

Open Access Article

 <https://doi.org/10.55463/hkjss.issn.1021-3619.60.60>

Work from Home and Knowledge Management Systems

Goran Yousif Ismael¹, Behiye Çavuşoğlu^{2*}

¹ *Department of Business Administration, Noble Technical Institute, Masif Salahadin Road - Havana Hall, Erbil 44001, Iraq*

² *Department of Economics, Faculty of Economics and Administrative Sciences, European University of Lefke, Northern Cyprus, Mersin 10, Turkey*

Received: September 6, 2022 ▪ Reviewed: November 8, 2022

▪ Accepted: December 5, 2022 ▪ Published: February 15, 2023

Abstract:

The article explores a new area of the intricacies of work from home presenting its implementation, challenges encountered by employees in Northern Iraq based on the impact of the COVID-19 pandemic, which brought about major changes in the organizational environment, one of which is the way work is done. Using the qualitative approach, the researcher employed 25 interviews which were used to collect primary data and analyzed the data thematically. The findings revealed that whilst work from home had benefits such as offering flexibility and freedom as well as allowing employees to save on costs; it also resulted in problems such as stress and challenges in work-life balance, and these were compounded by the lack of support from the management. It also revealed that most people with families found more time to spend with their loved ones but had challenges in balancing work in a home setting. As an example, we illustrate the technology acceptance model on factors that influence the adoption of new technologies such as ease of use, which makes people more amenable to using it. It also reflected the invasion of privacy, insecurity, and stress as techno-stressors related to working from home. The qualitative method allows us to improve the application of the techno-stress model, and the results can be used to improve work policies in the country and adaptation in workplaces. It also gives insight into a better working structure with regards to working from home. The novelty of the results highlights important issues regarding work-life balance, gender disparity, psychological impact, and consciousness on environmental issues.

Keywords: digital technology, digital transformation, work from home, knowledge management.

在家工作和知识管理系统

Corresponding Author: Behiye Çavuşoğlu, Department of Economics, Faculty of Economics and Administrative Sciences, European University of Lefke, Northern Cyprus, Mersin, Turkey; email: bcavusoglu@eul.edu.tr

This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>)

摘要:

这篇文章探讨了在家工作的复杂性的一个新领域，介绍了在家工作的实施情况，伊拉克北部的员工在新冠肺炎大流行的影响下遇到的挑战，这给组织环境带来了重大变化，其中之一是完成工作的方式。使用定性方法，研究人员进行了25次访谈，用于收集主要数据并按主题分析数据。调查结果显示，虽然在家工作有很多好处，例如提供灵活性和自由度以及让员工节省成本；它还导致了工作与生活平衡方面的压力和挑战等问题，而缺乏管理层的支持使这些问题更加复杂。它还显示，大多数有家庭的人发现有更多时间与亲人共度时光，但在平衡家庭环境中的工作方面面临挑战。作为一个例子，我们说明了影响新技术采用的因素的技术接受模型，例如易用性，这使得人们更愿意使用它。它还反映了与在家工作相关的技术压力源对隐私的侵犯、不安全感和压力。定性方法使我们能够改进技术压力模型的应用，其结果可用于改进国家的工作政策和工作场所的适应性。它还让人们深入了解在家工作方面更好的工作结构。结果的新颖性突出了工作与生活平衡、性别差异、心理影响和环境问题意识等重要问题。

关键词: 数字技术、数字转型、在家工作、知识管理。

1. Introduction

One of the greatest crises of modern time is the COVID-19 pandemic (Tønnessen et al., 2021). Not only did it result in millions of deaths, it also brought the business environment to a standstill (Saleh et al., 2021) and resulted in a huge economic crisis that saw a huge decline in employment (Ismael, 2022) and changes in workplace dynamics (Anderson et al., 2020). However, because businesses needed to survive, work from home became the norm. Even now when the pandemic is almost over, some organizations have still retained work from home (WFH) and others have integrated it into their organizational systems to have a hybrid model that combines being at the office and working from home. However, this has also presented challenges to organizations in terms of managing the work flow, finance costs, employee productivity, organizational culture, and security of organizational data. Social distancing and lockdown were implemented, and organizations had no choice but to have their employees work from home (Yang et al., 2020). The COVID-19 pandemic saw a great deal of increase and improvement in digitalization as a response to dealing with the new setup as technology had to bridge the gap.

Technology had to be used to ensure that businesses did not completely stop but continue in another manner. Virtual communities of practice were developed, and many applications and platforms were employed to create a virtual working environment in organizations (Babatunde et al., 2020). The pandemic saw the creation of a plethora of applications such as Teams, intranet, Slack, and Zoom, among others, in a bid to create conducive working from a home virtual environment and making sharing of files better in the organizations.

The pandemic also exposed the level and lack of knowledge management systems in companies and highlighted the critical need for them. Before the pandemic, aspects of knowledge sharing where as easy as going into the next office cubicle and delivering your message, meetings could be easily conducted. Help was easily available when you needed it and responses prompt and in real time. Knowledge creation is essential for new insights and development of ideas

(Alyoubi et al., 2018). However, with the onset of the pandemic much has changed, meetings are now conducted in a virtual setup, and employees must navigate the new systems. According to Battisti et al. (2022), many studies on working from home are those before the pandemic, and there are very few after its onset. Additionally, there are not many studies related to the financial and economic aspects of working from home.

2. Literature Review

The concept of working from home means that employees will conduct their normal day-to-day work activities away from the office in the comfort of their homes or another location without physical presence at the office (Tønnessen et al., 2021) with the aid of digital technology sans the usual face-to-face mode of communication (Brem et al., 2021). Digital technology is embraced to aid video conferencing, social media, and file sharing, among others, through platforms such as Google Meet, Workplace, and Google Drive, among others. According to several scholars (Kelliher & De Menezes, 2019; Kong et al., 2022; Patanjali & Bhatta, 2022), these platforms are responsible for the success of working from home.

Working from home is not really a new concept (Nambisan, 2017); it was practiced on a small scale and people were just aware it existed (Delfino & van der Kolk, 2021). Wang et al. (2021) explained that only 2% of the population of Europe worked remotely in an emergency capacity. However, in the COVID-19 era, it was different, especially in the fact that it was an abrupt and unforeseen development unplanned for (Yang et al., 2020; Choudhury et al., 2020; Dwivedi et al., 2020). According to Nambisan (2017), the past decade has seen an increase in remote working because of an increase in digitalization across the globe. This especially increased during the COVID-19 pandemic, where people had to be away from the offices and organizations had to find a way to keep going. However, as restrictions eased and the situation somewhat resorted back to being normal, some organizations did not go back to working at the office full time but shifted toward a hybrid model where

employees can do both, being physically present at the office some days and working from home on others (Jaiswal & Arun, 2020).

The WFH concept brought with it some merits and demerits. The commentary below highlights the arguments presented for and against the working from home concept across various dimensions.

2.1. Arguments on Working Patterns

Al-Habaibeh et al. (2021) posed an interesting argument that most employees had no choice but to embrace the new developments. They explained that sometimes individuals do something to avoid penalty, as explained by the self-determination theory. In this case, the employees had to embrace digitalization and its tools to keep their jobs.

However, Furnell and Shah (2020) argue that the abrupt start of working from home meant that most employees had no training to tackle the new development. They explained that most employees were provided just with tools such as laptops but had to rely on their own knowledge to do the rest. Gibbs et al. (2021) also pointed out that because of working from home, employees now ended up having lesser productivity. The scholars also pointed out that women were more affected than men because of mostly being the ones that do more domestic work at home, and employees with children had the same problem. The scholars also raised the point that employees had less uninterrupted time.

Chung et al. (2020) highlighted that work from home resulted in a blurring of the boundaries between work and home activities. This is also a sentiment that was shared by other scholars (Grant et al., 2019; Vyas & Buthakhieo, 2021) as they specified the intricacies of the balance between life and work. The blurred lines lead to employees' overworking when they cannot get themselves off work when they need to, stress, and anxiety. Some because of failure to juggle work and home demands end up using the time they should be sleeping to do their work, which leads to exhaustion (Xiao et al., 2021).

