Work From Home: A Curse or Boon? Analyzing People's Sentiments

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Abstract:- **Ventilating one's mental health is requisite in the present day since people have almost no physical contact among themselves, and this is creating an emotional vacuum in people's life. In this study, we have made an attempt to decipher the comprehensive opinion submitted by respondents and aimed at manifesting a value judgment. Our study is based on a primary survey done on people of West Bengal who have been working from home for the last 13-14 months or so. Based on the responses collected using google forms, we have performed a SWOT analysis on the advantages and disadvantages of both work from home (WFH) and work from office (WFO); further, we have opted for Sentiment Analysis to analyze the overall opinion of respondents. The information collected as advantages and disadvantages of WFH and WFO are heterogeneous to age. Besides, the choice preference made by the individuals does not hold analogous to their true sentiments.**

Keywords:- WFO (work from Office), WFH(work from home), SWOT(Strengths, weaknesses, Opportunities, Threats), Sentiment Analysis.

I. INTRODUCTION

On March 4 2020, the number of cases reached 28, and by March 22, the number of cases reported was 360. That is the day when India observed 14 hours of voluntary public curfew from 7 am to 9 pm. On March 24, the Prime Minister proclaimed a nationwide lockdown for 21 days, and on April 14, the lockdown was extended to May 3, which continued till May 17 2020. With this declaration, almost everything shifted to online mode, from educational institutions to Multinational companies.

This worldwide pandemic has introduced a lot of new terms and changes to our daily lives. While some are being wholeheartedly accepted and others we are compelled to. The idea of WFH is one of the many such changes. WFH seemed to be a fantasy to many people before the pandemic and was considered infeasible, as working from home requires peaceful and dedicated space to perform professional obligations, which can be a real challenge for those living in small apartments. Although, at present WFH is considered the most persuasive alternative to minimize the risk of Covid-19 infections.

Our study is mainly based on the natives of West Bengal; that is, it focuses on those people who may be working in some other part of the country but based out of West Bengal. Though West Bengal may not be the technologically most developed state, it is not even far behind. The state comprises a population of 92 million people approximately out of which 79.15 million people are subscribers of wireless internet service (Source: Telecom Regulatory Authority of India The Indian Telecom Services Performance Indicators April – June 2020) that means 85.86% have availed internet services for themselves.

From an economic standpoint, the pandemic has impacted countries bringing economic sectors to a standstill. Although better-paid workers are insulated from the shock, a small share of workers, including young, poorly educated workers and those on temporary contracts, are least likely to work from home and more vulnerable to the shocks from Covid-19.

II. PURPOSE OF STUDY

Our study is instigated from some real-life encounters with our friends and relatives at some point in time. Some people seemed extremely satisfied with this upgrade, while some happened to be highly frustrated coping with this change. They even claimed that their productivity is getting impacted while adjusting to this and hampering their mental stability. From these conversations, we had this intuition that opinion may follow a pattern depending on age, family structure, job profile and other factors. Also, we wanted to verify the depth of the mental disturbance. The questionnaire we have designed is majorly rotating around questions that would reflect people's mental health. On the basis of their response we have attempted to figure out whether people would like to continue with this reshaped working culture or would prefer to WFO or settle down for some intermediate alternative. Further, the study reflects whether the choice preference made by the individuals are analogous to their true sentiments or not.

III. METHODOLOGY

In this study, we have opted for two methods for analysing the data. First, we have used SWOT Analysis and to check the viability of the former, we have performed Sentiment Analysis.

➤ *SWOT analysis*
It is a method that helps firms create a strategic plan to meet their goals, streamline productivity, and compete effectively. SWOT is an acronym for Strengths,

Weaknesses, Opportunities, and Threats where Internal strengths and weaknesses are elements that a firm has control over and can modify.

➢ *Sentiment analysis*

Is a process that uses machine learning and neural networks to automatically assess the emotional tone and sentiments of text data. It is widely used by businesses to gain a better understanding of their customers i.e. whether they have a positive, neutral or negative sentiment.

