

Effects of Work from Home on Employees' Productivity

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Abstract - Work from Home (WFH) has become one of the biggest changes in how people work today. What started as a temporary solution during the COVID-19 pandemic has now become a regular way of working for many companies. The findings show that WFH can improve productivity when employees have flexibility, a comfortable place to work, and good digital tools to work with. It also helps to reduce travel time and stress. However, WFH can also create problems, such as communication issues, distractions at home, feelings of isolation, and difficulty in separating work from personal life. Our survey found that 48.6% of respondents felt higher productivity when working from home, and 73.8% reported achieving 4-8 hours of focused work done each day. A major takeaway is that hybrid work models—wherein employees split their time between home and office—offer a balanced approach that supports both productivity and well-being. 68.9% of the survey respondents preferred hybrid arrangements. While employees feel productive, objective measures sometimes show different results, indicating the need for better ways to measure productivity. Future research should focus on long-term studies, developing countries, and finding the best hybrid work schedules.

Key Words: Work from Home (WFH), Employee Productivity, Hybrid Work Model, Work-Life Balance, Remote Work Challenges, Digital Collaboration Tools.

1. INTRODUCTION

In today's digital world, the work-from-home (WFH) model has become an essential part of many organizations. Previously, working from home was considered a rare option, mostly used during emergencies or for specific job roles. However, with the rise of digital tools, faster Internet, and virtual communication platforms, remote work has become a normal and acceptable way of performing daily tasks. The COVID-19 pandemic further accelerated this shift, making WFH the primary mode of work for millions of employees across the world. This sudden change forced companies and employees to rethink traditional office-based work structures. As more people started working from home, it brought both benefits and challenges.

Research Objectives

1. To identify the main benefits of WFH that can support productivity
2. To examine the challenges and problems that may reduce productivity during WFH
3. To understand the key factors that influence productivity while working from home
4. To provide suggestions for improving WFH and hybrid models in organizations

2. LITERATURE REVIEW

Experimental Evidence

The strongest evidence comes from a randomized controlled trial at Trip.com involving 1,612 employees [1]. Workers with odd-numbered birthdays worked from home on Wednesdays and Fridays, whereas those with even-numbered birthdays stayed in the office. The results were striking: hybrid work led to 35% lower employee turnover, with the largest drop among those who originally wanted remote work. Job satisfaction, life satisfaction, and work-life balance all improved. There were no differences in performance ratings or promotions, and the programmers wrote 8% more code. Communication increased by 14%, even on days when people were in the office [1].

Pandemic Adoption and Adaptation

In early 2020, 35.2% of US workers switched to remote work, compared to only 15% before the pandemic [5]. The type of job someone had mattered more for remote work than whether they had worked remotely before [5]. How people view productivity has changed significantly over time. In early 2020, 70% of business owners believed productivity would drop. By 2021, most reported gains were attributed to investments in technology and managers learning new skills [4]. Workers valued being able to work remotely at about 5-8% of their pay, with women and college-educated workers wanting it the most [4].

Persistence and Global Patterns

Large US surveys suggest that 20% of workdays will remain remote after the pandemic, compared to just 5% before [6]. This is because people had good experiences, workers spent an average of \$561 setting up home offices, remote work became more accepted, and patents for WFH technology doubled [6]. When including the time saved from commuting, productivity gains reached approximately 4.6% [6].

Looking at 27 countries, well-educated workers average 1.5 remote days per week, from 0.5 days in South Korea to 2.6 days in India [14]. Employers plan for approximately 0.7 remote workdays after the pandemic. Workers value 2-3 remote days at approximately 5% of their pay [14]. Research from 25 countries confirms that hybrid models with 2-3 remote days are what most people want. The benefits include less commuting and fewer distractions, although communication and knowledge sharing can be more difficult [13].

Mixed Productivity Evidence

However, not all research is positive. A study of 10,000 IT professionals using actual company data found productivity dropped by 8-19%, even though people worked 18% longer hours [12]. The problem was more time spent in meetings, less time for focused work, and weaker mentoring. Newer employees and those with children experienced greater productivity loss [12].

Japanese company surveys showed that WFH use dropped from 49.5% to 34.5% by late 2021 [8]. Productivity improved by 11 percentage points as companies learned, and those that could not make it work stopped trying; however, it still remained 20% below office levels. Tech companies maintained 80% remote work, while manufacturing cut back [8].