On the plus side, WFH provided a flexible schedule to employees. Richter (2020) pointed out that working from home allowed the employees to develop independent work styles. The scholar also pointed out that modern software and internet infrastructure is built in such a way that organizations can now adapt to new ways of ICT faster than they would have normally done. Various work practises can now be employed. According to Scheiber (2020), working from home presents employees with a flexible schedule; hence, they can navigate easily.

Chu et al. (2022) also echoed the same sentiments and explained that when employees work from home, they have control of their own schedule, hence increased flexibility. Chung et al. (2020) stated that this has also reduced stigma around flexible working schedules. A prior study by Samani (2015) also pointed out that employees had more control, e.g., over the

office setup, lighting, and so forth when they worked from home. They pointed out that the indoor environment was important for the physical and mental health of the employees.

Tavares (2017), however, pointed out that employees are deprived of socialization with their colleagues. This was something other scholars have also noted that work from home means that employees are isolated from their peers. Gibbs et al. (2021) explained that working from home is more ideal for professions that are used to working independently like in call centres. Künn et al. (2020) shared this sentiment in their study on chess players and explained that in professions that need collaboration like in chess, the players' productivity was decreased when they were playing online. Tavares (2017) pointed out that the lack of face-to-face interaction and support can lead to mental health issues and at worst even depression.

2.2. Arguments on Costs

Some scholars have argued that working from home results in lower expenses; some pointed out that it actually results in loss of income. Some have indicated that working from home means lower costs in terms of clothing and lesser expenses with regards to travel (Smith et al., 2018). However, Battisti et al. (2022) explained that over half of the respondents from their study encountered financial difficulties and loss of income as facilities such as meal vouchers and overtime pay decreased. Additionally, their expenses for services like internet connection, cloud sharing space, and others related to digital connection increased. Al-Habaibeh et al. (2021) pointed out that working from home was also beneficial for the environment as less mobility means less emissions.

2.3. Arguments on Security

According to Ahuja et al. (2020), WFH, whilst beneficial, created some loopholes that can be manipulated and used by those with sinister intent; the more popular it is, the greater the scale of risk. This was also supported by Georgiadou et al. (2022), who repeated that WFH expounded the cases of malicious online behavior. UK Finance (2020) pointed out that Covid-19 fraud reports increased by 400%. Attack on infrastructure also increased, and according to Rubins (2020), cases of online fraud and phishing increased with the move to work from home. This was also echoed by the Jolly (2020), which repeated that malicious email to home workers rose in the UK from 12% to 60% in less than a month when the lockdown started. It was also pointed out that employees may return with infected devices to the workplace.

According to Furnell and Shah (2020), there is a general lack of training in cyber security for those who have no knowledge on it. Zatterin et al. (2022) also pointed out that there was a cyber-skill gap in around 51% of the businesses in the UK and that they had no skills thereof to manage and respond to cyber security issues. Inglet (2020) also pointed out that, according to

an FBI report in the USA, successful attacks went up by 600%. They explained that working from home made the vulnerability of systems increase.

Borkovich and Skovira (2020) added that this was a result of increased administration rights of employees, increased access, downloadable links sent via emails, and sensitive organization information that could now be easily put on the personal computers. Nurse et al. (2021) explained that the way technology to enable working from home was rushed presented problems. Employees ended up adopting untested technologies sometimes and using third-party applications such as Google Drive and Dropbox to store company files, which may contain sensitive information.

2.4. Models

A few models can be used to relate to the working from home experience. However, this study will only look at two of them: the technology acceptance model and the technostress model.



Figure 1. Technology acceptance model (Davis, 1989)

The TAM model is one of the most widely used models regarding the adoption of new technology. The model explains that perceived usefulness and perceived ease of use of a technology are great determinants of the acceptance of new technology. These are the factors that determine the consumers' intention to use it and that influence their usage behavior.

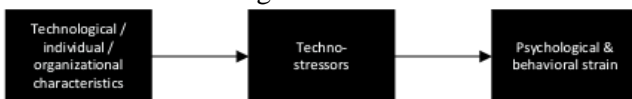


Figure 2. Techno-stress model (Brod, 1984)

Brod (1984) came up with the concept of the technostress model. The author explained that it was a result of the inability to cope with new technology. Li and Wang (2020) defined it as a stress related to the use of technology information systems. Technostress has different aspects such as life invasion, overload, and insecurity, among others.

According to Tarafdar et al. (2019), techno-stress comprises several elements. It includes the environment conditions that lead to techno-stressors and relate to the pressure or demands that are put on the individual. According to Zhang et al. (2018), these conditions can include, e.g., ease of use and reliability, among others, that inspire demand for technology. They also include negative aspects such as problems with the technology, which result in techno-stressors.

These techno-stressors, in turn, propel the individual into motion by taking action, which thus leads to coping mechanisms. It is these coping mechanisms that then lead to behavioral and psychological responses (Nagi & Bojiah, 2022). Techno-stressors include overload and invasion. Techno-overload involves excessive use of

technology systems, having to expend more in using technology and lean toward expectations of others in the use of social media (Ingusci et al., 2021).

Techno-invasion comes about when the individual feels like the use of technology is encroaching into their personal territory (Xiao & Mou, 2019). Some individuals may feel that their privacy has been breached because of the monitoring and surveillance aspects that come with information technology systems. Additionally, they may also feel like they must be always available and provide immediate responses (Barber & Santuzzi, 2015). Technostress may also encompass insecurity issues where individuals may feel like they have no confidence in using technology and complexity where they always have to learn to navigate the technology.

Techno-stress results in negative outcomes such as constant headaches, fatigue, burnout, and even less enthusiasm regarding technology (Maier et al., 2019). Yao and Wang (2022) found that technostress resulted in poor sleep patterns and poor academic performance in university students.

3. Methodology

3.1. Research Design

This study was a qualitative approach. It used a combination of description and explanation to obtain a better in-depth understanding of the intricacies of work from the study.

3.2. Population and Sampling

In social studies, one may not be able to reach the whole population. Instead, they select a targeted population and from it a smaller fraction of it. They then use this fraction of population, which is called a sample. The researcher targeted a population of employees from small businesses in manufacturing companies in Northern Iraq. Small businesses were among the most affected by the COVID-19 pandemic and thus the researcher figured there would be more lessons to be learned from them, hence the choice as a research subject. The researcher used purposive sampling. This type of sampling technique means that the researchers only use participants that have the utmost contribution to the study. The researchers only needed people with experience of working from home during the pandemic, hence had to approach them; this made the purposive sampling a better method for the study. The researchers used a sample of 25 interviewees who were working from home during the pandemic and continued to do so afterwards.

3.3. Data Collection

The researcher employed the primary and secondary method of data collection. Primary data entail collection of data from a direct source for the first time. Semi-structured interviews were employed as a method of data collection. Interviews allow the researcher to obtain more explanations about issues (Arsel, 2017).

Half an hour was dedicated to each interview.

The researcher used secondary data sources for the literature. These comprised textbooks and peer-reviewed journals and articles. Secondary data has the advantage of being conveniently available; in this case, it was also later used for comparison purposes with findings from the study to determine if there was any new contribution to science.

The study employed the qualitative method of thematic analysis as a means of interpreting the data. Thematic analysis is a vital tool in the analysis of qualitative studies and provides an in-depth analysis that goes beyond being only descriptive. It entails the observation of key ideas that come out of a study and bundling them together according to their similarity; the same ideas fall under one theme and so forth. The major themes are thus provided and presented as the key themes of the study.

3.4. Ethics

The researcher observed social sciences ethical protocol in conducting the study. Permission was sought from the relevant authorities and the interviewees. The researcher also provided information on why he was conducting the study and what their participation involved. He also let them know that the interview was on a voluntary basis and they were free to stop the interview anytime they wanted to. The interviewer also stressed that the names of the interviewees were not going to be published and participation would be anonymous. Additionally, the results of the study would be used only for academic purposes. The researchers also assured the participants that there was no monetary gain involved nor would the employees come to any harm by participating.

