THE SOCIAL AND ECONOMIC IMPACT OF COVID-19

RAPID TRANSFORMATION OF THE 21ST CENTURY SOCIETY

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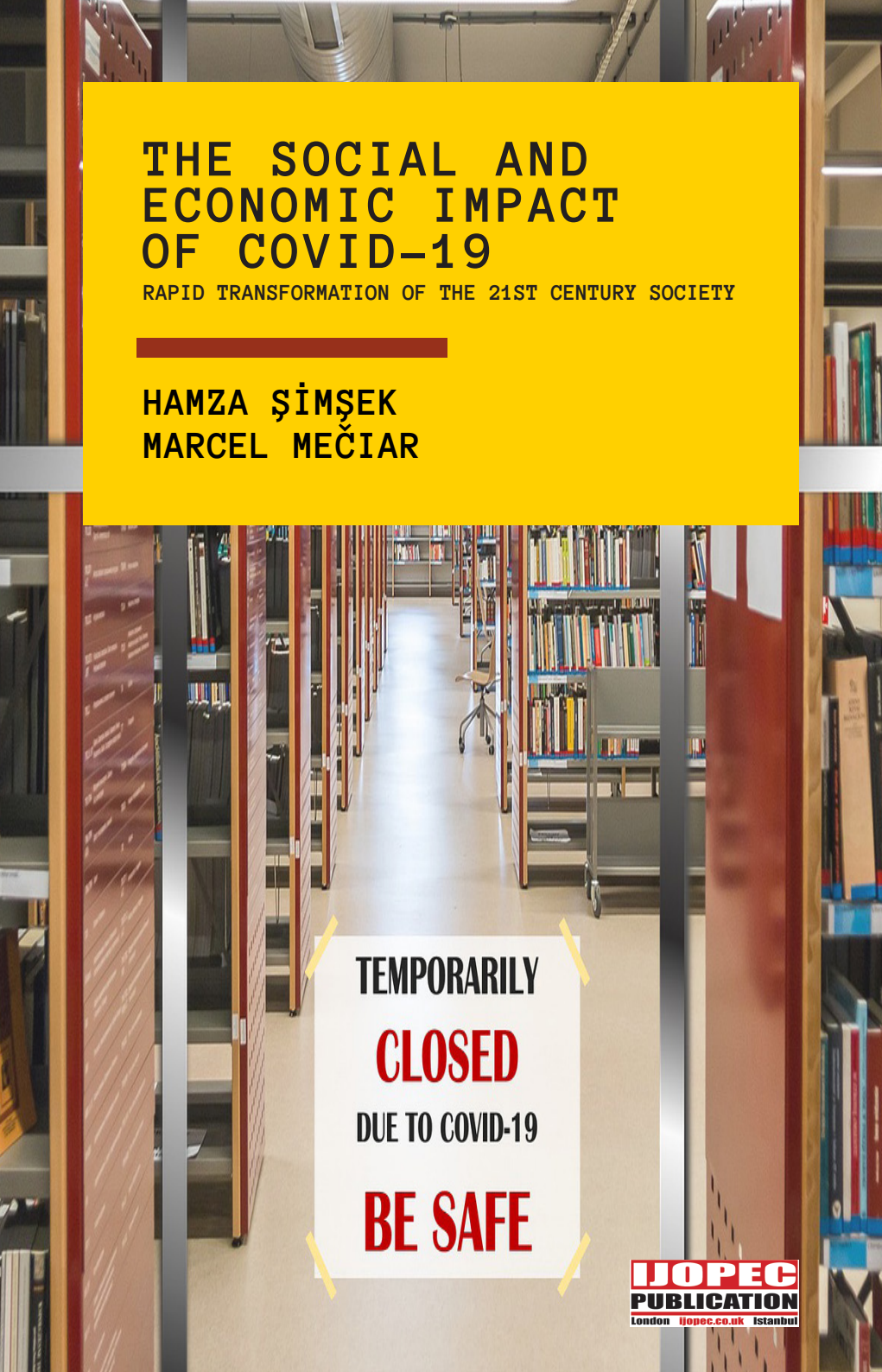
MARCEL MEČIAR



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On the 31 December 2019, several cases of an unknown respiratory disease in the city of Wuhan, Hubei province in China, were reported to the World Health Organisation (WHO). In January 2020, the genetic analysis of the virus based on the samples taken from the first several patients and victims confirmed the identification of a previously unknown new virus that seemed to haven caused an outbreak. This novel coronavirus was categorized as SARS-CoV-2, while the disease caused by this virus was termed Coronavirus disease 2019 (COVID-19)by the WHO in February 2020.

Undoubtedly, the Covid 19 pandemic is not the first one that happened in the history. The human history has been the history of pandemics and disasters as well. Pandemics were not only limited to affecting human health, but also produced economic and political consequences in the period when they emerged, as we are experiencing today. When evaluated from this point of view, plague is the one that comes to mind among the diseases that caused great destruction in human history. The plague pandemic caused the death of one-third of the European population in the 14th century and caused long-lasting health and social problems (Çayci and Çevik, 2021: 33).

The COVID-19 outbreak has a deep impact on all segments of society and is particularly detrimental to members of the most vulnerable social groups. It continues to affect populations worldwide, including the people such as senior citizens, persons with disabilities, the youth, and indigenous populations. Early evidence indicates that the health and economic impacts of the virus are reflected in social inequalities. Class differences are being brought forth because impoverished people, for example homeless, because they may be unable to find a safe place to shelter and to quarantine, are more likely to be exposed to the danger of the virus. People without access to running water, as migrants, refugees, or displaced persons also stand to suffer disproportionately both from the pandemic and its aftermath – whether due

to limited movement, fewer employment opportunities, or increased xenophobia etc. Every forced migration causes psychological wounds that are impossible to repair. Migrants count the difficult situation they are in, temporarily relieving themselves in the hope that better days will come. They remember their past, dreams of the future, and shuttle between the past and the future. The incomprehensibility of the complexity of what is happening to them leads to a hidden fatalism. It provides a special endurance and fearlessness. They are now a part of the tragedy they have lived in. The reason why mental illnesses are more common among immigrants is the pressure of the feeling of insecurity and unhappiness and their experiences between their past and their future (Karakuş, 2020: 280-287).

Covid-19 pandemic has also transformative effects on business strategies of various companies. In the first chapter of the book, Omer Faruk Genç makes a comprehensive analysis about the effect of the pandemic on globalization and discusses what we should expect in the post-pandemic era with regards to globalization and the global business environment. According to Öznur Sakınç, the companies included in the Participation-30 Index have been negatively affected by Covid-19 process on different levels. A. Turan Öztürk argues that from the perspective of management theory it is insufficient for managers to think merely in old conceptual ways. In organizations, which are considered to be sociotechnical systems, in order to control these system processes innovative technical expertise has become critical.

Consumer behavior hasbeen also affected the pandemic. Melahat Batu Ağırkaya shows that while during the Covid-19 period the use of cash has decreased, withdrawals with credit cards and contactless payment methods have become widespread. Sidar Atalay Şimşek explains that during the closing periods, people were pushed to change their consumption patterns and to start shopping online more as they were not allowed to frequent shopping malls, stores or markets.

Education has been one of the most affected social institutions by the pandemic. Resulting to the situation at hand, all countries have switched to the social distancing education system. Mehmet Günlük and Mehmet Özcan's study describes the factors affecting the acceptance of distance education within the frame of the technology acceptance model and demonstates interactions between these factors during the COVID-19 outbreak. Murat Tezer argues that the distance education will continue in addition to face-to-face education in schools even after the last wave of outbreak subsides.

The impact of COVID-19 has significantly changed the social behavior of people throughout the world and consequeantly caused the increase in psychological

problems of many individuals due to economic hardship and long-term isolation. Seventh chapter of this book contains the contribution of Erdal Sen and Hoda Tarabah dealing with the basic concepts like sustainability, brain function, mental health, production and consumption, emotions, behaviors, attitudes, perceptions, decisions and motivation inthe world that has been changed by "Digital Revolution" which is prospected to re-evaluate how individuals, organizations and systems interactions are and will be managed. Esra Akay and Nida Palabıyık show that the negative impact of the pandemic represents more than just a health crisis but also a crucial social change in the global society which is affecting individuals on many levels. The authors conclude that the pandemic has created strong changes in individual memories and social living conditions with lasting impacts.

The pandemic has accelerated the digitalization process that has been transforming the world during the last several decades. Business companies have been forced to speed up the process of digitalization even more because of the limitations imposed on spatial mobility during so-called lockdowns. The companies that completed their digitalization before the pandemic have highly profited during the pandemic period. The study of İbrahim Yıkılmaz helps us to understand that "the rules of the game" changed and have become even more challenging as the digital transformation has become the most important factor for gaining a competitive advantage and better chances of economic survival.

Health care sector turned in to the most essential institution in the state almost over night since the first outbreak and doctors together with medical staff became the new heroes, or should been this way. Therefore, their role during the pandemic cannot be overlooked. TV channels and social media have been showing dramatic news, that have saddened viewers around the world, about the hard conditions under which the healthcare professionals have to work while staying away from their families. İbrahim Yalçın, Adnan Alparslan and Mustafa Şeker worked on a study about healthcare professionals during outbreaks of the pandemic. The results of their research show that the medical staff in hospitals has to endure long working hours and take care of high numbers of patients. Other major problems are exarcerbated by the unfair wage distribution and intensely increasing performance pressures from the side of managers in the health care organizations. While the sector had to face and struggle with the pandemic of Coronavirus, the hardship at work has caused the employees to exhibit negative attitudes towards the organizations they work in.

The contributions in this book demonstrate that the Covid-19 pandemic has led to negative socioeconomic impacts, put a tremendous strain on social institutions in many countries, and changed lives of people around the world. Society,

economy, business companies, management structures of companies, consumption habits of society, education, and health sector have been significantly affected by the Covid-19 pandemic. Some of these effects are thought to be permanent even after the pandemic subsides. It is obvious that the process of digitization will continue in making a consumer's life more comfortable and safer. Some researchers estimate that approximately 60 percent of companies plan to let their employees to continue working remotely from home offices in the post-pandemic period. Many experts emphasize that online shopping, which has increased rapidly during the pandemic period, will continue to dominate after the pandemic. Therefore, the social effects of the Covid-19 pandemic will be the subject of many academic studies today and in the future.

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1

THE EFFECTS OF THE PANDEMIC ON GLOBALIZATION AND FIRM STRATEGIES

Ömer Faruk Genç[1]

Abstract

The world has been going through a huge crisis since the beginning of the Pandemic, which will have deep implications on several things including the globalization and the business environment. Globalization has been a phenomenon that affect our lives and the business world for decades. The recent Pandemic has changed several things in the business world and triggered some trends including more protectionist policies, a different working environment, the role of government, diversifications of supply chains, etc. Both governments and firms need to adjust their policies and strategies in the post-pandemic era and come up with innovative strategies to recover from the negative effects of the Pandemic and stay competitive in highly competitive business and economic environment.

Keywords: Pandemic, Covid, Globalization, Strategy, International Business

1.Introduction

Globalization has affected the business world for several decades in terms of a greater level of interaction between nations, integration of markets, liberalization of trade policies, increasing amount of trade and investment flows, etc. Multinational companies have followed these trends and internationalize their sales and supply chains with the help of the decline in communication and transportation costs. However, globalization has always been a controversial issue (Delios, Perchthold and Capri, 2021) and anti-globalization ideas have increased their influence in politics. (Hatzigeorgiou and Lodefalk, 2021). Despite the arguments

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about positive effects of globalization in terms of improvements in welfare and economic development, there has been criticism about the threats and risks it carriers (Tuncer, 2020) in terms of global issues like climate change, global terrorist activities, increased income inequality, etc. (Weber, Barma, Kroenig and Ratner, 2007). We have seen an increase in the critiques about globalization and the Brexit, protectionist policies in some countries like Brazil and the U.S.-China trade war are some examples of this trend.

The Pandemic has affected several things including the perception about globalization. Covid-19 crisis has been spreading fast and created several medical, economic and social issues in the world (Lorena, 2020). Several countries suffered from the effects of the Pandemic such as increasing level of unemployment, decline in trade levels, etc. (Bonciu, 2020). The Pandemic, with all the challenges it brought, has accelerated the spread of ideas against globalization (Delios et al., 2021; Tokic, 2020) as people blame globalization for the spread of the virus (Thangavel, Pathak, and Chandra, 2021). In line with these arguments, Zimmermann, Karabulut, Bilgin, and Doker (2020) found that the measures of globalization are correlated with the spread of the virus. Developed countries also suffered from the supply of medical equipment at the early stages of the Pandemic and they realized several issues when they tried to build those products themselves (Khidasheli, 2020), which increased the frustration with the globalization and the Pandemic. So, how the Pandemic will affect globalization and what will political actors will do to defy globalization has been at the center of discussion since the beginning of the Pandemic (Enderwick & Buckley, 2020). Due to these kinds of negative sentiments, there has been an expectation and calls for more isolation and protectionist policies (Fontaine, 2020). We have seen some of these even went into effect such as closing borders or stop providing visas (Wells, 2020). Populist governments that use these sentiments are also becoming more popular among voters (Alon, 2020). Some scholars even predict that the Pandemic is the final nail in the coffin of globalization and Covid-19 crisis will kill the Globalization (Baschuk, 2020; Young, 2020). However, there is also a camp that views the need for globalization to increase further after the Pandemic and protectionist policies will be marginalized (e.g. Contractor, 2021). According to this view, the world will encounter similar crises in the future and globalization and the joint efforts by countries is the only way to overcome these types of crises. The goal of this study is to have a comprehensive analysis about the affect of the Pandemic

on globalization and discuss what w should expect in the post-Pandemic era with regard to the globalization and global business environment.

Several studies have been written about the future of global economy after the pandemic (e.g. Baldwin & Tomiura, 2020). Many of these studies have focused on the changes that are projected about global supply chains (e.g., Ivanov & Dolgui, 2020). The focus of this study is more general rather than a specific aspect and the analysis is about the effect of the pandemic on globalization and the business environment. To recover from the effects of the Pandemic, both policy-makers and firms need to have a good understanding of the changes Pandemic brought and how to respond to these changes. Governments should develop policies to deal the negative outcomes of the Pandemic like increased income inequality, use of digital services, access to basic health benefits, etc. (Sandbu, 2020). Firms also need to understand the new dynamics of business environment in order to develop appropriate strategies with regard to supply chains, labor force, etc. The aim of this chapter is to provide a summary of main changes the Pandemic created with regard to the globalization and the business environment in general as well as to discuss the implications for both policy makers and managers of multinational companies (MNCs).

2.Response To The Effects Of The Pandemic

The world is passing through a huge crisis as a result of the Covid-19 virus, which is expected to have huge implications (Moisoiu, 2020). One of the areas that we see those implications is the business environment. The Pandemic has affected the Globalization and the business environment in several ways and will result with permanent changes (Lorena, 2020). In this section, we discuss the effects of the Pandemic on globalization and business environment in general and the implications of these changes for firms and governments in terms of how they can stay competitive in this new era.

2.1. More Regionalization or Globalization

Globalization, which brings people, nations and countries together (Delios et al., 2021), has been a controversial issue and blamed for several issues faced by the world in last decades such as increased terrorist activities, clash between ideologies, global environmental issues like climate change, etc. (Weber et al., 2007).

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The debate about globalization has increased in recent Pandemic, which allowed countries and people to realize how dependent they are on other countries for so many products and services. This over-dependence is seen as a danger for the well being of the countries and the supply chains of firms (Thangavel et al., 2021) and create several economic and healthcare concerns (Lapide, 2020). Especially at the early phases of the Pandemic, developed countries including the United States had difficulties in accessing medical and protective equipment which were crucial in the fight against pandemic (Lapide, 2020). This led to an assessment of global supply chains and how dependent developed markets are on China (Thangavel et al., 2021). All these frustrations and concerns resulted with national leaders moving toward more protectionist policies and an emphasize on self-reliance (Fontaine, 2020). For instance, Canadian and French ministers specifically indicated that some products should be made locally as they are critical (Wells, 2020). Similarly, India's Prime Minister Modi states his goal as to "…transform India into a more self-reliant country, making the goods and providing the services consumed in the country largely at home" (Roy, 2020). So, the Pandemic is viewed to be an important milestone for a trend towards de-globalization (Lorena, 2020) and according to this view the Pandemic will accelerate de-globalization in the world (Tokic, 2020). This creates an expectation about companies making investments in local production. So, this will result with more regionalized and localized supply chains as firms will want to serve markets with local production to avoid disruptions in these kinds of crises (Delios, et al., 2021). This will create investment flows and as the foreign direct investment is very crucial for the economic development (Khidasheli, 2020), governments will create incentives to attract these types of investments. All these arguments expect a more regionalized approach, isolation and a retreat from globalization after the Pandemic.

