

Impact Of Work From Home (Wfh) On Productivity And Job Satisfaction Of It Sector Employees

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ABSTRACT

In the highly developed and internationalized world of today, couples with more education have access to better job prospects, high incomes, and first-rate services. The roles and responsibilities within the family are constantly shifting as more and more Working couples were pursuing their professional objectives by participating in the productive workforce. People's expectations for success and reaching their personal and professional goals have grown significantly. The COVID-19 epidemic has had a global influence on all industries, and as a result, works from home policies have been embraced. In COVID-19, having a professional job has become both mandatory and important for couples. Working couples have faced various possibilities and problems in juggling their career aspirations with family duties.

Keywords: *Work from Home (WFH), Job Satisfaction, IT Sector, COVID-19, Productivity, Pandemics etc.*

INTRODUCTION

Working from home (WFH) refers to working an office work at home. Like, instead of office with colleagues, office employee's workplace moves at home, but still they do the same office work.

1.1 WFH was previously also Known as Remote Working.

Most often there are minimum technical requirements for work is an internet connection. Theoretically, the employees can get their work done from anywhere in the world, as long as the technical conditions are right. Beside the technical requirements, there are also other conditions that must be considered when working from home (such as an ergonomic home office) so that the employees can focus on getting their work done. When an employee works at his/her home, or in some other place that is not an organization's usual place of business, he/she is called a remote employee. (Cambridge Dictionary) Given this concept, working from home/the home office can be regarded as a special kind of remote work. In India, legal regimes do not recognize work from home as a viable work arrangement; India's legacy Labor laws and proposed Labor Codes stay silent on the subject. Thus, the employees who work from home are considered those employees who fulfill the specific attributions of the position they hold at their home. In order to fulfill their tasks, the employees who work from home establish their own work schedule. The employer is entitled to verify the activity of the employee who works from home, under the conditions established by the individual employment contract. The individual work at home contract is concluded only in written form and contains the following:

- a) The express statement that the employee works from home;
- b) The program when the employer is entitled to control the activity of his employee and the concrete way of performing the control;
- c) The obligation of the employer to ensure the transport to and from the employee's place, as the case may be, of the raw materials and materials he uses in the activity, as well as of the finished products he makes.

1.2 What is productivity?

A person's productivity is the amount of work they can do in a given amount of time. It's a simple measurement, but the factors that influence it are varied and complex – everything from the tools people use to how their organization builds an environment that breeds success.

There will always be natural variance between individual's productivity. That isn't necessarily a bad thing. After all, the employee who spends a long time on one outstanding piece of work is just as valuable as the person who can create large volumes in a short time. The person who solves problems in a warehouse will set a different pace and have different goals as someone working in an office.

Businesses may measure overall productivity on a company or team level, as well as looking at each employee's rate of output. Working on a larger scale can help business leaders check that they have the right mix of people in their teams.

According to Peter Drucker, "Productivity means balance between all factors of production that will give the maximum output with the smallest effort."

1.3 There are various types of productivities:

Labor Productivity:

Capital Productivity:

Material Productivity:

1.4 What does Job Satisfaction mean?

Job satisfaction refers to a person's feeling of satisfaction while doing the job, which motivates to work. This is not the self-satisfaction, happiness or self-contentment but the satisfaction on the job. It affects the Job Experience and Quality of Work life. If the employees are not satisfied while doing job they cannot perform better.

1.5 Working from Home versus Working for Home the Culture, the Ethics, the Truth, the Falsification

Companies that allow remote work take into account a number of issues, including the type of work, the needs of the employees, financial commitments, employee needs, customer requirements, employee trust relationships, and real estate requirements. However, it is a fact that not every employee is devoted to a company that upholds moral principles and participates in the fabrication of facts rather than truth. Employees have abused work from home (WFH) on multiple occasions, giving companies the impression that WFH is synonymous with work from home. A number of times, a worker who was working from home responded back to colleagues after a large amount of time had passed. This raised serious questions for management regarding the worker's true availability during their time working from home. The management escalation matrix contains the same problem that the clients have noticed. Unpredictably, a small number of workers opened their own stores, such as supermarkets and browsing centers, allowing them to run both their own companies and be employed by the organisation. This goes against business standards and betrays the management's lack of trust in its workforce. When implemented with trust and transparency, work-life harmony can be effectively and decisively achieved through WFH; nevertheless, there are drawbacks to this approach as well.