Reviews of many studies confirm mixed results: better flexibility and engagement versus blurred boundaries, more stress, and less supervision [11, 17]. Banking and IT performed well, whereas education and hospitality struggled.

Women faced greater productivity losses due to household responsibilities. Factors such as self-discipline, manager support, relationships with co-workers, and home environment all affect how well remote work goes [11, 17].

Health and Home Environment

Health effects go both ways: less risk of getting sick versus more sitting, body pain, and burnout [7]. Women reported more negative health effects [7]. A Japanese study found that WFH was linked to 22% higher risk of not being able to work effectively, with "presenteeism"—working while sick or struggling—being a hidden cost [22].

The location where one works at home is important. A Dutch study found that people felt similarly productive at home and in the office, but the burnout risk was higher at home [15]. Good ventilation and ergonomic furniture strongly predicted productivity and lower levels of burnout. Having children at home hurt women's productivity more than men's, and working extra hours to prove oneself was linked to burnout [15].

Success Factors

The success of remote work over time depends on performance-based reviews, flexible schedules, strong technical skills, and jobs that involve abstract thinking [10]. People who worked remotely only temporarily had worse well-being, while those who did it consistently reported better engagement [10].

Companies have invested heavily in technology, with 70% investing in digital transformation. However, 30% of workers still lack reliable internet, and cybersecurity costs have reached \$10.5 trillion globally [19]. Training in digital skills boosted productivity by 25%, while burnout rates of 71% reduced efficiency. Wellness programs improved productivity by 13% [19].

Measurement Issues

US surveys provide very different estimates of how common WFH is, from 15% to 35% of workdays [16]. This is because they define and measure things differently from each other. When adjusted for these differences, the real number is approximately 18-28%—roughly one-quarter of workdays. Women and parents work remotely more frequently. Surveys that only count fully remote workers miss out on hybrid arrangements [16].

Research Gap

- Lack of long-term post-pandemic productivity studies
- No standard framework to measure WFH productivity
- Limited studies from developing countries

- Lack of optimized hybrid work models

3. METHODOLOGY

The study employed a Quantitative, Descriptive, and Survey-Based Approach to investigate employee productivity and experience during Work From Home (WFH).

3.1 Research Design and Approach

- Design: A descriptive and survey-based design was used to observe and document existing conditions, employee experiences, and factors affecting productivity without manipulating variables.
- Approach: A quantitative approach was adopted, focusing on collecting numerical data through a structured online questionnaire to measure variables such as productivity levels, challenges, and benefits.

3.2 Data Collection and Sampling

- Data Collection Method: Primary data were collected using a structured Google Form survey. The questions were developed based on insights from the literature review, covering key factors such as work-life balance, technology, and communication.
- Sampling Technique: Convenience sampling was employed, reaching respondents who were easily accessible through online platforms (WhatsApp, social media, email) to ensure rapid data collection from individuals familiar with WFH practices.
- Sample Size: The sample included all individuals who voluntarily responded to the Google Form (N=103, based on the data provided).

3.3 Research Instrument and Analysis

- Instrument: The main tool was a structured questionnaire in Google Forms, featuring demographic questions, Likert scales, and multiple-choice questions on the WFH experience, factors affecting productivity, and overall perception.
- Data Analysis Techniques: Google Forms generated preliminary charts, graphs, and summary statistics (pie charts, bar graphs, percentage distributions). The final analysis involved interpreting the output and comparing the findings with the information from the literature review to identify similarities and differences.

This section explains how the study was conducted using a Google Forms survey consisting of 16 questions. The aim was to understand how Work From Home (WFH) affects employee productivity, well-being, communication, and work-life balance based on real responses. Instead of laboratory-based experiments, this study relied on actual employee experiences and perceptions collected through a survey.

A structured Google Form with 16 questions was designed to collect data on the various factors influencing WFH productivity. The questionnaire included the following:

- Basic demographic questions
- Work arrangement (WFH, office, hybrid)
- Productivity changes (increase, decrease, no change)
- Working hours and focus levels
- Communication and coordination issues
- Access to technology and home workspace
- WFH benefits (flexibility, comfort, reduced commute)
- WFH challenges (distractions, lack of supervision, isolation)

- Well-being and work–life balance indicators

The questions consisted of multiple-choice items, Likert scale responses, and simple choice-based queries.

3.4 Survey Distribution & Data Collection

The Google Form was shared with working professionals through WhatsApp and email.

- A total of 103 valid responses were obtained.
- Google Forms automatically recorded all the responses.
- Data were exported to Google Sheets/Excel for further analysis.

