Redefining The Business Life And Technostress During COVID-19

COVID-19 Sürecinde İş Yaşamı Ve Teknostresin Yeniden Tanımlanması

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Keywords:

Covid-19, Digital Technologies, Business Enterprises, Work From Home, Technostress

ABSTRACT

Ever since the first quarter of 2020, Covid-19 has had a drastic impact across the world as one of the greatest pandemics man has ever seen. The pandemic has changed the way we live together and connect each other and initiated an era of intense digitalization due to lockdowns and social distancing rules. To cope with the pandemic, governments had no choice but to put an end to office life and to order millions of enterprises, employers, and employees to work at home. Business enterprises worldwide have been forced to adapt to new business life and lifestyles because of the Covid-19 pandemic. Despite the benefits of working from home, this sudden and obligatory working style brought technostress and other problems along. This new order which has meant months of working at home might seem lucrative for the enterprises and employees; however, it has also brought technostress into the world's agenda. This article studies the impact of Covid-19 on the workplace performance and redefines technostress from a cognitive approach. This study also elaborates on the ways to deal with technostress.

Anahtar Kelimeler:

Covid-19, Dijital Teknolojiler, İşletmeler, Evden Çalışma, Teknostres.

ÖZET

2020'nin ilk çeyreğinden beri, insanlığın bugüne dek tanık olduğu en büyük pandemilerden biri olan Covid-19'un dünya çapında büyük bir etkisi olmuştur. Kapanmalar ve sosyal mesafe kuralları, pandemi ile birlikte yaşama ve iletişim kurma şeklimizi değiştirmiş, yoğun bir dijitalleşme çağı başlamıştır. Pandemi ile başa çıkmak için hükümetlerin ofis hayatını sonlandırıp milyonlarca işletmeye, işverene ve çalışana evden çalışma tarzını getirmekten başka bir seçeneği kalmamıştır. Dünyanın her yerindeki işletmeler ve çalışanlar, Covid-19 pandemisinin etkisiyle yeni çalışma ve yaşam biçimlerine uyum sağlamak zorunda kalmışlardır. Evden çalışma, hem işletmeler hem de çalışanlar için olumlu etkiler yaratsa da, covid-19 pandemisi sırasında meydana gelen ani ve evden çalışmanın zorunlu oluşu, teknostres ve diğer olumsuz yönleri de beraberinde getirmiştir. Her ne kadar aylarca evden çalışma anlamına gelen bu yeni düzen karlı görünse de, teknostresi dünya gündemine taşımıştır. Bu makale Covid-19'un işyeri performansı üzerindeki etkisini araştırarak bilişsel bir yaklaşımla teknostresi yeniden tanımlamaktadır. Bu çalışma, ayrıca teknostres ile başa çıkma yollarına da detaylı bir şekilde değinmektedir.

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1. INTRODUCTION

Covid-19 has made it indispensable for many business enterprises to reset their future business strategies across the world (İrge and Yazıcı, 2020). Since the beginning of Covid-19, the world has experienced the dreadful outcomes of the great pandemic. Of all Western countries, Italy has been one of the most affected ones. Owing to the governments' contingency plans, distance working procedures have been simplified and made more accessible by thousands of public and private institutions in every continent. Distance working, i.e., working at home, is a business model in which the employee and employer remotely carry out their business liabilities thanks to information and communication technologies (Molino et al., 2020).

Covid-19 has profoundly transformed daily routines, workplace interaction and business life for many people. While many businesses have been forced to shut down, others have been forced to change their business model or cut down their operations for adaptational purposes (İrge and Yazıcı, 2020). Some have managed to survive through distance working by following social distancing rules, revised business models and new communication system. Throughout the pandemic, public service institutions and governments have been trying to offer service to their partners with the use of technological applications and cloud-based infrastructure (Herath and Herath, 2020). Business enterprises have felt obliged to create new business opportunities for themselves by rethinking their business model and pondering on the ways they might use information technology systems for online services and products so that they will be granted a chance to compensate for their Covid-19 related losses. It has also been essential to create alternative business environments to meet the need for social isolation (Caroll and Conboy, 2020).

All in all, the pandemic created a chaos in terms of business management. Business enterprises shifted to a digital working life to manage the crisis. Employees suddenly started to spend more time online and integrate more with digital devices. Business meetings, which were carried out personally before, got suddenly replaced by Zoom meetings. Meetings, previously providing a break from digital exposure and a chance for human interaction, have meant more screen time boosting the employees' technology-related stress levels.