On the other hand, there are also calls for more cooperation across nations instead of isolation as this will make it easier to stop the spread of the pandemic and prevent global crises like this in the future. Supporters of this view there will be a greater need for globalization after the Pandemic (Contractor, 2021). According to this camp, international collaboration is the only way to resolve global problems like climate change, global terrorism, Pandemic, etc. as joint efforts are needed. So, integration instead of isolation should be supported to fight against the Pandemic with initiatives like vaccine passport, global vaccination campaign, more resources to World Health Organization to search for potential viruses, etc. Globalized countries are found to have lower fatality rates from Vovid-19, which

supports the idea of collaboration to curtail the virus (Zimmerman, et al., 2020). World Trade Organization (WTO)`s latest report showed that most of countries adhere to their commitments about international trade, which weakens the argument about the Pandemic being the end of globalization. Several countries such as Singapore pledged their commitments to globalization and declared that they will not purse protectionist policies (Karve, 2020). It is also hard for MNCs to retreat from the benefits of globalization such as serving several markets and taking advantage of economies of scale at the global level (Chandler and Hikino, 2009; Dunning, 2015).

2.2. Supply Chain Strategies

One of the areas that the Pandemic significantly affected is the supply chains (Neil, 2020) as majority of multinational companies experienced disruptions in their supply chains (Sherman, 2020). The challenges posed by the Pandemic increased the skepticism on the benefits of international trade and globalization across many developed markets (Curran, Eckhardt, Ballor, and Yildirim, 2020). The challenges posed by the Pandemic are attributed to the globalization and there has been class for more protectionist policies. The possibility of protectionist policies creates an uncertainty for multinational companies. In addition, the Pandemic has showed that how vulnerable are the global supply chains to disruption (Allen et al., 2021) as companies face supply shortages especially at the beginning of the pandemic (Sherman, 2020). The rise of protectionist policies combined with the logistical issues caused by the Pandemic made MNCs to consider alternative supply chain strategies although they are not expected to retreat from globalization and turn into totally local supply chains (Murray, 2020). Because, supply chains recover from crises and disruptions quickly, which is expected to be the case after the Pandemic (Miroudot, 2020),

MNCs top priority in developing supply chain strategies has been on efficiency. But, the current events have made the risk management aspect as important as efficient, which has potential to move companies to more diversified supply chains. So, we expect to see MNCs` strategies to move toward more risk aversion (Fontaine, 2020). This can be in terms of finding alternative sources of supplies in other countries or having regional and local focus in supply chains. There was already a trend in the U.S. to find alternative suppliers due to trade war between the U.S. and China. The Pandemic will probably accelerate those efforts which

were already under way. MNCs should also use nonmarket strategies like corporate political activity or corporate social responsibility initiative to mitigate the risks raised from protectionist policies and anti-globalization sentiments (Curran, Eckhardt, Ballor, and Yildirim, 2020).

2.3. New Industries and Changes

Pandemic also affected the dynamics of business environment in terms making some industries more or less attractive as well as transforming some other industries. Aviation and tourism are one of the highly effected industries as a result of the Pandemic. High risk of catching Covid-19 created a fear and caused less people to travel. Although the outlook is more positive after the vaccination started, the psychological effects will remain for a long time. Therefore, these industries need to come up with innovate strategies to transform themselves (Robinson, 2020). The shift to cargo by some airline companies is one of the examples of how company can respond to the effects of the Pandemic in both short and long term. There is also expectation of more restrictions on travel as airline companies and governments can put requirements such as vaccine passport, negative test results, masks, etc.

During the Pandemic and lockdowns, a lot of services were offered online and customers get the habit of using more online services. Companies should consider making online services permanent for customers at least as option as there is a value in online services (Carrier Management, 2020). So, I expect a digitalization trend, which was under way before the Pandemic, but it will be accelerated in the future.

The Pandemic also showed how important some industries are. At the beginning of the Pandemic, developed countries faced shortages in several products such as medical supplies (Lapide, 2020). Due to the issues created, several industries will be added to the list of strategic industries such as food, medicine, telecommunication devices, energy, etc. (Alon, 2020). As these will become strategic industries for the national security, I expect more government intervention in these industries I terms of supporting domestic production, provide incentives for research and development, etc.

2.4. Labor Force and Offshoring

Globalization and technological improvements have changed the dynamics of labor as working has become less dependent on location (Mariotti, Akhavan, and Rossi, 2021). Companies have taken advantage of this transformation and outsource many activities abroad. The Pandemic is expected to foster this trend as virtual work has become widespread. However, the trend toward more virtual work brings its own challenges such as the time employees need to spend in office, the effectiveness of meetings when some participants are online, employees working virtually feeling left out, etc. (Glazer and Cutter, 2021). Several surveys indicate that employees demand hybrid work schedules and this will definitely change the rules, policies about labor and use of office space in companies (Glazer and Cutter, 2021). The increasing use of remote work is also related to MNC outsourcing and offshoring decisions. In some cases, protectionist policies can also trigger the trend toward more outsourcing or offshoring. The restrictions of the Trump administration on H1-B visas resulted with U.S. companies to offshore more technological jobs (Glennon, 2020).

Companies need to have more flexible working styles to attract the best talent from different parts of the world. The Pandemic and the online working environment will also increase the use of freelancers and online entrepreneurs (Dumitrasciuc and Turnea, 2020), which has potential change the dynamics of labor market. Many experts agree on that more service functions will be conducted virtually from other locations (Tilley, 2020). This phenomenon called as "Zoom effect" will also trigger more use of foreign employees' form developing countries (Contractor, 2021). All these changes and initiatives will enhance the diversity in the workforce and companies need to invest on cross cultural trainings to develop a more motivated works force as well as lower communications problems.

Migration and the increased mobility of workforce foster economic growth and internationalization (Hatzigeorgiou and Lodefalk, 2021). The pandemic made the movement of people across border difficult (Thangavel et al., 2021) and triggered the idea that immigrants are threat to incumbent populations as well (Esses, Dovidio, Jackson, & Armstrong, 2001). For instance, media reported several cases of anger against Asian origin people in the U.S. (Kambhampaty, 2020). These negative sentiments combined with the restrictions on travel and working visas have limited firms` ability to hire internationally. Governments should eliminate those restrictions and allow firms to benefit from global talent pool.

3. Conclusion

The Pandemic has affected all countries in the world as we all are integrated and interdependent and it has created challenges in how international business is conducted (Delios et al., 2021). There have been discussions about how this Pandemic will transform the world in terms of digitalization, social and economic policies, globalization, etc. (Mousoiu, 2020). This paper focuses on the implications with regard to the globalization and more specifically the business environment. It is crucial to understand the changes that we will see to prepare ourselves and respond to them accordingly. Because, the pandemic will change multinational companies' strategies significantly (Fontaine, 2020) these changes should be designed and implemented based on the dynamics of post-Pandemic era.

Globalization has always been a controversial concept and there are both supporters and opponents of it. The Pandemic has accelerated the criticism about globalization and there has been calls for the retreat from globalization (Tuncer, 2020; Tokic, 2020). It has been argued that the Pandemic will make central governments stronger and reinforce nationalism (Allen et al., 2020). There have been opposite arguments as well, which emphasize the greater importance of globalization to overcome these kinds of challenges. This view argues that the pandemic accelerated the trends that were already underway and it will not cause a fundamental change with regard to the globalization (Contractor, 2021). We will probably see a situation in between these two views where globalization will not disappear totally, but will be different (Bonciu, 2020). There will be changes in both company and government policies as well as the capitalism being re-invented (Bonciu, 2020). Instead of killing the globalization, we should make it more sustainable and use technologies and policies to minimize the negative effects of it such as poverty, environmental effects, etc. So, in order to have more prosperous future, both governments and companies should work on more sustainable globalization instead of having a total retreat from it (Tokic, 2020).

There are several implications for businesses from the Pandemic. Some industries such as healthcare, pharmaceutical, technology-related sectors, will be more important in the future. I also expect the digitalization of many services. Some other industries will be affected negatively such as tourism, aviation, hospitality, etc. We should expect elimination of some players or merges in these industries. There might be also long-terms effects on some industries as the business models and consumer perception will change as in the case of aviation sector (Robinson, 2021).

The Covid-19 crisis is going to shape the supply chains in the future as well (Neil, 2020). Efficiency has been the main focus for supply chains, but that created huge problems in responding to a crisis like the recent Pandemic (Lapide, 2020). The pandemic showed that the crises like this can result with shortages in supplies (Ivanov & Dolgui, 2020). So, one of the lessons learned by multinational companies is the importance of diversification, which will be one of the main criteria for managing global supply chains in the future. Although I don`t expect a major retrenchment from globalization and international trade, multinational companies will make adjustments to strengthen their supply chains after the Pandemic (Murray, 2020) and their strategies will exhibit more risk-aversion (Aylor et al., 2020). In other words, companies will restructure their supply chains to have more diverse supply base (McWilliam, Kim, Mudambi, & Nielsen, 2020). For instance, I expect especially the U.S. companies to try lower in their dependence on China with regard to the supply chain, which is a trend started due to the trade war between the U.S. and China. Another way the Pandemic can affect MNCs is about developing closer relationships with suppliers to create flexibilities for these kinds of crises (Verbeke, 2020). In addition, to recover from the negative effects of the Pandemic, multinational companies should develop cross-border strategies and develop skills to handle these kinds of risks in the future (Contractor, 2021).

The shift in supply chain strategies of MNC is also linked how policy makers will respond to the Pandemic. Although there has been calls for more protectionist policies to encourage local supply chains and production, I don`t think we will see a major wave of trade barriers. These kinds of protectionist policies hinder economic growth and globalization is very important for sustainable economic growth (Alon, 2020). Most governments are aware of this and some of them have already declared that they will continue supporting free trade and globalization (Karve, 2020).

It will take a lot of time and resources to recover from the negative effects of the Pandemic. Given that firms will look for ways to diversify their supply chains and make investments, policy-makers should create incentives for firms as FDI plays a very critical role in stimulating post-pandemic recovery (Umiński and Borowicz, 2021; Khidasheli, 2020). Despite the calls and pressure for protectionist policies, countries will welcome FDI to help their economies` recovery (Contractor, 2021).

This crisis also showed the critical importance of scientific research and healthcare industry. Governments should increase their support for science and technology as they are needed to overcome these kinds of crises and disasters (Arnout, 2020). It is impossible to deal with crises and solve economic and social issues without the support of science. I also expect governments to be more involved in healthcare industry and support this and related industries to have better planning in advance for crises.

Pandemic has created a lot of challenges and issues for both governments and companies and it will affect both globalization and business environment. It is crucial to have a good understanding of these changes and the new world that we will face. This will allow both policy makers and managers to take necessary actions to recover from the negative effects of the Pandemic. For instance, a lot of efforts are needed for economic recovery, which can be achieved with restoring firms' ability to trade and invest globally (Hatzigeorgiou and Lodefalk, 2021). So, this study provide critical insights for both policy makers and managers in terms of what they should expect in post-Pandemic era and how they should respond to the changes that are already under way.

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2

ANALYSIS OF THE EFFECT OF COVID-19 PANDEMIC PROCESS ON THE PARTICIPATION 30 INDEX

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Abstract

The coronavirus (Covid-19) pandemic emerging in Wuhan City of China in December 2019 quickly spread over the other countries in a short while and affected all life in a negative way. The first case in Turkey was seen on March 11, 2020. Since then, various restrictions and prohibitions have been implemented rapidly. The economic effects of this process first started to be seen on stock exchanges. In this study, the effect of Covid-19 pandemic on the return of the companies included in Participation 30 Index is analyzed by Event Study method. As a result, it is found out that the companies included in Participation 30 Index have been negatively affected by this process on different levels.

Key Words: Participation 30 Index, Islamic Capital Markets, Covid-19, Event Study.

1- Introduction

The main wish of the establishments is to maintain their existence permanently. Ensuring this continuity is dependent on various internal and external factors. While some developments or changes within the sector and establishment compose the internal factors, some changes and improvements within the sector compose the external factors. The establishment's adaptability and efficiency on these developments and changes occurring in these factors have a great importance for the continuity. Also, the establishments' continuing to their daily activities and increasing their competitive power play a key role. Today, especially when the globalization pace of the markets have increased, it is getting more difficult for the

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establishments to maintain their competitive power and market share. Establishments are required to adapt to such novelties as developing markets, technologies and products at a faster pace when compared to the past. And in order to catch up with these novelties, the activities that are carried out and that should be carried out must be identified first. After identifying these activities within the establishments, it is necessary to calculate new source, in other words, the need for the fund required for these activities. Establishments not only pay attention to the flexibility in terms of amount and time, but they also wish the funding's to comply with management policy while meeting their funding needs. While the establishments usually prefer bank loans for the short-term resource needs, they use such capital market instruments as bond and stock for the long-term resource needs. Since the fund resources such as bank loan and bond include interest payment, they do not comply with Islamic conditions. The establishments wishing to maintain their activities in compliance with Islamic values do not want to use such resources that are not compliant with such Islamic conditions. These establishments generally head towards Islamic capital markets in which they can find Islamic conditions-compliant resources.

Islamic financial markets in which Islamic financial instruments are traded, help entities or establishments that do not accept interest income, valorize their inactive resources and thus making these resources sustain economic growth (Yazıcı, 2016, p. 59. In Islamic finance, the aim is the same as other financial fields with the exception of activities that are in compliance with Islamic-conditions. Achieving high income with low cost by using the resource efficiently and effectively is aimed. The starting date of Islamic finance and banking is not that old (Koçak, 2018, p. 68). Islamic finance has started to expand and gain importance rapidly especially after the OPEC crisis in 1974. After this crisis, the increase in natural gas and oil revenues of the countries that have adopted Islam has caused a significant capital stock in these regions. The funding need in the world has caused an increase in the number of entities and countries that wish to benefit from this resource and thus helping Islamic capital become international (Bacha, 2020, para. 4).

In the Islamic capital market that is in Islamic finance, there are stock certificates of the establishments that operate in compliance with Islamic conditions. Some indices are formed specifically for entities or establishments that wish to valorize their savings by investing in these kinds of establishments (Yanpar, 2015, p. 90). Indices link more than one variable to only one variable. In this way, indices help

to get overall information about various changes that are hard to keep track of and monitor at the same time. There are different indices to monitor the mobility of different stock certificates (Karan, 2013, p. 60). Indices that involve the establishments operating in compliance with Islamic conditions are called Islamic Index. The first indices that were established with this aim in 1998 are DMI which involves 150 establishments and SAMI Indices which involve 500 establishments (El Khamlichi, Sarkar, Arouri & Teulon, 2014, pp:1137-1150).

Participation Index that is used instead of Islamic Index in Turkey is established to measure the price and performance of stocks in which the customers of Participation Banks' can invest while valorizing their savings. There are three formations that can be used for his purpose. These are Participation-50 Index, Participation-30 Index, and Participation Model Portfolio (Katılım Endeksi, 2020a). Indices are getting more and more important since they help to compare the returns with the returns of other investment instruments. For this reason, the returns of the company that are involved in the Participation-30 Index will be used as data in this study.

Investors that are sensitive to interest and wish to act upon Islamic conditions have been making investments accordingly. However, a significant increase in the number of investors that wish to invest accordingly has proven the need for standards in this field. The Participation-30 Index is an important development to serve this purpose (Katılım Endeksi, 2020b).

Participation-30 Index was formed on 31.12.2008 consisting of stock certificates of 30 companies chosen among A and B Group companies including Real Estates Investment Trusts and Venture Capital Investment Trusts that operate in Borsa İstanbul (BİST) National Market and Corporate Products Market (KÜP). As an initial value of this index, the closed-up index of BİST- Industrial Index in 31.12.2008 which was 19.781,26, is taken as the basis. The Participation-30 Index started to be published on 06.01.2011 (Katılım Endeksi, 2020c). The stocks that are to be included or excluded in this Index are determined by the Index Consultant Bizim Menkul Değerler Inc. with the approval of the Index Advisory Board. BİST index calculations provide consistency and data. When there is a change in the stocks included in Participation-30 Index, BİST is notified on this matter by Bizim Menkul Değerler Inc. a workday before the change occurs (Katılım Endeksi, 2020d).

Participation-30 Index is reviewed every 3 months. This Index is calculated in two ways as Price and Return Indices. No revision is made in Price Index according to cash flow payments while revisions are made in Return Index. The index is calculated with the help of the formula below;

[1] $$E_t = \frac{\sum_{i=1}^{n} F_{it} \times N_{it} \times H_{it} \times K_{it}}{B_t}$$

E_t = The Value of Index in Period t.

N = The Number of Company Included in Index.

F_{it} = The Price of the Company number "i" on Period t.

N_{it} = Total Number of Company number "i" on Period t.

H_{it} = The Ratio of the part of Company number "i" on De Facto Circulation Used in Index Calculation in Period t to the Total Share Number.

K_{it} = The Coefficient of Company number "i" on Period t.

