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## Working in a new era

Technology reshaping the very essence of work

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## **Abstract**

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The sudden covid outbreak has created a disruption in the world. Lockdowns and fears of having staff off on sick leave while organizations decreased profitability due to the restrictions made organizations had to refigure the way we work and attend to schools.

The research in this thesis is based on the most relevant literature, from public government and academic sources, publications, blogs and articles, and scientific papers regarding WFH.

Due to the increased white-collar workers working through computers and having the possibilities and tools to work remotely it has become popular to prefer working from home.

It was found in this research that there are ways to improve remote working so the WFH could be implemented the best way possible.

Keywords: pandemic, remote work, WFH, cyber security, new normal

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## **Glossary**

BYOD      Bring Your Own Device

EU-27      The 27 European Union countries after the UK left the EU.

R&D      Research and Development

WFH      Work From Home

WFA      Work From Anywhere

# 1 Introduction

Businesses have evolved from watching their employees every possible move to giving them the autonomy of managing the process to their best capability. This human-centric approach has shaped the way businesses led their human resource operations and our theories have changed to promote the potential of their human capital through motivating them to develop and investing in them. This achieved by making the work attractive and match the job market's expectations. We shifted from competing to get a job to companies competing to attract the best talent in the market. Now while companies were aiming to attract the best talent and managed to optimize their profitability, they forgot to enhance operations with tools that were at their disposal – technological capabilities that promotes more independence.

The Covid pandemic was the needed disruption that changed the whole equilibrium. People were not safe and therefore WFH experimentation had to be implemented so companies could operate without jeopardizing their employee's safety and increasing the possible covid infection risk. The mass hysteria and outbreak lead to the change that many companies would not have wanted to implement although remote working, also known as telecommuting, could have been implemented on the same scale as we see it being today. Moreover, in this research, we will discuss the main elements, disadvantages, and advantages, and the changes the WFH has brought due to the pandemic. pandemic

## **2 Research question, methodology and structure**

### **2.1 Research question**

This sudden change in the way we live has sparked an interest to research remote work and how it changes the work and managing Human Resources. Because it is new to people and there are not many outcomes although we have been living in the pandemic for a couple of years already it has to lead to think that maybe this is the pivotal point where we may not go back to the old normal and accustom to the "new normal". Therefore, in this research paper we are finding out the answer to my thesis question which is.

*"Is 'work from home' here to stay?"*

### **2.2 Methodology & Methods**

The research method used in this research is qualitative data analysis, more specifically secondary data analysis. Bell, Bryman, and Harley (2019) have stated in their book that qualitative research is a research strategy that usually emphasizes words rather than numbers in the collection and analysis of data. Qualitative research is a method that's good at answering the 'why', 'what' or 'how' questions (Lacey & Luff, 2009). In this research, the analysis of qualitative secondary data has been the only way to collect data that could answer the research question. In addition to that secondary data could be used to justify another argument. According to Hinds (1997), secondary analysis of qualitative data is the use of existing data to find answers to research questions that differ from the questions asked in the original research. Due to the circumstances of the pandemic and companies upholding safety measures to control the spread of the virus is why primary data was not utilized in this research.

## 2.3 Research structure

This research paper's structure flows in a manner where we discuss the effects the covid pandemic had in changing the way we work. Then it progresses to point out the main elements of the remote work and what differences it has compared to the way of work in the pre-covid time in further detail. These discussed elements include the added flexibility of WFH, cost reduction, productivity, work-life balance, cyber security, mental health impacts, social issues, organizational culture, and environmental effects. After the literature review, the qualitative data from the literature review will be thoroughly analyzed and reviewed with a framework. After the analysis, the research's result will be stated and after a holistic recapitulation, a conclusion will be made.

## 3 Literature review

On the 11th of March 2020, the World Health Organization (WHO) categorized the coronavirus outbreak as a pandemic and instructed governments around the world to prepare for considerable extreme measures such as the national lockdowns that made the world slow down. Compared to how we used to work then, in the past year work from home has been a highly implemented way of working due to the SARS-CoV-2 dispersion (Who. int, 2020). Ever since the WHO's announcement, we have been living in unprecedented times. Everything changed. Countries went into lockdowns; restrictions were set to the extent where people felt that their human rights were being ripped. Social distancing and taking many precautions just to avoid being infected became the norm. The market took a significant blow, panic triggered by the economic aftereffect and anxiety led to a stock market crash because people liquidated their savings, and safety was not assured at work (Frazier, 2021). Companies had to adjust and therefore they started to implement the work from home (WFH) also known as work from anywhere (WFA) as a way of working for the time of the pandemic. "Work from home (WFH) is where the individuals can do their job from home through massive use of digital platforms" (Kaushik & Guleria 2020: 4). Work from home or also known as remote working has been an opportunity that many companies avoided exploring due to the

employee being as its name states attending remotely. Due to the pandemic companies had to adjust, and significant changes had to be implemented so the governments of different countries could turn around the situation and control the outbreak. The mass implementation of WFH and online education was an opportunity that was not explored on such a large scale which led people to oppose the new way of working or attending classes digitally. Many loved the flexibility, cost reduction gains, and the time savings it brought to the people but there were and still are many that oppose it. It has brought up many problems regarding work-life balance, mental health, and many other social issues. Some say that the C-19 has brought temporary changes to the world, but many have accepted it as the new normal or even as a "life after the pandemic". In this research paper, we explore the opportunities and challenges WFH has brought to the companies and their workforce and most importantly if WFH is here to stay.