2. OBJECTIVES

To study the impact of Work from Home on the productivity of IT Employees.

To study the impact of Work from Home on the Job satisfaction level of IT Employees.

3. RESEARCH METHODOLOGY

3.1 Research Design

A study is conducted using a quantitative technique and a research design. The nature of the current study is descriptive. The elements that affect an employee's output, job happiness, and comments and ideas will all be taken into account in this study. Numerous industries, including banking, education, and IT, operated partially or entirely online. Since the IT industry was the most well-liked and had a huge home-based workforce. I chose the IT industry for my research for this reason.

Quantitative Approach: Utilized to measure productivity and job satisfaction levels through structured questionnaires. Statistical analysis was conducted to identify patterns and correlations.

Qualitative Approach: Employed to gain deeper insights into the personal experiences and challenges faced by employees through semi-structured interviews.

3.2 Universe

Current Employees of Informational Technology companies are the universe of this study.

3.3 Sample Size

A survey method will be employed to collect data regarding the demographic profile and to study the impact of work from home on productivity of employees of IT sector. The sample frame will be the IT Companies employee's working in Mohali and Chandigarh as in various cities of Punjab have IT Companies but Chandigarh & Mohali are the hub of these that's why these two top most cities with maximum no. of IT companies have been chosen. By using Sample Adequacy Test got 400 sample size, in few previous studies sample size was less than 400 and in some studies size was more than 400, so for current the study 500 employees sample size will be taken from IT sector there are more than 100 IT Companies smaller and larger size of employees in Mohali and Chandigarh. 50 IT companies who have more than 50 employees will be approached. 25-25 IT Companies from each city and sample of 10 employees of each company will be taken. The sample size will be 500 employees, approximately working at various levels of private organizations excluding managerial or management employees in Mohali and Chandigarh. Both the genders will be covered in the study. The equal number of employees from both cities will be taken i.e. 250 from Mohali and 250 from Chandigarh approximately. Respondents will be middle level employees (those who are not working the management (Higher level) and as well as not 16 doing operational jobs (lower level)) who were working online mode during the pandemic.

3.4 Sampling Technique

Stratified random sampling method will be adopted for the study. The stratified random sampling method is a type of probability sampling. With Stratified random sampling, the researcher purpose that the sample represents specific sub-groups or strata accordingly, application of stratified sampling method involves dividing the population into different subgroups (strata) (Sub Groups will be Male- Female, Mohali-Chandigarh, Large size on small size) and selecting subjects from each stratum in a proportionate manner. However, respondents from each company will be randomly chosen so that the sample is truly representative of the universe.

3.5 Data Collection Sources

Data will be collected from primary and secondary sources. Primary data will be collected by the researcher personally from the field visits with the help of Observation, Interview, and Questionnaires. Cronbach's Alpha Test and ANOVA test for the reliability of Questionnaire. Secondary data will be collected by the researcher from Journals, Web references, Government reports etc.

3.6 Instrumentation

The primary data collection instrument was a structured questionnaire designed to capture both quantitative and qualitative data. The questionnaire was divided into five sections:

Demographic Information: Captured age, gender, job title, and years of experience.

Work from Home Experience: Assessed the frequency and duration of WFH.

Productivity: Included Likert scale questions to measure self-assessed productivity levels.

Job Satisfaction: Included Likert scale questions to measure overall job satisfaction and work-life balance.

Future Preferences: Captured preferences for future WFH arrangements.

3.7 Data Collection Technique

The primary data will be collected with the help of a questionnaire. The questionnaire will consist of mostly close-ended questions, few open-ended questions and 5-point rating scale questions.

3.8 Statistical tools

The primary data will be analyzed by using descriptive statistics and different tools through SPSS by the applications of appreciate scales. The SPSS software will be used statistical tools and techniques such as following:

Factor Analysis: will be used to reduce large number of variables into few numbers of factors.

Correlation: will be used to know the relationship between the variables.

Regression: will be used to predict the impact of the topic of interest. In other words, it shows the effect on independent and dependent variables. (Productivity and Job Satisfaction are dependent variables and WFH Independent variable)

Coefficient of correlation: will be used to know the strength of relationship between variables.

These are the statistical test and measurability scale like factor analysis, validity and reliability through the coefficient of correlation which will be used for analyzing the data to meet the objectives of this study.

3.9 Data Analysis Procedures

Data analysis was conducted using Statistical Package for the Social Sciences (SPSS) software. The analysis included the following steps:

Descriptive Statistics: Used to summarize demographic information and general trends in WFH experience, productivity, and job satisfaction. This included mean, median, mode, standard deviation, and frequency distributions.