In the nature of language, there are many semantic complexities that are absent in other sorts of data. As a result, recognising text content in opinion mining systems is difficult. Natural language processing (NLP) and neural networks in opinion mining techniques play an important role in establishing an opinion's orientation.

For emotion detection, which is a sort of sentiment analysis that seeks to detect emotions like happiness, sadness, etc, we have employed a package of libraries known as Natural Language Toolkit (NLTK) Library.

IV. DATA ANALYSIS

Our study used SWOT to visualize the strength, weaknesses, opportunities, and threats of WFH. In the case of West Bengal, as suggested by the Telecom Authority of India, we can see that 85.86% of people are availing internet service, which indicates that working from home is affordable to a majority of the population irrespective of whether they belong to a rural or urban area. Although stable networks can continue to be an issue, we will look into that in the latter part of our study.

In the google form, we have integrated 38 alternatives classified under the advantages and disadvantages of WFH and WFO, which we have further used in the SWOT analysis. Based on the question's mood, we have segregated the highly preferred advantages as Strength of both WFH and WFO and the immensely unfavorable disadvantages as Weakness of both WFH and WFO. Further, we have considered every single response independently for every option and evaluated the percentage of people who find a specific condition favorable or unfavorable. We have calculated the average percentage of the Strength and Weaknesses and deduced the eventual interpretation of which one is more favorable or unfavorable between WFH and WFO.

We have gathered the opinions of the respondents about continuing with WFH as the situation subsists. Based on their opinions which they have answered in plain text (in English), we have tried to detect emotions using sentiment analysis in the Python programming language. Firstly, we have imported all the opinions into an integrated development environment (IDE) for Python 3.7 called PyCharm. We cleaned the text data as needed to conduct sentiment analysis. Tokenizing: the process of segmenting text into words, clauses, or sentences - and Uprooting of Stop words: the process of uprooting conventionally used

words that appear improbable to be useful for learning. These are the next two steps in processing the text data.

Thirdly, we import the Natural Language Toolkit (NLTK) library for Python to read natural human-readable language or text. This NLTK library contains a list of words from the English language with emotions assigned to them. For example, the word 'blissful' represents 'happy' emotions, 'intrigued' represents 'attracted,' 'motivated' represents 'attracted,' 'ordinary' represents 'average,' and so on. Finally, Python executes sentiment analysis by checking for the tokenized words within the NLTK library and returns a result of the count of emotions concerning each word.

V. SUMMARY & FINDINGS

We have categorized our google form under two broad headings, i.e., life domain and work domain. The life domain consists of individuals' basic information like age, marital status, gender, family and personal health, number of leaves, and time spent with family. Work domain includes information like job profile, basis of work (permanent/contractual), package offered, advantages and disadvantages of WFO and WFH, mental health status, satisfaction level of WFH, and family support. We discuss the life domain and work domain of the population we have studied depending upon their responses in the first section.

In the second section of the study, we present the SWOT table, which helps get an overview of WFH and WFO in their fundamental terms. Further, we discuss the advantages and disadvantages based on it.

The third section unearths the opinion of the respondents using sentiment analysis executed on the same population.

A. About the Population
➢ *Life domain:*

Summarising the information collected from 169 respondents gives us an idea that the surveyed individuals mainly belong to the age group of 20-30 (75.7%). The same number of individuals comprising the total unmarried population (76.3%) also have the same number of individuals who prefer to work from office or work on alternate days from home and office (73.7%). Although we cannot claim that these are the same individuals who have followed this pattern.

➢ *Work Domain:*

The information collected has provided us with the cognizance of four occupation groups, namely, Teaching and other academic jobs (10.65%), Banking (2.95%), Tourism (2.36%) and IT/ MNCs (84.02%). The section primarily reveals that 89.3 % were doing a permanent job when surveyed. Out of which 13.6% have switched jobs in this period, and the reasons are complementary and contrary. The complementaries are - better opportunity, growth of career, to make better work-life balance, a

favourable location closer to domicile and better remuneration.