B_t = The Divisor of Index on Period t

Companies to be included in the Participation-30 Index are selected in two stages. The first stage is the core line of business. At this stage, the core line of business of the companies' that is in the articles of incorporation is taken into account. The companies of which core line of business is not interest-driven finance, trade, service, mediation (banking, insurance, financial leasing, factoring, and other interest-driven core line of business), alcoholic beverages, gambling, lottery, pork meat and similar foods, press, publishing, advertising, tourism, entertainment, tobacco products, weapon, forward gold, silver and currency trade are chosen. The establishment is excluded from the list if the establishment operates in one or two of them despite the fact that these activities are not listed in the core line of business. The company is included in the list if it is confirmed that the company does not operate in any of these areas despite the fact that these activities are included in the core line of business. .

The companies determined at the first stage are evaluated at the second stage afterward. This stage is the financial ratio stage. The criteria for his stage are listed below;

1. Total Interest Loans / Market Value < 30%

2. Interest Bearing Cash and Securities / Market Value < 30%

3. Income from The Activities Listed Above / Total Income < 5%

The companies that do not match the criteria are excluded from the list. If there is a provision stating that the establishment will act upon the Participation Banks' policies in the core line of business, then the criteria regarding the ratios are not regarded.

The companies included in the list after these two stages are sorted from the largest to the smallest based on the market value of their de facto circulation share. The first 30 companies on the list constitute the Participation-30 Index. If founder banks such as Albaraka Türk, Asya Participation Bank, Kuveyt Türk, and Türkiye Finans Bank are not listed among these banks, then other companies that have the smallest value are listed instead. Three other companies are also chosen as substitutes to the first 30 companies. The companies included in Participation-30 Index on 11.01.2021 are listed in the table below.

Table 1: Participation-30 Index Companies

CODE	COMPANY NAME	CODE	COMPANY NAME
AKSEN	Aksa Enerji	ISGYO	İş GMYO
ALKIM	Alkim Kimya	KARTN	Kartonsan
ASELS	Aselsan	KERVT	Kerevitaş Gıda
AYGAZ	Aygaz	KONYA	Konya Çimento
BERA	Bera Holding	LOGO	Logo Yazılım
BIMAS	Bim Mağazalar	MAVI	Mavi Giyim
CCOLA	Coca Cola İçecek	OYAKC	Oyak Çimento
CEMAS	Çemaş Döküm	PGSUS	Pegasus
DEVA	Deva Holding	RTALB	RTA Laboratuvarları
DOAS	Doğuş Otomotiv	SELEC	Selçuk Ecza Deposu
ECILC	Eczacıbaşı İlaç	THYAO	Türk Hava Yolları
EGEEN	Ege Endüstri	TKFEN	Tekfen Holding
EREGL	Ereğli Demir Çelik	TTRAK	Türk Traktör
GUBRF	Gübre Fabrikaları	TUKAS	Tukaş
ISDMR	İskenderun Demir Çelik	YATAS	Yataş

Source: Katılım Endeksi (2020e).

Covid-19 first emerged in Wuhan City of China in December 2019. Its symptoms are high fever, dry cough, loss of taste and smell, fatigue, and headache. This disease that started in China spread around the world in just three months. (World Health Organization [WHO], 2020). The research on this disease has shown that most of the cases could be treated without requiring immediate treatment,

however, in the rest of the cases, the disease could turn into pneumonia and the patients could experience respiratory failures. Patients whose severity of the disease is low could be treated at home while one in five patients who are in contact go through it more severely. The age and chronic illnesses of the patients' are factors that affect the course of the disease and the transmission degree of the virus (T.C. Sağlık Bakanlığı, 2020).

As a result of the disease spreading rapidly and the rapid increase in mortality rate, The World Health Organization (WHO) declared the pandemic on March 11th, 2020. After the declaration of the pandemic, various measures were taken and some restrictions were imposed so as to decrease the spread rate of the virus in the countries. Since the virus is transmitted through airway and contact, these measures and restrictions are aimed at preventing contacts at first.

The pandemic not only has had adverse effects on social life but also on the economy. Ceasing the face to face education at first, then starting online education; forbidding both domestic and international travel; switching to remote working in many sectors, and closing the places such as cafes, restaurants, and shopping malls are just some of the decisions made in many countries due to the pandemic.

The adverse effects of Covid-19 have been observed in various fields and specifically on stock markets in a short span of time. The terms "Coronanomics" or "Black Swan" are used to refer to the effects of the pandemic on the economy (Barua, 2020).

2. Literature

Atta (2000) compared the returns of the DataStream Global Index with the Dow Jones Islamic Market Index between 1996 and 1999, and it was found that the Dow Jones Islamic Market Index showed high returns. Ahmad and Ibrahim (2002) compared the Malaysian Islamic stock index with the return performance of the conventional index between the years of 1999 and 2002 and found that the systematic risk of the Islamic stock index was lower than the conventional index. Hussein (2004) compared the return performances of the FTSE Global Islamic Index, FTSE Social Responsibility Index (FTSE4 Good Index), and the FTSE World Index between 2000 and 2003, and it was concluded that the beta coefficients of both Islamic stock index's and the social responsibility index's were higher than the conventional index. Albaity and Ahmad (2008) compared the

performances of the Kuala Lumpur Shariah Index with the Kuala Lumpur Composite Index between 1999 and 2005, and it was concluded that there was statistically no significant difference between them. Hassan and Girard (2010) compared the performances of indices chosen from the Dow Jones Islamic Market Index with the similar indices that were non-Islamic and there was no significant difference between them. A study by Guyot (2011) on the Dow Jones Islamic and conventional country and regional indices showed that there was no difference between the activities of these two markets.

Munusamy and Natarajan (2011) examined the risks and returns of the Islamic index NIFTY Shariah Index and NIFTY Index between the years of 2007 and 2010 in India and concluded that they acted in a similar manner; the trading volüme of NIFTY Shariah Index was lower compared to the other. Abbes (2012), in the study on performances of Islamic indices and conventional indices between 2002 and 2012, found no differences between them. Sakti and Harun (2013) examined the relationship between the Jakarta Islamic Index (JII) and the exchange rate, industrial production, inflation rate, and supply of Money between 2000 and 2010 and found cointegration between the Islamic securities prices and macroeconomic variables. Rizvi, Dewandaru, Bacha and Masih, (2014) used the daily data of S&P country indices belonging to developed countries and Islamic countries between the years of 2001 and 2013. The data were analyzed by the MF-DFA method. It was concluded that the markets of developed countries were more efficient when compared to Islamic country markets.

Ho, Rahman, Yusuf and Zamzamin (2014) in their study in which the risk-adjusted returns of Islamic indices in the USA, The UK, France, Switzerland, Hong Kong, Malaysia, and India, and the returns of traditional indices were used as data, showed that Islamic indices show a better performance during crisis periods when compared to traditional indices. The study by El Khamlichi, Sarkar, Arouri and Teulon (2014) examined the relationship between Islamic and traditional indices of Dow Jones's, Financial Times's, Standard & Poor's, and Morgan Stanley's. They compared the performances of Islamic and traditional indices of Dow Jones's, Financial Times's, Standard & Poor's, and Morgan Stanley's and it was concluded that they show similarities. Sensoy, Aras ve Hacihasanoglu (2015) used the Daily closing values of the Dow Jones Islamic index and the conventional country indices of the USA, Japan, the UK, and Canada, and also Asia-Pacific and European indices as between 1998 and 2014 as data in their study. And

it was concluded that the conventional markets were more effective. In Pakistan, F. Jawadi, N. Jawadi and Cheffou (2015) compared the performances of the Islamic index KMI-30 Index with the traditional index KSE-100 Index and it was concluded that there were no differences regarding their returns. In this study in which the daily closing values belonging to developed, developing, and global Islamic Dow Jones indices, and global conventional indices between 2002 and 2012 were used as data, it was found that the developing Islamic markets were not effective in any period and developed Islamic markets were only effective in the long period. Ülev and Özdemir (2015) found in their study on causality relationship between the Participation Indices and market interest rates that there is no casualty relationship between the Participation Index and market interest rates. Savaşan, Yardımcıoğlu and Beşel (2015) detected that the series showed random motility in the study regarding Participation Index.

Al-Khazali, Leduc and Alsayed (2016) examined the Dow Jones Islamic indices and conventional Japan, The UK, and The USA country and regional indices with the data between 1997 and 2012. It was concluded that the conventional markets were more efficient in general. Altın and Caba (2016) compared the performances of Participation Indices that are valorized in BIST with the performance of BIST 100 Index and it was shown that Participation Indices provided returns above the market level. Seçme, Aksoy and Uysal (2016) examined the return performances and volatility of BIST 100 Indices and Participation-30 Indices, and it was found that BIST 100 Index had higher volatility than Participation-30 Index had, and there was a strong relationship between these two indices. Habib and Islam (2017) analyzed the impact of determining macroeconomic variables on the Islamic capital market in India between 2007 and 2016 and concluded that exchange rates had a negative and statistically significant impact. Zeren, Sakarya and Akkuş (2018) examined the Participation-30, Participation-50, and Model Portfolio Islamic index with the KSS unit root test and concluded that they had random volatility. Güçlü (2019) compared the systematic risk of the Participation-30 Index with the systematic risk of the BIST 100 Index and concluded that the systematic risk of Participation-30 was generally lower than that of the BIST 100 Index. Morales and Andreosso-O'Callaghan (2020) examined the impact of Covid-19 on stock markets by using the spectral and granger causality analysis method and it was shown that uncertainty increased as the pandemic spread through Europe. Stephany et al. (2020) concluded in another study that Covid-19 affected the stock market sectors in a different way. It was concluded

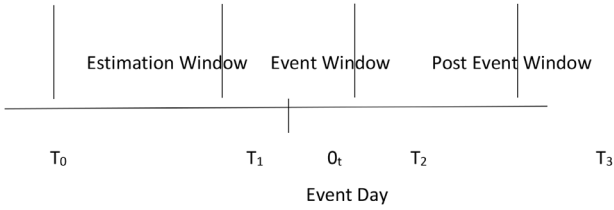
in Zhang, Hu and Ji (2020) study that stock market reactions on a country basis are linked directly to the severity of the pandemic. In another study conducted by Yan et al. (2020) on Covid-19, it was stated that the markets reacted quickly to the pandemic in the short term, and then went through recovery. Feng et al. (2020) examined the impact of the pandemic on company returns and it was concluded that the positive news surpassing the bad news about the companies during the pandemic increased the company returns.

3. Methodology

The COVID-19 pandemic is a very significant event that took place in recent years that has generally had a great negative impact on all aspects of life. Therefore, in this study, the event study method is used for the analysis of the data. This method has become the standard method of measuring the price response of securities to certain announcements or events occurring over a specific period of time. It allows us to easily measure the impact of an event on stock value using financial market data. The method, which has a long history, was first used by Dolley in 1933 to study the effects of stock splits on stocks (MacKinlay, 1997, p.14).

The event study method attempts to measure whether the respective event leads to any abnormal returns. The difference between the expected return of securities and the actual return represents the abnormal return. The method consists of three main time periods. These are the forecast window, event window, and post-event window. The forecast window refers to the period before the event occurs; a period that can be considered normal. In this method, the length of the pre- and post-event time periods are determined according to the conditions, by the person who conducts the research. The time periods of the method are shown in Figure 1.

Figure 1: Event Study Timeline



Forecast window refers to the period before the event window, which is the second window on the timeline. The event window refers to the period in which the event has occurred, and the post-event window refers to the period after the event. The day of the event is shown as 0_t in the figure.

In the event study method, the analysis consists of five stages (Brown & Warner, 1995, p. 6).

1- The first step is the calculation of daily returns of the examined index and stock. In this study, the rates of change in index values are calculated by the logarithmic return calculation method. While calculating, the BIST 100 Index is used as the index, and stocks in the Participation-30 Index are used as stocks. The formula used in the calculation is given below.

[2] $R_{it} = \ln (P_{it} / P_{it}\text{-}1)$

R_{it} = Logarithmic return of the stock (BIST 100 index) in the period t,

P_{it} = Stock value in the period t,

P_{it}-1 = Stock value in the period t-1.

2- In the study, expected returns are calculated using the Capital Asset Pricing Model (CAPM). CAPM was originated by Sharpe (1964) and Lintner (1965), based on Markowitz's Modern Portfolio Theory. This model attempts to identify the relationship between the risk of an asset and its expected return. There is also a linear link between market returns and stocks according to the model. In this model, where the regression model is calculated separately for each establishment, the following formula is used to estimate α and β;

[3] $E_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_t$

E_{it} = Logarithmic return of the stock in the period t,

α_i = Average return of a stock "i", that cannot be explained by the market,

β_i = Sensitivity of the stock "i" to market movements,

R_{mt} = Logarithmic return of the BIST 100 Index on day t,

ε_t = The error term.

3- After the expected returns are calculated, we proceed to the third stage, which is the calculation of abnormal returns (AR). The abnormal returns are calculated by subtracting actual returns from expected returns. The formula is given below;

[4] $AR_{it} = R_{it} - E(r)_{it}$

AR_{it} = Abnormal return of the stock "i" in the period t,

R_{it} = Actual return of the stock "i" for the period t,

$E(r)_{it}$ = Expected return of the stock "i" in the period t.

4- After the third stage, the average abnormal return (AAR) is calculated as an index for all establishment shares. The formula is given below;

[5] $AAR_t = \sum_{t=1}^{n} (\frac{1}{n}) AR_{it}$

AAR_t = Average abnormal returns on day t,

n = The number of stocks examined.

5- In the fifth and final stage, the Cumulative Average Abnormal Return (CAAR) is calculated for each day in the event window. The formula is given below;

[6] $CAAR_t = \sum_{t=1}^{n} AARt$

$CAAR_t$= Average cumulative abnormal return in the period t.

4. Application

In this study, the effect of the COVID-19 pandemic on 30 companies, which were included in the BIST 100 Index, and were selected for the Participation-30 Index are examined using the event study method. The first case in Turkey was identified on 11 March 2020. Therefore, the event window date isa determined as '-20, +20' based on March 11, 2020, and the calculation period is determined as '-20, -270'. In the study, the cumulative average abnormal return calculated for companies is shown and interpreted by dividing them into groups on a sectorial basis.

Table 2: Cumulative Average Abnormal Return of the Chemical, Petroleum Rubber and Plastics Sector

	CAAR				
COMPANIES	**[-15,15]**	**[-5,5]**	**[-5,0]**	**[0,5]**	**[0,10]**
Alkim	0.05	-11.47%**	-5.92%	-10.55%**	-4.11%
Aygaz	-22.16%**	-17.92%***	-10.32%**	-4.85%	-11.26%*
Deva	-0.01	-12.90%*	-15.07%***	-5.09%	18.92%**
Gubrf	-0.11	-26.00%***	-15.31%***	-18.12%***	-3.34%
Rtalb	103.88%***	58.30%***	-6.07%	57.95%***	102.26%***
Chemical, Petroleum Rubber and Plastics Sector Average	**14.92%****	**-2.00%**	**-10.54%*****	**3.87%**	**20.49%*****
Participation-30 Index Average	**-7.28%****	**-13.86%*****	**-7.60%*****	**-9.22%*****	**-4.64%****

Note: * indicates at the level of 10%, * * indicates at the level of 5%, * * * indicates at the level of 1% statistical significance.

Table 2 shows the cumulative average abnormal returns of the Chemical, Petroleum Rubber and Plastics Sector calculated for different time periods. A general examination of the results shows that the obtained results are statistically significant on a high level. In addition, the density of minus (-) CAAR values indicates that the COVID-19 pandemic has affected this sector negatively. It is observed that Gübre Fabrikaları (gubrf) has the most negative value with - 26% while RTA Laboratories (rtalb) has the most positive value in the sector. In RTA Laboratories having the most positive value of all, it can be said that the COVID-19 pandemic's life-threatening nature and the establishment's line of business being the healthcare sector had an effect. The Chemical, Petroleum Rubber and Plastics Sector has been negatively affected less by this pandemic period than the Participation-30 Index.

