



INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X

Impact Factor: 6.078

(Volume 7, Issue 4 - V7I4-1232)

Available online at: <https://www.ijariit.com>

Reimagine workspace for better productivity during WFH

Vineet Vijay Bodhe

vineetbodhe96@gmail.com

MIT ADT University, Loni Kalbhor, Maharashtra

Abstract – Covid 19 has brought a significant change in work culture, many skilled workers lost their jobs while those who could survive had to struggle inculcating cognitive & leadership skills which would make them eligible to stand still in the corporate world. Before covid-19, workplace and rest place was different and each space was enjoyed to the fullest by the people. This segregation between workplace and the habitable place was much needed but this pandemic coined these two places into one. This pandemic led corporate organizations to allow employees to work from home. The shift of work culture is seen during this pandemic. Social distancing and isolation is mainly observed which led employees to work remotely. Disturbances at home affected work productivity which ultimately resulted in depression and mental illness among the working-age group. Before covid-19 people had a social life, change of environment helped people stay active and have a healthy life. Sudden isolation leads people to suffer psychological disorders as a whole day is spent indoors. A habitable space where people reside plays a significant role in maintaining mental & physical well-being, that includes soothing color scheme, aesthetically appealing interiors, the amount of sunlight the comes in etc. further more design of workplace at home plays a vital role in provoking creativity and helps employees function effectively with higher productivity. This research paper aims to focus on designing a workplace at home for better productivity of an employee while emphasizing on reimagining, developing and coming up with solutions to cater the depression and thus uplifting and boosting the creativity with the help of specific materials.

Keywords– Covid-19, Work, Workplace, WFH, Social distancing, Isolation, depression, Transparent cubical.

1. INTRODUCTION

Covid 19 has brought a significant shift of workplace from the corporate office to home, a home was originally supposed to be a resting place and has compelled organizations to allow employees to have a transition in work culture. Before covid-19 only a few populations from the IT industry was working from home but amid covid, it has become mandatory to work from home. Working from home has become a part of daily routine. Nobody had ever thought of such a dynamic transition

in the workplace would ever occur, neither employers nor did employees did expect it. For industries & Organizations to survive in a pandemic it was necessary to keep running the organization even though the lockdown was announced. In order for the Salaried population of the country to stand still in the company, working from home was accepted. This leads to having disturbed lifestyle as people were forced to work from home, family life got unbalanced because nobody was prepared to juggle office work & home chores simultaneously in one place. Isolation and social distancing was a mandatory norm set by government guidelines and in order to mitigate the spread of novel coronavirus, many people started suffering from psychological illness. Social gatherings, social events were urged to be stopped as the law was enacted. This research paper is being written when the delta variant of covid has come into existence as declared by WHO. The key question of this research paper is, How to enhance work productivity during working from home.

2. LITERATURE REVIEW

2.1 RISE AND SPREAD OF COVID-19`

The World Health Organization declared the official name for the disease caused by the new coronavirus as Covid-19. WHO chief Tedros Adhanom Ghebreyesus told reporters that the pandemic is named Covid-19. Thousands of people were infected during the very first wave. Dr. Ghebreyesus conveyed to the world to take precautions against the new virus as possible. WHO declared it as a global pandemic on 11 March 2020; by then COVID-19 did spread to over 100 countries and infected more than 100 000 people taking over 4000 lives. The first wave outbreak of coronavirus on 10 April 2020 infected around 15,60,000 people globally and around 95,000 deaths worldwide. (<https://ourworldindata.org/coronavirus-source-data>). That was a time when no antidote or vaccine was in existence as this pandemic situation was completely uncertain. The virus primarily spreads from person to person via close contact, either through small droplets released during sneezing, coughing, or talking. The virus itself has been termed SARS-CoV-2 by the International Committee of Taxonomy of Viruses.[1] Over a year has passed since the novel coronavirus has impacted our lives in many ways. Not only did it take too many lives but has also impacted mental well-being and with