The collected responses represent real employee experiences during WFH, making the findings reliable for statistical interpretation.

The findings were validated using the following:

- Comparison with the literature: The survey results showed similar trends regarding productivity gains, communication issues, and well-being effects, matching past WFH studies.
- Cross-checking patterns: Consistency across multiple survey questions ensured reliability.
- Theoretical alignment: The survey responses aligned with established research factors, such as focus time, technology readiness, home environment, and managerial support.

3.5 Tools Used in the Experimental Work

Purpose	Tool Used
Survey Creation	Google Forms
Data Export	Google Docs
Data Analysis	Excel
Visualization	Pie Charts, Bar Graphs
Documentation	Microsoft Word

4. RESULTS AND ANALYSIS

This section presents the analysis of the survey data collected from 103 respondents. The following figures represent the visual interpretation of survey data collected through structured questionnaires.

4.1 Employment Type Distribution

Figure 1 shows the employment status of respondents.

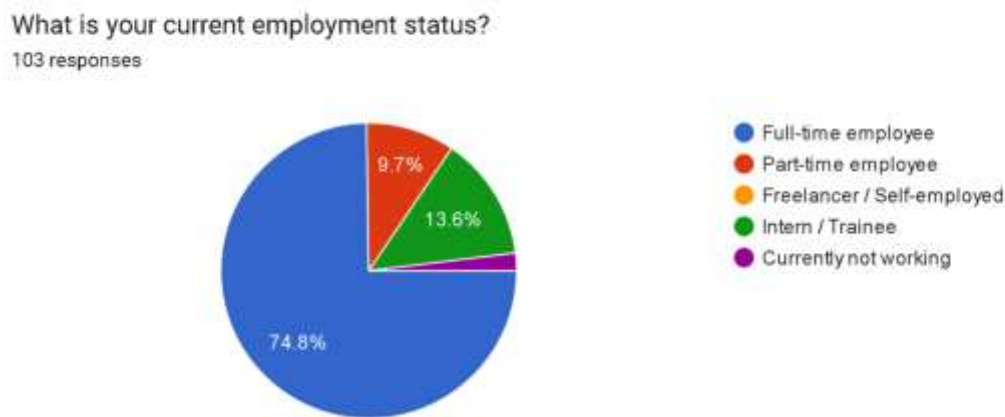


Figure 1: Employment Type of Respondents

Of the 103 respondents, 74.8% were full-time employees.

4.2 Industry Distribution

Figure 2 illustrates the industry distribution of participants.

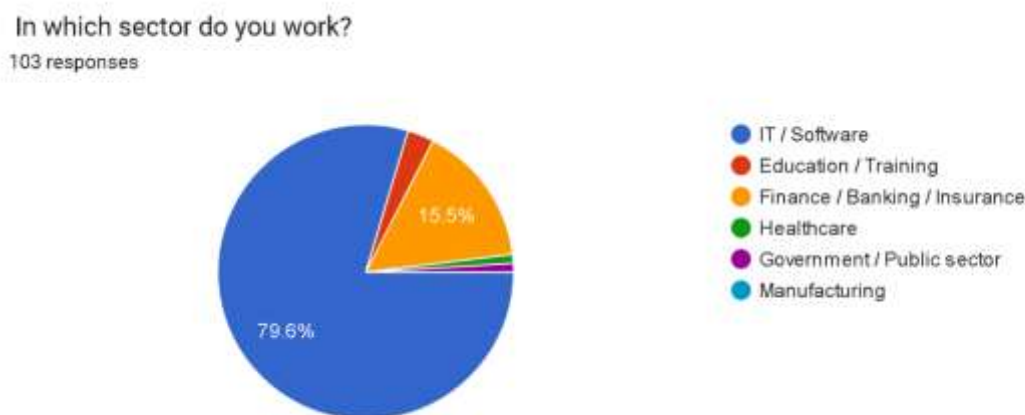


Figure 2: Industry Distribution of Respondents

This pie chart shows that 79.6% belong to the IT/Software industry and 15.5% belong to Finance/Banking industry.

4.3 Work Experience

Figure 3 presents the work experience of respondents.

How many years of total work experience do you have?