2. INCREASING DIGITALIZATION

Despite being commonly confused, digitalization and digital transformation indeed differ from each other. More specifically, digitalization refers to a technical process in which the digital facilities are put into use; that is to say, a process in which analogue signals are transformed into two-digit digital forms. On the other hand, digital transformation refers to a state of radical transformation in the systems of institutions and societies (Rachinger et al., 2018). Previously, there was several waves of digitalization driving enterprises and society into transformation. The first wave took place when technologies leading to advanced automation in work routines

with the advent of computers replacing paper. The second wave occurred when business enterprises started to think of creating values and new business models such as e-commerce, with the birth of internet (Legner et al., 2017). Digitalization has been transforming the society including the business world and the private life. Consequently, professionals' exposure to technology is not just based on certain tasks anymore. They are being exposed to it uninterruptedly during a full shift (Mirbabaie et al., 2020). Communication technology has transformed the way people plan and organize their social activities and events.

Covid-19 had a profound impact on both economy and people's livelihood and thus it brought the concepts of digitalization and distance working into the world's agenda. Such new terms as remote working, distance working, working at home, virtual business platforms, e-commerce, mobile working, and flexible working are the signals of the dawn of increased digitalization (Savić, 2020).

As video and audio conference over Zoom, Skype, Teams or Google Meet are being used, business enterprises have no choice but improving their technological infrastructure, which means greater investment on network equipment, cloud services and software. Although distance working and online meetings were first started as an exception, they became a norm (De et al., 2020). Internet of Things, Artificial Intelligence, Machine Learning, Big Data, Cloud Computing are the new digital transformation technologies. Although these technologies drive from the recent developments, digitalization is beyond the mere use of these technologies.

3. WORK-FROM-HOME

Working at home is an integral part of flexible working conditions. It is usually preferred by the employees due to personal needs or motivation so that they can create work-life balance (Göktepe, 2020). Working at home is a business option offering a desired level of flexibility to the employees and is based on the integration of information technologies into the flexible workplace environment so that the geographical and organizational boundaries of the head office are removed (Naktiyok and İşcan, 2003). In brief, working at home is a business arrangement in which the employees work not at the office but at work during their routine office hours.

"Work from home, a phrase commonly used since the onset of COVID 19, can be defined generically as employees working outside company offices. It includes four basic characteristics: (1) a person who is an employee of a company or a staff member of an organization; (2) actual work engagement with a company or an organization on specific tasks;

(3) work being performed outside the company's physical premises; and (4) telecommunication with the employer" (Savić, 2020: 101).

There are many opportunities digitalization offers and hence, the number of people who remotely work is on the rise. According to Randstand (2020) report, 83% of the employees have successfully adapted to their new working environments. While 75% of them stated that they managed to cope with their working hours and preserve their family and work balance; 66% of them stated that they regularly attended online meetings. 63% of the employees referred to the negative impact of the modern pandemic on their work; 54% of them expressed their fear and concerns over losing their jobs and 75% of them stated that their employers actually paid attention to their medical well-being during the pandemic (Akbaş Tuna and Türkmendağ, 2020). University of Kent and University of Birmingham carried out a survey in the United Kingdom from May 22 to June 15, within the scope of Covid-19 lockdown project. According to the findings, 86% of the employees work at home and 70% of the employees work on a flexible schedule (Chung et al., 2020).

Business literature includes articles on the negative impact of distance working on health. According to Derks et al (2016), the use of smartphone for business purposes results in unclear boundaries between work and family life outside working hours. According to Allen et al (2015), it results in distraction and attention deficit for the household. Furthermore, Mazmanian et al (2013) also state that the increased use of technology results in a paradox of autonomy.

Distance working had already been on the rise twenty years before Covid-19 broke out. Nevertheless, it only represented a relatively modest proportion of the workforce. It was common that there was no distance working option in the workplaces and it was being restricted by the employers. The percentage of the workforce following an exact distance working pattern was relatively small then. A survey carried out in Future Workforce found that people who worked remotely before Covid-19 failed to complete a significant proportion of their works. Back then, only 2.3% of the managers had teams working literally remote and merely 13.2% of the represented workforce could have complete distance working conditions. These figures unsurprisingly surged during the Covid-19 when distance working became the sole way of running business. Before Covid-19 outbreak, almost half of the managers recruited talents able to work remotely to a certain extent. Today, this figure has transformed into 94% with the Covid-19 outbreak (Ozimek, 2020).