4. Findings

4.1. Descriptive Information on the Interview Participants

The researcher interviewed 25 interviewees. This consisted of 15 males and 10 females. The average age of the interviewees was the 35–40 years. All the interviewees were from the information and technology sector

- *Do you prefer working from home, from the office, or a hybrid model?*

Table 1 shows the responses to the question above.

Table 1. Descriptive information on the participants’ work

WFH	Office	Hybrid
8	7	9

- *Did you have any training of the technology systems of the organization?*

Most of the respondents indicated that they had not received any training before being immersed in the working from home system. Here is what some respondents had to say:

There was really no time to do much training. We

had a busy schedule ahead of us and were just trying to keep the business afloat.

No, we did not have formal training. We were just told to get in touch if we had any problems setting something up.

Well, we really did not do much in terms of training. We had to figure out how to use some platforms on our own. In our organization, we had to use Slack, and I had never been on it before, so I had to figure out how to navigate.

Yes, we had a bit of training, our IT experts held a meeting where we were told what to do. They were also always on hand to ask for help.

Well, most of us are proficient in technological tools and we have a well-set system at work, so we just did the stuff on our own and help was on hand if needed.

- *How did working from home benefit you?*

Most of the points raised on benefits derived from working from home were centred on flexibility, privacy, saving time, and saving costs.

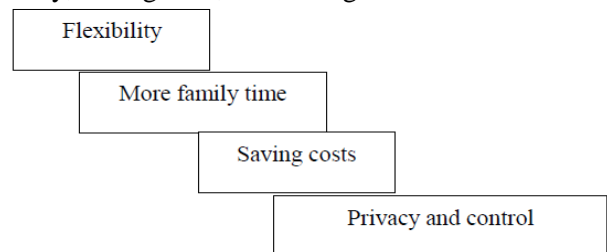


Figure 3. Benefits of working from home (The authors)

4.2. Flexibility

Most interviewees pointed out that they had greater flexibility because of working from home. These are some of the notable responses.

Working from home made it possible for my working hours to be more flexible. There were things that I could actually do at what would normally be after hours because that is when it would be more convenient and I did.

I found that working from home enabled me to be more independent on my timetable, I could choose to work all throughout lunch if I needed to; so, I felt I had more control over my schedule.

I found that our employer was willing for us to have a flexible working schedule. He understood we had families, and since we were all at home, it was not always to be in the office mode all the time. So, some of us had to work when we could and we could do some of the work on weekends as long as we were on target. So, I found it quite flexible.

4.3. More Family Time

Those with family expressed that they found that their time with family had increased. This is what some respondents had to say.

As a working mother, it is really important that I spend time with my children. However, on working days normally, we see each other few times because they go to school. Working from home has been the best opportunity for me because I now get to spend more

time with them.

I think for me, working from home has improved my work life balance. I get to spend some time with my family more than I did and do my work in a comfortable setting.

I love the fact that working from home helps save time and that time I could have been preparing to go to work and going out early to avoid congestion is time that I now spend with my family.

I am a nursing mother, working from home means I get to spend more time with my baby and I do not have to express milk now since I am constantly available. I think this has given me a chance to bond more with my baby.

Working from home has ensured that I spend more time with my family. I feel we have grown closer and this is a good development. Both my husband and I are working from home, so we really get to spend more time together. It is now easier for us to share special moments, and I must say it really feels more like a family setting that it did before.

It was always difficult for me to live with my family, my job was in a different city, and I had very long hours. This left me with no time at all to see my family and friends. Working from home was the best thing to have happened, when I learned it was a permanent shift, I immediately found an apartment closer to my family in the same city and now I can just see them every few days.

4.4. Saving Costs, Time, and Environment

Most of the employees also specified the convenience of working from home on saving costs such as day-to-day expenses and saving time. Some expressed that they were very conscious about environmental issues and, as such, felt more comfortable working from home, which enabled them to save on carbon emissions.

I like the working from home because it has allowed me to save on costs and time. Normally, it takes me much time to get prepared for work, and because I work far from work, I need more time to prepare. However, working from home means I do not need to do all that. It has tremendously cut back on my time.

Well, I use my car to go to work, and there is normally much traffic, which means I always must be up early. Now, because of working from home, I can totally catch up on my sleep.

I love working from home because I do not need to prepare so much and to go get the train to work. I have that time to myself and to do other things so I end up achieving more.

I've always felt awkward each time I've gone for pollution campaigns because every day I had to drive a diesel engine to work, but there was nothing I could do. It was unavoidable. It came as a welcome change when I started working from home because I just realized that was one less vehicle polluting the air ever since then.

I am very passionate about environmental issues. Working from home not only means that people save on

fuel but also that there is less air pollution out there. I feel it helps a lot in enabling a clean environment.

4.5. Privacy and Freedom

Some employees pointed out that working from home improved their privacy; they felt like at their workplaces, there was not enough privacy, especially those working in open plan settings.

Working from home has given me the opportunity to have control over my own space. I have control over where I sit and all rather than just being told that you work from this corner.

I like working from home because I have control over where I work from. I have a study and that is where I do my work from. However, at work, our office is a pool office and I work with five other people in the same office. Being at home means I have my own office, which has more privacy.

Our offices at work are partitioned by glass, and to be honest, I feel as if I am on display or something most of the time. So, being at home and working from home, I really have this enhanced sense of privacy and I love it.

Working from home for me means I have control over my own furnishings and I really like that. I decorate my office however I like it and I really feel that this is my own space, so it keeps me in a good mood.

I like having music when I am working. However, I cannot do that at work and therefore, being in the privacy of my own home, I can set the mood for myself, and this motivates me and keeps my spirits high when I am working with my favorite music.

I used to be anxious every day when I had to go to the office, there were people I did not get along with but was forced to endure. Working in the office became stressful, but I had no choice but to endure. However, ever since I've been transferred to working from home, I feel so much more relaxed and my wellbeing has greatly improved.

- What challenges did you encounter?

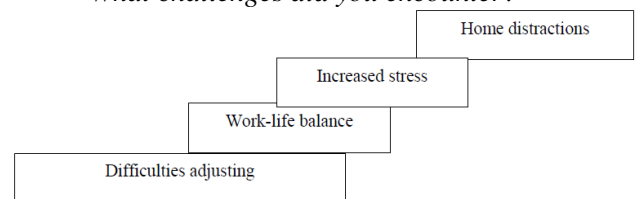


Figure 4. Challenges of working from home (The authors)

4.6. Home Distractions

Many employees realized that working from home came with increased distractions. The presence of children and lack of supervision proved a hurdle for some as this meant that their productivity was affected. Here is what some had to say:

I have three children in the house and never really knew how annoying they can be when you're trying to get work done. That was until I started working from home. It was a nightmare; I literally had to lock myself in my bedroom just to work decently for a few hours (Interviewee 13).

I struggled a lot with finding the time to work. As a

mother with children, there were always demands for me to do something. My children are not used to having me home but being unavailable so it took time for them to understand that I was working.

I really had to practice self-discipline because something always needed my attention at home, sometimes you would have visitors whilst in the middle of work and it would be difficult to keep yourself in your office.

4.7. Increased Stress

Some interviewees felt that they had increased stress levels because of a few problems such as lack of support. They felt they did not have enough support from their organizations. Some felt that they were not getting much sleep and ended up being stressed as well.

I feel like we did not have adequate support, especially when it came to using new technological platforms. We had to figure some things on our own; not everyone is technologically savvy, and some of us had a harder time than others.

I had much stress, and it ended up affecting my mental health. I had to work at night sometimes to manage the workload, and the constant pressure of looking at the screen was killing me.

Working from home is really stressful. Sometimes you must deal with things like poor internet connection, fear of messing up and doing something wrong, especially using new technologies. You are always on edge.

4.8. Work-Life Balance

The unclear distinction between the boundaries of the work and personal life environment has affected some participants as they struggled to balance the two. Some have reported feeling unorganized and unproductive as they have struggled keeping the distinction between work and personal endeavors.

I just felt more organized working from the office as that made it more professional in my experience. Having to work from home for me has meant that I have everything mixed in together ... a bit of work, a bit of me. It's just a jumble to be honest. Office work is just more organized because, at the moment I leave the office, I know I am back to my personal life and vice versa. Working from home does not give that clear shift.

