

A Study on the Effect of Work from Home (WFH) on the Productivity and Mental Health of the Employees of Selected IT Companies with Special Reference to Bangalore City

Jeny Maria John

Assistant Professor,

St. Joseph's College of Commerce (Autonomous),

Bangalore – 560025.

Abstract

Working from home (WFH) has become the new method of working for millions of employees all over the world as a result of the COVID-19 pandemic. As a result of the epidemic, many workers and companies were forced to convert to remote work for the first time, with little or no preparedness. The coronavirus disease pandemic of 2019 (COVID-19) has had a variety of effects on the global economy. The shift to telework, in particular, has had a significant impact on how people work. The impact of the new work-from-home (WFH) model on worker productivity will determine whether it survives in our society. However, the consequences of WFH on productivity are still unknown, to the best of our knowledge. We analyse the possible determinants of productivity changes owing to WFH by leveraging a unique survey done on 155 respondents working in chosen IT sector organizations in Bangalore. The following are the main findings: According to the report, poor team communication and long working hours are the leading causes of productivity loss. There is enough evidence to show that WFH has an impact on mental health. Employees' WFH experience can be improved by improving their mental health. Employee productivity while working from home was found to be average, according to the study. There is also enough evidence to indicate that, when done correctly, WFH improves overall job satisfaction. WFH may boost productivity and thus assure sound mental health if suitable investments are made in encouraging better team cooperation and creating a better work environment.

Key words: Work from home (WFH), Productivity, Mental Health

I. INTRODUCTION

Working from home has become more common during COVID – 19's lockdown phase, as many nations employ a physical separation strategy to prevent the pandemic from spreading. As a result, for employees in the majority of industries, working from home has become the only alternative. In practically every aspect of life, the advent of the COVID-19 pandemic and the subsequent protracted lockdowns have generated terror and uncertainty. The number of COVID cases reported in India as of February 2022 was more than 4 crores, with more than 39 lakh instances reported in Karnataka. Work-from-home (WFH) used to be considered of as an employee benefit, but those days are long gone. Longer hours, larger workloads, fewer breaks, and phone calls past logout time — those days are long gone. What had been exciting at first has now become tiresome, since this has become their 'new normal.' To remain ahead of the curve, some companies conducted daylong trials with a two- to three-day buffer to identify difficulties with business-related data availability, connection, and infrastructure. Employee productivity is one of the most important variables influencing an organization's performance and survival, thus determining whether employees may work from home has a substantial impact on their productivity is vital. People were extremely stressed as a result of COVID-19 and the lockdown scenario. Employees who had to work from home in the midst of all this mayhem were also under a lot of stress. In the middle of the COVID-19 pandemic, this study aims to examine the relationship between two main variables: employee productivity and mental health while working from home.

Research Problem

Working from home offers both advantages and disadvantages. WFH is frequently assumed to be simple and convenient. However, the focus of the study is to identify the impact of WFH on the productivity and mental health of employees at a few Bangalore-located IT firms.

Research Gap

Organizations that are forced to adapt to a virtual method of working face new obstacles. This research aims to determine some of such factors that influence the productivity and mental health of workers in IT companies in Bangalore who work from home.

Research Question

What are the relevant predictors of productivity while working from home? What the relevant predictors of mental health while working from home?

What are the relevant predictors of overall job satisfaction while working from home?

Research Objectives

1. To identify the factors that determine WFH style and productivity of the employees.
2. To examine the relationship between WFH and Mental health.
3. To explore the relationship between WFH and Productivity of employees.
4. To examine the relationship between WFH style and overall job satisfaction of the employees.

Limitations of the Study

- Findings are based on sample survey.
- Cross-sectional study.
- The respondent's attitude while answering the questionnaire is a challenge.
- Possibility of biased behavior of respondents while answering the questionnaire.
- Applicability of the study to rational people.