### 3.1 Flexibility

The flexibility that WFH could bring was not a surprise. Even before the C-19 outbreak many utilized and considered the flexibility of remote work as one of the many good reasons for exploring the opportunities this new way of working could bring. Research conducted by CIPD also proved these assumptions to be true and in their research, they found that the agility of WFH brought many benefits such as having more time to get work done and reduced travel (Stone & Horan & Flaxman, 2018). In another study, Mufid claims that the gained greater flexibility that was allowed due to the C-19 gave the teachers in Indonesian an opportunity to make their working environment as comfortable as they wanted. The teachers were able to work anywhere from home, from their bed, kitchen, living room, or maybe even from their patio. It enabled the freedom of making a new atmosphere that suited an individual's comfort level (Mufid, 2020).

Although the WFH way of working was a new thing for many, there were many people that used to work part or a significant amount of their working hours remotely. The European Commission has stated that more than 40% of workers in IT and other communication services were already working from home regularly or at least with some frequency in 2018 in the EU-27 (European Commission n.d.). In addition to the previous research, research led by Su (2020) has revealed that 39% of the jobs can be fulfilled



from a home office (Alon et al., 2020). This brings us to the question, have there been any jobs that have been done remotely even before the pandemic.

Based on the found research we can safely say that the implementation of the WFH concept was not impossible, it just needed the right time, a disruption in the market that leads to the instigation to create a new approach in working. Because companies were adjusted to the same old ways of practicing the business this disruption was inevitable so people could innovate new solutions and thus companies could adjust and create new opportunities for growth. Now when the pandemic has changed the way we work and forced companies to take the leap of faith with remote work, it could bring a positive impact to the companies through the employees and hence to the overall quality of life. All that the companies would need is to reconstruct the whole way of practicing the business so it could facilitate the digital space even better. The WFH way of working gave people the opportunity of having more free time and the flexibility of managing that time and this is a way for companies to create new ways of enhancing their businesses through increased employee work satisfaction.

### 3.2 Cost reduction

From the employee's side, the implementation of working from the home way of working has also brought opportunities to cut costs that could have not been able to be done before. As a worker, we have all always had a fixed workplace, an office that we had to get to so we could earn our living. The effort going to an office always led to using valuable time and money to travel to the office just to be stuck in traffic, but not anymore. Ever since we shifted to working from our home offices, we managed to cut the time, we had to always invest in traveling to our workplace and back. The pandemic did not just allow us the opportunity to save time but also everything that we used to get from home to work, such as our transportation costs like petrol or public transportation tickets. The opportunity for a cost reduction does not go one way but there are cost-cutting opportunities on the employer's side as well. According to Gartner (2020), if WFH were to be set as a permanent way of working, it could add-on to the

cost-cutting plans estimates set by the CFOs. In addition to that Gartner's CFO survey also revealed, 20% of the respondents argued that they have capitulated on-premises technology investments, with an added 12% wanting to do as such. Also, an extra 13% of respondents noted they had made cost reductions in real estate expenses in the past, with another 9% devising to make similar moves in the coming months (Lavelle, 2020). This has created an opportunity for companies to invest the cash that was tied in offices and its utilities to the research and development of WFH for example by enhancing digital infrastructure so they could support remote work.

### 3.3 Productivity

The discussion of WFH concepts productivity is like the two sides of a coin, some have contradictory opinions when it comes to productivity while working at home and some consider and argue it to be an obvious increase. Now referring to facts, in research done by Dingel and Neiman it has been argued that 37% of jobs in the US could be in the form of work from home altogether (Gottlieb et al., 2021). The increased implementation of the WFH concept could increase efficiency. Nicholas Bloom mentions in his article that through WFH there's an expected 33% increase in efficiency as a result of a calmer climate, which makes it easier to handle calls. He also found that working from home offices led to 13.5% more calls compared to a person working in an actual company office (Bloom,2014).

Remote work has also been proven to bring clear benefits to employees' work-life balance, allowing them to have the flexibility to adapt their working time to private and family-related needs (Jay, 2020). Nonetheless, WFH is not all rays of sunshine and rainbows. A recent study led by Eurofound (2020) points out that the working conditions of their employees in remote work settlements might really negatively affect their performance, health, and work-life balance. Working from home allows workers to execute tasks while being sick and this could be adverse to their health and reduce their performance. The intense use of information and communication technologies could increase remote workers' vulnerability to health risks such as anxiety, absenteeism,

stress, fatigue, burnout, eyestrain, and headaches. When it comes to work-life balance the autonomy of the work can also lead to an increment of work due to the possible competition led by self-management or mechanisms enforcing performance (Eurofound, 2020).