The contraries: Lack of increment, mental pressure from their employer escalated, long working hours (18hrs for seven days a week) caused stress, lack of recognition

seemed perplexing to adjust, and a toxic workplace environment. Furthermore, an individual from the tourism industry responded that she lost her job due to covid. 63.31 % appears to be satisfied with WFH (as they rated >6) when asked to and when queried about the satisfaction rate of family support, 89.94% rated >6.
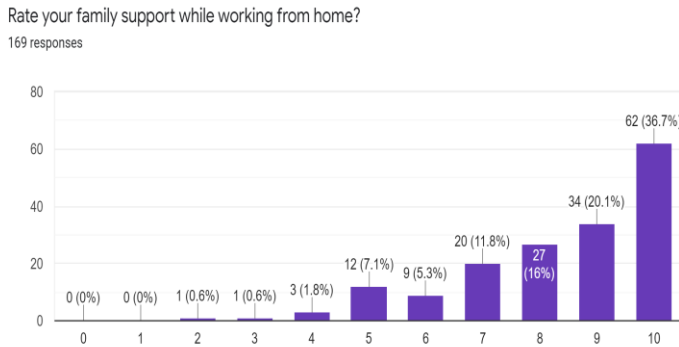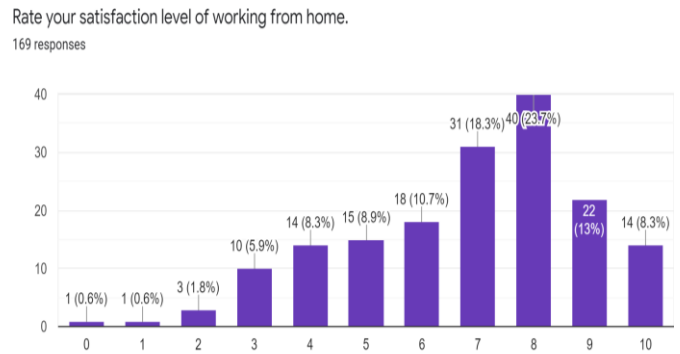

Fig 1.a:- Family Support

Fig 1.b:- Satisfaction Level of WFH

It is a familiar fact that our emotional health affects our productivity, hence to know about this, we added a question regarding their mental health. If we try to explain this in a four-point Likert item, we would see that people who face the problem of mental health issues(depression and mood swings) frequently or sometimes are more in numbers than people who are facing the problem rarely or never. From the diagram also it is clear that WFH is vexatious to plenty of individuals.
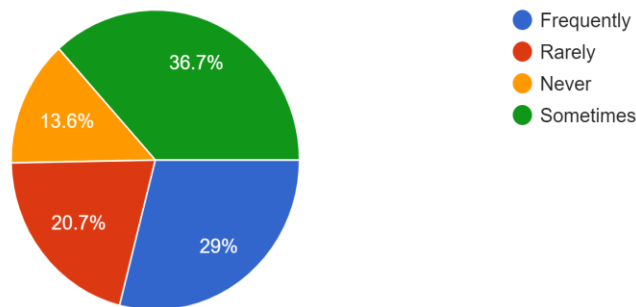

Fig 1.c:- Mental Health Problems

B. SWOT analysis for our cohort from West Bengal

SWOT Table:

	Work from OFFICE	Work from HOME
Strengths	Networking opportunities Effective Supervision Better work life balance Greater sense of Belonging Increased productivity and Team Collaboration Cafeteria / Small break for talks	Flexible arrangement / flexible work hours No office distraction Effective time management for self Familiar environment (reduced stress) No travel hours Curtailing unnecessary expenses Robust way of working attitude Increased work productivity
Weakness	Lack of flexibility Monotonous Schedule Unnecessary distractions Time wasted in non-interesting meetings Irrelevant side conversations/ gossip Commuting expenses Travel time	Distractions (family members/household duties) Uncomfortable environment/ lack of conducive environment (e.g. living in a small space) Lag in query resolve/ Supervision Missing office get-togethers Delay in IT support Imbalance between work and personal life Ghosted by office colleagues Lack of discipline Lack of employee recognition (e.g. Good work! You re doing great by finishing this survey) Local Network disruptions Lack of clarity (WFH policies and regulation) Work exploitation (e.g. Increased work hours/ working on weekends) Lack of peace of mind
Opportunities	Better onboarding	Work life balance
Threats	Workplace conflict (e.g. office politics)	High competition (e.g. job may be outsourced) and Anxiety of job security

Table 1

Discussion: WFH was not an option people considered to shift to that too thoroughly, but given the circumstances when physical contact seems to be the most life-threatening, people are getting grips on this transformation. From the above SWOT table, we show a comparison between WFO and WFH. We have classified the advantages and disadvantages as technical or establishment issues , socio-economic issues and work-life balance or imbalance which are the primary problems faced by people working from home and office.

➢ *Advantages and Disadvantages of Work from office(WFO):*
Technical/Establishment Issues: Technical benefits and drawbacks directly influence the productivity of an individual. According to 63.9%, WFO increases productivity. The scope of delivering the service efficiently- to which 48.5% of respondents opined that WFO provided them with better supervision. WFO offers swifter networking opportunities, according to 61.1%. Also, a sense of belonging helps employees remain motivated towards their work, and 42% believe that WFO provides them with a greater sense of security. However, there is no such technical disadvantage of WFO.

Social- Economic Issues: 38.5 % of people are perturbed by workplace conflict, 33.7 % suffer from unnecessary distractions, 40.2% feel distressed about the time wasted on uninteresting meetings, 34.9% think there are irrelevant side conversations and gossip, which are some social disadvantages of WFO. Besides, according to 69.2%, they have to invest much time travelling, and commuting expenses bother 49.1 % of people.

Work-Life Balance/Imbalance: The fixed working hours seemed a problem to 44.4%. The monotonicity of the schedule appeared uninteresting to 38.5%.

➢ *Advantages of Work from Home (WFH):*
Technical/Establishment Issues: Familiar environment for working is a blessing to 49.1%, 37.3 % believe that their productivity has increased while working from home.

Socio-Economic Issues: saving the travel hours seemed beneficial to 84.6% & 61.5% feels that they have managed to curtail unnecessary expenses.

Work-life Balance/Imbalance: Flexible arrangements and flexible work hours have become a favourable condition to 63.9%, lack of office distraction is a boon to 24.9%, 50.3% people managed more self-time, 38.5 % people have opined that WFH has helped them maintain work-life balance, 16% are suffering from the robust way of a work attitude.

➢ *Disadvantages Work from Home (WFH):*
Technical/Establishment Issues: Lack of conducive environment is a problem of WFH to 36.1%. WFH is taking more time for people to get their queries resolved, and barring them from getting adequate supervision is yet another drawback according to 39.1%; also, they are getting delayed IT support according to 43.8%. Further, Employees are facing a shortage of recognition from employers as per 27.2%, 40.8% are facing glitches because of unsteady local networks.

Socio-Economic Issues: According to 60.9%, they are being distracted by family members and also have to invest more time performing household chores, being ghosted by office colleagues, missing office get-togethers, lack of peace of mind seemed a problem to quite a few people.

Work-life Balance/Imbalance: An imbalance between work and personal life seemed a problem to 43.2%, lack of discipline is yet another drawback according to 37.3%, one of the main problems of WFH which as many as 50.9% of employees feel is that the system is exploiting them; besides, they are facing high competition according to 18.3%.