I really feel like working from home is not for everyone. Some of us with children must juggle work and family demands, and that is very stressful. I think work should definitely be away from the home set up.

I feel like there were moments I ended up working much harder than I would have when I was at work. I ended up failing to distinguish between work time and personal time. It is easier to knock off work and go home, but when you are home already, you can easily keep telling yourself you will stop soon but end up not doing so.

I found it hard to balance work and home demands. I ended up working at odd hours when it was quiet just so I could meet deadlines and this really ended up

affecting my sleeping pattern and mental health as well.

4.9. Difficulties Adjusting

Interviewees expressed their difficulties in adjusting to the new system. Some changes were a result of the technology system, whilst the other had a hard time adjusting because of the lack of company and the usual hustle and bustle of an office. Here are some notable responses:

I had difficulties navigating the new system and all the changes.

The platforms that we had to use were unfamiliar, and it took me some time to be comfortable with them.

I was so used to being in an office setting where I was surrounded by colleagues, working from home and being on my own was really hard. In the office, my colleagues would always pop in here and then with a joke or some other silly thing. I never realized how important that was.

Working at home I've noticed I tend to overwork for long stretches without a break, so I think setting breaks or have someone in the house to come chat you every few times can be helpful.

I felt lonely most of the times, for me work was also a socializing place. It's just not the same when you work from home.

Initially, there was much confusion because everything had changes, the reporting system, the way everything now had to be digital, it was really a lot to take in. It took me some time to find my rhythm.

There was just too much everything! I was trying to adjust to working from home whilst learning new technologies and juggling work and home dynamics as well as having to meet deadlines. It was just too much for me, and I felt overwhelmed.

I think we would become more efficient if we were more connected as a team. Working from home means you cannot interact and understand each other the same as in the office. I feel like having a more connected and less professional meeting space would help us be more connected and intuitive about the people we are working with.

5. Discussion

The study revealed some insights that were found across other studies, whilst it also brought some new insights. One of the new insights was that working from home offered freedom of settlement. The choice of where to live for most working class has always been overshadowed by their workplace geography. Since the introduction of the option to work from home, many participants' report that now they have the option to choose where to settle. Normally, convenience to the workplace would play a major role in the selection of the area to settle, but with WFH people got more choices.

Another important issue that was raised was that of going green. Global issues have become a major issue that most people are increasingly trying to combat in different ways. Some interviewees showed how

meaningful and proud they felt from their opportunity to alleviate their personal carbon footprint through the elimination of the daily commute. This was also echoed in the study by Al-Habaibeh et al. (2021), who showed that WFH was great in terms of the environment.

The study concluded that a significant number of the interviewees felt that their workload was easier and that they needed much less time to do more. This generally signified how the employees became more productive from being allowed to work from home. However, not all felt work became easier. Some felt that they ended by doing too much and going overboard. This interplay was also noted by other scholars such as Chu et al. (2022). This is also supported by the techno-stress model where the individual ends up doing more because they must compensate for their lack of knowledge. The study also showed that support with the transition from working from office to home was mostly lacking. If the technology is not easy to use, the users are reluctant to use it and embrace it as reflected even in prior studies of Davis (1989) in their technology acceptance model.

It is also clear from the study that left unchecked some elements of working from home may result in poor mental health. Some interviewees shared how they ended up having poor sleeping patterns and high levels of stress because of WFH. This was also supported by Tavares (2017), who mentioned that if not done properly, WFH can actually cause some damage. Additionally, Maier et al. (2019), Yao and Wang (2022) also highlighted that headaches and fatigue could be negative outcomes of WFH.

The study also revealed that in terms of interaction, some preferred their privacy, whilst some performed better in a normal setting where they could be with their colleagues. This means that for some WFH will probably not be ideal, whilst some will thrive in it. However, for some it was also a way of getting away from toxic environments and being away from people that tormented them at the workplace. This was also echoed in the literature by Tarafdar et al. (2019), who pointed out that techno-stressors were in great part, a product of the environment a sentiment also echoed by Xiao and Mou (2019). So, for some, this was a stress-reliever and their mental health improved. So, there is really no clear-cut answer but the personality of the person, their mindset and outlook on life can sometimes determine how they thrive in a certain environment.

The study, however, revealed the need and importance of support, especially from the leadership when transitioning to new systems. Others ended up having anxiety for fear of messing up and found it harder to adjust all because they had not been adequately prepared for the transition. Additionally, they were not given more of the tools that were essential. It is imperative to have support, especially these days, when cases of phishing and malicious ware distribution are skyrocketing (Furnell & Shah, 2020; Nurse et al., 2021). This fear of using systems can also be attributed to the dangers of information sharing online, which makes systems susceptible to malware.

This finding is also in line with UK Finance (2020), which highlighted the increase in phishing activities because of online systems. The study also showed that those who had families were really affected by the transition to work from home. Although some thrived because it allowed them to spend more time with their loved ones, it also served as a double-edged sword as they could also not fully focus on the job because of family demands. The JD-R, job demand-resources model encourages that a balance be struck between the resources and the demands as when they are high, they result in negative outcomes (Ghislieri et al., 2018; Sandoval-Reyes et al., 2019).

5.1. Implications of the Study

The study revealed several things about the knowledge systems in the organizations through the working from home concept. It can be observed that the adoption of new technologies really needs much support for them to thrive and for the employees to also feel at home using the systems. Among the participants, the most outstanding recommendations were the increase in communication between the colleagues and the push toward a more connected workspace through various communication channels such as a work group chat, emails, and zoom meetings.

Contrary to what the majority expected, most people working from home tend to overwork and not have enough breaks to relax. In the office, colleagues often play and chat together during work, which gives breaks and relief, but working from home removes that aspect. It is then critical that they establish their own mini breaks to stay healthy and to avoid incidence of mental health issues.

Many employees who reported higher rates of distractions were those who had families or did not live alone. To combat this, there is a need for strict rules forbidding their household members from approaching them during their working hours. For those who had a separate room dedicated as an office, this proved even more effective and thus should be emulated.

6. Conclusion

The study provided enlightening experiences of working from home and its dynamics as well as relation to models. Despite the advantages of working from home, it is clear that more still needs to be done to ensure that it is a system that emulates the professional feel and interactive nature of the office, whilst providing the flexibility and freedom that allows people to feel comfortable.

Working from home is not a cut and dried issue, as revealed by the study. People with the same background may actually have different sentiments. For example, some people with families expressed that they found working from home a great concept as they got more time to spend with their families. It improved their well-being, and they were better able to cope with the burdens of work. In the same vein, others with families realized that working from home presented too many

challenges in relation to managing their schedules as they needed to balance work load and home duties. It is therefore important for companies to take all these factors into consideration when implementing changes in the organization and ensure that all disparities are addressed.

The study also reveals the problem that comes because of gender. Most women in Northern Iraq, where gender roles are deeply rooted in the culture, are the ones that take care of their homes. Women in the study had more challenges than their male counterparts when it came to work and life balance. House chores need to be attended to and present challenges when the work place is now taken home. Additionally, the study also revealed that aspects such as the work-setting are critical in work productivity. This must be put into consideration as it may decrease productivity in females at workplaces when WFH is implemented. A hybrid model would, therefore, be more ideal for the women.

The psychological impact of working from home should not be underestimated. It is crucial that employees working from home be furnished with support from the management. This support should address proper training to ensure that the employees got their work done with efficient use of the system. There should also be adequate resources to ensure that employees are furnished with everything they need so that they may not end up using some of their own, some of which may not be secure, which can put the company intellectual property at risk.

Organizations should also set out some principles and measures to ensure that employees do not end up overworking, which results in burnout, fatigue and stress. Additionally, there should also be measures in place to ensure that employees have enough peer support and use platforms more interactive to reduce or eliminate the sense of isolation that some employees feel when they work away from the office. Additionally, measures should also include how best to help employees find a work-balance to ensure that people with families, especially women, can better manage their schedules.