103 responses

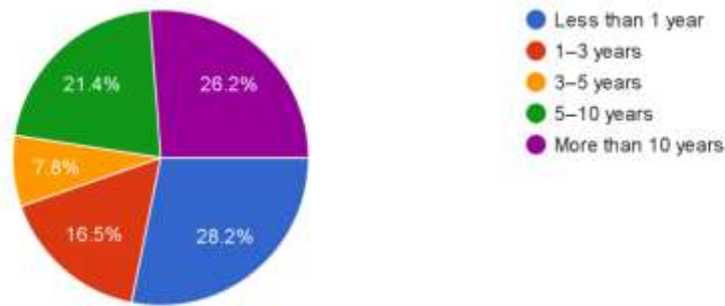


Figure 3: Work Experience Distribution

The chart indicates that 26.2% respondents have more than 10 years of experience, while 28.2% have less than 1 year.

4.4 Age Group Distribution

Figure 4 shows the age distribution.

What is your age group?

103 responses

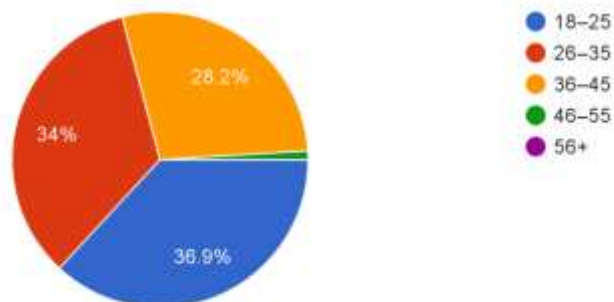


Figure 4: Age Group Distribution

36.9% are aged 18–25, and 34% are aged 26–35.

4.5 Gender Distribution

Figure 5 represents gender distribution.

What is your gender?

103 responses

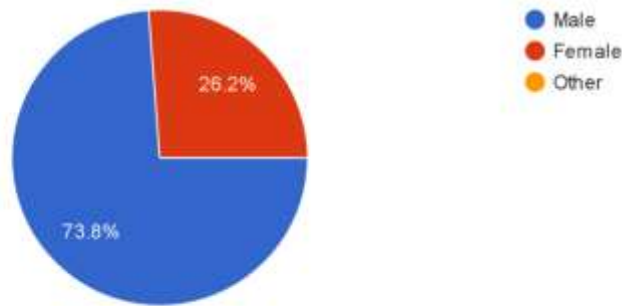


Figure 5: Gender Distribution

73.8% are male while 26.2% are female.

4.6 Work Mode Preference

Figure 6 shows the work arrangement.

How often do you currently work from home?

103 responses

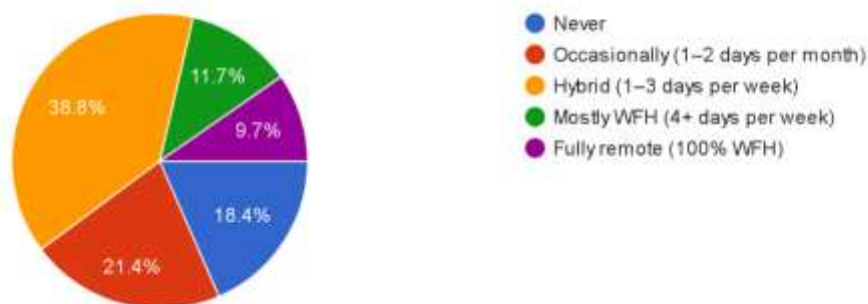


Figure 6: Work Arrangement Distribution

38.8% worked hybrid, 21.4% occasionally, 18.4% never WFH, and 9.7% fully remote.

4.7 Technical Setup Availability

Figure 7 shows access to internet and technical setup.

How would you rate your home internet and technical setup?

103 responses

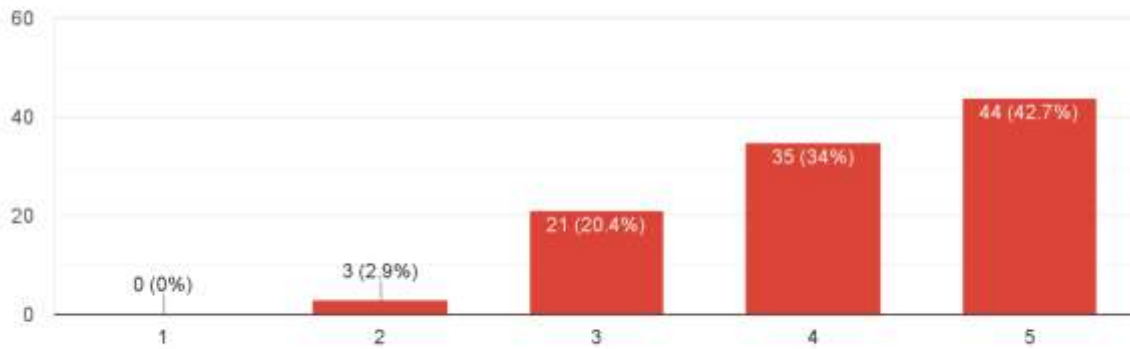


Figure 7: Technical Setup Quality

76.7% of participants reported having a very good setup.