Table 3: Cumulative Average Abnormal Return of the Manufacturing and Industrial Sector

	CAAR				
COMPANIES	**[-15,15]**	**[-5,5]**	**[-5,0]**	**[0,5]**	**[0,10]**
Cemas	-31.84%	-42.94%***	-15.14%*	-34.53%***	-33.77%***
İsdmr	-1.38%	-6.41%	1.85%	-8.23%**	0.44%
Kartn	-11.45%	-15.50%***	-15.05%***	-5.77%	-3.02%
Egeen	-30.64%***	-30.14%***	-17.02%***	-19.17%***	-25.56%***
Eregl	5.46%	6.29%	9.52%***	0.25%	5.65%
Aksen	2.15%	-1.03%	-2.94%	-2.85%	2.07%
Ttrak	-25.30%*	-16.41%**	-11.81%**	-10.03%*	-24.41%***
Yatas	-28.49%**	-21.02%***	-6.56%	-12.56%**	-8.35%
Manufacturing and Industrial Sector Average	**-15.19%*** **-15.89%*** **-7.14%*** **-11.61%*** **-10.87%***	**-15.89%*** **-15.89%*** **-7.14%*** **-11.61%*** **-10.87%***	**-7.14%*** **-15.89%*** **-7.14%*** **-11.61%*** **-10.87%***	**-11.61%*** **-15.89%*** **-7.14%*** **-11.61%*** **-10.87%***	**-10.87%*** **-15.89%*** **-7.14%*** **-11.61%*** **-10.87%***
Participation-30 Index Average	**-7.28%****	**-13.86%***	**-7.60%***	**-9.22%***	**-4.64%****
Note: * indicates at the level of 10%, * * indicates at the level of 5%, * * * indicates at the level of 1% statistical significance.					

Table 3 shows the cumulative average abnormal returns of the Manufacturing and Industrial Sector calculated for different time periods. A general examination of the results shows that half of the obtained results are statistically significant. In addition, the density of minus (-) CAAR values indicates that the COVID-19 pandemic has affected this sector negatively. It is observed that Ege Endüstri (egeen) has the most negative value with – 30.64% while Ereğli Demir Çelik (eregl) has the most positive value in the sector. The Manufacturing and Industrial Sector has been negatively affected more by this pandemic period than the Participation-30 Index.

Table 4: Cumulative Average Abnormal Return of the Technology Sector

	CAAR				
COMPANIES	**[-15,15]**	**[-5,5]**	**[-5,0]**	**[0,5]**	**[0,10]**
Asels	16.03%*	0.38%	-1.36%	-2.34%	-1.62%
Logo	-1.43%	-31.64%***	-6.07%	-32.49%***	-24.30%***
Technology Sector Average	**7.30%**	**-15.63%*** **	**-3.72%**	**-17.41%*** **	**-12.96%*** **
Participation-30 Index Average	**-7.28%****	**-13.86%*** **	**-7.60%*** **	**-9.22%*** **	**-4.64%****
Note: * indicates at the level of 10%, * * indicates at the level of 5%, * * * indicates at the level of 1% statistical significance.					

Table 4 shows the cumulative average abnormal returns of the Technology Sector calculated for different time periods. A general examination of the results shows that almost half of the obtained results are statistically significant. In addition, the density of minus (-) CAAR values indicates that the COVID-19 pandemic has affected this sector negatively. It is observed that Logo Yazılım (logo) has the most negative value with – 32.49% while Aselsan (asels) has the most positive value in the sector. The Technology Sector has been more negatively affected by this pandemic period than the Participation-30 Index, except for the first and third time periods.

Table 5: Cumulative Average Abnormal Return of the Financial Institutions Sector

	CAAR				
COMPANIES	**[-15,15]**	**[-5,5]**	**[-5,0]**	**[0,5]**	**[0,10]**
Bera	-19.48%	-37.83%***	-15.77%*	-27.20%***	-20.40%*
Tkfen	-10.49%	-1.74%	-6.72%	3.61%	3.33%
İsgyo	-29.78%**	-17.43%***	-11.44%**	-9.73%*	-13.00%**
Ecilc	31.29%***	0.44%	-11.70%***	5.83%	22.10%***
Financial Institutions Sector Average	**-7.11%**	**-14.14%*** **	**-11.41%*** **	**-6.87%****	**-1.99%**
Participation-30 Index Average	**-7.28%****	**-13.86%*** **	**-7.60%*** **	**-9.22%*** **	**-4.64%****
Not: * indicates at the level of 10%, * * indicates at the level of 5%, * * * indicates at the level of 1% statistical significance.					

Table 5 shows the cumulative average abnormal returns of the Financial Institutions Sector calculated for different time periods. A general examination of the results shows that obtained results are statistically significant in general. In addition, the density of minus (-) CAAR values indicates that the COVID-19 pandemic has affected this sector negatively. It is observed that Bera Holding (bera) has the most negative value with – 37.83% while Eczacıbaşı Pharmaceuticals (ecilc) has the most positive value in the sector. In Eczacıbaşı Pharmaceuticals having the most positive value of all, it can be said that the establishment's line of business being the healthcare sector had an effect, just like RTA Laboratories. The Financial Institutions Sector has been negatively affected less by this pandemic period than the Participation-30 Index.

Table 6: Cumulative Average Abnormal Return of the Wholesale and Retail Trade, Restaurants and Hotels Sector

	CAAR				
COMPANIES	**[-15,15]**	**[-5,5]**	**[-5,0]**	**[0,5]**	**[0,10]**
bimas	20.45%**	7.92%	11.52%***	-3.17%	10.77%**
doas	-32.41%	-32.17%**	-10.72%	-21.03%**	-34.25%***
mavi	-40.28%***	-29.62%***	-3.34%	-26.89%***	-33.22%***
selec	5.76%	-2.59%	-6.47%	4.94%	26.78%***
Wholesale and Retail Trade, Restaurants and Hotels Sector Avg.	**-11.62%**	**-14.11%*** **	**-2.25%**	**-11.54%*** **	**-7.48%***
Participation-30 Index Average	**-7.28%****	**-13.86%*** **	**-7.60%*** **	**-9.22%*** **	**-4.64%****
Not: * indicates at the level of 10%, * * indicates at the level of 5%, * * * indicates at the level of 1% statistical significance.					

Table 6 shows the cumulative average abnormal returns of the Wholesale and Retail Trade, Restaurants and Hotels Sector calculated for different time periods. A general examination of the results shows that more than half of the obtained results are statistically significant. In addition, the density of minus (-) CAAR values indicates that the COVID-19 pandemic has affected this sector negatively. It is observed that Mavi Giyim (mavi) has the most negative value with - 40.28% while Selçuk Ecza Deposu (selec) has the most positive value in the sector. In Selçuk Ecza Deposu having the most positive value of all, it can be said that the establishment's line of business being the healthcare sector had an effect, just like

RTA Laboratories and Eczacıbaşı Pharmaceuticals. Wholesale and Retail Trade, Restaurants and Hotels Sector has been negatively affected more by this pandemic period than the Participation-30 Index.

Table 7: Cumulative Average Abnormal Return of the Transportation Storage and Telecommunication Sector

	CAAR				
COMPANIES	**[-15,15]**	**[-5,5]**	**[-5,0]**	**[0,5]**	**[0,10]**
pgsus	-58.91%***	-40.06%***	-23.55%***	-22.58%***	-46.08%***
thyao	-11.98%	-11.22%**	-8.78%**	-3.34%	-2.82%
Transportation Storage and Telecommunication Sector Sector Average	**-35.45%*** **	**-25.64%*** **	**-16.16%*** **	**-12.96%*** **	**-24.45%*** **
Participation-30 Index Average	**-7.28%****	**-13.86%*** **	**-7.60%*** **	**-9.22%*** **	**-4.64%****
Not: * indicates at the level of 10%, * * indicates at the level of 5%, * * * indicates at the level of 1% statistical significance.					

Table 7 shows the cumulative average abnormal returns of the Transportation Storage and Telecommunication Sector calculated for different time periods. A general examination of the results shows that obtained results are statistically significant in general. In addition, the density of minus (-) CAAR values indicates that the COVID-19 pandemic has affected this sector negatively. The reason for the minus (-) values in all intervals may be the bans and restrictions on domestic and foreign travel during the pandemic period. It is observed that Pegasus (pgsus) has the most negative value with – 58.91% while Turkish Airlines (thyao) has the most positive value in the sector. Transportation Storage and Telecommunication Sector has been negatively affected more by this pandemic period than the Participation-30 Index.

Table 8: Cumulative Average Abnormal Return of the Food and Beverage Sector

	CAAR				
COMPANIES	**[-15,15]**	**[-5,5]**	**[-5,0]**	**[0,5]**	**[0,10]**
Tukas	-33.89%	-20.89%	3.96%	-27.78%***	-28.87%**
Ccola	-1.16%	-9.25%	-0.87%	-4.79%	-4.49%
Kervt	3.81%	-26.18%***	-16.40%**	-17.42%**	-3.62%
Food and Beverage Sector Average	**-10.41%**	**-18.77%*** **	**-4.44%**	**-16.66%*** **	**-12.33%** **
Participation-30 Index Average	**-7.28%** **	**-13.86%*** **	**-7.60%*** **	**-9.22%*** **	**-4.64%** **
Not: * indicates at the level of 10%, * * indicates at the level of 5%, * * * indicates at the level of 1% statistical significance.					

Table 8 shows the cumulative average abnormal returns of the Food and Beverage Sector calculated for different time periods. A general examination of the results shows that obtained results are not statistically significant in general. However, the density of minus (-) CAAR values indicates that the COVID-19 pandemic has affected this sector negatively. It is observed that Tukaş (tukas) has the most positive value in the sector. Food and Beverage Sector has been negatively affected more by this pandemic period than the Participation-30 Index.

Table 9: Cumulative Average Abnormal Return of The Non-Metallic Mineral Products Sector

	CAAR				
COMPANIES	**[-15,15]**	**[-5,5]**	**[-5,0]**	**[0,5]**	**[0,10]**
Oyakc	3.71%	-3.03%	1.46%	-4.36%	8.10%
Konya	-12.69%	-23.85%***	-12.07%**	-14.28%**	-13.24%*
Non-Metallic Mineral Products Sector Average	**-4.49%**	**-13.44%***	**-5.30%**	**-9.32%***	**-2.57%**
Participation-30 Index Average	**-7.28%** **	**-13.86%*** **	**-7.60%*** **	**-9.22%*** **	**-4.64%** **
Not: * indicates at the level of 10%, * * indicates at the level of 5%, * * * indicates at the level of 1% statistical significance.					

Table 9 shows the cumulative average abnormal returns of the Non-Metallic Mineral Products Sector calculated for different time periods. A general examination of the results shows that obtained results are not statistically significant in general. However, the density of minus (-) CAAR values indicates that the COVID-19

pandemic has affected this sector negatively. It is observed that Konya Çimento (konya) has the most negative value with – 37.83% while Oyak Çimento (oyakc) has the most positive value in the sector. The Non-Metallic Mineral Products Sector has been negatively affected less by this pandemic period than the Participation-30 Index.

Table 10: Cumulative Average Abnormal Return of all Sectors

	CAAR				
SECTORS	**[-15,15]**	**[-5,5]**	**[-5,0]**	**[0,5]**	**[0,10]**
Chemical, Petroleum Rubber and Plastics	14.92%**	-2.00%	-10.54%***	3.87%	20.49%***
Manufacturing and Industrial Sector	-15.19%***	-15.89%***	-7.14%***	-11.61%***	-10.87%***
Technology	7.30%	-15.63%***	-3.72%	-17.41%***	-12.96%***
Financial Institutions	-7.11%	-14.14%***	-11.41%***	-6.87%**	-1.99%
Wholesale and Retail Trade, Restaurants and Hotels	-11.62%	-14.11%***	-2.25%	-11.54%***	-7.48%*
Transportation Storage and Telecommunication	-35.45%***	-25.64%***	-16.16%***	-12.96%***	-24.45%***
Food and Beverage	-10.41%	-18.77%***	-4.44%	-16.66%***	-12.33%**
Non-Metallic Mineral Products	-4.49%	-13.44%*	-5.30%	-9.32%*	-2.57%
Participation-30 Index Average	**-7.28%****	**-13.86%*****	**-7.60%*****	**-9.22%*****	**-4.64%****
Not: * %10 düzeyinde, ** %5 düzeyinde, *** ise %1 düzeyinde istatistiksel anlamlılığı göstermektedir.					

Table 10 shows the cumulative average abnormal returns of all sectors in the Participation-30 Index, calculated for different time periods. A general examination of the results shows that obtained results are statistically significant in general. The fact that the sectors generally have minus (-) CAAR values indicates that the COVID-19 pandemic has affected these sectors negatively. It is observed that Transportation Storage and Telecommunication Sector has the most negative value with - %35.45 while Chemical, Petroleum Rubber and Plastics Sector has the most positive value in all sectors. All sectors have been negatively affected more by this pandemic period than the Participation-30 Index.

5. Conclusion

Investors choose between a varieties of investment tools when directing their savings. Many factors influence their choices, such as their educational background, socio-economic status and lifestyle, and religious beliefs. Those who wish to choose investment instruments that are suitable for Islam, stay away from instruments that are related to the forbidden issues in Islam, such as the return on interest. Participation Indexes consist of the stocks of companies that operate in accordance with Islamic conditions.

The Participation-30 Index was created to measure the price and performance of stocks that Participation Banks can invest in when evaluating their customers' savings. Companies to be included in this index are selected in two stages. The first stage is identifying the line of business of the company. At this stage, companies whose main operations correspond to Islamic rules are selected from the BIST 100 Index. In the second stage, the financial ratios of the selected companies are analyzed. These companies are then listed, and the top 30 companies form the Participation-30 Index.

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In the analysis process, the companies included in the Participation-30 Index were divided into eight groups by their sectors. As a result of the analysis, for the Chemical, Petroleum Rubber and Plastics Sector, the fact that the obtained results are statistically significant in general, and the density of minus (-) CAAR values indicate that the COVID-19 pandemic has affected this sector negatively. The analysis of the Manufacturing and Industrial Sector shows that half of the obtained results are statistically significant and there is a density in minus (-) CAAR values. This sector has also been negatively affected by this period. In the Technology Sector, it was seen that almost half of the obtained results are statistically significant and there is a density in minus (-) CAAR values. This result indicates

that this sector has also been negatively affected by this period. According to the analysis of the Financial Institutions Sector, it is seen that the obtained results are statistically significant in general, and there is a density in minus (-) CAAR values. The COVID-19 pandemic period has also negatively affected this sector. The analysis of the Wholesale and Retail Trade, Restaurants and Hotels Sector shows that more than half of the obtained results are statistically significant and there is a density in minus (-) CAAR values. This sector has also been negatively affected by the pandemic period. The Transportation Storage and Telecommunication Sector, which is the sixth sector in the list, has shown statistically significant results in general and has minus (-) CAAR values in all of its results. This sector has been the most negatively affected sector by the COVID-19 pandemic period. For the Food and Beverage Sector, it is seen that the obtained results are statistically significant in general, and there is a density in minus (-) CAAR values. This sector has also been negatively affected by this period. The Non-Metallic Mineral Products Sector, which is the last sector in the list, has not shown statistically significant results in general and there is density in minus (-) CAAR values. This indicates that the COVID-19 pandemic period has affected this sector negatively.

In the analysis, the three companies stand out with their positive CAAR values. These are Selçuk Ecza Deposu, RTA Laboratories and Eczacıbaşı Pharmaceuticals. While other companies often have negative CAAR values, the fact that these companies have positive CAAR values has been associated with the fact that their line of business is in the healthcare sector. Among the sectors, the least negative impact of the COVID-19 pandemic period has been on the Chemical, Petroleum Rubber Plastics Sector. This sector has shown a positive CAAR value in three of the five time periods that were studied. The Transportation Storage and Telecommunication Sector has been the sector with the most negative CAAR values. The reason for this may be the travel restrictions and bans imposed in the respected period. In general, the negative effect of the Covid-19 pandemic period on sectors has been greater than the Participation-30 Index.

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3

COUNTRY-BASED CONSUMPTION DURING THE COVID-19 PANDEMIC PERIOD: CREDIT CARDS

Melahat Batu Ağırkaya[1]

Abstract

It is noteworthy that the COVID-19 pandemic, which threatens human health globally, has also affected the world economic structure and financial instruments used in monetary circulation. This study aims to determine the relationship between COVID-19 and consumption habits and credit card use. The study covered the pandemic's causes and consequences, the measures against its economic influences, and the effects of consumption on credit card use in Turkey. The 2020 total domestic and overseas credit cards use in Turkey was shown in a table based on the Interbank Card Center (BKM) data. In the study, it is suggested that the increase in the credit card users due to the differences in consumer behaviors caused by the epidemic is because credit cards are hygienic for human health as well as easy-to-use and are practical in meeting consumer demands. Besides, this increment in card use is predicted to continue.