Summing up the entire SWOT table gives us an idea that people see more perks in working from the office than working from home. Comparing the overall strength and weakness disseminates that Strengths and opportunities of work from office are more than work from home. The pie diagram also portrays the same idea that more people are either willing to work from office on alternate days or work from office. Although, they were asked to share their opinion on what if the work from home continues in the future, to which most of them seemed pretty indifferent. In order to understand their indifference and get to the depth of the psychological impact of this new setup on people's minds, we have opted for sentiment analysis.
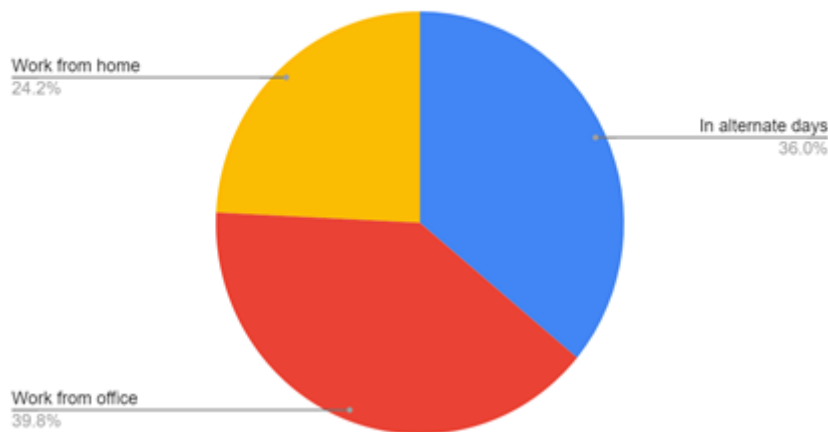

Fig 2.a:- Percentage of people willing to WFH & WFO

C. Sentiment Analysis (Opinion Mining & Emotion Detection)
The sentiment analysis shows that the entire population of our study has an overall positive sentiment. This signifies that the people had a positive outlook towards the concept of work-from-home. For a more detailed analysis of the opinions, the emotion quotient associated with the opinions were analyzed. The overall population shows the highest levels of happiness and attraction among all other emotions (Fig.A). Although the overall sentiments of the people both of age 20-30 and above age 30 is positive, the emotion count shows that people of age above 30 are less happy and more attracted (Fig. C) than people of age 20-30 who are the happiest and show the same level of attraction (Fig.B) as people above 30 years.
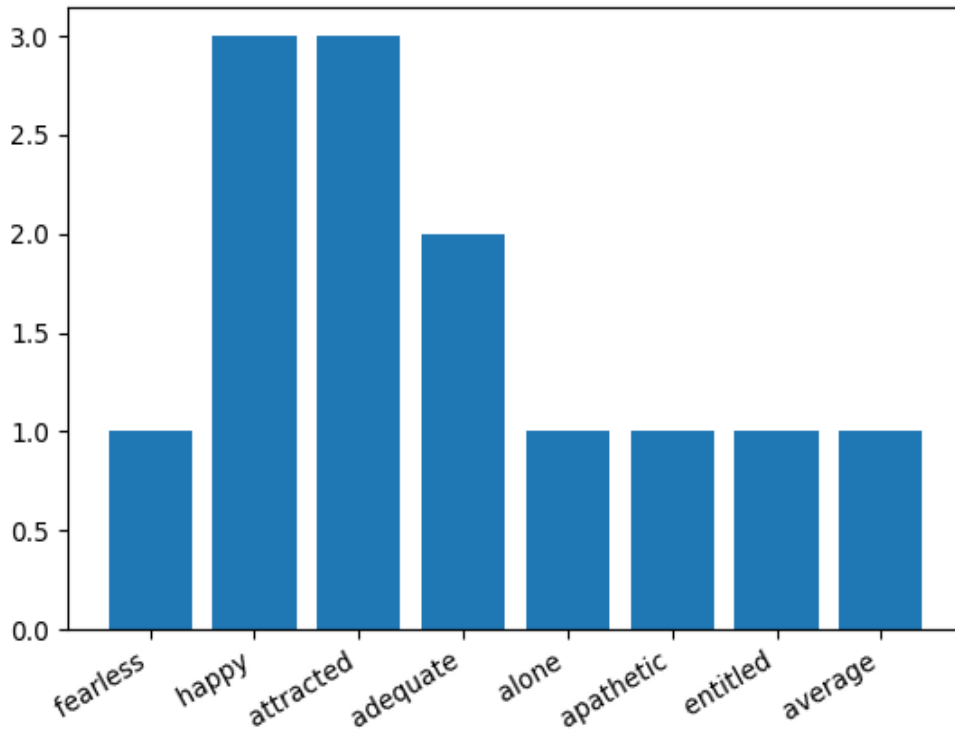
Fig 3.a:- Count of emotions of the entire population of our study