Thanks to advanced internet technology and 5G; wireless networks became faster. When these advanced modern technologies are considered, distance working will become even more

widespread with the changing and rejuvenating demographic structure of the workplaces, management teams, business owners and employees (Ozimek, 2019).

4. TECHNOSTRESS

As the men's interaction with the machinery increased so rapidly that men struggled to adapt himself; Craig Brod initially coined the term technostress to describe the psychological state resulting from this challenging relationship (Brod, 1984). However, as this interaction kept on expanding continuously, there was a need for a broader perspective to redefine the term as any direct or indirect negative impact of technology on a person's behaviour, attitude, or body physiology (Wiel and Rosen, 1997: 5). With the intense use of Industry 4.0 in our lives, the men's interaction with the machinery has increased on individual and organizational terms. Technology has become a necessity to perform daily tasks and a part of everyday life. With this at hand, both individual and communal technostress levels kept on rising in direct proportion to the frequency of interactions.

During Covid-19 period, individuals have been obliged to work at home, to self-isolate, to reduce their travels and trips and all this combined naturally increased the digitally spent time. According to a research carried out by Datareportal (2020) from June 29 to July 2 in 2020 in 18 different countries (Australia, Belgium, Brazil, China, France, Germany, India, Italy, Japan, New Zealand, Philippines, Poland, Brazil, Romania, Singapore, South Africa, Spain, the United Kingdom, and the United States); internet users between age 16 and 64 spent more time on their digital devices during Covid-19.

Table 1. The percentage of internet users aged 18-64 from 18 countries, who reported that they spent more time on their electronic devices during Covid-19
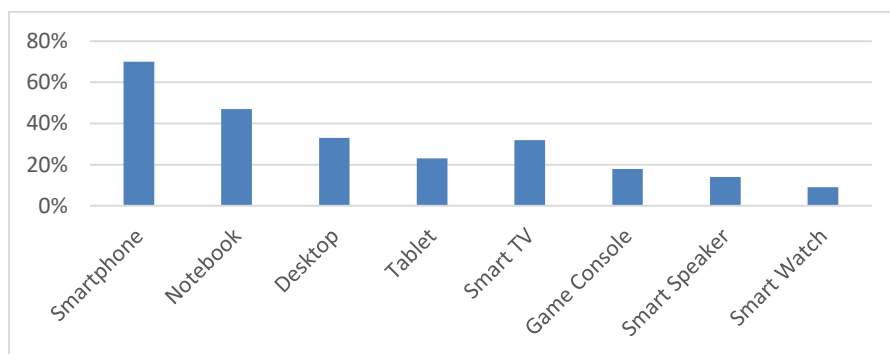
Source: (DataReportal, 2020).

According to this report, smart phones, computers, and smart TVs with streaming platforms have been used more often during the pandemic. The research has recently been renewed, but this time the researchers studied the internet users aged 16 to 64.

Table 2. Daily time spent online by people aged 16-64 across the world
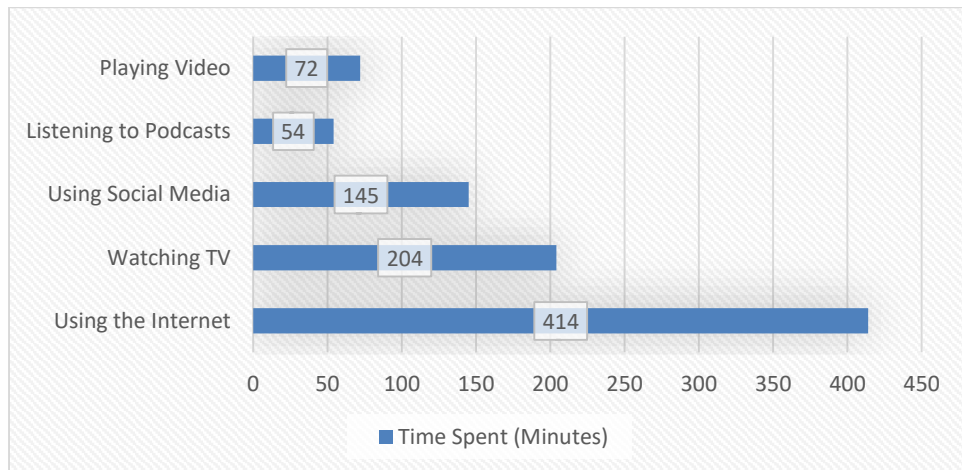
Source: (DataReportal, 2021).