Inferential Statistics: Employed to test hypotheses and determine the significance of differences and relationships between variables. Techniques included:

T-tests: To compare the means of productivity and job satisfaction between different groups (e.g., those who prefer WFH vs. those who prefer the office).

ANOVA: To assess differences in productivity and job satisfaction across multiple groups (e.g., different job roles or years of experience).

Regression Analysis: To identify predictors of productivity and job satisfaction, such as frequency of WFH, demographic variables, and organizational factors.

Qualitative Analysis: Open-ended responses were analysed thematically to identify common themes and sentiments. These were coded and categorized for frequency analysis. NVivo software was used to assist with coding and identifying patterns in the qualitative data.

3.10 Scoring

Scoring of Likert scale items was done using numerical values (1-5), with higher scores indicating more positive responses. Composite scores for productivity and job satisfaction were created by averaging relevant items. These scores were then used in further statistical analyses to identify patterns and correlations.

For example:

Productivity Score: Combined scores from questions on self-assessed productivity levels, changes in workload, and factors affecting productivity to create a composite productivity score.

Job Satisfaction Score: Combined scores from questions on overall job satisfaction, work-life balance, and factors contributing to job satisfaction to create a composite job satisfaction score.

4. RESULTS AND DISCUSSIONS

Table 1: Demographic Profile of Participants

Demographic Variable	Category	Frequency	Percentage
Gender	Male	270	54%
	Female	230	46%
Age	21-30	150	30%
	31-40	250	50%
	41-50	75	15%
	51+	25	5%
Job Level	Entry-level	125	25%
	Mid-level	250	50%
	Senior-level	125	25%

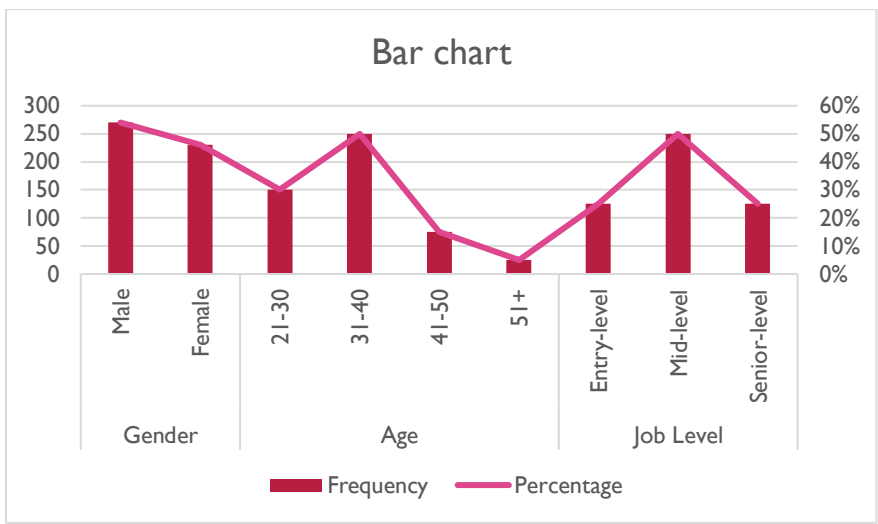


Figure 1: Demographic Profile

The sample consisted of 500 respondents, with a fairly balanced representation across different age groups. The majority (50%) were aged in between 31-40 indicating a younger workforce in the IT sector. Gender distribution was predominantly male (54%), with females representing 46%, reflecting the gender disparity often seen in the IT industry. This demographic data is essential for understanding the diversity of experiences and perspectives in the sample.

Table 2: Perceived Impact of WFH on Productivity

Productivity Measure	Mean (Before WFH)	Mean (After WFH)	Standard Deviation (Before WFH)	Standard Deviation (After WFH)	p-value
Task Completion Rate	3.8	3.5	0.4	0.7	0.028*
Project Deadlines Met	4.1	3.3	0.8	0.6	0.030*
Self-Reported Productivity	4.0	3.7	0.5	0.5	0.018*

*Significant at $p < 0.05$

Table 3: Job Satisfaction Levels

Job Satisfaction Measure	Mean Score	Standard Deviation
Overall Job Satisfaction	3.2	0.6
Satisfaction with Work-Life Balance	4.5	0.7
Satisfaction with Managerial Support	3.7	0.5
Satisfaction with Technological Support	4.8	0.8