the new emerging strain, it does not get any better. As per experts, the new strain, like the Delta and Delta Plus variants, have evolved greatly and posed more risk to human life. As per recent findings, symptoms experienced from the Delta variant differ from that of the previous strain[12]. Imposition of lockdown during the COVID-19 pandemic national governments imposed lockdown to mitigate the spread of disease. Social distancing norms during the first wave stated a minimum of 6 ft social distancing between people. Curfew was imposed to control the spread of covid-19. Daily supplies were getting out of stock in the market. Worldwide declared lockdown led people to go back to their home countries. It had an adverse effect on the world economy as corporate companies did pause working for a while until working social norms to mitigate the spread of covid were introduced by WHO. Work from home was soon practiced by all the corporate companies and this was a start to exhausting working hours.

2.2 IMPACT OF AESTHETIC WORK PLACE ON EMPLOYEES WORK PERFORMANCE.

A visually appealing workplace can help increase employees' work performance. Functional and aesthetic interiors in a working place can actually enhance productivity and prove to be a key factor in job satisfaction. The environment where an employee work influences the work performance and thus uplifts an organization's success [19]. A good-looking workplace can result in maximum work produced by an employee as a good-looking workplace generates a sense of attraction towards that particular space which allows an employee to visit daily and work efficiently which is very well described by author Guntick.L.2007 [20]. NCIDQ i.e National Council of Interior Design and Qualification describes it as an art and science of understanding people's behavior and creating functional spaces accordingly with the help of technical and creative skills [19]. (Neog and Bara 2014) states that there is a strong correlation between work environment and job satisfaction. (Kamarulzaman et al 2011) speaks about how well organized office arrangement helps employees to carry on their work faster providing comfort and its influence on employees work.[17]. Furthermore, elements such as workspace i.e desk, storage space, cleanliness, natural light, artificial light, soothing color scheme, decorative components, indoor plants, water quality, privacy, air quality, acoustics and noise, special arrangements, external view of surrounding through the window, wall hangings and murals, etc. were allocated in an office workplace and the findings were astonishing. It concluded that there is a strong correlation between interior workspace and employee's work productivity and job satisfaction.

3. PARADIGM SHIFT WORKING FROM HOME.

During the pandemic working from home was globally adapted by people to continue with their respective job, being only the source of generating income in the family they had to stay quiet and work for the company. Prior to pandemic, it had been a mindset of people to be physically present in the office for the work to be carried out and to a certain point, it holds true as, before the pandemic home was supposed to be a place to relax after exhausting office work hours. A recent study was conducted which comprised of more than 30,000 global workers, it stated that more than 40% of employees didn't have office supplies to WFH, and one in every 10 employees didn't have an internet connection and wifi setup to complete and revert adequate work to the supervisors. Employers have to determine the company's obligation to solve these

problems.[9] Most of the time is spent on writing emails and updating the work done to their respective employers while working from home, thus this factor may hamper the work productivity of employees. Factors that govern work from home policy are deep-rooted in to two main factors which can be described as an organizational factor and family life factor as these serve a two ends on which WFH has to be aligned to maintain work & family life. Its more similar to walking on the edge. While working from home serves many advantages to corporate industries as it saves huge capital required for renting of office spaces along with its maintenance but many people often see working from home as a positive driven business work model especially men, on the contrary, its tough for women to work from home as they have to deal with family life and along with it comes many interruptions. WFH is a business model which has both positive and negative outcome as two sides of a coin. A study conducted states that, the surrounding ambience people work in plays a vital role in Work performance. Aesthetic interiors and visually appealing color scheme along with a silent environment can help boost once productivity.