Table 2 shows that people spent the majority of their daily life online in 2021. In 2021, people spent 6 hours 54 minutes, almost one-fourth of their time using the internet every day in addition to other digital activities. This figure almost equals the average time for sleep, a basic necessity for human life. Seeing that people spend the same amount of time online as their sleep may suggest their need for staying social during the Covid-19 pandemic while staying at home and isolating themselves. Data points out that socialization stands out as a significant basic need for humankind during Covid-19.

Nevertheless, one must also not ignore that the time spent online is quite considerable. Seven hours a day account for almost 48 hours online every week. That means people spend at least two days of a whole week online. Therefore, the impacts of such intense exposure to technology and digital tools should be considered in business literature.

Covid-19 created a pressure on individuals to quickly learn and adapt technology into their daily lives and that enhanced the technostress factor on digital users by creating a cognitive and psychological burden.

So far, business literature has included the studies on technostress; yet these have been mostly based on surveys. However, a particular study published in 2012 analysed technostress from a cognitive and neurobiological perspective by measuring it with the methods of natural science.

Riedl et al (2012) measured the cortisol (stress hormone) levels of subjects exposed to technostress during a lab experiment and they concluded that the subjects' cortisol levels surged whenever there was a system failure while carrying out a human computer interacted mission. In the experiment, subjects are asked to buy twelve previously selected items from an online

shopping website and add them to their shopping cart. Subjects were told that the experiment mainly aimed at testing the accessibility of the website. Once subjects started shopping, they were exposed to a previously implemented system failure appearing two and a half minutes later. The subject's cortisol levels were studied at the time of exposure, and it was concluded that the cortisol levels in the control group remained the same whereas the subjects exposed to a system failure interface had higher cortisol levels in comparison to the pre-experiment period.

Therefore, it is reasonable to redefine technostress in business literature as a surge in the levels of stress hormone resulting from a problem out of the individual's control and from a problem which cannot be solved without getting any help from a third party while carrying out a task necessitating the use of technology. This definition is also consistent with the findings on Zeigarnik Impact seen in the employees who fail to complete their tasks assigned to themselves on time. According to Zeigarnik Impact, employees who fail to complete their assignments continuously ponder on the incomplete assignments while ignoring the details (Zeigarnik, 1927). John Atkinson, an American psychologist, claims that this effect is related to internal motivation brought by the sense of satisfaction felt after completing a task (Atkinson, 1953). Therefore, as seen in technostress experiment, the sense of satisfaction is lost when the assignment cannot be completed due to technical failures. And this loss of internal motivation and satisfaction lead to stressed and anxious employees, which is consistent with the findings of Zeigarnik's and Atkinson's.

With the widespread use of technology, technostress also introduced some new sub-categories for stress factor. According to Bhattacharya et al (2019), people who are anxious about not being able to track the current events suffer from 'Nomophobia', a fear resulting from the absence of a mobile phone. This term is used to define the anxiety individual suffers from in such cases of forgetting mobile phone at home, charging problem, being in an area of no reception, or any other case in which the mobile phone is not accessible.

According to a survey carried out by Yildirim et al (2016) on 537 Turkish university students, 42.6% of young adults in Turkey suffer from Nomophobia and are anxious about not being able to get in touch with others or get access to information at any time.

In another survey by British Mail Service, 1 in every 10 people stated that they had to be easily accessible all the time. The survey found out that 53% of mobile phone users, 48% of women and %58 of men expressed their concerns on losing their mobile phones, not having their battery or being out of reach (Mail Online, 2018).

In addition to these surveys, the link between the use of mobile phone for business purposes and stress was also studied in 2014 and it was suggested that employees given a smart phone by their employers use their mobile phones more often, suffer from a lack of work-life balance, cannot spare time for themselves, find it psychologically challenging to detach themselves from work and thus also suffer from severe exhaustion (Derks and Bakker, 2014).

5. METHODS TO COPE WITH TECHNOSTRESS

In the USA, the medical expenses for the stress-related psychological and physical problems of the employees cost around 125 to 190 billion dollar a year (Garton, 2017). Due to Covid-19 related technostress surge, these expenses might increase and thus, it is of vital importance for the employers and ministries of labour across the world take necessary measures.