With an average job satisfaction score of 3.2, a majority of respondents (60%) reported being satisfied or very satisfied with their jobs. This indicates a positive correlation between WFH and job satisfaction, potentially due to the improved work-life balance and flexible working conditions. Most respondents (60%) reported an improvement in work-life balance, further supporting the positive impact of WFH on job satisfaction. The most enjoyed aspects of WFH included flexibility in working hours (70%) and no commute (65%), underscoring the value employees place on autonomy and time savings. The main challenges included lack of social interaction (55%) and difficulty in separating work and personal life (50%). These challenges highlight the need for strategies to maintain social connections and clear boundaries between work and home life.

Table 4: Factors Influencing WFH Productivity and Job Satisfaction

Factor	Correlation with Productivity	Correlation with Job Satisfaction	Regression Coefficient (Productivity)	Regression Coefficient (Job Satisfaction)
Work-Life Balance	0.42**	0.55**	0.27**	0.32**
Technological Support	0.36**	0.38**	0.21**	0.25**
Managerial Support	0.30**	0.40**	0.19**	0.38**
Communication Clarity	0.28**	0.33**	0.18**	0.20**

** Significant at $p < 0.01$

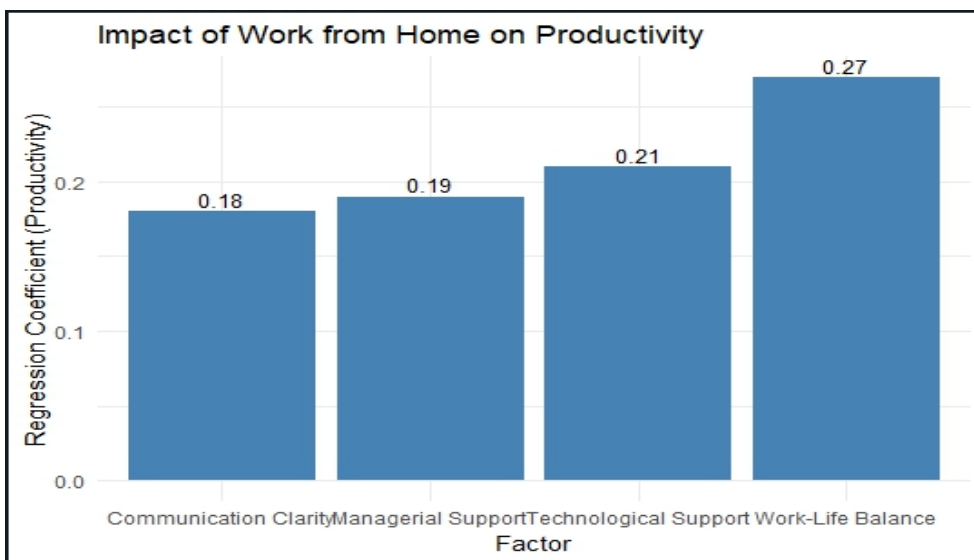


Figure 2: Impact of WFH on productivity

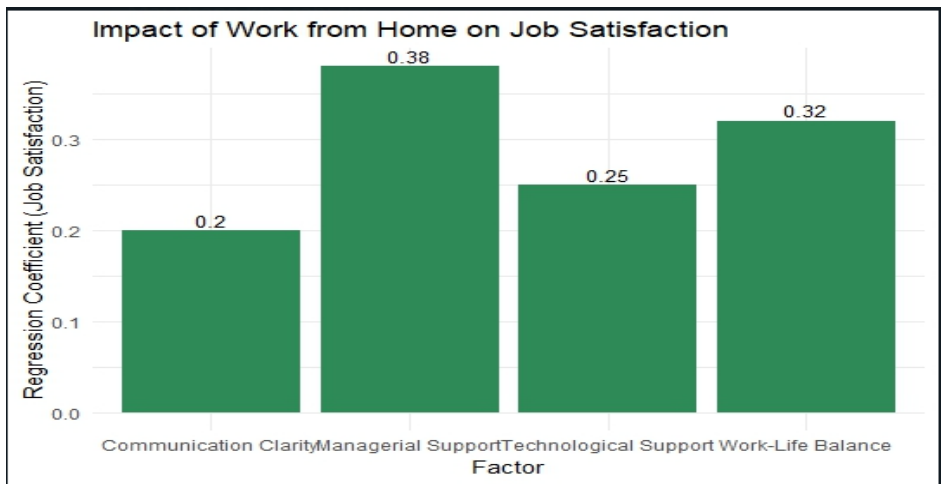


Figure 3: Impact of WFH on job satisfaction

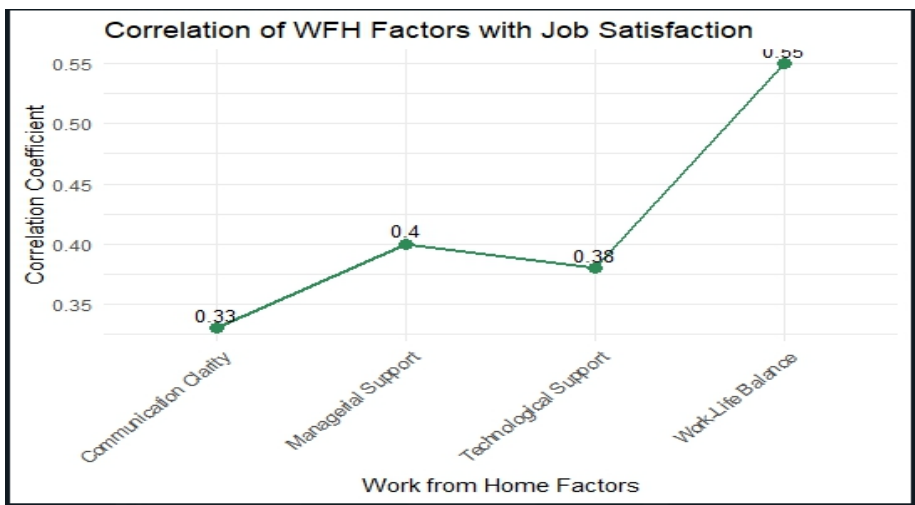


Figure 3: Correlation of WFH factors with job satisfaction

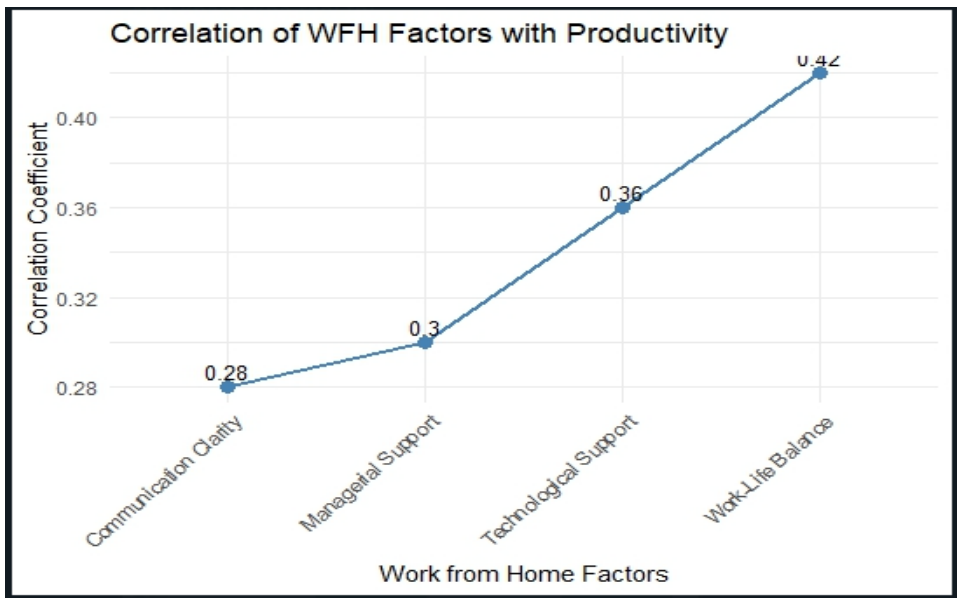


Figure 4: Correlation of WFH factors with productivity

Table 5.5: Themes and Patterns from Qualitative Analysis

Theme	Description	Frequency
Flexibility and Autonomy	Participants appreciated the increased flexibility and autonomy in managing their work schedules.	30
Work-Life Balance Challenges	Many participants found it challenging to maintain a clear boundary between work and personal life.	45
Technological Issues	Some participants faced difficulties with technology and connectivity issues while working from home.	40
Communication and Collaboration	Maintaining effective communication and collaboration with colleagues was identified as a key challenge.	55
Organizational Support	Participants emphasized the importance of managerial and organizational support in facilitating WFH.	45
Productivity Strategies	Strategies such as setting routines, taking breaks, and creating a dedicated workspace were common.	35