Literature review

(Ellen Baker, 2007) Multiple effects from the organizational, job, individual, and household domains were investigated for their impact on WFH in this study. At least one of the outcome measures was significantly connected to nine of the eleven variables from the organizational and job characteristics categories. Technical support, human resource support, manager's trust, and other people's training were all linked to satisfaction, but not to productivity. Financial support from the employer was also linked to increased productivity. However, neither of the outcome measures were related to any of the work style or household factors. This pattern of outcomes suggests that WFH employees may be divided into distinct categories. For folks who have distractions around them when they WFH, compartmentalizing may be important, but it may not be for others. According to research, establishing a suitable management culture to support WFH may be difficult in some areas. National cultures, for example, may influence a manager's response to an employee's request to WFH, according to reports. More research into the impact of national culture on WFH is required. When offering support to

WFH employees, it may be helpful to think of WFH as a type of virtual job. Tenure appears to be a substitute for some of the more readily available technical, peer, and managerial help in the workplace.

(Kitagawa, 2021) WFH was studied for its effects on staff productivity and mental wellness. They discovered that frequent WFH is linked to lower production. They discovered that frequent WFH is linked to lower production. Poor WFH setups are a substantial source of productivity losses in all four occupation groups. Poor workplace communication with clients appears to be the most important factor in corporate and sales professions. Lack of access to critical knowledge and proprietary equipment appears to lead to productivity losses in sales and R&D jobs. In this approach, WFH may be a viable option for utilising the talents of the workers that would otherwise be wasted if not for such an arrangement.

(Ravi, 2021) Employee productivity is influenced by elements such as stress, work-life balance, and job satisfaction during the pandemic era, according to this study. The study's goal is to determine the productivity of personnel in Kerala's advertising business. We learned from this study that employees in the advertising business believe stress has a detrimental impact on their productivity.

(Thomaz Teodorovicza, 2019) One of the most notable conclusions from their research is that under post-COVID WFH arrangements, managers do not appear to be able to reallocate commuting time to personal time, maybe because they must spend more time organising their employees and teams due to the lack of a common office space. Workers' mental health may also benefit from the assistants' assistance as they try to balance work and personal obligations. One reason managers spend more time communicating is that they haven't found a good substitute for the face-to-face meetings that were available when they worked in a shared office. While we know that spending time in nature can help with mental health, the lack of commuting we document, as well as other COVID-related movement constraints, means that workers have fewer opportunity to see nature. As Ciolfi and Lockley illustrate, this strategy entails a flexible blurring of the lines between professional and personal aspirations (2018). Second, they want to know how their results about activity structure and intensity relate to technology—how, given the new data, could technological innovation help WFH?

(Teresa Galanti, 2021) The current study looked at the well-being and productivity of employees who were exposed to WFH during the epidemic. Many firms are prioritising the identification of barriers to well-being and job performance, as well as facilitators, in a time when employees must swiftly adjust to WFH, and this study adds to this goal. All three tested outcomes

Were associated with social isolation and family-work conflict in the direction we predicted, demonstrating that social isolation and family-work conflict are important

job demands of remote work that can significantly reduce productivity and work engagement on the one hand while increasing job stress on the other. Other noteworthy findings should be discussed. Fear of this pathogen is linked to increased levels of productivity and engagement, according to our findings. The cross-sectional design of this study has one limitation: it allows us to trace links between the investigated constructs but does not allow us to determine causal linkages between the variables.

(Beno M, 2021) The following are the primary research questions addressed in this paper:

- RQ1: Is there a proportional difference between cubicle workers and transited e-workers (those who were not working online previous to the pandemic)?
- RQ2: How has e-working affected the productivity of face-to-face employees? 1) Working while providing childcare/home schooling, pet sitting, and/or caring for others (28.41 percent); 2) No work- from-home schedule (26.13 percent); and (3) Having less work to complete (26.13 percent) (21.59 percent)
- RQ4: Has the pandemic encouraged the adoption of e-working? Will this trend continue? Telework grew modestly in the decade leading up to the outbreak of Covid-19, largely as a one-time work pattern (EC, 2020). In all three periods, there are considerable variances in the proportion of workers in the office and at home, according to their data. As can be seen, the question to examine is what employees want, specifically how to deliver an engaging experience while maintaining concentration and productivity.