Within the scope of Human Research Programme (HRP), NASA (2020) refers to various factors to preserve the psychological well-being of astronauts constantly living in absolute isolation. One of the factors put forward by NASA (2020) is the motivation brought by serving for a greater good and for a social benefit. During the modern pandemic, working hours exceeded the normal office hours and people spent every single hour working other than the times they eat and sleep. In order to cope with the stress brought by this intense and oppressive working conditions, it is necessary to create an awareness on how employees actually contribute to the society by not going work and working at home.

A sense of serving to a greater purpose is a strong source of motivation for the employees. Once the employees think that their career, the work they do and the way they work serves to a greater purpose and a greater good; this will create synergy and harmony within the organization (Steger, 2016).

As stated by NASA HRP (2020); another way of preserving psychological well-being is to make sure that astronauts are frequently in touch with their family and friends and that they keep a journal or some sort of diary on daily basis. This method can also be modelled to reduce technostress in workplaces. For instance, working hours can be rearranged so that employees can spend some quality time with their family and friends. Forbidding any business-related dialogue or texting within the company after a certain hour can also help reducing the stress factor. As an alternative to keeping a journal or diary; the employers can employ a psychological counsellor and the employees can be encouraged to meet the counsellor at the workplace on regular intervals.

To keep the employees' cognitive performance high, employers must ensure that their employees can save some time for themselves. Scheduling free online painting or drawing clubs for the employees' kids; the employees will be granted with some extra free time so that they can spend it with their families. Last but not least, digital working hours can be and should be reduced to enable a better work-life balance. A flexible working environment will boost job satisfaction and lower the stress levels.

Ironically, employees can still make use of technology to cope with technology related stress. Datareporter (2020) indicates that when the participants were asked about the activities for which they used digital devices, they respectfully rated these activities as (i) TV shows and online streaming channels, (ii) social media and (iii) texting. The other categories included in the report were listening to music, using mobile applications, playing video games, creating, and uploading videos and listening to Podcasts. Datareporter (2020) suggests that male participants were more interested in these other categories, in comparison to female participants. This data show that people watched movies, listened to music, played games, and listened to Podcasts by making use of technology to cope with their technology-related stress during Covid-19.

There is more evidence to suggest that technology can be used as a tool to cope with technology related stress. Employees suffering from technostress can indeed benefit from a technology-based treatment called VRET (Virtual Reality Exposure Therapy). VRET is commonly used for incidents with extremely high stress and anxiety factors such as post-traumatic stress disorder (PTSD). A research published in 2019 proved VRET treatment to be successful for patients with PTSD by resulting in a significant drop in the symptoms (Deng et al., 2019). Covid-19 period is no different than a battlefield with all the loss considered. Millions of people died, and billions of employees had a close brush with death. Simple daily activities like going to a cafe, working in the office, or walking in the park became a fatal risk for people's lives. Due to these life-threatening conditions, Covid-19 had a traumatic impact on many people as well as billions of employees. Therefore, VRET treatment might prove itself to be successful for Covid-19 related technostress.

CONCLUSION

As a global pandemic, Covid-19 showed us how fast the digital transformation can take place in the world. In a relatively brief period, we have seen governments, companies and employees transforming themselves and adapting themselves to the norms set by the authorities. The use of digital sources while working at home creates a drastic impact on all walks of life.

Technostress experienced by the employees during the period results from this rapid and drastic change in trends and from the way we respond to these sudden changes.

Constant exposure to digital tools created stress not just by depriving the employees from their chance of socialization but also through the technical difficulties. Since the pandemic broke out so unexpectedly, companies were not able to offer any proper training for the employees on how to use the digital tools required for work. Employees were suddenly forced to attain new skills for work at a time when they were already psychologically under pressure with depressing news on the fatal virus spreading all around the world.

Surprisingly, technology can also be the answer to this problem. In addition to other means of psychological support such as journal keeping, creating work-life balance, boosting social awareness, and spending more time with friends and family; technology can also be used as a tool to cope with what it has created. Access to social media, TV shows and online meetings with friends and family have been an undoubted source of comfort for those who were suffering from technostress. This work also recommends the use of VRET technologies for Technostress sufferers.

By redefining the term "technostress" and suggesting possible coping methods, this work will contribute to the business literature and will be used as a guide for future studies with the solutions it offers.

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