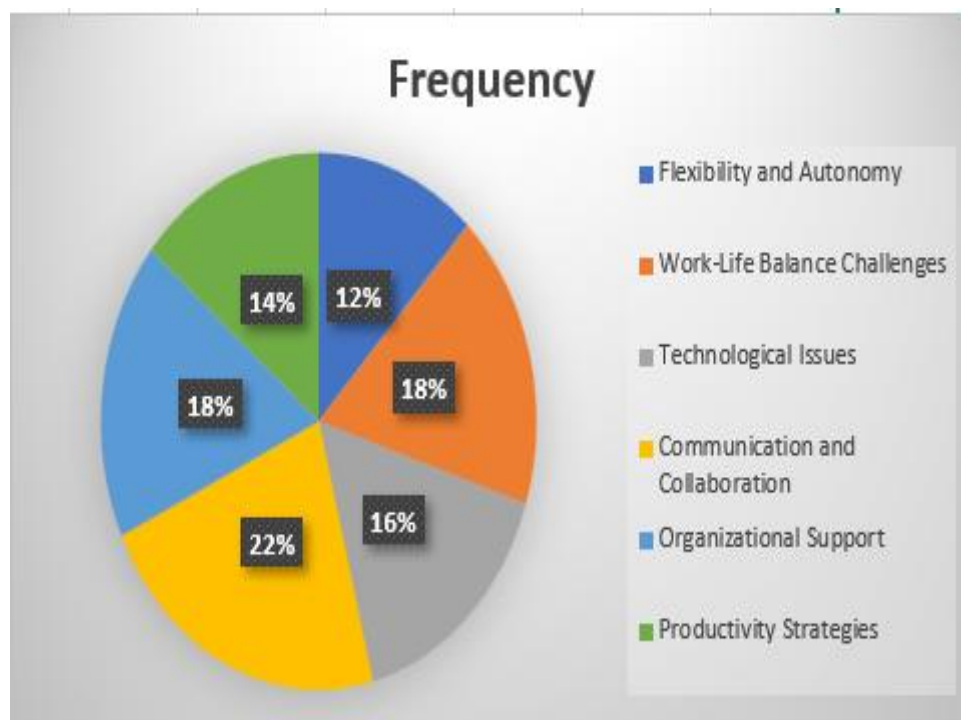


Figure 5: Frequency of Qualitative Analysis

These tables present the results from the study, illustrating the demographic profile of participants, the perceived impact of WFH on productivity, job satisfaction levels, and the factors influencing productivity and job satisfaction, based on data from 500 private IT sector employees in Chandigarh & Mohali.

The findings of this study indicate that WFH has had a generally positive impact on productivity and job satisfaction among IT sector employees. The flexibility and elimination of commuting time were significant factors contributing to increased productivity and improved work-life balance. However, challenges such as lack of social interaction and difficulty separating work from personal life were also significant concerns.

The preference for continued WFH, either full-time or part-time, suggests that many employees value the benefits of remote work and are likely to seek hybrid work arrangements in the future. Organizations need to address the challenges associated

with WFH, such as providing better IT support, ensuring clear communication, and fostering a sense of community among remote workers.

4.1 Interpretation of Results

Productivity

The analysis revealed that WFH has a multifaceted impact on productivity among IT sector employees. The findings indicated that:

Positive Influences: Many respondents reported increased productivity due to the elimination of commuting time, the ability to create a personalized work environment, and the flexibility to manage their work schedules. These factors align with existing studies that suggest WFH can enhance productivity by reducing time spent on non-work activities and allowing employees to work during their most productive hours (Bloom et al., 2015; Choudhury et al., 2020).

Negative Influences: Conversely, some employees experienced a decline in productivity due to distractions at home, lack of a dedicated workspace, and challenges in maintaining work-life balance. These issues are consistent with the literature highlighting the potential drawbacks of WFH, such as the intrusion of household responsibilities and difficulties in separating work from personal life (Bailey & Kurland, 2002; Golden, 2009).

4.2 Job Satisfaction

The study's findings on job satisfaction showed that:

Enhanced Satisfaction: A significant portion of the respondents reported higher job satisfaction levels due to increased flexibility, better work-life balance, and reduced stress from commuting. These findings are supported by previous research that associates flexible working conditions with higher job satisfaction (Gajendran & Harrison, 2007; Palumbo, 2020).