4. FALL OF REAL AND RISE OF VIRTUAL WORLD

2020 has significantly changed many things how they used to be performed previously. It has accelerated the rise of a virtual world where people are working for an organization by residing in remote areas of any country. The shift of job roles digitally has subsequently opened new employment opportunities in IT sector. Post pandemic has made people more tech-savvy and has made them equipped with cognitive and problem-solving skills but work culture along with working hours has had a significant downfall with an extended timelimit. Linked-in, Coursera, Trailheads academy, Unacademy, Byju's, Swayam etc. started offering paid certification courses to uplift the skills and making them eligible to have a foothold in the corporate world. Today constantly people are hunting for skills imparting courses to get an additional qualification which makes them certified to stay up-float in the competition.[4] Mc Kinsey's report during pandemic concludes that about 30% of the population will inculcate entrepreneurship skills, 50% rise will be seen in technical skills among the total population and about 33% rise in complex cognitive skills are expected. This virtual all the time nature of our every day has led to a daunting spike in 'digital intensity. People surviving in a pandemic are not only using technology and digital devices more but they are using it more to work continuously and progress working more. Microsoft conducted a survey tracking the habits of more than 30,000 users in 31 countries and the results are astonishing. People spend 148% more minutes in weekly teams meetings and an average social media user sends 42% more chats after work hours and 200% more chats on weekends [10]. With rise of the virtual world during pandemics and closing of office spaces, many people thought work from home will prove to be the best as senior bosses won't be there to keep an eye on them all the time and on every move but it turned out to be the worse than they ever imagined. However, supervisors are keeping a watch on their employees with zoom video calls and mandatory screen sharing with TeamViewer to monitor the work progress and are expecting them to work all day with no breaks in between. Not having all employees nearby really affected senior management because they became obsessive, micromanaging every single aspect of employee's working hours and finding the smallest things to critique. Stress levels of employees were high, knowing that any moment their boss could check on them. [5]. For people employed in toxic

offices, the shift to working from home may have seemed like a silver lining of Covid-19 and chance to enjoy much-needed distance from a negative atmosphere but people discovered that unpleasant work dynamics can follow them home and in some cases, get worse, as isolation may aggravate the challenges of working with bosses or colleagues behaving badly. Toxic work cultures can have major impacts on employee's wellbeing [5].

5. TOXIC BEHAVIOR OF TOP MANAGEMENT.

Senior authority who is a bully can especially prove to be harmful while working from home and many are experiencing it now. Having no other option, employees still need to interact with the bully but may find his behavior harder to handle when they are working from home, suffering from a lack of social interaction, feelings of emotional exhaustion, and the work-life imbalance stemming from blurred personal and professional lines. Working remotely makes the situation unfavorable for employee as he might not be able to get informal social support from their colleagues or take recourse from grievance mechanisms through HR as they're isolated they feel less empowered [5]. In one study, a research team observed people's brain activity during a series of simulated virtual meetings. They tracked how often the participants produced alpha waves and beta waves. Alpha waves are those which appear in the brain when it is at a rest and beta waves appear when the brain is hard at the work. What they saw was an endless string of beta waves over the course of a day at work. At the end of the day, that build-up of beta waves was strongly associated with people feeling exhausted, anxious, and depressed. However, our brain produces beta waves whenever we are processing a lot of information at once. Beta waves are produced almost anytime when we are staring at a screen and after beta-wave production, our brain slows down its processing. The more you try to push through to get all the work done, the harder it becomes to complete that particular task [10]. Toxic work culture is what makes any place turn toxic workplace. There is no such thing as called toxic workplace, in fact, if a work culture followed at place is negative and has excess pressure on employees then that particular place is defined as a toxic place by the employees working in that organization. The outcome of such toxic work culture on employees is always negativity and causes serious mental trauma. Aditya Jain who has studied stress, wellbeing, and mental health in the workplace is an associate professor in human resource management at Nottingham University Business School. He came to a conclusion that toxic work culture at a workplace hampers work productivity and is the one is where workers are exposed to mental and psychosocial hazards. They may have little or no organizational support, poor interpersonal relationships, high workload, lack of autonomy, poor rewards and a lack of job security. [5].