In addition to that, in that same study, Eurofound states that.

“Generally, those who do telework and ICT-based mobile work more often (notably the highly mobile workers) experience more negative effects on their work-life balance. For example, they miss out on or neglect family activities because work interferes with their personal life. This has been reported in Finland, Germany, the Netherlands, Sweden and the United Kingdom (Eurofound and the ILO, 2017).”

Reflecting on these researches we can safely argue that increased productivity could be considered as a win-win situation from the employees' and employers' points of view. With WFH companies could optimize results and the added value that is generated through increased productivity while giving more freedom, autonomy, and responsibility of their work to their employees

### 3.4 Mental Health

Ever since the covid-19 pandemic forced the employees and students to work remotely, its impact on one's mental health has been a hot topic. Referring to studies conducted by Bloom (2014) and Fonner & Roloff (2010) home workers reported improved work satisfaction, which among others lead to significantly decreased attrition levels. This was before the forced implementation of the WFH way of working, social distancing, and isolation caused by the fear of getting infected. In the past three years, many studies showed different results and pointed out many other problems that could have been foreseen due to the changes regarding our social behaviour. According to Berstein (2020), mental wellbeing has received compelling publicity since lockdown but there is emerging evidence that people are settling into the routine of remote working and perceiving a downturn in their stressors.

Quarantine has become a commonly used word, especially in the past two years. The isolation and constantly getting into a quarantine have affected people's mental health. According to a study conducted by Song & Wong, people in China with higher positions tend to have more duties, especially in the pandemic that could overload them due to the added effort at work. It correlated with a decrease in job satisfaction. Other negative effects on employees' mental health and work attitudes during the pandemic are caused by the worry regarding an existing unemployment risk (Song et al., 2020). Furthermore, the longer a person is held in quarantine, the impaired the mental health outcomes are, specifically symptoms of post-traumatic stress disorder (PTSD), avoidance behaviour, and anger, maybe detected (Brooks et al., 2020). Having a loved one or a family member in a quarantine directly affects our mental health as well due to the concerns one would have regarding their loved one's health and recovery.

There have also been suggested ways to efficiently tackle these mental health problems. Psychological ill-health can be prevented or even improved by interventions that combine personal stress management with organizational efforts to increase participation in decision-making and problem-solving. Companies could also increase social support and improve their organizational communication (JOURNAL OF MANAGEMENT STUDIES AND ACADEMIC RESEARCH A Big Salute to CORONA WARRIORS, 2021). These facts demonstrate that the mental health issues stemmed from the effects of the pandemic and thus does not have any correlation with the work from home way of working. We can safely say that WFH gave people a sense of safety and assurance to earn their living without risking themselves. The WFH concept has positively affected employee's mental health and work-life balance. As indicated by McKinsey's research, 80% of individuals mentioned that they enjoyed WFH. 41% felt they were more productive than they had been previously (Brodie Boland et al., 2020). One of the significant problems that the WFH could have on people would be the effects of working from home offices and the risks that those working from outside the office can become socially isolated (Charlampous et al., 2019).

### 3.5 Social Impact

The pandemic has changed the world as we knew it and made us all adapt to a new social construct with restrictions. Adapting to the new social dynamics where people do not meet each other casually but more cautiously has become the norm. Remote working has been a long-discussed topic even before COVID, and even then, the preconception and significant differing in opinions of its implementation was the reason why many companies did not take any chances with it.

Today the situation is different, people are more than willing to work remotely. A study conducted by Dubey & Tripathi found that 73% had a positive approach towards WFH whereas 23% had a negative approach. Also, while 60% of people displayed emotions of trust, joy, and anticipation for WFH, some displayed emotions of anger, disgust, fear, and sadness. All in all, the study concluded that the WFH activities had a positive impression worldwide. (Dubey & Tripathi, 2020). Lenovo found in their global research results that 74% of the respondents from India agreed to be more willing to work from home post-pandemic than they were before it. This is because 91% have increased the use of laptops, 95% said that they became their own IT person, and 43% believe that companies should invest more in technology training to enhance WFH opportunities (BW Online Bureau, 2020). Based on the evidence the pandemic has sparked a new preference regarding post covid work, where people do not prefer to be physically present anymore. Although the post covid phase seems promising it does not solve the social issues we have been encountering and face still to this day. The issue we have faced is related to the stigmatization of infected people. In a comparison of healthcare workers quarantined versus those that were not quarantined, quarantined people were significantly more likely to report stigmatization and rejection by people in their local neighbourhoods. These people suggest that there is stigma specifically surrounding people who had been quarantined. Participants in multiple studies suggested that others were treating them differently in the forms of avoiding them, withdrawing social invitations, treating them with suspicion and fear, and making critical comments (Brooks et al., 2020). This alone shows that people that were never infected are segregating themselves regardless of the infected, even if they were healed. This alone will make a

disruption on the way we socialize alongside the implementation of remote working. This could possibly cause an outcome where people will not gather up in big groups anymore.