4.8 Productivity Changes

Figure 8 shows perceived productivity changes.

Compared to office work, how would you rate your productivity while Work From Home?

103 responses

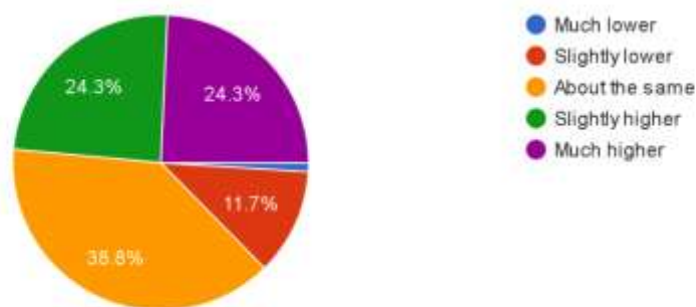


Figure 8: Productivity Comparison

38.8% reported no change, 24.3% slightly higher, and 24.3% much higher productivity.

4.9 Working Hours

Figure 9 shows working hours.

How many hours of actual focused work do you achieve per day while Work From Home?

103 responses

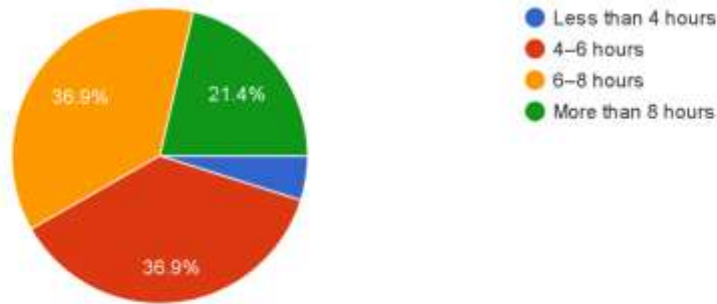


Figure 9: Daily Working Hours

36.9% work 4-6 hours, 36.9% work 6-8 hours, and 21.4% work more than 8 hours.

4.10 Task Completion Efficiency

Figure 10 shows ability to complete tasks on time.

Work-from-home helps me complete my work on time.

103 responses

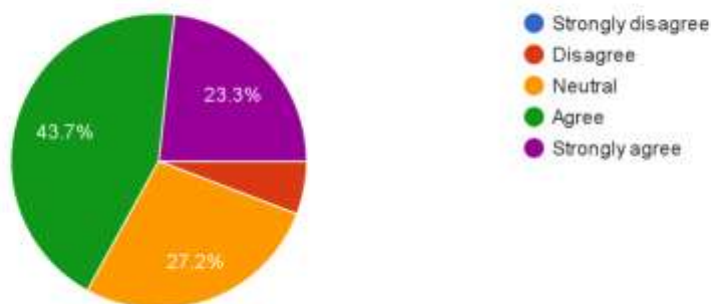


Figure 10: Work Completion Perception

43.7% agree that WFH helps them complete tasks on time.

4.11 Distractions During WFH

Figure 11 highlights distractions.

How often do you experience distractions while Work From Home?

103 responses

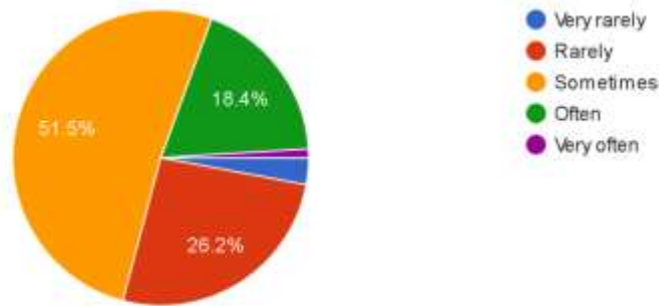


Figure 11: Distraction Levels

51.5% sometimes face distractions, while 26.2% rarely do.

4.12 Work-Life Balance

Figure 12 presents work-life balance.

Do you feel you have a good work-life balance while Work From Home?