6. NEGATIVE OUTCOME OF WORKING FROM HOME.

Covid-19 resulted in social distancing and self-isolation and due to constant competition, people started inheriting new skills to make themselves standstill in the corporate world. Constant isolation made people lose their interest in making a living and having a better life. Self-isolation leads to depression and psychological disorders among the employees working remotely. Employees may even lose their interest in the job as they have to bear all the expenses that come along with WFH such as technological devices, wifi setup and net connectivity to name a few. However, along with downsizing of salaries, it becomes tough for the employees to work productively. Employees have to juggle family life, home chores and office work simultaneously. Segregation of work-

life and family life is important in order to have a balanced life, else it might give a feeling to the employees of walking on an edge. They equally have to contribute to family life and work-life in order to maintain an equilibrium. Staying home with long working hours and being away from colleagues results in a lack of identity with the company's work culture and the absence of team spirit has a negative impact on employee's work productivity. [3] Ford and Butts have set forth 'Out of sight out of mind' and this proves to be true for employees who are not physically working in an office but are working from home and just because an employee works from home, for higher management he is out of sight and thus the chances of an employee working from home to be promoted are lesser. Whereas the probability of an employee getting promoted is much more as management is known to his interpersonal communicating skills.[3]. Akbar et al. (2020) explored the influence of working from home on the productivity of the employees. They used a qualitative method with an exploratory approach. 50 respondents were interviewed in-depth via phone calls or video calls due to the Covid-19 pandemic. Respondents concluded that working from home is not a fully acceptable practice for all organizations as some parts of the business are not suitable to be performed from home and it decreases the productivity of the employees. Kazekami (2020) studied a certain set of workings and mechanisms when it comes down to work from home and the productivity of employees. Her finding was, the stress of balancing work and domestic chores decreases productivity indirectly, through decreasing life satisfaction [8]. The more effort you put into communicating with colleagues, the better chance you have of avoiding feelings of isolation, which can lead to depression.[9]

7. VISUALLY APPEALING INTERIORS HELP BOOST EMPLOYEES PRODUCTIVITY.

There is valid evidence of a correlation between space use and the quality of space. According to Mc Gregor, there are five major key areas to focus for effective space management. These five areas to consider are information, innovation, design, communications, and management techniques[11]. It is found that there are many criteria that are utmost needed in the process of creating a better workspace at home. The study involves a survey on the workspace configuration of the occupants in the office towards their satisfaction level.

8. BACKGROUND NOISE REDUCES WORK PRODUCTIVITY

A human can hear sounds ranging from 0db to 120db (loud rock concert) a whisper can be heard at 30db, normal conversations are heard at 60db and sound frequency above 85db can cause chronic hearing problems if a person is exposed to it daily. Working in the office had some ethics and manners which were followed, for example maintaining silence, which allowed employees to focus on the initiated work. On the contrary, while working from home those parameters are not taken into account. Scientists define it as unwanted sounds as sound heard at 85db and above puts a burden on our ear, heart, and brain simultaneously. In noisy environments with poor acoustics, employees can as easily get stressed by trying to hear others as by trying not to hear others[13] Researcher Wolfgang Babish, who is a lead researcher in environmental noise and a senior officer at German Federal Environmental Agency reveals that human mind gets easily distracted by any noise in surrounding for the reason that it's embedded into our Neurobiology and DNA. We have been programmed that way as our ancestors had to alert all the time because they had enemies in the wild. Due to this specific reason, any sound in the background is captured by