The study was focused on exploring the intricacies of working from home from the perspective of employees. Working from home is a concept that gained popularity with the onset of the Covid-19 pandemic, which forced people to stay home and businesses to conduct work from the home to ensure continuity. The study employed 25 interviews as a data collection method. The study revealed that work from home was a little complicated process that needed to be well thought out and well-structured for it to work. The benefits included flexibility, less costs, more time spent with family, and higher degree of freedom and control. The challenges included lack of support, work-life balance struggles, work overload, and some psychological problems such as stress because of failure to adjust to the system due to some factors. The study also echoed sentiments expressed in the technology acceptance model and the techno-stressors model. The

researcher concluded that certain measures had to be in place to ensure smooth work flow, and these needed to be deeply thought out before the implementation of the working from home concept.

6.1. Limitations and Recommendations

The study was limited to a qualitative aspect. Quantitative or mixed research methods could provide better understanding and results that can be easily verified and replicated for future studies. Future studies could focus on these approaches. The study also used purposive sampling; therefore, the application of the results cannot be said to be a representation of all small businesses on a very large scale. Additionally, the study also researched from the perspective of employees. Future studies could focus on the perspective of the management to determine the impact on the organization as they have access to this information.

Acknowledgement

The authors want to extend their gratitude to the participants who participated in this study and the reviewers of this paper for providing constructive comments.

References

- [1] AHUJA, A.R., & GUPTA, S. (2020). Security & Privacy Model for Work from Home Paradigm. Proceedings of the 8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions), Noida, 4-5 June 2020, pp. 1351-1355. <https://doi.org/10.1109/ICRITO48877.2020.9197773>
- [2] AL-HABAIBEH, A., WATKINS, M., WARIED, K., & JAVARESHK, M.B. (2021). Challenges and opportunities of remotely working from home during Covid-19 pandemic. *Global Transitions*, 3, 99–108. <http://dx.doi.org/10.1016/j.glt.2021.11.001>
- [3] ALYOUBI, B., HOQUE, M.R., ALHARBI, I., ALYOUBI, A., & ALMAZMOMI, N. (2018). Impact of knowledge management on employee work performance: evidence from Saudi Arabia. *The International Technology Management Review*, 7(1), 13-24. <http://dx.doi.org/10.2991/itm.7.1.2>
- [4] ANDERSON, R.M., HEESTERBEEK, H., KLINKENBERG, D., & HOLLINGSWORTH, T.D. (2020). How will country-based mitigation measures influence the course of the COVID-19 epidemic? *The Lancet*, 395(10228), 931-934. [https://doi.org/10.1016/S0140-6736\(20\)30567-5](https://doi.org/10.1016/S0140-6736(20)30567-5)
- [5] ARSEL, Z. (2017). Asking Questions with Reflexive Focus: A Tutorial on Designing and Conducting Interviews. *Journal of Consumer Research*, 44(4), 939–948. <http://dx.doi.org/10.1093/jcr/ucx096>
- [6] BABATUNDE, S.O., OLANIPEKUN, W.D., LATEEF, S.A., & BABALOLA, H.B. (2020). Work Life Balance and the Performance of Academic Staff at the Selected Tertiary Institutions in Kwara State,

- Nigeria. *Journal of Southwest Jiaotong University*, 55(6). <https://doi.org/10.35741/issn.0258-2724.55.6.45>
- [7] BARBER, L.K., & SANTUZZI, A.M. (2015). Please Respond ASAP: Workplace Telepressure and Employee Recovery. *Journal of Occupational Health Psychology*, 20(2), 172–189. <http://dx.doi.org/10.1037/a0038278>
- [8] BATTISTI, E., ALFIERO, S., & LEONIDOU, E. (2022). Remote working and digital transformation during the COVID-19 pandemic: Economic-financial impacts and psychological drivers for employees. *Journal of Business Research*, 150, 38–50. <https://doi.org/10.1016/j.jbusres.2022.06.010>
- [9] BORKOVICH, D.J., & SKOVIRA, R.J. (2020). Working from home: Cybersecurity in the age of COVID-19. *Issues in Information Systems*, 21(4), 234-236. http://dx.doi.org/10.48009/4_iis_2020_234-246
- [10] BREM, A., VIARDOT, E., & NYLUND, P.A. (2021). Implications of the coronavirus (COVID-19) outbreak for innovation: Which technologies will improve our lives? *Technological Forecasting and Social Change*, 163, 120451. <http://dx.doi.org/10.1016/j.techfore.2020.120451>
- [11] BROD, C. (1984). *Technostress: The Human Cost of the Computer Revolution*. Reading, Pennsylvania: Addison-Wesley Publishing Company.
- [12] CHOUDHURY, P., KOO, W.W., & LI, X. (2020). Working (from home) during a crisis: online social contributions by workers during the coronavirus shock. Retrieved from https://www.hbs.edu/ris/Publication%20Files/20-096_0ed0f0f2-fbe2-4d10-b445-eaac8161ef53.pdf
- [13] CHU, A., CHAN, T.W.C., & SO, M.K.P. (2022). Learning from work-from-home issues during the COVID-19 pandemic: Balance speaks louder than words. *PLoS ONE*, 17(1), e0261969. <https://doi.org/10.1371/journal.pone.0261969>
- [14] CHUNG, H., SEO, H., FORBES, S., & BIRKETT, H. (2020). *Working from home during the COVID-19 lockdown: Changing preferences and the future of work*. University of Kent. Retrieved from https://kar.kent.ac.uk/83896/1/Working_from_home_COVID-19_lockdown.pdf
- [15] DAVIS, F.D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- [16] DELFINO, G.F., & VAN DER KOLK, B. (2021). Remote working, management control changes and employee responses during the COVID-19 crisis. *Accounting, Auditing & Accountability Journal*, 34(6), 1376-1387. <http://dx.doi.org/10.1108/AAAJ-06-2020-4657>
- [17] DWIVEDI, Y.K., HUGHES, D.L., COOMBS, C., CONSTANTIOU, I., DUAN, Y., EDWARDS, J.S., GUPTA, B., LAL, B., MISRA, S., PRASHANT, P., RAMAN, R., RANA, N.P.P., SHARMA, S.K., & UPADHYAY, N. (2020). Impact of COVID-19 pandemic on information management research and practice: Transforming education, work and life. *International Journal of Information Management*, 55, 102211. <https://doi.org/10.1016/j.ijinfomgt.2020.102211>
- [18] FURNELL, S., & SHAH, J.N. (2020). Home working and cyber security – an outbreak of unpreparedness? *Computer Fraud & Security*, 2020(8), 6–12. [https://doi.org/10.1016/S1361-3723\(20\)30084-1](https://doi.org/10.1016/S1361-3723(20)30084-1)
- [19] GEORGIADOU, A., MOUZAKITIS, S., & ASKOUNIS, D. (2022). Working from home during COVID-19 crisis: a cyber security culture assessment survey. *Security Journal*, 35(2), 486–505. <https://doi.org/10.1057/s41284-021-00286-2>
- [20] GHISLIERI, C., MOLINO, M., & CORTESE, C.G. (2018). Work and organizational psychology looks at the fourth industrial revolution: how to support workers and organizations? *Frontiers in Psychology*, 9, 2365. <https://doi.org/10.3389/fpsyg.2018.02365>
- [21] GIBBS, M., MENGEL, F., & SIEMROTH, C. (2021). *Work from Home & Productivity: Evidence from Personnel & Analytics Data on IT Professionals*. Retrieved from https://bfi.uchicago.edu/wp-content/uploads/2021/05/BFI_WP_2021-56.pdf
- [22] GRANT, C.A., WALLACE, L.M., SPURGEON, P.C., TRAMONTANO, C., & CHARALAMPOUS, M. (2019). Construction and initial validation of the E-Work Life Scale to measure remote e-working. *Employee Relations*, 41(1), 16-33. <https://doi.org/10.1108/ER-09-2017-0229>
- [23] INGLET, M. (2020). *It's just ballooning up: Technology experts warn against increasing cybersecurity threats*. KTVB Crime Online. Retrieved from <https://www.ktvb.com/article/news/crime/its-just-ballooning-up-technology-experts-warn-against-increasing-cyber-security-threats-covid-19-pandemic/newswatch>
- [24] INGUSCI, E., SIGNORE, F., GIANCASPRO, M.L., MANUTI, A., MOLINO, M., RUSSO, V., ZITO, M., & CORTESE, C.G. (2021). Workload, Techno Overload, and Behavioral Stress during COVID-19 Emergency: The Role of Job Crafting in Remote Workers. *Frontiers in Psychology*, 12, 655148. <https://doi.org/10.3389/fpsyg.2021.655148>
- [25] ISMAEL, G.Y. (2022). Collaborative Knowledge Building and Social Capital in Gender-Based Violence, Northern Iraq. *European Conference on Knowledge Management*, 23(2), 1329-1338. <http://dx.doi.org/10.34190/eckm.23.1.821>
- [26] JAISWAL, A., & ARUN, C.J. (2020). *Unlocking the COVID-19 lockdown: work from home and its impact on employees*.