Keywords: COVID-19, Consumption, Credit Cards, Changing Habits

1. Introduction

In world history, humanity has been exposed to numerous economic, political, social, and natural disasters. Outbreaks are one of the disasters that have seriously affected the global economy. COVID-19, which is among the epidemics causing many people's death, is a disease with the most devastating effect after the Spanish flu. These epidemics leaving deep traces in the life cycle are caused

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by various factors such as climate, variabilities in human behavior and socio-economic fields, poor hygiene, global trade, travel, and wars. The big epidemics causing significant losses in the world are Plague, HIV, smallpox virus, SARS, Influenza A (H5N1) (bird flu), Influenza A (H1N1) (swine flu), MERS, Influenza A (H7N9), Ebola, and Zika. Considering its effects, the SARS-CoV-2 virus, which was first seen in Wuhan, China, in December 2019, has spread in a short time compared to other epidemic diseases and has stood out with its contagiousness, which has taken away the lives of thousands of people. The problems arising due to the COVID-19 virus spread have required various measures within national and international borders. This epidemic has affected separate sectors in different aspects. One of these effects is the change in consumption behavior. During this period, people tried to comfort themselves by consuming more due to their fears and anxieties. The troubles experienced by people due to staying at home closed up have indirectly led them to widespread use of credit cards instead of cash payment against the virus risk. Hence, by using the data provided by the Interbank Card Center (BKM), this study aimed to determine credit card volume used in cash withdrawal and shopping in Turkey's financial sector during the COVID-19 pandemic period and the change in consumers' spending habits caused by the COVID-19 pandemic in 2020.

2. Outbreaks in the context of COVID-19 and the causes of an outbreak

Numerous factors affect the world economy. While some of these are related to economic, social, and political reasons, some are related to extraordinary situations, such as natural disasters and epidemics. The COVID-19 outbreak is one of these disasters that negatively affect the global economy diversely. The coronavirus (COVID-19) affects the consumption required for a healthy life and essential needs adversely (Yazıcı, 2020, p.392). The epidemics occur depending on many factors. These factors are climate, transformations in demographic structure and human behavior, socio-economic variables, lack of hygiene and sanitation, global trade and travel, wars, technological developments, microbial adaptation (TUBA, 2020, pp.33-34). Due to many reasons, epidemic diseases have mutated from the beginning until today, and their severity, transmission status, and effects have constantly changed (Bağçı et al., 2020, p.22). The most destructive epidemics were the Medieval-age plague and the Spanish flu between 1918-1920 (Çetin, 2020, p.343). The Spanish flu (Great Influenza Pandemic), which

created severe hazards in the 20th century, caused mass deaths, economic recession, and the deaths of young adults of working age (Brainerd & Siegler, 2003, p. 5). Spanish flu is similar to COVID-19 in the perspective of its effects. Plague, which emerged in Byzantium between A.D. 541-542, is one of the biggest epidemics threat experienced by nations during the world's history. During that time, the plague epidemic spread to Egypt, North Africa, Anatolia, and Europe rapidly and caused many deaths, particularly in the 14th century, and destroyed approximately one-third of European people. Later, the disease relapsed in the 18th century and led to 20% of the world population's death (Varlık, 2015, p. 57). Apart from these, Asian flu should be recalled, spread from China to the Far East, then to America, Australia, and Europe in 1957, and HIV in 1960. Two cholera epidemics between 1817-1833 and 1829-1851 and the typhus epidemic in the 19th century also caused the deaths of numerous people in Europe and Asia, especially in the First World War (Yolun, 2020, p.74; Macar and Asal, 2019, p. 225; WHO, 2020, p.3). In the 15th-16th centuries, the smallpox virus, a member of the Flower Poxvirus family, is one of the fatal disease reasons in Europe (Macar and Asal, 2019, p. 225). In the 21st century, the recent outbreaks affecting the world are SARS 2003, Influenza A (H5N1) (bird flu) 2006, Influenza A (H1N1) (swine flu) 2009, MERS 2012, Influenza A (H7N9) 2013, Ebola 2014, and Zika 2015 (TUBA, 2020, pp.39-40). The SARS-CoV-2 virus, first detected in Wuhan, China, in December 2019, is high-transmissible and different from other diseases such as Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) caused by coronaviruses (Qiu et al., 2020, p.1128; Mc Kibbin & Fernando, 2020, p.2; WHO, 2020, p.3). The feature making this epidemic more devastating than others is its very high transmission rate in East Asia, Europe, and America (Ceylan et al., 2020, P.817). In close contact between healthy and infected people, the virus spreads with the transmission of droplets produced by the infected person to healthy people through air respiration. Besides, it can be easily transmitted by touching any bacterial surface and rubbing the hands on the face (Chao, 2020, p. 1). Due to the rapid spread of this disease, 40% of the patients have mild disease, 40% moderate pneumonia, 15% severe, and 5% critical disease (WHO, 2020, p. 3). In the historical process, while epidemics were spreading from country to country and from region to region in a slow and long-lasting manner, once the COVID-19 virus emerged in China, it widely influenced all countries in a short period. Therefore, this extraordinary, deadly, and infectious disease has captured the whole world. The COVID-19 pandemic has been the highest-cost pandemic since the 1918-1919

Great Influenza pandemic. In addition to this feature, health, financial crisis, and stagnation in world economies have dragged the country's economies to unprecedented shocks (Bingül et al., 2020, p. 195).

3. Results of Outbreaks and Measures Taken

Global epidemics create negative consequences from various perspectives. It is possible to gather these effects under health, economic, social, and political headings. In the first place, its health effects are striking due to its importance on human life. Health effects can be counted as increases in massive deaths associated with illness, providing inadequate healthcare services due to the increasing need, the discontinuities in the supply of personnel, materials, and medicine due to the rising health expenditures, and the psychological trauma caused by the disease. The effects on the economic side are the decrease in industry and agricultural production, higher inflation causing high-interest rates, and the low economic growth leading to unemployment, the influenced financial instruments, etc. The social impacts appear in this period as turmoil caused by panic, discrimination, adverse effects on urban life and education, and the cancellation of all leaves for public servants. Regardless of states' development level, their capacity to solve the crisis has been observed insufficient in terms of political effects. Reliable information on the course of the epidemic and expectation of economic support put pressure on public administrations and shaken the authority. In this process, countries' political failures in the crisis's management revealed every country's weakness in health infrastructure and social security practices. A period in which countries' health systems and performances are compared has been entered (Macar and Asal, 2009: 223).

The problems brought about by the COVID-19 pandemic have required the governments to take some measures. For example, in Turkey, when the outbreak was seen first, free surgical mask distribution and putting ceiling prices on the hygiene products by the government were just a few examples of these measures. In this period, to reduce the fear and panic in all countries and slow the virus spread, travel within national and international borders was restricted, and curfews were implemented. Besides these measures, social areas such as restaurants, cafes, children's playgrounds were temporarily suspended. The restrictions made caused demand shrinkage in many sectors, especially food and beverage, travel, accommodation, etc. (McKibbin & Fernando, 2020, p. 2). On the supply side,

the production cessation, especially in businesses whose activities were restrained due to COVID-19, caused rapid increases in the unemployment rate and, along with it, different social problems (Guerrieri, 2020, p. 2).

4. COVID-19, Consumption and Changing Habits

Human beings consume. The societies' productive position in the past has changed today, and they have become consumers by bringing out their spending aspects (Bauman, 1999, p. 93). In the determination of priorities, especially in economic conditions, the saving behavior, which was efficient in the 19th century, was replaced by the consumption behavior that emphasized the desire to spend of capitalism after the 20th century (Fromm, 2002, pp. 49-50). Thus, there comes a financial limitation for consumers shifting from production to consumption society due to capitalism, on what type, how much, and how they will consume (Ritzer, 2000, pp. 84-85). The continuity of increasing needs for the continuity of society triggers consumption. This situation causes strong economies to grow through constantly increasing consumption rather than investment, employment, and production (Insel, 1997, p. 21). In this context, in its modern state, capitalism not only produces goods for the consumer but also produces a different consumer mass, whose quantity and quality can be determined before (Argın, 1998, p. 88). Consumption society does not save, uses credit cards extensively, is accustomed to credit cards, and even is addicted to using them. From the consumption society's perspective, society's happiness is associated with consumption (Bauman, 1999, p. 50; Fromm, 1996, p. 90). All economies with different development levels need an increasing consumption trend and create a consumer society (Şentürk, 2012, pp. 67-68). In consumption, the factors affecting the consumer's rational choice are price, income, and future expectation. Psychological factors such as pleasure, happiness, entertainment, and quality can affect consumers' consumption decisions. Customers can increasingly load psychological and sociological content on goods and services apart from their physical needs. Therefore, consumer behaviors are integrated with both internal and external stimuli (Durkaya & Özdemir, 2018, p. 277). In the COVID-19 period we live in, it has been seen that feelings of the fear of starvation and famine differ consumers' behaviors. The chaotic environment, especially in the first days of the epidemic, has increased concerns on this issue. However, the limitations caused by the epidemic have changed people's habits. It has been difficult for many people to adopt new routines at once. However, with the effect of COVID-19, people have been forced to adopt new

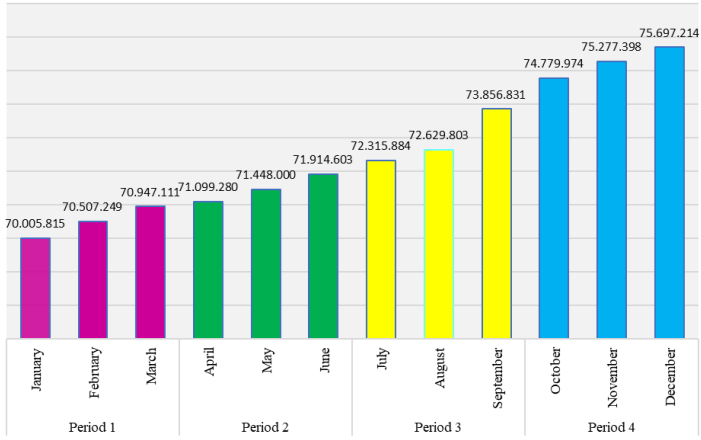
customs (Voyer, 2015, p. 5). Especially in those with particular consumption patterns, this difficulty has become more prominent. In this context, the impact of the epidemic on individuals is not the same for everyone. In reality, it depends on individuals' personalities and how people's negative emotions are shaped. Individuals tend to apply several strategies to satisfy their emotional hunger or to improve them. One of these strategies is to alleviate negative emotions through consumption (Gaston-Breton, 2020, p. 20). Therefore the pandemic sometimes causes rational and sometimes irrational consumption.

5. Turkey and Credit Card Applications

Rising deaths due to disease in its global course caused the World Health Organization to declare the coronavirus epidemic as a pandemic on March 11, 2020 (Raoofi et al., 2020, p. 220). In the pandemic, the restrictions applied by many countries to reduce contact with the virus have caused social and psychological traumas on people. In the epidemic affecting the general world population, travel bans, widespread restrictions on public gathering and community mobility have severely damaged the economic balances (Gössling et al., 2020, p. 1). However, the rapid spread of the epidemic caused panic in countries with poor health infrastructure and prompted countries to follow various strategies such as stay-at-home practices and herd immunity (Brooke & Jackson, 2020, p. 2042; Sibony, 2020, p. 350). Also, individuals have taken some additional measures other than hygiene or using masks, etc., to protect themselves against risk. One of the protection measures during the pandemic process has been the use of credit cards. As in the world, credit cards in Turkey are a valuable financing tool with their widespread use. It has many positive features, such as providing the consumer with credit as additional income, eliminating the risks of cash-carrying, and providing the opportunity to pay in installments. Despite its negative characteristics of being an expensive retail payment instrument due to using consumer's future income in advance, creating excessive debt from unconscious use, and various commissions, it has an increasing market acceptance on a world scale (Başaran et al., 2012, p. 68; Humphrey and Berger 1990, p. 47). That credit cards, which have a significant effect on the economic decisions of consumers, create a rise in income perception may affect the consumer's spending habits and cause them to have a spending tendency far above their income (Durukan et al., 2005, p. 150; Kaya, 2009, p. 133).

The concept of anxiety includes fear, anxiety, and cravings in psychology (Abraham, 1927, pp. 299-375). The pandemic has increased the use of credit cards in consumption by creating negative emotions such as anxiety and fear. It is observed that credit card usage amount increased in Turkey because of concerns about the disease and its expanded market position. The total of credit cards in Turkey for 2020 is in Table 1 below.

Graphic 1: Total Credit Cards in 2020



Source: bkm.com.tr. (Created by the author)

As seen in Table 1, based on the data of Interbank Card Center (BKM), while the total credit card number was 70,947,111 in the first quarter of 2020, it is seen that this number gradually increased with the epidemic's effect and reached 75,697,214 in the 4th quarter. It is seen that the total credit card number increased by 4,750,103 compared to the first period. The increase in the number shows consumers' high demands due to the risk created by the pandemic.

Table 1:*Domestic and International Usage of Credit Cards in 2020*

	Number of Transactions			Transaction Amount (Million TRL)		
Period	**Shopping**	**Cash Withdrawal**	**Total**	**Shopping**	**Cash Withdrawal**	**Total**
JANUARY	382.224.782	9.210.011	391.434.793	76.234,74	8.115,04	84.349,77
FEBRUARY	360.367.762	8.902.405	369.270.167	72.043,16	8.045,08	80.088,24
MARCH	360.902.474	8.664.456	369.566.930	72.360,09	8.119,48	80.479,57
PERIOD 1	**1.103.495.018**	**26.776.872**	**1.130.271.890**	**220.637,98**	**24.279,60**	**244.917,58**
APRIL	258.936.317	5.409.299	264.345.616	56.792,24	5.531,16	62.323,40
MAY	286.789.627	5.731.632	292.521.259	63.304,53	5.658,04	68.962,57
JUNE	353.356.246	7.661.035	361.017.281	80.013,91	7.419,39	87.433,30
PERIOD 2	**899.082.190**	**18.801.966**	**917.884.156**	**200.110,68**	**18.608,58**	**218.719,26**
JULY	406.844.524	8.635.731	415.480.255	92.557,12	8.363,50	100.920,62
AUGUST	376.046.638	8.676.149	384.722.787	83.791,34	8.201,59	91.992,93
SEPTEMBER	385.194.710	9.298.601	394.493.311	88.170,98	8.627,91	96.798,89
PERIOD 3	**1.168.085.872**	**26.610.481**	**1.194.696.353**	**264.519,43**	**25.193,01**	**289.712,44**
OCTOBER	406.648.172	10.172.793	416.820.965	91.151,67	9.332,80	100.484,47
NOVEMBER	383.447.277	9.915.258	393.362.535	90.746,45	9.488,90	100.235,35
DECEMBER	372.029.338	10.240.807	382.270.145	90.653,99	10.017,39	100.671,38
PERIOD 4	**1.162.124.787**	**30.328.858**	**1.192.453.645**	**272.552,11**	**28.839,09**	**301.391,21**
YEAR 2020	**4.332.787.867**	**102.518.177**	**4.435.306.044**	**957.820,21**	**96.920,29**	**1.054.740,49**

Source: bkm.com.tr

As seen in Table 2, according to the data of Interbank Card Center (BKM), it is seen that the total transaction amount achieved in shopping and cash withdrawal in the first period was TRL 244.917.58 million. Total TRL 301,391.21 million achieved in the 4th period shows the demand for credit card usage has increased. Since we are in the first quarter of 2021 and it is not known how the pandemic' course will continue until the end of the year, it is difficult to predict the results for 2021 from now. However, with the consequences of the current epidemic, it is seen that credit card utilization will always remain on the agenda, thanks to the technological innovations that the banking system will provide.

6. Conclusion

The outbreak caused by the coronavirus first seen in Wuhan, China, in December 2019 reached Turkey in March 2020 and subsequently changed people's lifestyles and many habits (Adıgüzel, 2019, p. 191; Yürekli, 2020, p. 56). The COVID-19 outbreak today seems to have led to a lot of negativity and anxiety by creating global chaos. In this global crisis, states undertaking the protective role have introduced various measures onto the public such as social distance, distance education, flexible working to prevent the spread of the epidemic. In this pandemic period, credit cards have provided people with an opportunity for remote shopping, one of the disease-protection ways. This study aimed to determine the coronavirus outbreak's ongoing effects on the changes in consumption habits, and the influences of credit card usage in Turkey, in 2020

According to the study results, it has been determined that the amount of credit card shopping, cash withdrawal, and credit card use in our country increased more in the 4th quarter of the 2020 financial year compared to other periods. During this uncertain period about when the epidemic will end, it has been observed that together with COVID-19, the use of cash has decreased, cash withdrawal by credit card and contactless payment methods have become widespread. Using credit cards plays a substantial role by reducing people's coronavirus-sickness risk from money-contact and providing easy shopping for the desired products with online shopping. Besides, its usability is significant in all sectors, within all credit card limits, whether small or large. On the other hand, credit cards have resulted in some consumers' unconscious utilization to overcome anxiety, such as fear and panic, and be happy. In such a case, the cards have created debt by damaging the family and individual budgets. When considered the credit cards advantages, its benefit stands out to pass through the epidemic period healthily and meet the customer shopping demands at all levels.