Research methodology

The methodology for this study involved a self-administered, anonymous, questionnaire survey. When available, questionnaire items related to each variable were chosen from the literature or produced specifically for this study. Respondents returned the completed questionnaires directly to the researcher to protect participants' identity within the employing organization. The study undertaken is descriptive research. This research was conducted in order to develop an understanding about the productivity and mental wellbeing of employees working from home during the pandemic in Bangalore. The research design undertaken is a cross-sectional research design.

Sources of data

To analyses the employees' job satisfaction on WFH in Bangalore primary as well as secondary data was used. The primary source of data was collected through a well-structured questionnaire. The data was collected from a sample of

155 respondents belonging to selected IT companies in Bangalore. The questionnaire included demographic variables like age, gender, marital status, educational background, work experience and annual income. It also includes questions on various factors that might probably trigger the productivity levels, mental health levels and overall satisfaction of the respondents while working from home. The secondary sources of information were collected from research papers dated 2007 onwards.

Sample Design

Convenience non-probability sampling method has been implemented to collect the information. Convenience non-probability sampling method is a type of probability sampling in which the samples are selected from the population because they are conveniently available for the investigator.

Hypotheses

X2 vs X9

H0 = There is no association between gender and length of work experience. H1 = There is association between gender and length of work experience.

X2 vs X11

H0 = There is no association between gender and feeling about working from home experience.

H1 = There is association between gender and feeling about working from home experience. X46 vs X2

H0 = There is no difference in the level of overall job performance between male and female. H1 = There is difference in the level of overall job performance between male and female.

Discussion and analysis of findings

	X9 (Work Experience)	X11	X12 (No. of working	X13 (Working outside	X30 (Stress at work)	X31 (Feeling before
		(Feeling about WFH)	hours per day during WFH)	office hours)		WFH period)
X2 (Gender)	Reject (0.000)	Accept (0.771)	Accept (0.340)	Accept (0.851)	Accept (0.825)	Reject (0.021)

X3 (Marital Status)	Reject (0.000)	Accept (0.688)	Accept (0.085)	Accept (0.412)	Accept (0.392)	Accept (0.638)
X5 (Educational Background)	Reject (0.000)	Reject (0.028)	Reject (0.000)	Accept (0.354)	Accept (0.057)	Accept (0.240)
X6 (Name of the Organization)	Reject (0.000)	Accept (0.447)	Accept (0.080)	Accept (0.383)	Reject (0.019)	Accept (0.115)
X7 (Designation)	Reject (0.000)	Reject (0.002)	Accept (0.069)	Reject (0.043)	Accept (0.513)	Accept (0.117)
X8 (Department)	Accept (0.162)	Accept (0.926)	Accept (0.762)	Accept (0.737)	Accept (0.249)	Accept (0.793)
X10 (Annual Income)	Reject (0.000)	Reject (0.002)	Accept (0.054)	Accept (0.056)	Accept (0.321)	Accept (0.055)

- According to Chi-square test, it is inferred that there is an association between gender and length of work experience. Likewise, the length of work experience differs between gender, categories of marital status, among different educational backgrounds, different organisations and among different designations in an organisation and among varied annual income of employees. The length of work experience does not differ from one department to another in various organisations.
- According to Chi-square test, it is inferred that there is no association between gender and feeling about working from home experience. Likewise, the feeling about WFH has been the same between gender, categories of marital status, among different types of organisations they work for and among various departments in organisations. The feeling about WFH is different in various categories of educational background, among different designations in an organisation and among varied annual income of employees.
- According to Chi-square test, it is inferred that there is no association between gender and number of working hours per day during WFH. Likewise, the number of working hours per day during WFH has been same between male and female, among all categories of marital status, across all organisations, across all designations, across all departments, irrespective of level of income except that the number of working hours per day differs across all categories of educational background.
- According to Chi-square test, it is inferred that there is no association between gender and working outside office hours. Likewise, working

outside office hours during WFH has been same between male and female, among all categories of marital status, across all categories of educational background, across all organisations, across all departments, irrespective of level of income except that working outside office hours during WFH differs across different designations in an organisation.