There's also a social advantage when it comes to workplace inclusion. For example, working from home could be perceived as an opportunity to include individuals that are in critical periods of time or physically disabled people. This would have a positive impact on social inclusion also with parents with young children, someone recovering from an accident, women during pregnancy, etc.) (Baruch, 2000; Illegems, Verbeke and S'Jegers, 2001).

Corporate Social Responsibility has been in a significant spotlight where it has changed from a hot topic to an essential part of practicing business. Heyward, 2020 states that a company's commitment to improving the world is a way to attract and retain more talent. If we reflect on previous literature, there have been identified values like trust, shared meanings, the capacity of self-organization, the capacity of learning, diversity, and inclusion as a fundamental part of our social system regarding sustainable development (Missimer, Robèrt, and Broman, 2017). Therefore, social sustainability has considered being connected to the quality of a company's relationships with its stakeholders. In this case, teleworking can be regarded as a significant spark that ignites an organizational transformation to a direction where an organization embodies the seventeen sustainable development and social sustainability goals that were set by the United Nations and achieves them as well (Gálvez, Tirado and Martínez, 2020).

### 3.6 Cyber Security

Remote work has brought many possibilities and benefits, but it has brought up many risks regarding cyber security. According to Lallie et al. (2020), there has been a 600 percent increment in phishing as an outcome of the pandemic that started in March 2020. A report based on a survey of 1,002 executives conducted in March and April 2020 has revealed that 91 percent of executives believed remote working during the pandemic has been the reason cyber-attacks on their organization increased. Eighty-five percent thought their company wasn't ready for a sudden shift to working from home (VMware

Carbon Black, 2020). Furthermore, based on third-party sources, Ahmad (2020) predicted that cybercrime damage would double during the pandemic due to an increase in phishing and ransomware attacks, insecure remote access to corporate networks, remote workers exposing login credentials, and confidential information being exposed to other people in remote workers' homes. In this case, it is natural to assume that cyber security was not considered thoroughly when the world was shifting to work from home experimentation during the outbreak. However, this was not the case; companies did try to fight such cyber security risks by utilizing VPNs to protect.

Based on the perspective of a university staff member in the United States, speculates on the cybersecurity implications of the COVID-19 pandemic. The sudden shift to remote working as a result of the pandemic, according to the paper, will put the scalability of computing at the 'edge' to the test. The paper cites some interesting but anecdotal evidence that certain aspects of the cybersecurity architecture, such as commercial VPNs, are unable to cope with the increased load. The paper also predicts an increase in vulnerability to phishing and DDoS (distributed denial of service) attacks as a result of the shift to remote working, as well as an increase in vulnerability due to remote workers' aptness to bypass security controls if they are impeding their productivity (Nicol, 2020). There is also another addition to the issue at hand Weil and Murugesan (2020) have also published speculative academic research regarding cyber security. The paper identified several vulnerabilities linked to the COVID-19 pandemic's massive increase in remote working. The vulnerabilities include Zoom-bombing and vulnerabilities associated with Bring Your Own Device (BYOD), unpatched routers, and open Wi-Fi that isn't protected by strong passwords. In addition to that Williams et al. (2019) also discovered a link between BYOD and remote working practices in the workplace and an increased risk of insider threat. It has also been found that there are cyber security risks linked with video conferencing such as man-in-the-middle attacks to listen in on a private discussion (Okereafor & Manny, 2020).

Remote working or telecommuting has been here even before the COVID outbreak but not in the same amplitude. Therefore, it has allowed us to reflect on previous literature that has not any ties to the pandemic derivative effects in remote work. Now referring to Awan et al. (2016) as it shows in the year the literature was written it was identified

that the opening of internet-facing ports and externally-hosted software, such as Sharepoint, on personal devices as 'hot-spots of cyber risk in the context of a university network in research conducted long before to the COVID-19 pandemic. The time of the pandemic has just proven more valid reasons for further discussion and research with added arguments on this topic. For instance, Garrote Sanchez et al. (2020) does not consider cyber security as a problem in WFH but instead highlight other factors like internet access quality, occupation type, and income level.