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4

DISTANCE EDUCATION ACCEPTANCE BY ACCOUNTING ACADEMICS DURING THE COVID-19 PANDEMIC

Mehmet Günlük[1], Murat Özcan[2]

Abstract

During the 'COVID-19' global epidemic, which has intensely affected the World in general as well as every area of Turkey, it has become necessary to apply educational activities using the distance education model. In this context, having efficient and effective conditions for distance education in universities, depends on the acceptance of the distance education model by academics. The aim of this study is to determine the factors affecting the acceptance of distance education within the frame of a Technology Acceptance Model and to show the interactions between these factors during the COVID-19 pandemic. The survey was generated on the basis of developed model variables and was distributed, using Google docs, to accounting academics, who were chosen using the convenience sampling method and who are working in Turkish state and foundation universities. 82 data were collected. The research model has been tested against Structural equation modeling (SEM) by using Smart PLS Statistics program. The analysis results show that distance education acceptances by accounting academics have statistically meaningful and positive effects on a) subjective norms (β: 0.485) on perceived usefulness b) perceived enjoyment (β: 0.681) and perceived usefulness (β: 0.280) on intention toward usage c) intention toward usage (β: 0.816) on behavioral intention and d) behavioral intention (β: 0.527) on usage behavior.

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Analysis results also show that subjective norms explain 23.5% of perceived usefulness, perceived entertainment and perceived usefulness explain 81.3% of attitude toward usage, attitude toward usage explains 66.6% of behavioral intention and behavioral intention explains 27.7 % of usage behavior.

Keywords: Distance education, Accounting academics, Technology Acceptance Model

1. Introduction

Continuous technological developments in knowledge and information areas, that emerged as a result of the cyclic interaction between science and technology, has directly or indirectly influenced every area of social and individual life. Developments in information technology, in particular, have had an impact on the emergence of various methods of accessing knowledge. As a result of these methods, the necessity for accessing the information at a specific time and place has been eliminated. Distance education which is one of the important areas where these methods have been used, eliminated time and place limitations (Günlük, Özer & Özcan, 2019, p. 66).

Changes that occurred in global competition and management paradigms created a growing importance in education. This situation has forced universities to increase their educational quality and to make some changes so as to spread educational opportunities widely. Furthermore, universities have been faced with issues such as increased costs and financial resource problems. Consequently, universities have expended intensive effort in developing new learning-teaching models in order to provide effective usage of educational resources and to create a time and place for a flexible learning environment (Horzum, 2003, p. 247-248; Ayyıldız, Günlük & Erbey, 2006, p. 2). As a result of all these intensive efforts, distance education tools that include flexible and innovative offline approaches for the learning environment, have been created (Arat & Bakan, 2011, p. 363; Altıparmak, Kurt & Kapıdere, 2011, p. 320; Demiralay, Bayır & Gelibolu, 2016, p. 161).

Distance education is defined as a teaching method to make learning easier by using informatics and distant communication systems, with an interaction between students and lecturers who are living in different time zones and places (Valentine, 2002). Distance education is a process where lecturers have to establish and manage a private lecture design (Al & Madran, 2004, p. 262) to set up

the interactive communication environments and to use information technologies actively in order to increase learning outcomes (Aydın, 2011, p. 12; Moore & Kearsley, 2012; Simonson, Smaldino, Albright & Zvacek, 2012, p. 10). Distance education has had some advantages such as to provide a learning opportunity, to improve the learning results and to make collaboration easier by setting up a network between students (Ainoutdinova, Khuziakhmetov & Tregubova, 2017, p. 441), to provide time and cost savings **by means of** accessibility and flexibility (Mirkholikovna, 2020, p. 70). In addition to this, distance education has had some disadvantages in the absence of a social environment such as a decrease in participation in lectures through lack of motivation and interaction (Ainoutdinova et al., 2017, p: 442). Despite the numerous positive and negative approaches to distance education, extraordinary conditions such as the ongoing COVID-19 pandemic, necessitated the usage of this education method (Yılmaz, Kabul & Diler, 2020, p. 344). The COVID-19 pandemic has created opportunities for countries to change their education methods and adapt themselves to the developing technologies (Toquero, 2020, p. 3). Distance education, which has been actively used for the last twenty five years and that has made access and distribution of information easier for most parts of the world, caused the transferring of the educational content and materials into digital environment, especially during the COVID-19 pandemic (Fidalgo, Thormann, Kulyk & Lencastre, 2020, p. 1). The COVID-19 pandemic has forced the usage of the distance education method and this method has been intensely used at every stage of education in many countries around the world. Data provided in the report, 'Education in COVID-19 Pandemic 2020', developed by the Organization for Economic Cooperation and Development (OECD) has also supported this idea. According to the same research report, distance education used in the COVID-19 pandemic period has had positive results for both students and lecturers. Bringing learning autonomy to students and directing lecturers to produce creative teaching designs are examples of such positive results. During the COVID-19 pandemic period, moving rapidly to offline education to provide sustainability in higher education, has forced the distance education strategies to be developed (Yılmaz et al., 2020, p. 344).

One of the main factors effecting the quality and achievement of distance education is the lecturers using distance education (Nielsen, 1997, p. 286). Therefore, lecturers involved in distance education are expected to adapt themselves to rapidly developing technology, to be able to read and write with the technology,

to accept the changes in roles and duties and to have a positive attitude toward new technologies. The attitudes of lecturers toward distance education and their interactions with students as per their academic roles, with management and with the support team working on the process of preparing and presenting the lectures, directly affected the quality of distance education and the learning outcomes (Gök, 2011, p. 4). In this case, factors affecting the lecturers who accepted the distance education method, and the information about the attitudes toward new technologies, became important.

The aim of this study is to search the factors affecting accounting academics who accepted the distance education method that has become obligatory during the COVID-19 pandemic period and the interactions of these factors in the frame of Technology Acceptance Modeling. For this reason, the Technology Acceptance Modeling literature has been searched and consequently, the hypotheses have been developed based on a literature search and is presented with a research model. Then the research method is explained and statistical analyses carried out using the data collected from accounting academics. Finally, the evidences have been evaluated and suggestions been made for future studies.

2. Literature

A system user is the most important element that has to be taken into account for system design and system application and development, because the user is a person who operates the system data and gains favor by reporting outcomes at the end of the process. The system has an effect on the action that they perform. The users focus on this effect and accept the system which has successfully fulfilled their expectations (Akça & Özer, 2012, p. 81). There are many factors affecting users' system acceptance and various models have been developed in order to search these factors. Among these models, Technology Acceptance Modeling (TAM) developed by Davis (1989), is widely used. TAM explains the factors that determine the usage of information systems at the individual level.

TAM also explains the individuals' new technology acceptance by setting up a reason-result relationship between their perceptions, attitudes, intentions and behaviors (Davis, 1989). *Perceived usefulness and perceived ease of use* in the model are defined as the influences of *attitude toward the new technology usage, behavioral intention and actual behavior*. In searching the literature, it is seen that Technology

Acceptance Modeling is widely used in order to determine the reasons why users accept new systems and to explain users' adaptations to various management information systems (King & He, 2006, p. 740; Dasgupta, Granger & McGarry, 2002, p. 87; Lu, Yu, Liu & Yao, 2003, p. 207; Venkatesh, Morris, Davis & Davis, 2003, p. 429). According to the Technology Acceptance Model, users show their behaviors toward usage at the end of a four stage of process (Figure-1).

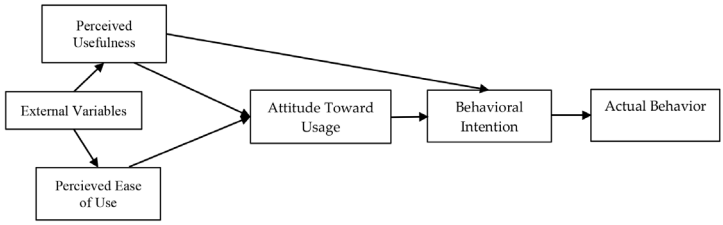

Figure-1. Technology Acceptance Model (Source: Davis, Bagozzi & Warshaw, 1989)

The first stage of Technology Acceptance Model includes the uncontrollable external variables such as user's demographic information and his/her environment, educational level, individual's abilities and skills and work experience, job definitions at work, mutual trust between individuals, organizational factors, documentation and the technical properties of the system (Al-Gahtani & King, 1999, p. 278; Kim & Chang, 2007, p. 792; Legris, Ingham & Collerette, 2003, p. 196; Davis et al., 1989, p. 987-988; Szajna, 1996, p. 86; Taylor & Todd, 1995, p. 148). The second stage of the process covers the beliefs containing the *perceived ease of use* and *perceived usefulness* that are basic determinants of a new system usage.

The third stage includes *attitude toward usage* created by ease of use and perception of usefulness, and *behavioral intention* as a result of this attitude. The last stage is *actualization of behavior* toward technology usage (Fishbein & Ajzen, 1975; Chau & Hu, 2002).

Basic determinants of information technology usage are perceived ease of use and perceived usefulness. Perceived ease of use is a perception that to spend physical and mental effort is not necessary for an individual while he/she is using a certain system (Davis, 1989, p. 320). Perceived ease of use affects the perceived usefulness and attitude toward usage (Yang & Yoo, 2004, p. 25; Saade & Bahli, 2005, p. 318; Park, 2009, p. 151). When individuals perceive the usage of the

new system easily, they will be more willing to use it (Saade & Bahli, 2005, p. 318). Perceived usefulness expresses the individual's belief that his/her work performance will increase if he/she uses a certain system (Gyampah & Salam, 2004, p. 733). If learning the system is easy, then the system usage may be more useful (Venkatesh & Davis, 2000, p. 187). Individual's behavior that shows his/her positive or negative attitude toward the system occurs when he/she perceives the system as easy or the results of the system as useful. Thus, the attitude toward new system usage is affected by the expectations toward the future results of actualized system (Moore & Benbasat, 1996). Individual's attitude toward system affects the intention toward usage (Davis, 1989; Lin, 2007, p. 434). Perceived usefulness and perceived ease of use affect the individual's attitude toward system usage (Davis, 1989). Perceived usefulness and attitude toward usage, form behavioral intention toward the system usage in the individual (Chau & Hu, 2002; Mathieson, 1991; Moon & Kim, 2001; Shih, 2004; Özer & Yılmaz, 2011; Özer, Özcan & Aktaş, 2010). Behavioral intention is the probability of exhibition toward a certain behavior by individual (Al-Gahtani & King, 1999, p. 278) and it shows how much he/she is willing to actualize this behavior. The behavioral intention of individual determines the behavior toward system usage (Jones & Hubona, 2006, p. 706; Mathieson, 1991, p.173; Downing, 1999, p. 204).

During the literature search we came upon studies about individual's new technology acceptance in the frame of technology acceptance model that subjective norms (Yi, Jackson, Park & Probst, 2006; Hong & Tam, 2006; Lee, Kang & Kim, 2007; Liao, Chen & Yen, 2007) and also perceived entertainment (Hong & Tam, 2016, p. 169; Teo & Noyes, 2011, p. 1648) are effective.

Subjective norms are individual's beliefs that whether or not he/she exhibits a behavior according to other individuals whose thoughts are important for him/her (Ajzen & Fishbein, 1980, p. 17). Subjective norms are beliefs and values that are shaped according to societal behavior types among which the individuals live (Şıker & Ülger, 2019, p.1248). There are studies in literature showing the effect of subjective norms on perceived usefulness (For example, Yi et al., 2006; Hong & Tam, 2006; Lee et al., 2007; Liao et al., 2007).

Perceived enjoyment is the degree of perception (except the performance results sourced from the usage of a certain system) that system usage is perceived as entertaining within itself (Davis, Bagozzi & Warshaw, 1992, p. 1113). Perceived

enjoyment is a dimension of intrinsic motivation and it is an expression of having enjoyment and satisfaction of acting (Sung & Yun, 2010, p. 15). Perceived enjoyment is an important element in a new system usage (Moon & Kim, 2001, p. 218). When individuals feel that a new system usage is entertaining, the behavioral intentions that they developed toward system usage also increase (Van der Heijden, 2004, p. 697; Alenezi, Abdul Karım & Veloo, 2010, p. 26). When we searched the literature, we have found out that in addition to the studies demonstrating perceived enjoyment has an effect on perceived usefulness (Hong & Tam, 2016, p. 169; Teo & Noyes, 2011, p. 1648), there are also studies demonstrating perceived enjoyment has an effect on individuals' attitude toward the system usage (Davis et al., 1992, p. 1113; Lee, Fiore & Kim, 2006, p. 635; Eighmey & McCord, 1998, p.191; Mathwick, 2002, p. 50).

By using the extended Technology Acceptance Model with the addition of subjective norms and perceived enjoyment variables, the hypotheses that have been developed about the acceptance of distance education by accounting academics are given below:

H_1: The subjective norms of accounting academics about distance education have a positive effect on perceived usefulness toward distance education.

H_2: Perceived enjoyment of accounting academics toward distance education has a positive effect on their attitudes toward distance education usage.

H_3: Perceived usefulness of accounting academics toward distance education has a positive effect on their attitudes toward distance education usage.

H_4: The attitudes of accounting academics toward distance education usage have a positive effect on behavioral intentions toward distance education.

H_5: The behavioral intentions of accounting academics toward distance education have a positive effect on usage behavior toward distance education.

The model formed according to the research purpose is shown in Figure-2.

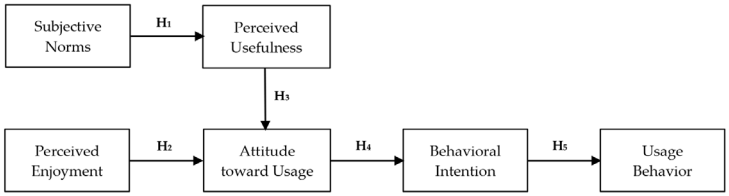

Figure-2. Research Model

3. Method

The purpose of the research is to determine the factors affecting distance education acceptance by accounting academics by using the extended Technology Acceptance Model with the addition of subjective norms and perceived entertainment variables and to introduce the interactions between these factors. For this aim, a two part survey form was prepared. The first part includes 'Likert Scale Definitions' to measure the perceptions of distance education acceptance by accounting academics and the second part includes 'categorical questions' to determine the demographic information. There are a total of 26 definitions in the survey form with 6 variables and 12 questions regarding demographic information and the survey was prepared using the literature. Studies that are used to produce the variables and scales are given in Table-1.

Table-1. Studies Used to Produce the Variables and Scales

Variable Name	Definition	Number of Definition	Studies Used to Produce the Scale
Perceived Enjoyment	Perceived entertainment is the degree of perception (except the performance results sourced from the usage of a certain system) that system usage is perceived as entertaining within itself (Vankatesh, 2000).	6	In the scale, 1 definition is developed by us, 5 definitions are developed by using Yun & Sung (2010).
Subjective Norms	Subjective norms are individual's beliefs that whether he/she exhibits a behavior or not according to other individuals whose thoughts are important for him/her (Ajzen & Fishbein, 1980, p. 17).	4	In the scale, 4 definitions are developed by us, using Özer & Yılmaz (2011).
Perceived Usefulness	It is the positive or negative evaluations of individual about the increase in his/her performance by using the distance education method.	4	In the scale, 4 definitions are developed by using Ursavaş, Şahin & McIlroy (2014).
Attitude Toward Usage	It is the positive or negative evaluations of individual toward the usage of distance education method.	4	In the scale, 1 definition is developed by us, 3 definitions are developed by using Ursavaş et al.(2014).
Behavioral Intention	It is a measurement of individual's distance education usage behavior.	6	In the scale, 1 definition is developed by us, 2 definitions are developed by using Ursavaş et al. (2014), 3 definitions are developed by using Özer & Yılmaz (2011).
Usage Behavior	It is the degree of frequency and intensity of individual's distance education usage (Çivici & Kale, 2007, p. 120).	2	In the scale, 2 definitions are developed by using Özer et al. (2010).

In the survey form, we asked accounting academics to answer questions about their gender, age, academic title, cumulative length of service, status of the university, marital status, whether or not they had distance education in their university before the COVID-19 pandemic, whether or not they had distance education for their undergraduate/graduate program in their university, whether or not they had information about distance education before the COVID-19 pandemic, whether or not they had distance education for accountancy lectures before the COVID-19 pandemic and, if they had, what methods they have used.

The sphere of research comprises of accounting academics who work in state and foundation universities in Turkey. The data set used for testing the research model was generated with a survey dated between 22/12/2020 and 25/02/2021 using Google docs. The Convenience Sampling Method was preferred since it is the easiest, most rapid and economic way of data collection from the main mass (Malhotra, 2004, p. 321). Because of limitations such as time, lecture load of accounting academics during the survey, preparations for lectures and COVID-19 pandemic conditions, 82 participants were able to take the survey. First, the demographic information of the accounting academics was evaluated using the collected data. Then, the reliability and validity analyses of scale was carried out. After that, structural equation modeling (SEM) was used in order to test the relationships in the suggested research model. IBM SPSS 22 was used for frequency analyses and Smart PLS statistical program was used for scale model analyses and structural equation modeling.

4. Findings

4.1. Demographic Evidences

Demographic information of the accounting academics who participated in the survey is shown in Table-2.

