care what happens to some recipients, I feel I treat some recipients as if they were impersonal ‘objects’ I’ve become more callous toward people since I took this job, Working with people is a stress, I’m at the end of my rope, Working with people is a strain impact them job satisfaction and productivity. The second factor was identified as “Personal Accomplishment ” positively influencing other peoples lives through work, Easily create a relaxed atmosphere with my recipients, feel very energetic, Effectively deal with the problems of my recipients, easily understand how my recipients feel, deal with emotional problems very calmly, exhilarated after working closely with my recipients .

The third factor was identified as “Overcoming Obstacles Factors” which includes recipients blame me for some of their problems, emotionally drained from work, burned out from work, feel fatigued to face another day on the job, feel used up at the end of the workday, Working too hard on my job. The fourth factor which had only one variable as loading was identified as “Frustrated By The Job”. Similar studies have done exploratory factor analysis which identified job insecurity, workload, a poor work environment, a lack of structure, and personal problems as the five main factors that cause occupational stress during remote working. (Subha et al. ,2021).

5. Conclusion

On the one hand, working remotely can improve work-life balance by allowing for more flexibility and productivity, which in turn can raise job satisfaction. This can lead to better productivity and job performance as well as better mental health and overall job happiness. Additionally, allowing employees to work remotely can boost their autonomy and sense of trust, which can boost their motivation and job satisfaction. This research tired to stud the level of job satisfaction and productive hours actually obtained from IT employee which was first part of the structured questionnaire. The results showed that majority the respondents were finding it productive to work remotely which can be justified as the female respondents were able to obtain better work life balance managing work and family compared to male counter parts. On the other side, lack of social interaction and opportunities for collaboration might result in feelings of isolation and diminished motivation, which can lower job satisfaction and productivity. Companies in the IT industry should implement the recommendations listed above to reduce the negative effects of remote work on job satisfaction and productivity. The factor analysis generated as part of the LIKERT scale responses for the second part of the questionnaire had four factors which contributed to the overall satisfaction and productivity of IT employee , namely- Emotional Exhaustion, Personal Accomplishment, Overcoming Obstacles factors and Frustrated by The Job. Further research needs to be done on how to improve the remote working environment among the IT employee as more and more people are preferring to work from home even as the pandemic is slowly withdrawing from the world.

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