- <http://dx.doi.org/10.21203/rs.3.rs-34556/v1>
- [27] JOLLY, J. (2020). *Huge rise in hacking attacks on home workers during lockdown*. The Guardian. Retrieved from <https://www.theguardian.com/technology/2020/may/24/hacking-attacks-on-home-workers-see-huge-rise-during-lockdown>
- [28] KELLIHER, C., & DE MENEZES, L.M. (2019). *Flexible working in organisations: A research overview*. London: Routledge. <https://doi.org/10.4324/9781351128346>
- [29] KONG, X., ZHANG, A., XIAO, X., DAS, S., & ZHANG, Y. (2022). Work from home in the post-COVID world. *Case Studies on Transport Policy*, 10(2), 1118–1131. <http://dx.doi.org/10.1016/j.cstp.2022.04.002>
- [30] KÜNN, S., SEEL, C., & ZEGNERS, D. (2020). *Cognitive performance in the home office-Evidence from professional chess*. Retrieved from <https://docs.iza.org/dp13491.pdf>
- [31] LI, L., & WANG, X. (2020). Technostress inhibitors and creators and their impacts on university teachers' work performance in higher education. *Cognition, Technology & Work*, 23(2), 315–330. <https://doi.org/10.1007/s10111-020-00625-0>
- [32] MAIER, C., LAUMER, S., WIRTH, J., & WEITZEL, T. (2019). Technostress and the hierarchical levels of personality: a two-wave study with multiple data samples. *European Journal of Information Systems*, 28(5), 496–522. <http://dx.doi.org/10.1080/0960085X.2019.1614739>
- [33] NAGI, M., & BOJIAH, J. (2022). Effect of Psychological Support from Employers to Employees during COVID-19 Pandemic in Bahrain. *Journal of Human University Natural Sciences*, 49(1), 93-100. <https://doi.org/10.55463/issn.1674-2974.49.1.12>
- [34] NAMBISAN, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship Theory and Practice*, 41(6), 1029-1055. <http://dx.doi.org/10.1111/etap.12254>
- [35] NURSE, J.R., WILLIAMS, N., COLLINS, E., PANTELI, N., BLYTHE, J., & KOPPELMAN, B. (2021). Remote working pre- and post-COVID-19: an analysis of new threats and risks to security and privacy. In: STEPHANIDIS, C., ANTONA, M., & NTOA, S. (eds.) *HCI International 2021 - Posters. HCII 2021. Communications in Computer and Information Science*, Vol. 1421. Cham: Springer, pp. 583-590. https://doi.org/10.1007/978-3-030-78645-8_74
- [36] PATANJALI, S., & BHATTA, N.M.K. (2022). Work from Home During the Pandemic: The Impact of Organizational Factors on the Productivity of Employees in the IT Industry. *Vision: The Journal of Business Perspective*. <https://doi.org/10.1177/09722629221074137>
- [37] RICHTER, A. (2020). Locked-down digital work. *International Journal of Information Management*, 55, 102157. <https://doi.org/10.1016/j.ijinfomgt.2020.102157>
- [38] RUBINS, A. (2020). *50% of cybersec workers taken off security – incidents double during pandemic says new ISC(2) study*. Cyber News Group. Retrieved from <https://www.cybernewsgroup.co.uk/50-of-cybersec-workers-taken-off-security-incidents-double-during-pandemic-says-new-isc2-study/>
- [39] SALEH, S., QADER, A.N., ZEEBAREE, M., ISMAEL, G.Y., & AQEL, M. (2021). Time Management during Corona Virus Era. *Studies of Applied Economics*, 39(7). <http://dx.doi.org/10.25115/eea.v39i7.5233>
- [40] SAMANI, S.A. (2015). The impact of personal control over office workspace on environmental satisfaction and performance. *Journal of Social Sciences and Humanities*, 1(3), 163-175.
- [41] SANDOVAL-REYES, J., ACOSTA-PRADO, J.C., & SANCHÍS-PEDREGOSA, C. (2019). Relationship amongst technology use, work overload, and psychological detachment from work. *International Journal of Environmental Research and Public Health*, 16, 4602. <https://doi.org/10.3390/ijerph16234602>
- [42] SCHEIBER, N. (2020). *Jobless claims by Uber and Lyft drivers revive fight over labor status*. The New York Times. Retrieved from <https://www.nytimes.com/2020/04/17/business/economy/coronavirus-uber-lyft-unemployment.html>
- [43] SMITH, S., PATMOS, A., & PITTS, M. (2018). Communication and teleworking: A study of communication channel satisfaction, personality, and job satisfaction for teleworking employees. *International Journal of Business Communication*, 55(1), 44-68. <https://doi.org/10.1177/2329488415589101>
- [44] TARAFDAR, M., COOPER, C.L., & STICH, J.-F. (2019). The technostress trifecta - techno eustress, techno distress and design: Theoretical directions and an agenda for research. *Information Systems Journal*, 29(1), 6-42. <https://doi.org/10.1111/ijisj.12169>
- [45] TAVARES, A.I. (2017). Telework and health effects review. *International Journal of Healthcare*, 3(2), 30-36. <http://dx.doi.org/10.5430/ijh.v3n2p30>
- [46] TØNNESEN, Ø., DHIR, A., & FLÅTEN, B.T. (2021). Digital knowledge sharing and creative performance: Work from home during the COVID-19 pandemic. *Technological Forecasting and Social Change*, 170, 120866. <http://dx.doi.org/10.1016/j.techfore.2021.120866>
- [47] UK FINANCE. (2020). *2020 half year fraud update*. Retrieved from <https://www.ukfinance.org.uk/system/files/Half-year-fraud-update-2020-FINAL.pdf>
- [48] VYAS, L., & BUTAKHIEO, N. (2021). The impact of working from home during COVID-19 on work and life domains: an exploratory study on