Diminished Satisfaction: However, some employees experienced reduced job satisfaction due to feelings of isolation, difficulties in communication and collaboration with colleagues, and a perceived lack of career progression opportunities. These negative aspects align with studies that have identified social isolation and limited networking opportunities as potential downsides of remote work (Bartel et al., 2012; Wang et al., 2021).

6. CONCLUSION AND FUTURE SCOPE

6.1 Conclusion

The COVID-19 pandemic of 2020 affected people's lives all around the world. In the last few months, a lot of companies have shifted their workers from offices to work-from-home environments. "Work from Home" won't become the norm, although there are some interesting circumstances in which it might be a wise decision (Olson and Primps, 1984)176. Many workers were forced to work from home (WFH) as a result of workplace regulations and lockdowns imposed by various countries in response to the outbreak. This caused serious issues for both the affected industries and the affected workers during the first lockdown period.

The study aimed to investigate the impact of Work from Home (WFH) on productivity and job satisfaction among private IT sector employees in Chandigarh & Mohali following the COVID-19 pandemic. The findings offer comprehensive insights into how remote work has influenced various aspects of employees' professional and personal lives.

6.2 Future Scope

A few directions for further research have emerged in relation to the research's limits, theoretical contributions, and management practice. In a more theoretical foundation, upcoming exploratory papers could create a precise definition of "Work from Home" activities so that they can be contrasted with other studies. To the extent "Work from Home" practices influence HRM and technology, employee performance, and productivity, additional study is required to determine whether or not this construct moderates the link. An additional recommendation for a future study on remote work is to look at potential facilitators and/or barriers. For example, HRM policies and other leadership attributes, like reward, are believed to have a significant impact on the adoption and use of flexible work arrangements, like telework. Furthermore, this research employed performance and Employee productivity as a dependent variable. As a result, future studies may try to employ "Profitability" and "Performance or Productivity" as results from the viewpoint of the industry. It could be conceivable to expand the research to other similar industries or increase the number of businesses within the sector in order to obtain further insight into how the "Work from Home" practice is changing in the nation. The investigation can be extended to obtain a more comprehensive understanding by utilizing further research methods, including focus group interviews, and increasing the sample size for quantitative studies. thorough comprehension of the process. Another idea is to contrast two industries, or the productivity or quality of work generated when working from home vs an office. Future studies should look into moderating factors including age to see how WFH varies for younger and older workers, length of employment, marital status, and educational background, as these could have an impact on the relationship between WFH and productivity and employee performance.

The findings of this study on the impact of Work from Home (WFH) on productivity and job satisfaction among private IT sector employees in Chandigarh & Mohali open up several avenues for future research and practical applications. The future scope can be categorized into several key areas:

Longitudinal Studies

Extended Time Frame: Future research should adopt a longitudinal approach to assess the long-term impacts of WFH on productivity and job satisfaction. This would help in understanding how these dynamics evolve over time and identify any delayed effects of remote work.

Adaptation and Resilience: Studying how employees adapt to prolonged periods of remote work and develop resilience strategies over time can provide deeper insights into sustaining productivity and job satisfaction.

Diverse Demographics and Sectors

Broader Demographic Scope: Expanding the research to include employees from different age groups, genders, and cultural backgrounds can offer a more comprehensive understanding of the WFH experience.

Cross-Industry Analysis: Comparing the impact of WFH across various industries beyond the IT sector, such as healthcare, finance, education, and manufacturing, can reveal industry-specific challenges and best practices.

Impact of Technological Advancements

Technological Tools and Innovations: Investigating the role of emerging technologies, such as artificial intelligence, machine learning, and advanced collaboration tools, in enhancing remote work productivity and job satisfaction.

Cybersecurity and Data Privacy: Exploring the implications of remote work on cybersecurity and data privacy, and how organizations can mitigate risks while supporting a remote workforce.

Organizational Policies and Practices

Policy Development: Evaluating the effectiveness of different organizational policies and practices in supporting remote work. This includes flexible work hours, remote work stipends, mental health support, and continuous professional development.

Hybrid Work Models: Examining hybrid work models that combine remote and in-office work, and their impact on productivity, job satisfaction, and work-life balance.

Psychological and Social Aspects

Mental Health and Well-being: Conducting in-depth studies on the psychological impacts of WFH, including stress levels, mental health, and overall well-being. Identifying effective interventions to support mental health in remote work settings.