Table-2. Demographic Information of Participants

	Feature	Frequency	%
Gender	Man	49	59.8
	Woman	33	40.2
	Total	**82**	**100**
Age	Between 28 – 34	11	13.4
	Between 35 – 44	28	34.1
	Between 45 - 54	26	31.7
	Between 55 – 65	13	15.9
	65 and over	4	4.9
	Total	**82**	**100**
Marital Status	Single	17	20.7
	Married	65	79.3
	Total	**82**	**100**
Academic Title	Prof. Dr.	25	30.5
	Assoc. Prof. Dr.	21	25.6
	Assist. Prof. Dr.	23	28
	Lecturer Dr.	4	4.9
	Instructor	9	11.0
	Total	**82**	**100**
Cumulative Length of Service	Between 1 year – 5 years	8	9.7
	Between 6 – 10 years	14	17.1
	Between 11 – 15 years	15	18.3
	Over 16 years	45	54.9
	Total	82	100
Status of the University	State	77	90.2
	Foundation	5	9.8
	Total	**82**	**100**
Distance education conditions in their university before the COVID-19 pandemic	Yes	57	69.5
	No	25	30.5
	Total	**82**	**100**
Distance education usage for undergraduate/ graduate program in their university	Yes	63	76.8
	No	19	23.2
	Total	**82**	**100**
Information about distance education of accounting academics before the COVID-19 pandemic	Yes	68	82.9
	No	14	17.1
	Total	**82**	**100**
Information about distance education for accounting lectures taught by accounting academic before the COVID-19 pandemic	Yes	33	40.2
	No	49	59.8
	Total	**82**	**100**
Distance education method used for accounting lectures by accounting academic before the COVID-19 pandemic	Live (Synchronized)	25	67.5
	Mixed (Synchronized +	9	24.3
	Video)	3	8.2
	Video	**37**	**100**
	Total		

4.2. Scale Model Analysis Results

To find out the relationships and effects between independent and dependent variables presented in research model, *Partial Least Squares Path Analysis (PLS SEM)* which is a variance-based structural equation modeling method, has been used. Partial least square path analysis (PLS SEM) is an analysis technique that generalizes and combines the results of principal component analysis and multiple regression analyses. It is a useful method, especially when it is necessary to estimate the independent variable clustering from a dependent variable clustering (Abdi, 2003, p. 792). Variance based PLS SEM method has various primacies in comparison with covariance based SEM methods such as ignoring whether or not data follows a normal distribution, to be able to solve complex structural models that were generated among the variables, to have a high statistical power even when the sample size is small (Sarstedt, Ringle & Hair, 2017, p. 11-14).

At the scaling of structural model reliability; *calculated factor loads* for material reliability, *Cronbach's Alpha coefficient* for internal consistency reliability and *CR coefficient* for combined reliability have been taken into account. *AVE values* at the scaling of convergent validity of model and *Correlation coefficient* with *Fornell and Larcker criteria* at the scaling of discriminant validity have been estimated (Dülgeroğlu, 2017, p. 59-60; Başol, 2018, p. 79-81).

Table-3. Scale Model Results

Variables and Their Definitions	Factor Loading Value	α*	CR**
Perceived Enjoyment			
To teach via distance education pleases me. To teach via distance education is exciting. I like to teach via distance education. To teach via distance education is entertaining. I feel like that time passes quickly while teaching via distance education. It is interesting to teach via distance education.	0.938 0.945 0.956 0.965 0.792 0.921	0.964	0.971
Perceived Usefulness			
Distance education increases the education performance. Distance education makes the education activities easy. Distance education increases the education efficiency. Distance education is useful as an educational method.	0.845 0.739 0.895 0.882	0.861	0.907
Behavioral Intention			
I would like to continue to use distance education in future. I would like to follow the developments in distance education. I would like to apply the developments in distance education. I insistently suggest to my colleagues to participate in distance education. I believe that distance education applications will be widely used in future.	0.840 0.678 0.785 0.884 0.803	0.862	0.899
Usage Behavior			
I teach the distance education lectures. I have been teaching the distance education lectures very frequently.	0.924 0.755	0.617	0.830
Attitude Toward Usage			
I think distance education is more entertaining and interesting than in-class education. I am pleased to teach via distance education. I think distance education is a great idea. I believe that distance education is a necessity.	0.833 0.843 0.907 0.858	0.893	0.919
Subjective Norms			
Most of my colleagues think that distance education is important for academics. Most of my colleagues think that being able to teach via distance education is a privilege. Most of my colleagues think that distance education is useful for students.	0.851 0.824 0.872	0.812	0.886

In examining Table-3, it is seen that factor load values of all definitions were above 0.50, CR coefficient of all variables and Cronbach's Alpha (**α**) internal consistency coefficients were above 0.70. According to Hair et al. (2006), when a factor loading value of a definition in the scale is above 0.50, then this definition has provided the reliability; according to Fornell & Larcker (1981) when Cronbach's Alpha and CR coefficients are above 0.70, then scales provided the structural reliability.

We examined the analysis results (Table-4) to provide the concurrent and discriminant validities: When the average variance value (AVE) of every latent variable is above 0.50, then it is seen that concurrent validity of scales has provided the reliability (Bagozzi & Yi, 1988, p. 80) and when the square root of the AVE value of every variable is above the correlation values of variables that are given on the related variable column in Table-4, then it is seen that the discriminant validity of scales has provided the reliability (Nascimento & Silva Macedo, 2016, p. 295; Hair, Hult, Ringle & Sarstedt, 2017, p. 139).

Table-4. Validity Results for Scale Model

	Convergent Validity	**Discriminant Validity**				
VARIABLES	**AVE**	**PE**	**PU**	**BI**	**UB**	**ATU**	**SN**
Perceived Enjoyment (PE)	0,849	**0,921**					
Perceived Usefulness (AK)	0.710	0.710	**0.842**				
Behavioral Intention (BI)	0.642	0.732	0.698	**0.801**			
Usage Behavior (UB)	0.711	0.705	0.297	0.527	**0.843**		
Attitude Toward Usage (ATU)	0.741	0.880	0.764	0.716	0.356	**0.861**	
Subjective Norms (SN)	0.721	0.683	0.485	0.609	0.365	0.655	**0.849**

Not: Bold numbers in the Table are the square root values of the AVE .

4.3. Research Model Analysis Results

In order to test the hypotheses developed in the context of the research, *the partial least squares path analysis (PLS SEM)* has been used. In the evaluation of scale, except the basic measurements such as R^2, β and t values, to determine the

estimation power of scale, the Q^2 value, and to determine the effect size f^2 value has been taken into account. The Q^2 value has been calculated using *Blindfolding* analysis which shows the estimation power of measurement scale. The meaningfulness of partial least squares (PLS) path coefficients (t values) has been measured using *the resampling technique (bootstrapping)* by taking 5000 subsamples from the sample (Hair, Ringle & Sarstedt, 2011, p. 145,148; Henseler, Ringle & Sinkovics, 2009, p. 305).

Results of Structural Equation Model created by using partial least square (PLS) analysis to display the relationships between variables of model are shown in Figure-3.

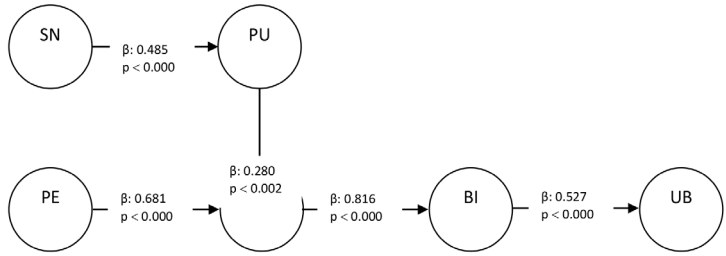

Figure-3. *Structural Equation Model Analysis Results*

Path analysis results produced by using Smart PLS application for the effect of subjective norms toward perceived usefulness, perceived enjoyment and perceived usefulness toward attitude toward usage, attitude toward usage toward behavioral intention and behavioral intention toward usage behavior are given in Table-5.

Table-5. Meaningfulness of Path Coefficients Test Results

Hypotheses	Paths		Path Coefficient	Standard Error	*t* Value	*p* Value	Result
H_1	SN	PU	β: 0.485	0.076	6.412	0.000	Supported
H_2	PE	ATU	β: 0.681	0.082	8.261	0.000	Supported
H_3	PU	ATU	β: 0.280	0.086	3.273	0.002	Supported
H_4	ATU	BI	β: 0.816	0.035	23.590	0.000	Supported
H_5	BI	UB	β: 0.527	0.092	5.696	0.000	Supported

SN: Subjective Norms **PU:** Perceived Usefulness, **PE:** Perceived Enjoyment, **ATU:** Attitude Toward Usage, **BI:** Behavioral Intention, **UB:** Usage Behavior.

When we examined Table-5, it is seen that subjective norms ($\beta = 0.485$; $p < 0.05$) have statistically meaningful and positive effect on perceived usefulness. This result shows that the $\mathbf{H_1}$ hypothesis developed on the idea that when the perceptions of the accounting academics toward subjective norms about distance education increase, then their perceptions of usefulness toward distance education also increases, is supported. Analysis results shows that perceived enjoyment ($\beta = 0.681$; $p < 0.05$) and perceived usefulness ($\beta = 0.280$; $p < 0.05$) have a statistically meaningful and positive effect on attitude toward usage. These results show that the $\mathbf{H_2}$ and $\mathbf{H_3}$ hypotheses are supported. According to this, when the enjoyment and usefulness perceptions of the accounting academics toward distance education increase, their attitudes toward usage of distance education also increase. When we examined the standardized effect coefficients of path analysis for the $\mathbf{H_2}$ and $\mathbf{H_3}$ hypotheses, it is seen that accounting academics' perceived enjoyment on attitudes toward the usage of distance education ($\beta = 0.681$) is more effective in comparison to their perceived usefulness ($\beta = 0.280$). When we examined Table-5, it is seen that attitudes toward usage ($\beta = 0.816$; $p < 0.05$) have statistically meaningful and positive effect on behavioral intention. This result shows that the $\mathbf{H_4}$ hypothesis is supported and displays that when the attitudes of accounting academics toward distance education usage increase, then their behavioral intentions which will result with distance education usage, will also increase.

The path analysis results about actual usage behavior shows that behavioral intention ($\beta = 0.527$; $p < 0.05$) have a statistically meaningful and positive effect on actualized usage behavior and the developed $\mathbf{H_5}$ hypothesis has to be supported.

Analysis results also display that behavioral intention is effective on actualization of the accounting academics' behaviors toward distance education and this effect has a value at the rate of (0.527).

The R^2, Q^2, f^2 and VIF values about research model is given in Table-6.

Table-6. R2, f2, Q2 and VIF Analysis Results of Structural Equation Model

H	Paths		R^2	f^2	Q^2	VIF
H_1	Subjective Norms	Perceived Usefulness	0.235	0.308	0.159	1.00
H_2	Perceived Enjoyment	Attitude Toward Usage	0.813	1.228	0.596	2.016
H_3	Perceived Usefulness	Attitude Toward Usage		0.208		
H_4	Attitude Toward Usage	Behavioral Intention	0.666	1.991	0.395	1.00
H_5	Behavioral Intention	Usage Behavior	0.277	0.384	0.173	1.00

H: Hypotheses

In order to obtain whether or not there is any multiple linear correlations (collinearity) among independent variables in research model, variance inflation factor (VIF) value that is one of the indicators of Collinearity, is taken into account. When we examined Table-6, the acceptable limit value of variance inflation factor (VIF) values which are accepted as the indicator for Collinearity statistics, is seen as less than 5 (Ali et al., 2018, p. 529; Garson, 2016, p. 77; Hair et al., 2011, p. 145). This shows that there is no multiple linear correlation problem among the independent variables.

To test the hypotheses, chosen reflective internal scale model as a scale model is evaluated by examining the R^2, f^2 and Q^2 values (Hair et al., 2017). When we examined the R^2 values given in Table-6, which state the explained variance of every external latent variable, it is seen that subjective norms explain 23.5% of perceived usefulness, perceived usefulness and perceived enjoyment explain 81.3% of attitude toward usage, attitude toward usage explains 66.6% of behavioral intention and behavioral intention explains 27.7 % of usage behavior.

The f^2 value that states the effect size of estimated constructs and that is used for reflective internal model evaluation, states the calculations of R^2 increase depending on the variance rate of the mysterious part in the external latent variable (Hair et al., 2017). Cohen (1988). An **f^2** value between 0.02 – 0.15 is stated as *low*, between 0.15 – 0.35 is stated as *moderate*, 0.35 and over is stated as *high* effect. When we examined the **f^2** values in Table-6, it is seen that the subjective norms (**f^2** = 0.308) have a moderate effect size on perceived usefulness and perceived usefulness (**f^2** = 0.208) has an moderate effect size on attitude toward usage, perceived enjoyment (**f^2** = 1.228) has a high effect size on attitude toward usage,

attitude toward usage ($\mathbf{f^2}$ = 1.991) has a high effect size on behavioral intention and behavioral intention ($\mathbf{f^2}$ = 0.384) has a high effect size on usage behavior.

When we examined Table-6, the Q^2 values in the evaluation of reflective internal model which is a reuse technique of inferential sample and which is produced for every path analysis as a result of blindfolding analysis, are found as above 0; this result shows that every path analysis has an adequate estimated power (Peng & Lai, 2012, p. 473).

5. Result

The distance education method was designed to provide equal opportunities in education, to reduce the education costs and to eliminate time and distance limitations, and could not find a wide usage area until the COVID-19 pandemic started. Despite many positive and partially negative approaches about distance education, the COVID-19 pandemic made the usage of this education method obligatory (Yılmaz, Kabul & Diler, 2020, p. 344). The COVID-19 pandemic created opportunities for countries to change their education methods and to adjust themselves for developing technologies (Toquero, 2020, p. 3). During the COVID-19 pandemic, the efficacy and effectiveness of distance education have depended on distance education acceptance model by accounting academics.

This study aimed to determine the factors affecting the acceptance of distance education by accounting academics who use the distance education method in the frame of Technology Acceptance Model and to show the interactions between these factors during the COVID-19 pandemic.

The first evidence provided by the analyses shows that subjective norms on perceived usefulness have a statistically meaningful and positive effect. This result shows that when the perceptions of the accounting academics toward subjective norms about distance education increase, then their perceptions of usefulness toward distance education also increase. This result is consistent with the evidences found in the studies developed by Yi et al., (2006), Hong & Tam, (2006), Lee et al., (2007) and Liao et al., (2007).

The second evidence of the study shows that perceived enjoyment toward distance education and perceived usefulness on attitude toward usage have statistically meaningful and positive effects. According to this evidence, when the

accounting academics' enjoyment and usefulness perceptions for distance education increase, then their attitudes toward distance education usage also increase. These results are consistent with the evidences found in the studies developed by Hong & Tam, (2016), Teo & Noyes, (2011), Davis et al., (1992), Lee, Fiore & Kim, (2006), Eighmey & McCord, (1998) and Mathwick, (2002).

The third evidence of the study shows that attitudes toward usage on behavioral intention has a statistically meaningful and positive effect. This result shows that when the attitudes of the accounting academics toward distance education usage increase, then their behavioral intentions which will result with distance education usage, also increase. These results are consistent with the evidences found in the studies developed by Özer et al., (2010), Davis, (1989), Lin (2007).

The final evidence of the study shows that behavioral intention on actual usage behavior has a statistically meaningful and positive effect. Analysis results also show that behavioral intention is effective on actualization of the accounting academics' behaviors toward distance education and this effect has a value at the rate of (0.527). This result is consistent with the evidences found in the studies developed by Özer et al., (2010), Davis, (1989), Lin, (2007).

Analysis evidences also show that subjective norms explain 23.5% of perceived usefulness, perceived enjoyment and perceived usefulness explain 81.3% of attitude toward usage, attitude toward usage explains 66.6% of behavioral intention and behavioral intention explains 27.7 % of usage behavior.

In this research, as happens in all research, there are limitations such as time, sample size, the preparations for lectures and the lecture load of the accounting academicians at the time the survey was applied and the conditions sourced from the COVID-19 pandemic. The evidence of this research must be evaluated according to these limitations. Also the generalization of these evidences must be taken into account within this frame.