While the overall population had a positive sentiment, people below 30 years gave opinions with emotions showing more happiness, attraction, adequateness and less fear, apathy, entitlement and loneliness towards work from home.
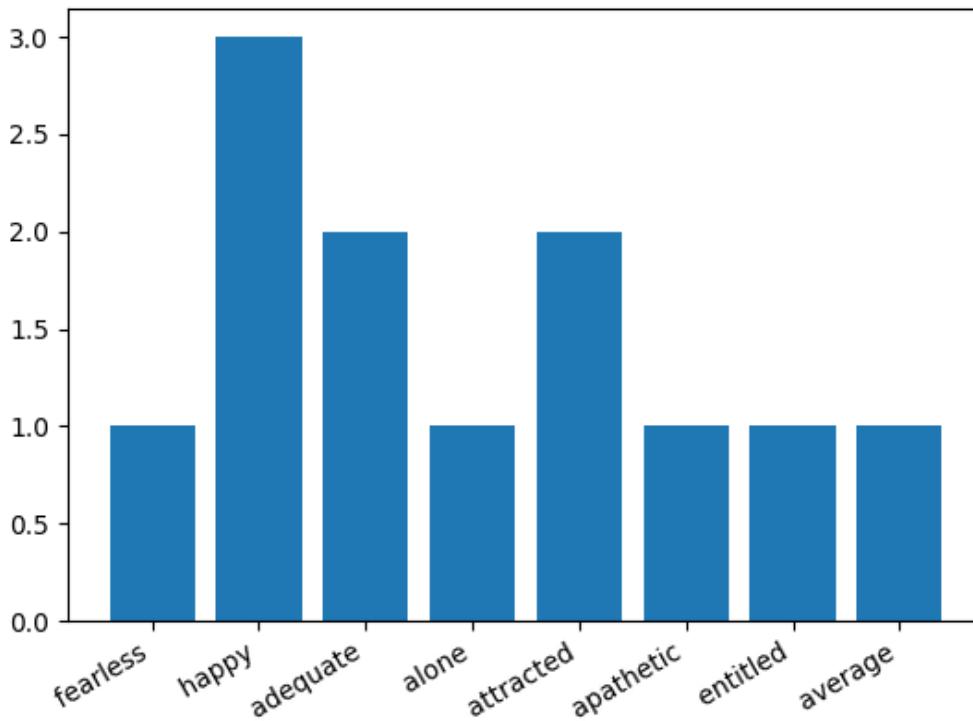