103 responses

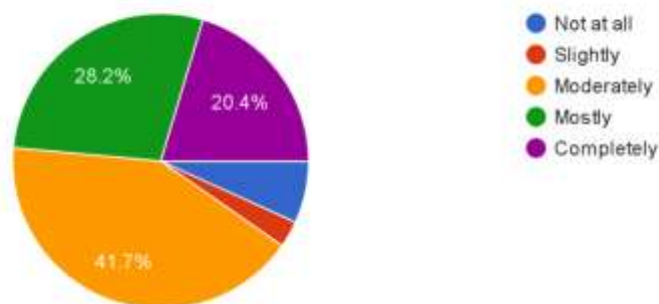


Figure 12: Work-Life Balance

41.7% reported moderate balance, while 28.2% reported good balance and 20.4% reported excellent balance.

4.13 Mental Well-being Impact

Figure 13 shows mental health impact.

What is the effect of Work From Home on your mental well-being?

103 responses

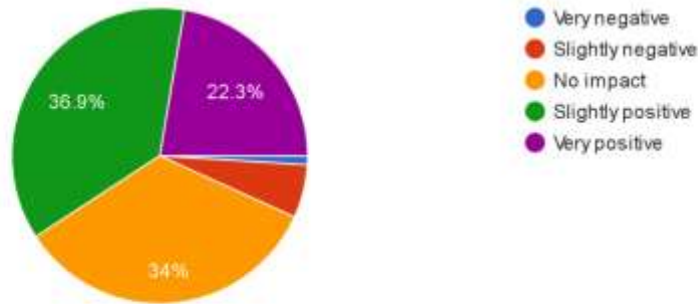


Figure 13: Mental Well-being Impact

59.2% reported a positive impact.

4.14 Satisfaction Level

Figure 14 shows satisfaction with WFH.

Overall, how satisfied are you with Work From Home?

103 responses

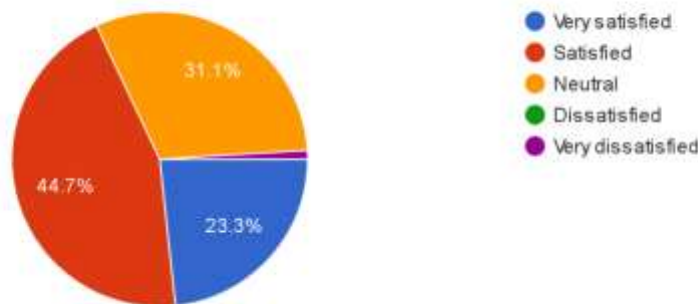


Figure 14: Satisfaction Level

44.7% were satisfied, while 23.3% were very satisfied.

4.15 Preferred Work Model

Figure 15 shows future preference.

In the future, what type of work model would you prefer?

103 responses

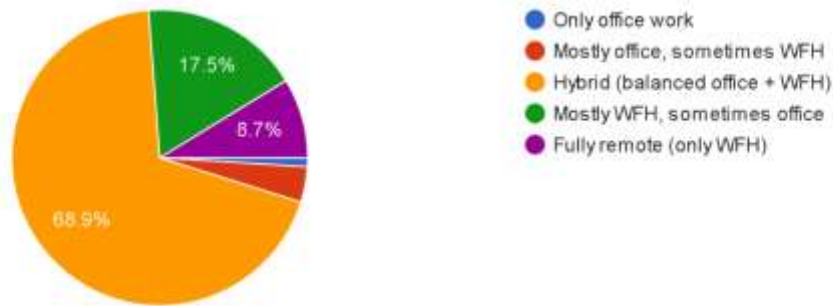


Figure 15: Preferred Work Model

68.9% preferred hybrid work, followed by 17.5% mostly WFH.

4.16 Statistical Analysis Using Excel

To further analyze the survey results, additional statistical visualizations were generated using Microsoft Excel. While the previous pie charts represent the direct responses collected from participants, the following charts provide a deeper analytical view of key variables such as productivity changes, focused work hours, and mental well-being.

These visualizations help in understanding the distribution patterns and trends within the data, enabling a more comprehensive interpretation of the impact of Work from Home (WFH) on employee productivity.