our subconscious mind and ultimately makes us uneasy. Thus it becomes tough for us to focus on our thoughts while we work [13]. Lab experiments on humans have shown that noise in the background can raise blood pressure and subconsciously stresses the cardiovascular system which in turn gives a rise to anger and exhaustion with a negative outcome. The work environment not only needs to be aesthetically appealing but parameters such as silent environment, using elements to cutoff the surrounding noise for an employee to work efficiently with greater work productivity which ultimately relates to organizations high productivity. Corporate organizations are made up of employees and a certain set of parameters needs to be considered to boost employee's work productivity in order to make corporate organizations work efficiently. The level of noise for the type of work that is supposed to happen at office is also an issue. In some open-plan offices, noise ranges from 60 to 65 decibels and noise from A.C, telephones, people talking with each other and nearby construction causes disturbance during work. While 70 decibels is acceptable for simple or mainly transactional office work, 55 decibels is the requirement for what the association terms "mainly intellectual work." They identify this as work characterized by high complexity and demanding creative thinking, decision-making, solving problems and effectively communicating precisely the kind of knowledge work that, when performed well, puts leading enterprises ahead [13]. When working from home, a person is 10 times more exposed to surrounding sounds and getting disturbed with background sound that keeps bouncing off the walls from television, telephone conversations of family members, children playing at home. When surrounding is noisy, people tend to speak louder its called as Lombard effect. For one to focus on work surrounding has to be silent else it becomes tough to work efficiently which may hamper the work.

9. CHALLENGES FACED DURING WFH.

Segregation of workplace and rest place at home is much needed for achieving maximum productivity. Due to continuous interruptions and background noise during work, productivity may be decreased. Its comparatively easier to work in an office with silent surroundings, aesthetically pleasing interiors and an elegant color scheme that enhances employee's productivity to work efficiently. However doing the same office work at home becomes difficult as there arise many interruptions, also not every individual has a soothing interior with an appealing color scheme that will increase productivity. Employee reputation may sink compared to working in an office. They have to juggle home chores and work tasks simultaneously.

10. CONCLUSION

Rethink and redesign of a workplace at home to achieve maximum productivity is suggested. A work cubical will prove to be the best for working from home especially for the people who live in a joint family especially in India and for people living in a small apartment where there are many interruptions in the from television sound or talking sound by family members that keeps bouncing off the walls. A transparent cubical structure similar to the telephone booth will prove to be the best solution for individuals who cannot assign a separate room for work due to living conditions. Transparent partitions instead of opaque material like gypsum or particleboard is to be considered due to the fact that transparent surface proves to be a medium for the passing of light and create a sense of openness. Using glass or fiberglass as partition walls will help enhance the room volume. These transparent panels of working

cubical creates a visual, acoustical, and spatial link between the user and surroundings. Using Fiberglass for the door of a cubical creates physical access from one place to another but when shut, it serves two advantages which are - 1. It dissipates background and surrounding disturbance. 2. Maintains visual connection and indirectly enhances space in the form of electromagnetic waves perceived by our brain. Volume defines a person's mental wellbeing thus it's mandatory to use transparent material for top and side panels which won't act as a visual barrier but will help cut down the surrounding sound and providing visual connectivity that will enable an employee to work in a silent environment. Decreases in employee productivity result in gradual growth of anxiety and depression however, reducing background noise will help a person to work in peace and thus increase in productivity and decrease in anxiety and depression. Especially during video conferencing continuous distractions may get people off the track. Setting up a transparent cubical can help segregate habitable space (relaxing space) and work from home space.



Figure 1 Work place.



Figure 2. Transparent working cubical.

(Source: <https://www.steelcase.com/products/new-architecture-space-division/on-the-qt-pod/>)

Structure mentioned in fig 1. Serves the basic purpose but does not meet some parameters such as canceling surrounding sound and keeping transparency, on the contrary structure mentioned in figure 2. Meets all the requirements necessary for an employee to work in it for achieving better work productivity and thus maintaining job satisfaction of an employee.