- According to Chi-square test, it is inferred that there is no association between gender and stress at work. Likewise, stress at work during WFH has been same between male and female, among all categories of marital status, across all categories of educational background, across different designations in an organisation, across all departments, irrespective of level of income except that stress at work during WFH differs across all organisations.
- According to Chi-square test, it is inferred that there is an association between gender and wellbeing before WFH period. Likewise, feeling before WFH has been same among all categories of marital status, across all categories of educational background, across all organisations, across different designations in an organisation across all departments, irrespective of level of income except that feeling before WFH differs between male and female.
- There is sufficient evidence to accept null hypothesis (H_0) under one-way anova. Therefore, it is concluded that there is no difference in the level of overall job performance between male and female. Likewise, factors such as gender, various categories of marital status and various departments in an organisation have same level of overall job performance. Whereas, factors such as categories of age group, categories of educational background, various types of organisations, various designations in an organisation and varied annual income of employees have difference in the level of overall job performance.
- There is sufficient evidence to accept null hypothesis (H_0) under one-way anova. Therefore, it is concluded that there is no difference in the level of WFH experience between male and female. Likewise, factors such as gender, various categories of marital status, various departments in an organisation and varied annual income of employees have no change in the level of WFH experience. Whereas, factors such as categories of age group, categories of educational background, various types of organisations and various designations in an organisation have difference in the level of WFH experience.
- There is sufficient evidence to accept null hypothesis (H_0) under one-way anova. Therefore, it is concluded that there is no difference in the level of

mental wellbeing between male and female. Likewise, factors such as gender, various types of organisations, various designations in an organisation, various departments in an organisation and varied annual income of employees have no change in the level of mental wellbeing. Whereas, factors such as various categories of marital status, categories of age group and categories of educational background have difference in the level of mental wellbeing.

- On performing the regression analysis, since it was observed that the R-square is .485, this regression model is not a good fit model. The dependent variable usual job performance over the past year or two is explained by work-life balance, productive use of commuting time, improved efficiency, collaboration between teams, collaboration within intra teams, intra team rapport building, inter team rapport building, ability to meet deadlines, extended work hours, customised office environment, Wi-Fi uncertainty, focused, independent decision making, flexibility in office hours, limited physical activity, extra savings to the extent of 48.5%.
- On performing the regression analysis, since it was observed that the R-square is .422, this regression model is not a good fit model. The dependent variable overall work from home experience is explained by work-life balance, productive use of commuting time, improved efficiency, collaboration between teams, collaboration within intra teams, intra team rapport building, inter team rapport building, ability to meet deadlines, extended work hours, customised office environment, Wi-Fi uncertainty, focused, independent decision making, flexibility in office hours, limited physical activity, extra savings to the extent of 42.2%
- On performing the regression analysis, since it was observed that the R-square is .542, this regression model is not a good fit model. The dependent variable overall mental well-being is explained by variables such as bothered by a headache, trouble sleeping at night, loss of appetite, overeating, stress from commutation, at least seven hours of sleep, feeling exhausted and fatigue, at least 2 hours of screen free time, at least two hours of phone free time, feeling down and depressed, happy and relaxed, connectivity issues, learning and upskill, time for oneself and family to the extent of 54.2%.
- On performing the regression analysis, since it was observed that the R-square is .428, the job performance has been explained by the overall WFH experience to the extent 42.8%. Therefore, it is not a good fit model.

- On performing the regression analysis, since it was observed that the R-square is .0534, the overall WFH experience has been explained by the overall mental wellbeing to the extent 53.4%. Therefore, it is not a good fit model.
- On performing the regression analysis, since it was observed that the R-square is .534, the overall mental wellbeing has been explained by WFH experience to the extent 53.4%. Therefore, it is not a good fit model.