Healthcare services have also not been safe from these cyber-attacks. Lallie et al. (2020) describe a ransomware attack on a Czech hospital that put additional strain on health services that were already under severe strain as a result of the pandemic. To thwart or provide resilience to ransomware attacks, Malecki (2020) has recommended that business data should be backed up in the cloud in addition to local backups. Businesses should also implement VPN solutions and endpoint protection for homeworking, as well as provide support and training to employees to enable them to follow secure remote working practices, according to the article. User education on COVID-19-related phishing scams, robust mobile device management (MDM) policies, and pre-pandemic progress on cloud migration are all identified by Papagiannidis et al. (2020) as key factors that could help mitigate the increased potential for cyber-attacks associated with the COVID-19 pandemic. Research has found that 32% of organizations "had experienced a cyber-attack as a direct result of an employee working outside of the businesses' security perimeter." (Chapman, 2020). This has led to conducting a solution-based approach to the problem at hand. Dwivedi et al. (2020) in their research has emphasized the importance of secure remote access via VPNs, user education, and cloud migration to protect organizations' data assets. It has been argued that as a result of the pandemic, there will be changes in the IT landscape, such as shifts to working increasingly more remotely and increase in employees' use of private networks and devices for work purposes, Moreover, it has been stated that these would result in increased localization of cybersecurity issues in some ways (Jones et al., 2020).

Continuing the previous argument; this new approach and the prolonged pandemic has created an opportunity for companies to react to this demand by innovating solutions that enhances cyber security and overall remote working conditions with systems and



many other remote work complementary products. For example, the need for distributed cybersecurity, as Jang-Jaccard and Nepal (2014) pointed out, arises not only from increased levels of remote working but also from the growing ineffectiveness of perimeter-based security in protecting internal networks. Some companies saw an opportunity in this cyber security risk and hence invested in their cloud services by creating ways to facilitate cyber security. A great example of such a pioneer is Google and their BeyondCorp architecture which is known nowadays as BeyondProd. BeyondProd is cloud-native security that eschews perimeter-based security. This perimeter security model has allowed Google employees to work securely from external networks without the need for a VPN (Beske et al. 2017; Osborn et al. 2016; Ward and Beyer 2014). Moreover, in a US government whitepaper, it was considered that cyber security lessons learned from the pandemic, will lead to the following recommendation: 'To survive future pandemics or catastrophic cyber-incidents, the nation needs secure, remote access to reliable cloud services (King and Gallagher, 2020).

### 3.7 Culture

The pandemic has not only affected the way we work but also the company culture. A new company culture had to be established so it could promote working from home in the best way possible. Matt Mullenweg, the Chief Executive of WordPress and the owner of Automattic predicts that the changes might also offer an opportunity to finally build a culture that allows work flexibility which has been long overdue. He also stated that the suggested work distribution is already in place in his company (Hern, 2020). This leads to finding a more permanent solution. Instigating reconstruction of the workplace and highly investing in company processes. Hern (2020) also predicts that remote working could also bring positive changes that offer an opportunity for many companies to finally build a culture that allows the long waited work flexibility.

### 3.8 Environmental

Environmental issues such as pollution have been one of the most significant hot topics of the past decade (Mekonnen et al., 2015). Energy consumption (Zaharia et al., 2019), and climate change (Lundgren and Kjellstrom, 2013), have created a highlight to the increasing need of adopting remote work. As we have been remotely working, studying, and heavily utilizing social media, even more, to connect with others in these exceptional times we have not only seen changes in our habits but had a positive effect on our environment. Ghisetti, Marzucchi, and Montresor, (2015) have found that remote working practices are closely connected to the green issues in the terms of environment, transportation, location, office space, the use of resources for contemporary organizations. On the basis of these considerations, remote working can be considered as an environmentally friendly innovation and an asset for sustainable development. This concept could be a form of innovation in a company's product, service, or business management that reduces environmental repercussion, a way of achieving improvements and sustainable goals through business processes transformation and hence overall way companies practice their business.

Through the implementation of the WFH way of working, we could safely expect positive environmental effects. Many of these benefits arise from an aftereffect that comes from transportation and commuting, and it results in transport savings that are commonly recognized as the significant and dominant factor when we are trying to identify positive environmental effects. These positive environmental effects include decreased traffic jams (Hopkins and McKay, 2018), decreased pressure on transportation infrastructure (Corpuz, 2014), decreased emission, pollution, and a decrease in work travel petrol consumption (Cerqueira et al., 2020; van Lier et al., 2014).

On the other hand, there have been identified complications in claiming and capturing the particular benefits. Researchers have also found that the benefits of teleworking are reliant on induced energy usage, commuting patterns (O'Brien and Yazdani Aliabadi, 2020), and the characteristics of the home space, office, and equipment usage (Kitou and Horvath, 2003). Transport mode shifts have also been the focus area in much other research. In these researches, they have been trying to identify how the type of

transportation, remote working locations changes, and their shifts are affecting the environment (van Lier et al., 2014). In addition to the previous statement according to a recent study conducted in Australia points out the fact that environmental benefits can be limited and may as well take a long time to be accomplished (Hopkins and McKay, 2018).