- Hong Kong. *Policy Design and Practice*, 4(1), 59-76.
<http://dx.doi.org/10.1080/25741292.2020.1863560>
- [49] WANG, B., LIU, Y., QIAN, J., & PARKER, S.K. (2021). Achieving effective remote working during the COVID-19 pandemic: A work design perspective. *Applied Psychology*, 70(1), 16-59.
<http://dx.doi.org/10.1111/apps.12290>
- [50] XIAO, L., & MOU, J. (2019). Social media fatigue - Technological antecedents and the moderating roles of personality traits: The case of WeChat. *Computers in Human Behavior*, 101, 297-310.
<http://dx.doi.org/10.1016/j.chb.2019.08.001>
- [51] XIAO, Y., BECERIK-GERBER, B., LUCAS, G., & ROLL, S.C. (2021). Impacts of Working from Home during COVID-19 Pandemic on Physical and Mental Well-Being of Office Workstation Users. *Journal of Occupational and Environmental Medicine*, 63(3), 181-190.
<https://doi.org/10.1097/jom.0000000000002097>
- [52] YANG, L., JAFFE, S., HOLTZ, D., SURI, S., SINHA, S., WESTON, J., JOYCE, C., SHAH, N., SHERMAN, K., LEE, C.J., HECHT, B., & TEEVAN, J. (2020). *How work from home affects collaboration: A large-scale study of information workers in a natural experiment during COVID-19*. Retrieved from
<https://arxiv.org/ftp/arxiv/papers/2007/2007.15584.pdf>
- [53] YAO, N., & WANG, Q. (2022). Technostress from Smartphone Use and Its Impact on University Students' Sleep Quality and Academic Performance. *The Asia-Pacific Education Researcher*.
<https://doi.org/10.1007/s40299-022-00654-5>
- [54] ZATTERIN, G., ATKINS, G., BOLLEN, A., SHAH, J.N., & DONALDSON, S. (2022). *Cyber security skills in the UK labour market 2022: Findings report*. Retrieved from
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1072767/Cyber_security_skills_in_the_UK_labour_market_2022_-_findings_report.pdf
- [55] ZHANG, S., KE, X., FRANK WANG, X.H., & LIU, J. (2018). Empowering leadership and employee creativity: a dual-mechanism perspective. *Journal of Occupational and Organizational Psychology*, 91, 896-917.
<http://dx.doi.org/10.1111/joop.12219>
- 参考文献:**
- [1] AHUJA, A.R., & GUPTA, S. (2020). 在家工作的安全和隐私模式范例。第八届可靠性、信息通信技术和优化（趋势和未来方向）国际会议论文集，诺伊达，2020年6月4日至5日，第 1351-1355 页。
<https://doi.org/10.1109/ICRITO48877.2020.9197773>
- [2] AL-HABAIBEH, A., WATKINS, M., WARIED, K. 和 JAVARESHK, M.B. (2021). 新冠肺炎大流行期间在家远程工作的挑战和机遇。全球转型，3, 99-108.
<http://dx.doi.org/10.1016/j.glt.2021.11.001>
- [3] ALYOUBI, B., HOQUE, M.R., ALHARBI, I., ALYOUBI, A., & ALMAZMOMI, N. (2018). 知识管理对员工工作绩效的影响：来自沙特阿拉伯的证据。国际技术管理评论，7(1), 13-24.
<http://dx.doi.org/10.2991/itmr.7.1.2>
- [4] ANDERSON, R.M., HEESTERBEEK, H., KLINKENBERG, D. 和 HOLLINGSWORTH, T.D. (2020). 基于国家/地区的缓解措施将如何影响新冠肺炎流行病的进程？柳叶刀，395(10228), 931-934.
[https://doi.org/10.1016/S0140-6736\(20\)30567-5](https://doi.org/10.1016/S0140-6736(20)30567-5)
- [5] ARSEL, Z. (2017). 以反身焦点提问：设计和进行访谈的教程。消费者研究杂志，44 (4), 939-948.
<http://dx.doi.org/10.1093/jcr/ucx096>
- [6] BABATUNDE, S.O., OLANIPEKUN, W.D., LATEEF, S.A., & BABALOLA, H.B. (2020). 尼日利亚夸拉州部分高等教育机构的工作与生活平衡与学术人员的表现。西南交通大学学报，55(6).
<https://doi.org/10.35741/issn.0258-2724.55.6.45>
- [7] BARBER, L.K., & SANTUZZI, A.M. (2015). 请尽快回复：工作场所远程压力和员工康复。职业健康心理学杂志，20(2), 172-189.
<http://dx.doi.org/10.1037/a0038278>
- [8] BATTISTI, E., ALFIERO, S., & LEONIDOU, E. (2022). 新冠肺炎大流行期间的远程工作和数字化转型：对员工的经济金融影响和心理驱动因素。商业研究杂志，150, 38-50.
<https://doi.org/10.1016/j.jbusres.2022.06.010>
- [9] BORKOVICH, D.J., & SKOVIRA, R.J. (2020). 在家工作：新冠肺炎时代的网络安全。信息系统问题，21(4), 234-236.
http://dx.doi.org/10.48009/4_iis_2020_234-246
- [10] BREM, A., VIARDOT, E., & NYLUND, P.A. (2021). 冠状病毒(新冠肺炎)爆发对创新的影响：哪些技术将改善我们的生活？技术预测与社会变革，163, 120451.
<http://dx.doi.org/10.1016/j.techfore.2020.120451>
- [11] 布罗德，C. (1984)。技术压力：计算机革命的人力成本。宾夕法尼亚州雷丁：艾迪生卫斯理出版公司。
- [12] CHOUDHURY, P., KOO, W.W., & LI, X. (2020). 危机期间（在家）工作：冠状病毒冲击期间工人的在线社会贡献。取自
https://www.hbs.edu/ris/Publication%20Files/20-096_0ed0f0f2-fbe2-4d10-b445-eaac8161ef53.pdf
- [13] CHU, A., CHAN, T.W.C., & SO, M.K.P.

- (2022)。从新冠肺炎大流行期间的在家工作问题中学习：平衡胜于雄辩。公共科学图书馆一号，17(1)，e0261969。https://doi.org/10.1371/journal.pone.0261969
- [14] CHUNG, H., SEO, H., FORBES, S., & BIRKETT, H. (2020)。新冠肺炎封锁期间在家工作：改变偏好和工作的未来。肯特大学。取自https://kar.kent.ac.uk/83896/1/Working_from_home_COVID-19_lockdown.pdf
- [15] 戴维斯, F.D. (1989)。感知有用性、感知易用性和用户对信息技术的接受度。管理信息系统季刊, 13(3), 319–340。https://doi.org/10.2307/249008
- [16] DELFINO, G.F., & VAN DER KOLK, B. (2021)。新冠肺炎危机期间的远程工作、管理控制变更和员工响应。会计、审计与责任期刊, 34(6), 1376-1387。http://dx.doi.org/10.1108/AAAJ-06-2020-4657
- [17] DWIVEDI, Y.K., HUGHES, D.L., COOMBS, C., CONSTANTIOU, I., DUAN, Y., EDWARDS, J.S., GUPTA, B., LAL, B., MISRA, S., PRASHANT, P., RAMAN, R., RANA, N.P.P., SHARMA, S.K. 和 UPADHYAY, N. (2020)。新冠肺炎大流行对信息管理研究和实践的影响：改变教育、工作和生活。国际信息管理杂志, 55, 102211。https://doi.org/10.1016/j.ijinfomgt.2020.102211
- [18] FURNELL, S., & SHAH, J.N. (2020)。在家工作和网络安全——毫无准备的爆发？计算机欺诈与安全, 2020(8), 6-12。https://doi.org/10.1016/S1361-3723(20)30084-1
- [19] GEORGIADOU, A., MOUZAKITIS, S., & ASKOUNIS, D. (2022)。新冠肺炎危机期间在家工作：网络安全文化评估调查。安全杂志, 35(2), 486-505。https://doi.org/10.1057/s41284-021-00286-2
- [20] GHISLIERI, C., MOLINO, M., & CORTESE, C.G. (2018)。工作和组织心理学着眼于第四次工业革命：如何支持工人和组织？心理学前沿, 9, 2365。https://doi.org/10.3389/fpsyg.2018.02365
- [21] GIBBS, M., MENGEL, F., & SIEMROTH, C. (2021)。在家工作和生产力：来自它专业人员的人员和分析数据的证据。取自https://bfi.uchicago.edu/wp-content/uploads/2021/05/BFI_WP_2021-56.pdf
- [22] GRANT, C.A., WALLACE, L.M., SPURGEON, P.C., TRAMONTANO, C. 和 CHARALAMPOUS, M. (2019)。用于测量远程电子工作的电子工作生活量表的构建和初步验证。员工关系, 41(1), 16-33。https://doi.org/10.1108/ER-09-2017-0229
- [23] INGLET, M. (2020)。它只是在膨胀：技术专家警告不要增加网络安全威胁。KTVB犯罪在线。取自https://www.ktvb.com/article/news/crime/its-just-ballooning-up-technology-experts-warn-against-increasing-cyber-security-threats-covid-19-pandemic/newswatch
- [24] INGUSCI, E., SIGNORE, F., GIANCASPRO, M.L., MANUTI, A., MOLINO, M., RUSSO, V., ZITO, M., & CORTESE, C.G. (2021)。新冠肺炎紧急情况期间的工作量、技术超载和行为压力：工作塑造在远程工作者中的作用。心理学前沿, 12, 655148。https://doi.org/10.3389/fpsyg.2021.655148
- [25] 伊斯梅尔, G.Y. (2022)。伊拉克北部基于性别的暴力中的协作知识构建和社会资本。欧洲知识管理会议, 23(2), 1329-1338。http://dx.doi.org/10.34190/eckm.23.1.821
- [26] JAISWAL, A., & ARUN, C.J. (2020)。解锁新冠肺炎锁定：在家工作及其对员工的影响。http://dx.doi.org/10.21203/rs.3.rs-34556/v1
- [27] 乔利 (2020)。锁定期间对家庭工人的黑客攻击大幅增加。守护者。取自https://www.theguardian.com/technology/2020/may/24/hacking-attacks-on-home-workers-see-huge-rise-during-lockdown
- [28] KELLIHER, C., & DE MENEZES, L.M. (2019)。组织中的灵活工作：研究概述。伦敦：劳特利奇。https://doi.org/10.4324/9781351128346
- [29] 孔晓、张爱、尚晓、DAS, S. 和 张艳 (2022)。在后冠状病毒世界中在家工作。运输政策案例研究, 10(2), 1118–1131。http://dx.doi.org/10.1016/j.cstp.2022.04.002
- [30] KÜNN, S., SEEL, C., & ZEGNERS, D. (2020)。家庭办公室的认知表现——来自职业象棋的证据。取自https://docs.iza.org/dp13491.pdf
- [31] 李林和王晓 (2020)。技术压力抑制因素和创造因素及其对高校教师高等教育工作绩效的影响。认知、技术与工作, 23(2), 315–330。https://doi.org/10.1007/s10111-020-00625-0
- [32] MAIER, C., LAUMER, S., WIRTH, J. 和 WEITZEL, T. (2019)。技术压力和人格的层次结构：具有多个数据样本的两波研究。欧洲信息系统杂志, 28(5), 496-522。http://dx.doi.org/10.1080/0960085X.2019.1614739
- [33] NAGI, M., & BOJIAH, J. (2022)。巴林新冠肺炎大流行期间雇主对员工心理支持的影响。湖南大学自然科学学报, 49(1), 93-100。https://doi.org/10.55463/issn.1674-