4.16.1 Productivity Distribution Analysis

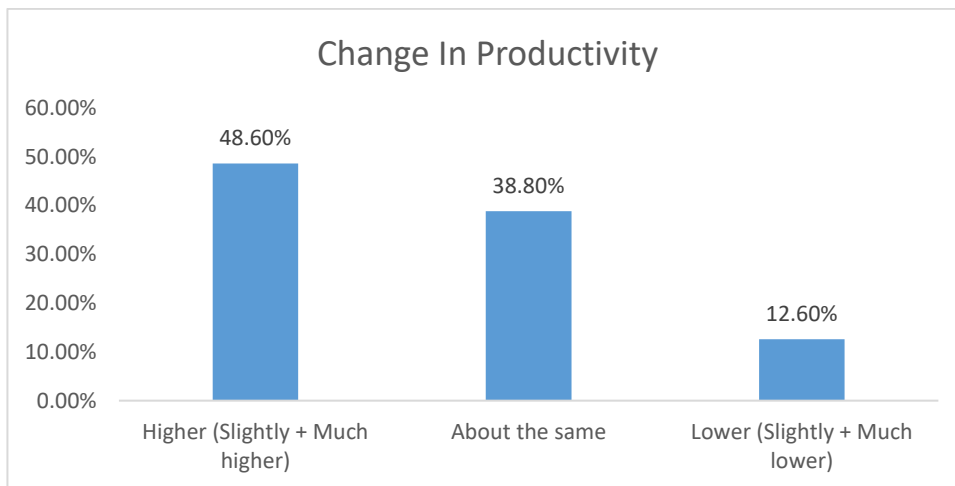


Figure 16: Distribution of Productivity Changes

This chart illustrates the distribution of productivity responses, highlighting that a majority of respondents experienced stable to increased productivity while working from home.

4.16.2 Focused Work Hours Analysis

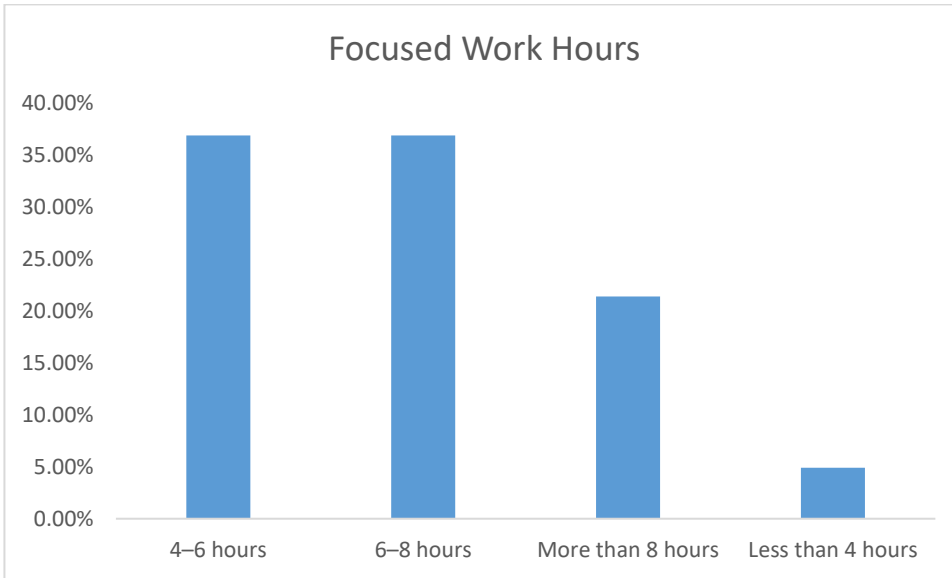


Figure 17: Distribution of Focused Work Hours

The chart shows that most respondents fall within the 4–8 hours range, indicating a concentration of moderate and consistent working durations.