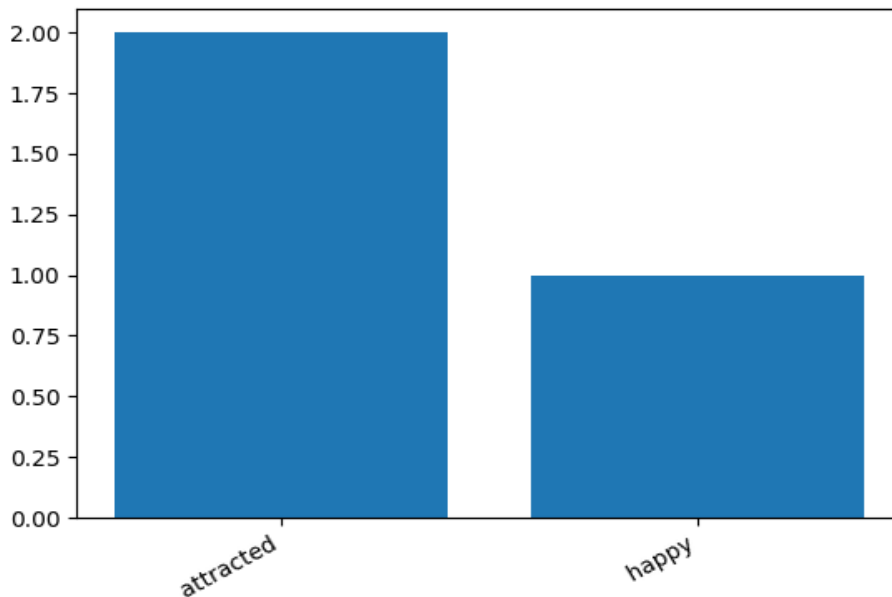Fig 3.b:- Count of emotions of the people of age between 20-30

Fig 3.c:- Count of emotions of the people of age above 30

From the SWOT analysis, we can conclude that an individual's age does not influence the choices they make between WFH and WFO; also, the information collected as advantages and disadvantages are heterogeneous to age. Hence our first hypothesis stands false, while our second hypothesis turns out to be true, i.e., the choice preference made by the individuals does not hold analogous to their true sentiments.

VI. CONCLUSION AND RECOMMENDATION

From the obtained results of sentiment analysis, it can be concluded that the work-from-home experience had a positive perception among our study population. It's possible that the study's limitations are due to the fact that the opinions were collected in English and were limited to mainly occupations with the convenience of WFH. This study could aid future research by analysing changes and shifts in people's perceptions and emotions over time.

Human factors, for example, must be calculated for the sake of changing the reimbursement and remittance of hired men working from home. According to labour expert K R Shyam Sundar, without effective legislation for WFH, employees will be left at the mercy of the employers, and the bargaining strength of the employees will be weakened.

Although the government has proposed to formalize work from home (WFH) facilities, regulatory parameters for WFH have not been prescribed. The draft Model Standing Orders issued with respect to the Industrial Relations Code, 2020 is the only place where work from home has been mentioned in the Indian labour codes. Telework, which is described as using ICTs such as smartphones, laptops, desktops and other mobile gadgets to accomplish work outside of the office, has not been included in the government's WFH guidelines.

Flexible working arrangements (FWAs) provide for more flexibility in the way people work, such as work hours, working environment, balanced work and other responsibilities. From our survey, we see that FWAs are favoured by most. As a result, FWAs will be an important component of Indian labour legislation, drawing policymakers' attention because the new labour codes or draft Model Standing Orders do not address this issue. Countries like Spain, UK, Singapore, Finland have adopted FWAs and developed WFH legislation. For example, the EU provides FWAs for parents and carers; Singapore's approach to FWAs focuses on getting businesses to support and adhere to progressive working practices through agreement, and that's something worth considering as we seek to establish progressive working conditions in the aftermath of the outbreak.

Workers lack the necessary tools, such as software, access to official files, records, and adequate working space, to cope with the pandemic's rapid development and digital transformation. If this technique is to become a viable alternative or "the new normal," proper training is necessary. After the pandemic, when WFH is no longer a compulsory obligation but rather a discretionary option, the working balance will be evident.

Better government rules and standards should be in place to properly regulate and make WFH possible. Adapting to remote online work necessitates the use of guidance, strategy, and execution. The decision to halt in-person meetings and work was made quickly, but there was no advice on how to do so. The first efforts would need to be supplemented with a clear and India-specific legislative framework that balances the requirements of both workers and employers.

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