HRM practitioners can play a vital role in aiding WFH employees by intervening at various stages, according to the findings of this study. Direct cooperation from HR and IT departments, as well as financial assistance for WFH costs, would be beneficial. HRM may be able to establish a friendlier environment for WFH at the organisational level. Organizational support jobs are one area where technology could help—for many of these duties, AI digital assistants may soon acquire a degree of complexity comparable to human assistants. Routine coordination tasks such as scheduling meetings and sharing access to resources, as well as locating needed information, will be handled by such digital assistants, allowing workers to increase their productivity. In terms of WFH participation, fostering autonomy and self- leadership may be a practical option for improving the efficacy of remote work programmes and related implications. As a result, WFH personnel may receive training to build self- observation tactics and to support the scheduling of work-related goal-based deadlines and goals. Learning how to manage remote work can help to reduce the perception of imbalance between work and family life. Furthermore, firms should support employees' time management skills, allowing them to divide the two spheres and give each of them the appropriate attention at the appropriate time, allowing each worker to disconnect and recover physically and mentally. Future research should look at the nature of a manager's trust in employees who might have WFH. Investigating whether trust is based on contracts and agreements or on the employees' competence and dedication to get the task done when WFH, for example, could shed light on key features of a manager's degree of trust. The goal of this study was to compare the WFH results for two factors, however each component only had a subset of relevant characteristics. Different variables might clearly be investigated in the future to see if organisational and job-related variables continue to create more consistent and good results for WFH employees than work style and home characteristics.

II. CONCLUSION

The purpose of this study was to compare the WFH results for two factors, however each component only had a subset of relevant characteristics.

Work-life balance, productive use of commuting time, improved efficiency, collaboration between teams, collaboration within intra teams, intra team rapport building, inter team rapport building, ability to meet deadlines, extended work hours, customized office environment, Wi-Fi uncertainty, focused, independent decision making, flexibility in office hours, and limited physical activity are some of the factors that determine WFH style and productivity of employees. Limited physical activity, time for oneself and family, connectivity troubles, trouble sleeping at night, and headache are some of the variables that might influence mental health while working from home. According to the report, poor team communication and long working hours are the leading causes of productivity loss. The data also shows that respondents felt better before the WFH period, indicating that the WFH has had an impact on many people's mental health. There is enough evidence to show that WFH has an impact on mental health. Employees' WFH experience can be improved by improving their mental health. Employee productivity while working from home was found to be average, according to the research. There is also enough evidence to indicate that, when done correctly, WFH improves overall job satisfaction. WFH may boost productivity and thus assure sound mental health if suitable investments are made in encouraging better team cooperation and creating a better work environment. Different variables might clearly be investigated in the future to see if organisational and job-related variables continue to create more consistent and good results for WFH employees than work style and home characteristics. While working from home, employees are under a lot of stress, especially with the pandemic looming in the background. As a result, the organisation should approach work and work schedules with flexibility. The meeting should be organised ahead of time and completed within the allotted time. Work-life balance is also important for increasing employee productivity. The company should be mindful of the circumstances in many of the households, where employees may not have access to a supportive atmosphere during such a stressful period. Job happiness is also necessary for employees to produce at a high level. These days, the firm must ensure that it has a very helpful and employee-friendly HR policy.

Other recommendations:

- Provide staff with stress-relieving activities such as online workouts, yoga, virtual outings, and virtual meet-ups.
- Employees can rent access to humorous shows or web series, or companies might develop partnerships with OTT platforms such as Netflix to give specific services to employees at a low cost.
- Make arrangements for counselling sessions.

- Allowing for more flexibility in working hours. It is critical to be respectful of employees' personal lives and circumstances in order to keep them motivated throughout this difficult period.
- Ensure that conversations are as transparent as possible, as there are many more chances of a communication breakdown when working online.