11. RECOMMENDATIONS

1. To design a cubical which will be transparent with a Mild steel frame structure which will be similar to a telephone booth.
2. Minimum Size of the proposed transparent cubical has to be 1.2 m X 1 m.
3. Appealing color scheme has to be inculcated in the room they are setting up a working cubical.
4. Why cubical? To make them feel as if they are in office as they used to work earlier.
5. To cater to the surrounding sound this particular cubical has to be covered from top and all four sides with built-in ventilators for a person to breathe without suffocating while working in for long hours.
6. Corporate companies must provide 50% of subsidy in making of such cubical
7. A cubical setup has to be transparent to maintain visual connectivity at home.
8. 4 mm or 6mm thick transparent fiber-glass or glass sheets is suggested. which will not make a person feel like sitting in an isolated place.

REFERENCES

- [1] Coronavirus disease named COVID-19. 2020. British Broadcasting Corporation, news/world-asia-china51466362
- [2] Bryan, L. 2020. Companies around the globe have rolled out mandatory remote work, whether you're a newbie or

- WFH veteran, here's what you need to do stay productive. British Broadcasting Corporation, [worklife/article/20200312](https://www.bbc.com/worklife/article/20200312).
- [3] Kumar, V. (2020). Psychological impact of lockdown period of covid-19 on human behavior. *Tathapi*. 19, ISSN: 2320-0693
- [4] Menakshi Kaushik (2020) pandemic covid-19 & its implications on human life. ISBN: 978-81-946233-5-9
- [5] Why toxic workplace cultures follow you home. <https://www.bbc.com/worklife/article/20210330-why-toxic-workplace-cultures-follow-you-home>
- [6] Beño, M (2018), 'Working in the Virtual World - an Approach to the "Home Office" Business Model Analysis', *Ad Alta: Journal of Interdisciplinary Research*, 8(1), pp. 25-36
- [7] Ford, RC and Butts, MA (1991), 'Is Your Organization Ready for Telecommuting?', *SAM Advanced Management Journal* (07497075), 56(4).
- [8] Kazekami, S (2020), 'Mechanisms to improve labor productivity by performing telework', *Telecommunications Policy*, 44(2).
- [9] Coronavirus: How to work from home, the right way. <https://www.bbc.com/worklife/article/20200312-coronavirus-covid-19-update-work-from-home-in-a-pandemic>
- [10] Is there an antidote to 'digital intensity'? by Kate morgan 26 April 2021. <https://www.bbc.com/worklife/article/20210423-is-there-an-antidote-to-digital-intensity?>
- [11] Employers know more about our lives than ever - now what? <https://www.bbc.com/worklife/article/20210419-employers-know-more-about-our-lives-than-ever-now-what>
- [12] Coronavirus: How are Delta variant symptoms different from the original COVID symptoms? <https://timesofindia.indiatimes.com/life-style/health-fitness/health-news/coronavirus-how-are-delta-variant-symptoms-different-from-the-original-covid-symptoms/photostory/84065449.cms>
- [13] <https://www.steelcase.com/research/articles/topics/open-plan-workplace/much-noise>.
- [14] Monteiro, NP, Straume, OR and Valente, M (2019), 'Does remote work improve or impair firm labour productivity? Longitudinal evidence from Portugal', *NIPE Working Papers* 14/2019, NIPE - Universidade do Minho.
- [15] Uzee, J. (1999). The inclusive approach: creating a place where people want to work. *Facility Management Journal of the International Facility Management Association*, 26-30.
- [16] Giang, N. S. T. and Nguyen, M. T. (2017) An investigation of the impact of the interior design of job performance, *International Journal of Social Science and Humanity*, Vol. 7, No.6.
- [17] Kamarulzaman, N. (2011) an overview of the influence of physical office environments towards employees.
- [18] Leblebici, D. (2012) Impact of workplace quality on employee's productivity, *Journal of Business, Economics & Finance*, Vol.1 (1).ISSN:2146-7943
- [19] El-Zeiny, R. M. A. (2013) Interior design of workplace and performance relationship.
- [20] Guntick, L. (2007) A workplace design that reduces employee stress and increases employee productivity using environmentally responsible materials.
- [21] McGregor, (2000) "The future of workspace management", *Facilities*, Vol. 18 Iss: 3/4, pp.138 - 143 Building.