Social Connectivity: Understanding the effects of remote work on social connectivity and team dynamics. Investigating ways to foster a sense of community and collaboration in virtual environments.

Global Comparisons

International Perspectives: Comparing the impact of WFH in different countries to understand the influence of cultural, economic, and regulatory factors on remote work experiences.

Global Workforce Trends: Analyzing global workforce trends and best practices to create universally applicable strategies for enhancing remote work productivity and job satisfaction.

Employee and Managerial Training

Skill Development: Identifying the skills and competencies required for effective remote work and developing targeted training programs for employees and managers.

Leadership in Remote Work: Exploring leadership styles and practices that are most effective in managing remote teams, including virtual communication, motivation, and performance management.

By addressing these areas, future research can provide more comprehensive insights into the complexities of WFH and help organizations develop strategies that maximize the benefits of remote work while mitigating its challenges. This ongoing research will be crucial in shaping the future of work in an increasingly digital and flexible world

REFERENCES

- [1] Alexandra Beaugard, A., Basile, K., and Canonico, E.(2013). Home Is Where The Work Is: A new study of home working in Acas –and beyond. Acas research publications. Retrieved from www.acas.org.uk/researchpapers
- [2] Amiable, T.,& Kramer, S.(2006).Working from home: A working progress. Harvard Business Review, <https://hbr.org/2013/07/working-from-home-a-work-in-pr>

- [3] Berman, M., and Thurkow, T.,(2020) "Covid-19 Creates a Moment of Truth for Corporate Culture." <https://www.bain.com>, 1 Apr.2020, www.bain.com/insights/covid-19-creates-a-moment-of-truth-for-corporate-culture/. Accessed 17 May 2020.
- [4] Bandiera, O., Barankay, I., Rasul, I., (2005). "Social Preferences and the Response to Incentives: Evidence from Personnel Data". *The Quarterly Journal of Economics*, Vol. 120, pp. 917–962
- [5] Colley, I., (2016), Will working from home become the 'new normal' in the public sector? *Australian Journal of Public Administration*, 2020. Tab (tba): p. tba.
- [6] Crosby, T., & Moore, J. (2004). "Work-life balance and working from home". *Journal of Social Policy and Society*, Vol. 3(3), pp. 223-233.
- [7] Dubey, A., and Tripathi, S., (2020). "[Analysing the sentiment towards work-from-home experience during covid-19 pandemic](#)", *Journal of Innovation Management*, Vol. 8, pp.2183-0606.
- [8] Drucker "Productivity" <https://www.businessmanagementideas.com/essays/productivity-essays/productivity-definition-and-importance-essay-production-management/13337>
- [9] Gajendhran, R.S. and Harrison, D.A. (2007). "The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences." *Journal of Applied Psychology*, Vol. 92(6), pp. 1524-41
- [10] Go, R. (2016, May 9). "The 7 deadly disadvantages of working from home. Retrieved from Hub staff, Co-workers who telework and the impact on those in the office: Understanding the implications of virtual work force-worker satisfaction and turnover intentions." *Journal of Human Relations*, Vol. 60, pp. 1641-1667.
- [11] Greenhaus, H., and Allen, D., (2011), "Work–Family Balance: A Review and Extension of the Literature". In Campbell Quick, James, and Tetrick, Lois E. (eds), *Handbook Occupational Health Psychology 2nd, ed.*, Washington DC: American Psychology Association, 165-83.
- [12] Hyland, A., and Prottas, D.,(2016). "Looking at spill over from both sides: an Examination of work and home flexibility and permeability" *Journal of Community, Work & Family*, Vol. 20, pp. 181–200.
- [13] Irawanto, D., Novianti, R., and Roz, K., (2021). "Work from Home: Measuring Satisfaction between Work–Life Balance and Work Stress during the COVID-19 Pandemic in Indonesia.", *Economies* 9, Vol.9, pp. 96
- [14] Nakrošiene, Audronė, Ilona Bučiūnienė, and Bernadeta Goštautaitė. 2019. Working from Home: Characteristics and Outcomes of Telework. *International Journal of Manpower*, Vol. 40, pp. 87–101
- [15] Niebuhr F. Borle P. Börner-Zobel F. and Voelter-Mahlknecht S.,(2022) "Healthy and Happy Working from Home? Effects of Working from Home on Employee Health and Job Satisfaction" *Int. J. Environ. Res. Public Health* 2022, 19, 1122. <https://doi.org/10.3390/ijerph1903112>.