Remote working is not only an opportunity for the employee to play their part in a more sustainable future but also the employers. Remote working as previously stated gives the employer the opportunity to cut costs such as operational costs, office capital, and more specifically the employers' usage of energy. This comes in a form of shifting from high energy-consuming commercial buildings to more energy-efficient options like residential buildings which are identified to be a considerable cost saving. Due to the reduced need for an office building, construction companies are able to reduce their capital cost requirements for the offices. There would not be a need for proportional office expansions due to the gained benefit through working remotely from home. Instead in these cases, companies could enter into leases as an organization grows.

At this time given the circumstances we live in, the amount of actual research with reliable results is very scarce. Nevertheless, research done by Guerin points out reliable results relating to the environmental Impacts remote working has and he has stated in his analysis as follows.

“The analysis shows that the environmental benefits associated with teleworking become greater than non-teleworking when less than approximately 60 % of the workforce commutes to work by car, or an employee commutes less than 25 □ 30 km a day, or an employee uses more than 1039 – 1212 kW h per year of energy in the home office (Guerin, 2021).”

It is highly probable that there are more benefits to employees compared to employers.

Despite the multitude of literature on the topic (Baldasano, 2020; Beaunoyer et al., 2020; Dente and Hashimoto, 2020; Elld´er, 2020; Kazekami, 2020; Magsamen-Conrad and Dillon, 2020), a precise conclusion cannot be made about whether the benefits are linked with remote work dominate the costs (O’Brien and Yazdani Aliabadi, 2020). Nonetheless, the literature presents important data that could be utilized or adapted to produce

applicable assumptions and concepts. They also feature energy, travel, and equipment usage and commercial office (non-remote working) and residential home office (remote working) characteristics to be considered as including key variables. It also points out that the appropriate attention needs to be given to the induced or rebound effects that are linked with remote working (Graizbord, 2015; O'Brien and Yazdani Aliabadi, 2020; Rietveld, 2011), presuming the need for specific circumstances for a specific organization to further investigate where there are gains, and how valuable they may be.

## **4 SWOT Analysis**

In this paper, we are utilizing a SWOT analysis that was created by Albert S. Humphrey to assess the advantages and disadvantages of the work from home concept. We will be assessing what remote working provides compared to work in an office. This analysis aims to discover the benefits and drawbacks remote work (WFH) brings to employers and employees both respectively.

SWOT (Strengths, Weaknesses, Opportunities, and Threats) is a tool used to explore areas of growth and change, which can help organizations to craft a direction. (Thomas, 2019). SWOT's Strengths and Weaknesses are considered as internal factors and Opportunities, and Threats as external factors. In this paper, we will be collecting all the facts and visualizing the pros and cons in one table which then helps to see the balance between the positives and negatives.

### **4.1 Strengths**

When it comes to the strengths which the 'Work from Home' working model has to offer to companies based on it alone it shows how many great opportunities companies would miss out on if this model were to be forgotten at the post-covid time. As it was pointed out in the literature review there were many positive effects from work flexibility, cost reduction, productivity, diversity, and inclusion to the environmental impact of the work.

As I previously listed, the literature review pointed out that many benefits for the employers and employees could be reaped out of this way of working.

One of the most significant opportunities that the WFH brought during the forced implementation of WFH was the flexibility of your work and being able to save more time. During the pandemic, people had the opportunity and the responsibility to manage and optimize their time by releasing the time invested in commuting for example (Stone & Horan & Flaxman, 2018). Workers had the opportunity to sleep in and the day ended after one has closed their laptop. This way of working freed the time tied to commuting before and after work and saved everybody from the one thing everybody hates: traffic jams. Remote working also allows working from any place at your house and makes the home office atmosphere as comfortable as possible (Mufid, 2020).

Now when the time tied in traveling to work and back is saved, people could allocate this time to their own life and hence have an even better work-life balance and overall better quality of life. People were able to work in a more flexible manner where work became part of their life and not vice versa. Companies could promote families by allowing them to e.g., Take their kids to daycare or school and come back home to work during the time and be in their kid's life the best ways (Jay, 2020; Illegems, Verbeke and S'Jegers, 2001; Baruch, 2000). This promotes the company's unity and sense of belonging and will decrease costs a lot for the employee.

The 'Work from Home' way of working has brought many opportunities for the workforce and most importantly for their employers. As it has been found out in a few pieces of research that were pointed out in the literature review, employers now have an opportunity to reduce the money tied in fixed costs such as offices and their utilities and from there decrease future investments (Lavelle, 2020).

The pandemic forced companies to adapt and through the WFH experimentation companies have found an opportunity and a way to increase efficiency (Bloom, 2014; Fonner & Roloff, 2010). Due to the experimentation, people experienced the advantages and disadvantages of WFH first-hand. It was found that they enjoyed the positive changes remote work has had in their lives and thus it has been found as an increasing factor in work satisfaction (Brodie Boland et al., 2020).