- 2974.49.1.12
- [34] 南美山 (2017)。数字创业：迈向创业的数字技术视角。创业理论与实践，41（6），1029-1055。http://dx.doi.org/10.1111/etap.12254
- [35] NURSE, J.R., WILLIAMS, N., COLLINS, E., PANTELI, N., BLYTHE, J. 和 KOPPELMAN, B. (2021)。新冠肺炎前后的远程工作：对安全和隐私的新威胁和风险分析。载于：STEPHANIDI S, C., ANTONA, M. 和 NTOA, S. (编辑) 人机交互国际2021-海报。人机界面2021。计算机与信息科学通讯，卷。1421。查姆：斯普林格，第 583-590 页。https://doi.org/10.1007/978-3-030-78645-8_74
- [36] PATANJALI, S., & BHATTA, N.M.K. (2022)。大流行期间在家工作：组织因素对它行业员工生产力的影响。愿景：商业视角杂志。https://doi.org/10.1177/09722629221074137
- [37] 里希特 (2020)。锁定的数字作品。国际信息管理杂志，55，102157。https://doi.org/10.1016/j.ijinfomgt.2020.102157
- [38] 鲁宾斯，A. (2020年)。新的国际学习中心(2) 研究表明，50%的网络安全工作者取消了安全措施——大流行期间事件翻了一番。网络新闻组。取自https://www.cybernewsgroup.co.uk/50-of-cybersec-workers-taken-off-security-incidents-double-during-pandemic-says-new-isc2-study/
- [39] SALEH, S., QADER, A.N., ZEEBAREE, M., ISMAEL, G.Y. 和 AQEL, M. (2021)。电晕病毒时代的时间管理。应用经济学研究，39（7）。http://dx.doi.org/10.25115/eea.v39i7.5233
- [40] SAMANI, S.A. (2015)。个人对办公室工作空间的控制对环境满意度和绩效的影响。社会科学与人文学报，1（3），163-175。
- [41] SANDOVAL-REYES, J., ACOSTA-PRADO, J.C., & SANCHÍS-PEDREGOSA, C. (2019)。技术使用、工作超负荷和工作心理疏离之间的关系。国际环境研究与公共卫生杂志，16，4602。https://doi.org/10.3390/ijerph16234602
- [42] 谢伯，N. (2020)。优步和来福车司机的失业申请重新引发了劳工地位之争。纽约时报。取自https://www.nytimes.com/2020/04/17/business/economy/coronavirus-uber-lyft-unemployment.html
- [43] SMITH, S., PATMOS, A., & PITTS, M. (2018)。通信和远程办公：远程办公员工的通信渠道满意度、个性和工作满意度研究。国际商业传播杂志，55(1)，44-68。https://doi.org/10.1177/2329488415589101
- [44] TARAFDAR, M., COOPER, C.L., & STICH, J.-F. (2019)。技术压力三重奏-技术性压力、技术困扰和设计：理论方向和研究议程。信息系统杂志，29（1），6-42。https://doi.org/10.1111/isj.12169
- [45] 塔瓦雷斯，A.I. (2017)。远程办公和健康影响审查。国际医疗保健杂志，3(2)，30-36。http://dx.doi.org/10.5430/ijh.v3n2p30
- [46] TØNNESSEN, Ø., DHIR, A., & FLÅTEN, B.T. (2021)。数字知识共享和创造性表现：新冠肺炎大流行期间在家工作。技术预测与社会变革，170，120866。http://dx.doi.org/10.1016/j.techfore.2021.120866
- [47] 英国金融。(2020)。2020年半年欺诈更新。取自https://www.ukfinance.org.uk/system/files/Half-year-fraud-update-2020-FINAL.pdf
- [48] VYAS, L., & BUTAKHIEO, N. (2021)。新冠肺炎期间在家工作对工作和生活领域的影响：对香港的探索性研究。政策设计与实践，4(1)，59-76。http://dx.doi.org/10.1080/25741292.2020.1863560
- [49] WANG, B., LIU, Y., QIAN, J., & PARKER, S.K. (2021)。在新冠肺炎大流行期间实现有效的远程工作：工作设计视角。应用心理学，70(1)，16-59。http://dx.doi.org/10.1111/apps.12290
- [50] 肖丽，& MOU, J. (2019)。社交媒体疲劳——技术前因和人格特质的调节作用：微信案例。人类行为中的计算机，101，297-310。http://dx.doi.org/10.1016/j.chb.2019.08.001
- [51] XIAO, Y., BECERIK-GERBER, B., LUCAS, G., & ROLL, S.C. (2021)。新冠肺炎大流行期间在家工作对办公室工作站用户身心健康的影响。职业与环境医学杂志，63(3)，181-190。https://doi.org/10.1097/jom.0000000000002097
- [52] YANG, L., JAFFE, S., HOLTZ, D., SURU, S., SINHA, S., WESTON, J., JOYCE, C., SHAH, N., SHERMAN, K., LEE, C.J., HECHT, B. 和 TEEVAN, J. (2020)。在家工作如何影响协作：在新冠肺炎期间通过自然实验对信息工作者进行的大规模研究。取自https://arxiv.org/ftp/arxiv/papers/2007/2007.15584.pdf
- [53] 姚南和王青 (2022)。智能手机使用带来的技术压力及其对大学生睡眠质量和学业成绩的影响。亚太教育研究员。https://doi.org/10.1007/s40299-022-00654-5
- [54] ZATTERIN, G., ATKINS, G., BOLLEN, A., SHAH, J.N. 和 DONALDSON, S.

(2022)。2022年英国劳动力市场的网络安全技能：调查结果报告。取自https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1072767/Cyber_security_skills_in_the_UK_labour_market_2022_-_findings_report.pdf

[55] 张胜、柯鑫、王晓红、刘建军 (2018)。赋予领导力和员工创造力：双机制视角。职业和组织心理学杂志，91，896-917。http://dx.doi.org/10.1111/joop.12219