III. REFERENCES

1. Beno M, H. J. (2021). Data on an Austrian Company's Productivity in the Pre-Covid- 19 Era, During the Lockdown and After Its Easing: To Work Remotely or Not? *Frontiers in Communication*, 6:641199.
2. Butler, J. L. (2020). Challenges and gratitude: A diary study of software engineers working from home during covid-19 pandemic. *New Future of Work*.
3. Choudhury, P. F. (2020). Work-from-anywhere: The Productivity effects of geographic flexibility. *Strategic Management Journal, online*.
4. Ciolfi, L. &. (2018). From Work to Life and Back Again: Examining the Digitally- Mediated Work/Life Practices of a Group of Knowledge Workers. *Computer Supported Cooperative Work (CSCW)*.
5. EC. (2020). Telerwork in the EU Before and After the COVID-19: Where We Were, Where We Head To. *Available online at: https://ec.europa.eu/jrc/sites/jrcsb/files/jrc120945_policy_brief_-_covid_and_telerwork_final.pdf (accessed November 25, 2020)*.
6. Ellen Baker, G. C. (2007). Satisfaction and Perceived Productivity when Professionals Work From Home. *Research And Practice In Human Resource Management*.
7. Kitagawa, R. K. (2021). Working from home: its effects on productivity and mental health. *RIETI Discussion Paper Series 21-E-024*.
8. Lindorff, M. (2000). Home-based telerwork and telecommuting in Australia: More myth than modern work form. *Asia Pacific Journal of Human Resources*.
9. McCloskey, D. &. (1998). A review of the empirical research on telecommuting and directions for future research. *IDEA Group Publishing*.
10. Morikawa, M. (2020). Productivity of working from home during the COVID-19 pandemic: Evidence from an employee survey. *Covid Economics, vol. 49*.
11. N. Bloom, P. B. (2020). The Impact of Covid-19 on Productivity. *NBER Working Paper No. 28233*.
12. Ravi, N. a. (2021). Work from Home and Employee Productivity during

COVID-19.

Asian Basic and Applied Research Journal.

13. Reuschke, A. F. (2020). "Homeworking in the UK: before and during the 2020 lockdown,". *Wales Institute of Social and Economic Research.*
14. Teresa Galanti, G. G. (2021). Work From Home During the COVID-19 Outbreak: The Impact on Employees' Remote Work Productivity, Engagement, and Stress. *Journal of Occupational and Environmental Medicine.*
15. Thomaz Teodorovicza, R. S. (2019). Working from Home during COVID-19: Evidence from Time-Use Studies. *Working Paper 21-094, Harvard Business School.*

Appendices

QUESTIONNAIRE

1. Name (optional):
2. Email Id (optional):
3. Gender
 - Male
 - Female
4. Marital Status
 - Married
 - Unmarried
 - Widow
 - Divorcee
5. Age
 - 20 - 30 years
 - 31- 40 years
 - 41 - 50 years
 - Above 50 years
6. Educational Background
 - Technical qualification
 - Diploma
 - Bachelor's degree
 - Master's degree
 - Others: _____
7. Name of the Organization: _____

8. Designation: _____
9. Department:
 - HR
 - Operations
 - Finance
 - Marketing
 - Others: _____
10. Work Experience
 - Less than 1 year
 - 1 – 5 years
 - 6 – 10 years
 - Above 10 years
11. Annual Income
 - Upto ₹5,00,000
 - ₹500,001 – 10,00,000
 - ₹10,00,001 – 20,00,000
 - ₹20,00,001 and above
12. How do you feel about working from home?
 - Relaxed
 - Anxious
 - Neutral
 - Stressed
 - Depressed
13. Number of working hours per day during WFH?
 - < 5hrs
 - 5-8hrs
 - 9-12 hrs
 - >12hrs
14. Do you normally work outside the working hours?
 - Yes
 - No
 - Sometimes
15. Choose the appropriate option from those given below, with respect to the below mentioned **factors that could possibly have an impact on your overall productivity** both at the professional and personal level during this pandemic.

Factors	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Work-Life Balance					
Productive use of Commuting Time					
Improved Efficiency					
Collaboration between Teams					
Collaboration within Intra Teams					
Intra team rapport building					
Inter team rapport building					
Ability to meet deadlines					
Extended work hours					
Customized Office Environment					
Wi-Fi Uncertainty					
Focused					
Independent decision making					
Flexibility in office hours					
Limited Physical activity					
Extra Savings					

16. Do you **feel stressed** at work?

- Yes
- No

17. Did you **feel better before WFH period** – 24th March 2020 (before lockdown)?

- Yes
- No
- Neutral

18. How often have **you experienced any of the following** because of WFH?

Factors	Most Unlikely	Unlikely	Neutral	Likely	Most Likely
Bothered by a headache					
Trouble sleeping at night					
Loss of appetite					
Overeating					
Stress from commutation					
At least seven hours of sleep					
Feeling exhausted and fatigue.					
At least two hours of screen-free time					
At least two hours of phone-free time					
Feeling down and depressed.					