One of the significant benefits that the world has witnessed ever since the WFH implementation was the positive environmental effects it has had. The most significant positive effects it has brought were decreased traffic jams, decreased pressure on transportation infrastructure, decreased emission, pollution, and a decrease in work travel petrol consumption (Cerqueira et al., 2020; Hopkins and McKay, 2018; Corpuz, 2014; Van Lier et al., 2014). Although there has been found positive environmental effects, we cannot neglect the fact that environmental benefits can be limited (Hopkins and McKay, 2018).

## 4.2 Weaknesses

Although the way of working from home offices has been here for a long while there have been identified many weaknesses that needed further development, but due to the pandemic and its effects on company costs, the development ideas could not be explored further. The weaknesses that WFH has are mental health issues, health risks, and an increment in energy & electricity use.

The pandemic had the whole world lockdown and therefore companies had to optimize cost reduction efforts. Although businesses implemented remote working, many companies did not practice remote working before the forced implementation which is why there was not a digital infrastructure that promotes remote working at an optimal level. If WFH were to be implemented post-Covid there are a lot of development and training to be done to enhance WFH opportunities (BW Online Bureau, 2020).

Although mental health issues were not listed in the SWOT analysis table, mental health issues have been one of the most significant problems that people have been facing while working remotely at the time of the pandemic. Having the opportunity to work remotely at a post-pandemic time will most likely be different compared to the time of the pandemic because restrictions will most likely be uplifted. This would possibly start a chain reaction. We would possibly see a decrease in mental health issues because people would start to get together once again, and one of the clear signs of this assumption is that people have already started to travel more as the amount of fully

vaccinated people have increased. This is a clear indicator that people are slowly transitioning to life like in the pre-pandemic time (Berstein, 2020; Geoff Whitmore, 2021). Moreover, referring to the literature; the mental health issues were connected to the effects of the restrictions and pandemic, and not the WFH experimentation (Brooks et al., 2020; Song et al., 2020). Nevertheless, companies should invest in tackling mental health issues regardless it being minor or major issues. There is still a risk of workforce segregation and social isolation due to changing to working from home completely at a post-pandemic time (Charlampous et al., 2019).

WFH has brought the issues of employees working while being sick. It was also found that the intense use of information and communication technology has brought many health risks such as anxiety, absenteeism, stress, fatigue, burnout, eyestrain, and headaches. and there have been found negative effects in performance as well ( , 2020).

Although the WFH is a cost reduction opportunity for the employer there is still a risk that while employers get the benefits of decreasing energy and electricity costs in their offices, it might increase employees' energy & electricity bills.

Reflecting previous literature, Zoom bombing was also mentioned as one of the disadvantages of WFH because when an individual is working remotely, every possible office chat e.g. coffee break chat, will transform into many different zoom calls. This is one of the things that is much easier to do while working in an office setting Weil and Murugesan (2020). Moreover, a video conference call such as Zoom would be a man-in-the-middle attack risk where somebody listens to private discussions (Okereafor & Manny, 2020).

### 4.3 Opportunities

Remote working also allows companies to take the next step in reducing emissions and acknowledging that they had an indirect impact, like an invisible hand in the production of their workforces' emissions. Before the massive experiment of remote work company's

employees were not allowed to work remotely (other than people in ICT) and had to commute to get to work so they could earn their living. Therefore, it is an opportunity for companies to be as sustainable as possible and encourage their employees to work remotely so they could reduce the emissions that would be produced from the work commutation (Cerqueira et al., 2020; Ghisetti, Marzucchi & Montresor, 2015 van Lier et al., 2014).

This would also lead to technological innovation. As previously mentioned, implementing WFH as a permanent way of working would instigate the development of a more efficient and promoting digital infrastructure for WFH (Beske et al. 2017; Osborn et al. 2016; Ward and Beyer 2014). This would also create an opportunity for innovation to bring changes that are far from what we can understand in our current time situation.

Ahmad (2020) predicted that cybercrimes such as phishing and ransomware attacks, insecure remote access to corporate networks, remote workers exposing login credentials, and confidential information being exposed to other people in remote workers' homes would increase. This is a significant risk but also could be considered as an opportunity. Companies could now focus on making remote work more secure by investing in better VPNs, cloud services and fusing them into the company's digital space by making the foundation of the digital infrastructure significantly stronger. In addition to that company should implement mandatory cyber security training and user education periodically. With user education companies could mitigate the cyber security risks WFH could have (BW Online Bureau, 2020; Dwivedi et al. 2020; King and Gallagher, 2020; Malecki, 2020; Papagiannidis et al., 2020). Companies could buy and utilize Google's innovation that eschews perimeter-based security instead of having a VPN (Beske et al. 2017; Osborn et al. 2016; Ward and Beyer 2014).

With WFH we can also see significant positive changes in the company's diversity and inclusion. Through the permanent implementation of WFH people that are going through critical periods, people that are physically disabled, people that are recovering from an accident, women during their pregnancy can be included without any limitations. It would increase workplace inclusion because even people with young children or even new-borns can flexibly match work with their life (Baruch, 2000; Illegems, Verbeke and S'Jegers, 2001).