4.16.3 Mental Well-being Analysis

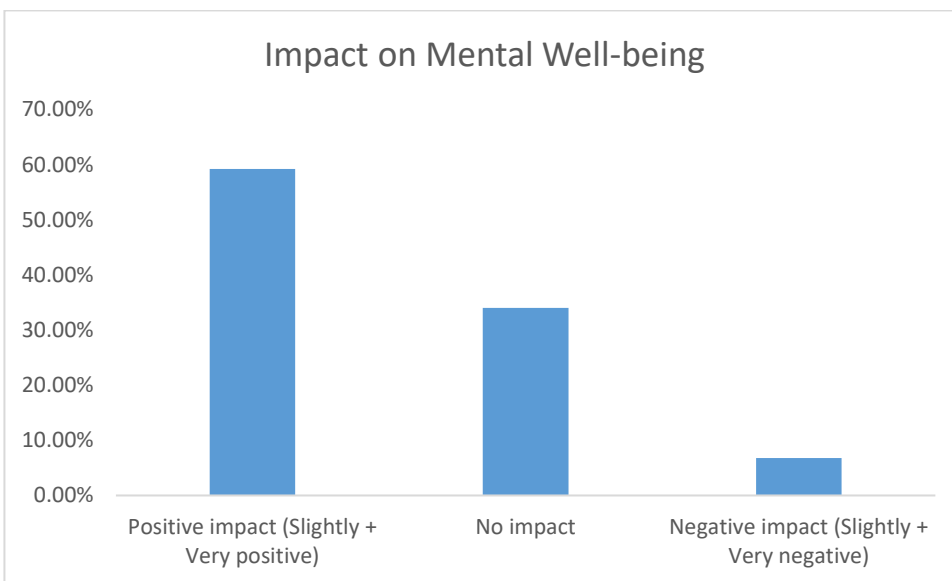


Figure 18: Distribution of Mental Well-being Impact

This visualization indicates that responses are largely centered around neutral to positive well-being, suggesting an overall balanced impact of WFH on mental health.

5. DISCUSSION

The findings from both research papers and our survey come together around several key points regarding WFH and productivity.

First, people want hybrid work. 68.9% of our survey respondents specifically preferred hybrid arrangements. This matches experimental research showing that hybrid work reduces employee turnover by 35% while improving job satisfaction and work-life balance [1]. Global surveys also find that workers would quit if forced to be in the office five days a week [13, 14]. Companies that ignore this preference may have trouble retaining good employees.

Second, people's feelings about their productivity are mostly positive, but we need to be careful. While 48.6% of our respondents said they had higher productivity at home and 73.8% reported achieving 4-8 hours of focused work daily, academic research shows a more complicated picture. Some studies using actual company data find productivity drops of 8-19%, hidden by people working longer hours [12]. Japanese firms reported that WFH productivity remained 20% below office levels, even after improvement [8]. However, the satisfaction rates (68% combining satisfied and very satisfied) and positive mental health findings (59.2%) in our survey suggest that feeling good about work may help sustain productivity over time, especially when employees have good support.

Third, making WFH effective depends on several factors. Our sample consisted mostly of IT workers (79.6%) with excellent home setups (76.7% had very good technology), which explains many of the positive results. Research confirms that home office quality—especially ventilation, lighting, and comfortable furniture—strongly affects productivity and burnout [15]. Younger, tech-savvy workers in our survey also match research showing that they adapted better to remote work [5]. Key success factors include personal readiness (self-discipline and tech skills), good home workspace (dedicated area and few distractions), company support (digital tools and wellness programs), good management (clear expectations and regular feedback), and jobs that can be done independently.

Fourth, comparing our findings with those of other studies shows both agreements and differences. Our results align with studies reporting productivity gains [19], maintained performance in hybrid work [1], and high worker value on remote options [4]. However, they differ from studies showing actual productivity drops [12] and higher health risks for managers [22]. These differences probably stem from our specific sample (young IT pros with good setups), people possibly rating themselves too highly, and our study happening later when everyone had adapted, unlike the early pandemic chaos.

Finally, work-life balance and well-being are important but complex. While 48.6% of respondents reported good to excellent work-life balance (28.2% mostly and 20.4% completely) and 59.2% positive mental health, nearly half had only moderate or poor balance and mental health. This confirms that WFH requires clear boundaries to prevent work and life from blurring together and causing stress [11]. The positive mental health results match research showing that remote workers often have a better mood [7] and less anxiety when working remotely consistently [10]. This suggests that well-supported remote workers can perform well when companies invest in the right infrastructure and policies.

6. FUTURE SCOPE

- Larger, long-term experimental studies to confirm the durable impact of hybrid models on performance.
- Expansion of digital literacy and technology support to eliminate the WFH access gap (digital divide) for all employees.
- Focus on long-term tracking of employee satisfaction and retention to continuously refine hybrid work arrangements.

7. CONCLUSIONS

The combined academic evidence and local survey findings clearly show that hybrid work is emerging as the most effective and preferred model. While employees generally feel productive at home and report high satisfaction, research indicates that productivity outcomes can be mixed, often influenced by the work environment, workload, and management practices.

The survey confirmed that employees with strong technical support and a comfortable home environment experienced better focus, higher satisfaction, and improved mental health. The profile of today's remote worker— young, full-time IT professionals already accustomed to hybrid schedules— suggests that organizations must continue to evolve work policies to match these expectations.

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