## 4.4 Threats

Although there were found many positive impacts in productivity due to the WFH, we still cannot ignore the risks it may cause. WFH gives the independence but also responsibility for the employee to manage their own time to make their hours count. This means that it is also an opportunity to 'slack around' so to say which would decrease the productivity from the level it would have been in the office environment. There could also be distractions at the home office which could also affect productivity in a negative way (Eurofound, 2020).

## 4.5 Cyber security

One of the most significant threats to remote working is cyber security risks. As we shifted from our traditional way of working to the WFH, cyber security threats such as phishing have increased by 600 percent increment. Although VPNs have been implemented and it has brought safety for many companies and their employees, there is a lot of work to do for mitigating cyber security risks and increasing protection from cyber-attacks. As it was stated previously this creates an opportunity for educating on how to safely work remotely and especially on how an individual can protect a company from threats (Lallie et al., 2020; VMware Carbon Black, 2020).

The freedom to work remotely has its advantages but there are still many indirect risks such as workplace segregation. People could avoid people and integrate into the company would take much more effort compared to when working in an office. In a worst-case scenario, this could lead to unintended discrimination because biased people can avoid the people they had to interact with and it could increase the company's human resource retention numbers.

On one hand, there are many benefits that the WFH experimentation brings to individuals' work-life balance but there are negative effects such as increased workload as well. The autonomy of an individual could lead to an increment of work due to self-management or mechanisms enforcing performance which could affect in a negatively on individual's work-life balance (Eurofond, 2020; Song et al., 2020).

When it comes to BYOD (Bring Your Own Device), it is a great way for companies to minimize their costs, but it also brings much more risks. When an individual brings their own device, it can increase the risk of an insider threat and therefore make managing the risk or having safe countermeasure very much left as a responsibility for the individual. Moreover, in this case, company data can be stolen more easily and it can be detrimental for the company. Therefore, it's much better and safer for companies to invest in their utilities by buying the devices for their staff and this way minimizes the risks (Okereafor & Manny, 2020).

Internet quality is also one of the prominent weaknesses WFH has. Workers might not have access to a proper internet, and this determines not just the safety of the internet but also affects the quality of work one may have. It could also increase cyber security risks Garrote Sanchez et al. (2020).

## **5 Result**

Based on the previously presented strengths, weaknesses, opportunities, and threats, there are many benefits that employers and employees could explore through utilizing it. Companies could reap out added-value benefits from the opportunities the WFH could bring. The weaknesses which the remote work brings are temporary especially if companies were to invest in the research and development of digital infrastructure for the remote work. By investing in R&D, companies could promote WFH through having better digital infrastructure and hence reduce the weaknesses and risks. There is also an increasing trend of having the opportunity to work remotely due to the WFH experimentation. Because the experimentation was for years it has become the norm and if employers were to change back to expect people to work completely in an office, organizations could lose their competitive edge in attracting any future talent in the market. In addition to that, cyber security threats would exist regardless, even if an individual were to work from the office or home. Therefore, we can safely state that remote work is here to stay.

## 6 Conclusion

A lot has changed ever since the pandemic. From the experimentation of the WFH, the perception of the world has changed from it being an inconvenience and not preferred to highly enjoyed and wanted form of working. Employers have changed their approach to remote work and in the current time we live in, it is an opportunity that many companies have started to implement as a way of working even though the restrictions have slowly faded away. Reflecting to the findings in the research we have found that there were a significant number of strengths, few weaknesses, many opportunities, and considerable numbers of threats.

All in all, remote work promotes flexibility in a way that regular office work could not. There were opportunities for people to match work with their life and not vice versa, decrease costs, have greater work-life balance, and more independence. It is irrational not to suspect that the demand for these advantages will not increase even in post-pandemic time. Therefore, post-pandemic time could be considered as a new era for work and organization management.

The WFH experiment is still a form of work that needs further research and development so it could be executed and implemented in the best way possible. The limitations faced in the literature review is the limited amount of qualitative data that provides more information on the different aspects of the topic in question. The proven and justified environmental effects with quantitative data were not able to be found which made one of the most important elements of this research appear scarce. This leaves the WFH environmental effects, disadvantages, and advantages with justification for further research. It is one of the most important parts that could add a significant value to the research and change permanently the way we used to work because of global warming. Also having access to gather primary qualitative data through interviews would also create an opportunity to evaluate the Human Resource Management practices even more critically which was not possible during the time this research was compiled because of the restrictions. Having evidence from these and some primary qualitative data from a company that practices only remote work would have been a valuable addition to the research.

The research literature that was found was readable and some of them were valid. Finding good quality literature was tedious and laborious but nevertheless having the opportunity to research a topic that I found fascinating kept my motivation high.

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## Appendices

### SWOT Analysis



(TemplateArchive, 2020)