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5

MANAGEMENT PARADIGMS AND SYSTEM MANAGEMENT IN A CHANGING ERA

A. Turan Öztürk[1]

Abstract

Today, contemporary management concept uses knowledge as primary factor of production. In the information age, organizations using industry age instruments canal avoid from entropy. Organizations that have col/abortion atmosphere are always in search of the way to save themselves from possible risks. Moreover, the search for the ways to establish superiority over rival companies by solving the problems in a shorter time than rivals created the possibility of using a communication tool that is called as "system approach" in management science. System approach provides favorable environments for organizations in order to sustain longer time and take best decisions. Problem solver, the Manager, uses system approach as a methodology to make decision analysis and to solve the problems. Naturally, having and using knowledge (Core Competencies) that can be called as "intangible assets" is vital for a manager to be effective. The purpose of this study is to make a systematic and theoretical contribute lo the concept of management in a changing era, by examining organizations which are integrated and at the same time complex systems and its sub-system components. System philosophy constitutes the "holistic" aspect of management. As relationships are emphasized, management of sub-systems will be easier and prevent inappropriate use of input-transform process and output which the components of "functional diagram. are

Keywords: Management, Systems Approach,Management Paradigms

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1. Introduction

in the 21st century, the wealth of countries is measured not only with finandal and natural sources but also with knowledge and human resources. The idiom "The one who remains the same will be back" has become 'The one who does not press will cease to exist". This idea will remain paradoxal for the ones who do not understand the change. The development of organizations can only be achieved by knowing the factors that shaping the management c1irnateand using them in the right place and at the right time. This paradigm creates tremendous and rapid changes, eradicating the chances of surviving of the organizations that cannot adapt themselves to the change. . Knowledge is the primary factor input for production in the contemporary management concept. In this information age, organizations using industry age instruments cannot avoid the effects of entropy. it is the primary duty of managers at all levels to proteet the organizations from the entropy effect which means that every organization has a tendency towards turbulence, chaos, deterioration, stagnation and finally ceasing to exist, (Şimşek,1999;95) Organizations that have collaboration atmosphere are always in search of the way to save themselves from possible risks. Moreover, the search for the ways to establish superiority over rival companies by solving the problems in a shorter time than· rivals created the possibility of using a communication tool that is called as "system approach" in management science. System approach provides favorable environments for organizations in order to sustain longer time and take best decisions. The problem of the integration of part processes in the total organism is the most important and at the same time the most difficult problem for ascience of personality.(Angyal,1941). Problem solver, the Manager, uses system approach as a methodology to make decision analysis and to solve the problems. Naturally, having and using knowledge (Core Competencies) that can be called as "intangible assets" is vital for a manager to be effective.

The purpose of this study is to make a systematic and theoretical contribute to the concept of management in changing era, by examining organizations which are integrated and at the same time complex systems and its subject system components. System philosophy constitutes the "holistic" aspect of management. As relationships are emphasized, management of sub-systems will be easier and prevent inappropriate use of input-transform process and output which the components of "functional diagram" are.

2. Changes In Organization & Management Concept

The meaning of "change" according to the Webster dictionary is "To replace something with some other thing within the same domain or across domains, to give up something because of some other thing, to be brought innovations".

Other meanings of change are; to transform into some other state by means of movement or motion; to evolve grow up, to give up traditions old thoughts and living styles left from descendants; to achieve a higher productivity and level of efficiency(Dicle,1973;40). in the last three decades, the organizations have also gained benefit from the increase in the number and the rate of scientific studies. Since the organizations are parts of the environment they live in, the changes in their environment put great pressure on them to adopt themselves and be creative and innovative.

On the other hand, organizational change is a process taking place in parallel with the technological improvements, which occurs by the force of scientific developments. (Peter,1995) According to another definition of organization change "Any kind of change that may occur among organizational units, subsystems and interrelationships among them and their environment." (Sağlam,1979) Organizational change includes all the positive and negative, qualitative and quantitative, planned or unplanned changes that may happen various subsystems or in the system of interrelationship among them.

The areas of change in an organization can be listed or follows:(Leavit, 1964)

The Humanitarian aspect of the organizations;

- Habits and behaviors of individuals,
- Habits and behaviors of groups,
- Philosophy of management,
- Values of individuals
- Organizational culture,

Structural aspect of organizations;

- Various formal and natural rules (sharing responsibility and authority),
- Formal and natural relations in the organization (workflow, roles, communications, decision making, positions etc.)
- Naturally developed relations in the organization,

Technological aspect of the organization;

- Any procedure pending to the ways to carry out the duties and process of workflow,
- Any tool, machine and stuff f that is being used,
- Units of the organization related with its mission,
- Formal mission of the organization,
- Naturally developed and informal mission on of the organization

Moreover, organizations are in constant process of transformation parallel with the environment they live in. In order for the organizations to develop their mission, to survive and to take progress, they should;

- Watch the changes in their environments closely,
- Be creative and innovative,
- Import new feedback from the environment,
- Expert the processed feedback into the environment.

The organizations are systems constructed to achieve predefined purposes. What makes the to acquire these qualities are the missions mentioned above. The organizations are cooperation systems founded in order to satisfy the needs of community they live in. lt is not enough for the high productivity and efficiency of the organization to survive, to develop and to compete with other organizations by only tracking the changes in their environment and adopting themselves. They are expected to be creative and innovative in order to be a center of change. The interaction between the organizations and its environment constructs the process of transformation.

In this context, management improvement includes all the efforts for transition from the current situation up to a better situation and also castling it into a more effective shape. According to a more general definition, the management improvement is “by producing better quality products, to protect the lively nature of the organization, to watch closely the environment in order to compete with other organizations and to change itself in order to adopt to the environment” (Peter,1995). As it is known, management has become one of the most popular careers. In modern societies, knowledge and managerial talents have subdued physical abilities. Consequently, managerial capabilities precede the others.

Today's community does not tolerate untalented managers. The individuals in a modern community do not think that their jobs are just a means of earning money and of making a living. They take their careers much more serious than that. Improving managerial capabilities is not simply a career development; it is an important factor of increasing the welfare and the development of the society. Every opportunity and positive temptation for managers to improve themselves and challenging positions in an organization creates motivation for a better living. (Drucker,1994).

Managers should improve themselves as well as the community and organizations. The managers should have abilities that may be useful in the future. The greatest power, and tlıe worst weakness as well, of the knowledge worker is his expectation of satisfaction and encouragement from his job. The physical worker regards his job as a means of living, whereas the mental worker, or another words knowledge worker demands his career constitute a life style (Drucker,1994).

Managerial improvement is necessary because, the future organizations will be much different from the ones we have today. Managerial improvement is the key factor for the growth and development of organizations. Because the organizations are not static but dynamic, it is necessary to change the functions and organizational scheme to achieve their goals (Varoğlu,,2000;206) All social systems, including organizations, consist of the patterned activities of a number of individuals.(Katz et al.,1966).Researchers point out to be two ways of organizational change "By force and by evolutionary change". In the first one, the change occurs at discrete intervals and forces by the higher-level hierarchies of the organization in order to adopt itself to the changes in the environment. In this case, the change can be strict and painful. Evolutionary change, on the other hand, is smooth and proceeds step by step, being distributed, performs a permanent change in a shorter amount of time (Heyerson,2001) Another issue that must be mentioned is that the management experience sometimes replaces leadership and becomes a culture of the organization, which is misleading. Therefore, if the future is to be different from today, then how can only the past experiences be useful? (Kırım,1998).

3. Organizational Change and System Thinking

Today, "system thinking", which is seen as a new approach for a more effective business management arranges elimate to take the best decisions. Yet, there is no consensus opinion on system approach that indicates a . Methodological

characteristic than a technique handling problems among academicians and managers. The most important reason for the need of the general system theory is the interaction among various disciplines. Besides, in an experimental world, the purpose of the general systems approach is to develop systematic and theoric codes of practice that define global relations.

General Systems Theory is shaped at the beginning of XIX. Century as a resut of searches on many disciplines. Yet, Georg Withom Friedricb Hepel, a German philosopher, first introduced the primary and basic concepts in the field. These basics concepts can be summarized as below. (Esen,1985;4):

- A system is always greater than the sum of its parts.
- Determines nature of its all components,
- Components are not enough comprehensible, if they are examined as abstracted from whole.
- Components are related or coherent on each other as dynamic .

Early on XX. Century, some preliminary studies were made on "General System Theory". It is performed il new study in which inorganic systems are handled overall on the contrary of organic systems of Koehler's General Systems Theory at 1929. This request İs answered partly by "Open Systems Theory" .

Is this period, there are two points of view to explain organic and inorganic systems.

- According to mechanistic concept; basis of all formations depend on physical and chemical factors.

-According to vitalistic concept, which is a contradiction of mechanistic vision, liveliness depends on metaphysics principles.

Following years, with their various if, many scientists such Redfield (1942), Singer (1946) and Summerheff (1950) had been in search of solutions to resolve questions which was not answered by mechanistic and vitalistic view holders. But, in 1937, Chicago University' s professors Ludwingron Bertalanffy' s paper, named "General System Theory" is one of the most important study of this branch.

Need of general system theory, caused new kind of needs.(Esen,1985;6)

- Cybernetics ,
- Game Theory ,
- Decision Tbeory ,
- Topology ,
- Factor Analysis.

The aim of new science which is logic-mathematic oriented and labeled "General System Theory" by Bertalanffy is the formulation and production of general principals to apply to systems generally. It is summarized at the below system thinking's development and multidisciplinary approach for management science. Certain concepts, models and principles of general systems theory, such as hierarchic order, progressive differentiation, feedback, systems characteristics defined by set and graph theory, etc., are applicable broadly to material, psychological and sociocultural systems; others, such as open system defined by the exchange of matter, are limited to certain subclasses(Bertalanffy,1968)

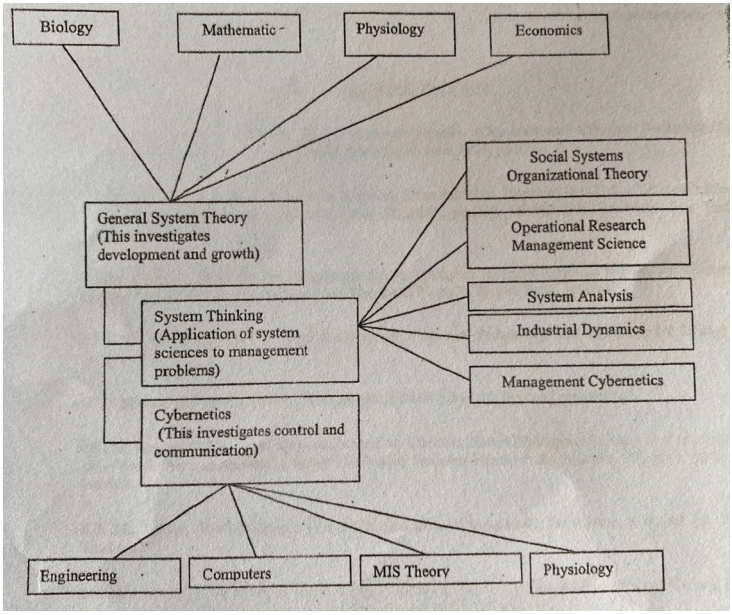

Figure1:*System Thinking*
(Source: Peter SEHEODERBERK and others; Management Systems,1975,pp.10-11)

4. Functions Of Management And System Thinking

System approach in management is a kind of approach that deals with management events and the units which these events occurred considering the relations between these units.In another words; system approach take up the whole organization which comes into existence from various pieces, processes and aims. For example; human component, machines, material resources, task definitions, formal authority connections, small informal groups can be counted as pieces of organization systems. All these parts are attached to each other with communication and decision processes to make the aims of organizations taken into consideration come true. (Hitt,1994) Consequently; organization is the main system. This system is composed of sub-systems which have connected and depended on each other. This mutually dependency and connection is basic in managerial behavior. Manager makes the mutual relation and connection come true when planning, organizing, executing, coordinating and controlling functions which are called as basic management functions(Koçel,2003).

System approach emphasize one of the most important features of management in order to make organization live, develop and balance dynamically, managers has to know all factors, understand and evaluate which are related with organization. This system approach enables managers that opportunity. Manager will enable the organizations harmony and wholeness by evaluating the inner variables and the outer parameters.

Organizations are the units which take inputs from environment and process these inputs to various goods and services(outputs) and in the end they give these outputs to its environment as an input if there is a need .Namely they are open systems. Open systems take energy, information' and material from environment or from other systems.

This cycle is shown in figure 2 below:

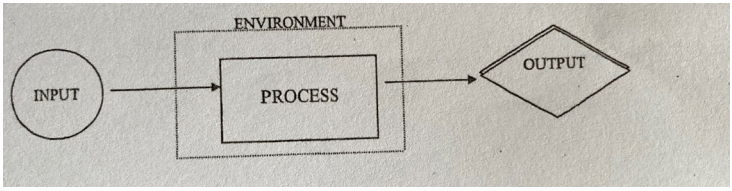

FIGURE 2: System Management Process and Sub-systems

There are three important features considering organizations according to system approach (Koçel,2003):

-Holistic View: The main point in system approach is about the "whole". Organization is considered as an open-system with its relations with environment, not as the sum of various departments.

- Organization- environment approach: By changing the inner variables of organization, organization can balance with environment considering the environment characteristics.

- Information Flow: As an open system, the success of organization is depended on the arrangement information flow. Information is the sums of the messages which make system decide about the system behaviors that are related with the properties of system's inner variables and outer parameters. Consequently, the more the system has the knowledge of these variables and especially the parameters than the more indefinites will decrease. Since the flow of information has a key role; open systems can be considered as an "information processing systems".

5. Conclusion

Nowadays; rapid developments, complicated problems, lack of interdisciplinary development and impossibility of employing management instruments for all situations have forced managers into new quests. It is impossible to shape organizations without designing the interactions between businesses, which are at network of complicated interdependencies and their subsystems, and components. Managers who cannot grasp the "General System Theory" which has emerged as a new discipline based on logic - mathematics will not be able to grasp the level of interactions between "objects" and "properties."

Creative leadership is the art of developing an organization involving new and long lasting values by integrating human resources and technological material. Only when the system ıs ıntegrated wıth values can institutionalization be achieved. Paradigm changes are a more radical form of organizational change . Paradigm change urges the organization to rethink is activities and its nature. Thus, in management, which is a series of tasks, it is insufficient for managers to think conceptually. In organizations, which are sociotechnical systems in order to control the processes, technical expertise has become critical.

In this period of transition to information age technological developments have made expertise based on information necessary. In organizations which are unities made up harmonious components managers have to understand organizational structure and culture and assess the impact of cognitive systems on these. It is difficult to achieve organizational effectiveness without achieving this cognition (Öztürk, 2006).Systems approach representing a thinking style has brought a new dimension to management thinking and applications. Systems approach has increased the number of instruments managers can employ. As long as managers perceive systems approach as a management paradigm businesses as cooperative environments will be able to protect themselves in the face of challenges and survive.

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6

NEUROSCIENCE, MENTAL HEALTH AND SENISM IN THE POST-COVID-19 ERA

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Abstract

COVID-19 is an infectious disease caused by a newly discovered coronavirus which was first identified in Wuhan City in China, in December 2019, then was globally spread to be then identified as a pandemic by the WHO. During COVID-19 period, perceptions, thoughts, emotions and behaviors of populations have been significantly affected. Neuroscience being a scientific study of nervous systems which involves many branches of science including brain science, psychology, artificial intelligence, robotics, technology can help understanding individuals' brain as well as their behaviors, emotions, decisions and perceptions especially during the pandemic period. Digital technology, being the leader of this new age in many aspects, it has various effects on the pandemic, neuroscience field and the individual. "Senism" is the theory of defining, understanding and evaluating the individual through the "Sen (You)" inside of "Me". To understand the role of neuroscience and technology and analyze the individual in this context, the theory of Senism can provide a multidisciplinary basis. In this context, this study presents a conceptual framework that aims to discuss neuroscience, applications of digital technologies and mental health in the post-COVID-19 period within the scope of the theory of Senism and to make predictions about this period.

Keywords: COVID-19, Neuroscience, Industry 4.0, Mental Health, Senism

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1.Introduction

COVID-19 is an infectious disease caused by a newly discovered coronavirus which was first identified in Wuhan City in China, in December 2019, then was globally spread to be then identified as a pandemic by the World Health Organization (WHO, 2020). The pandemic is a world global health crisis of today's world and it is the extreme challenge the world have faced since World War II, which is causing stress to population of the affected countries with uncertainty about the "return of normality" and is potential to generate distressing economic, social and political impacts that will leave long-lasting scars (UNDP, 2020). By which, despite that this crisis might be resolved with scientific methods and means, post this trauma it will be vital to reassess the correct knowledge and the acceptance of the new world (Şen, 2020a: 180). During the pandemic, brain chemistry along with many other terms associated with the individual such as emotions, rationality, decision making, thoughts, behaviors, emotions, perceptions, consumption etc. have been changed. In this matter, the relationship between rationality and emotions, "human brain" along with its chemistry, physiology, psychology, genes and as well as the "emotional scope of the heart" impact are gaining increased significance in research (Şen, 2020a:192). The pandemic has resulted in both physical and mental health problems and since the first identified case in Wuhan, anxiety-related behaviors appeared among the public (Huang & Zhao, 2020:3). COVID-19 uncertainty has significantly changed individuals' daily lives and maintaining a positive mental health has become equally important to maintaining physical health in times of the pandemic (Yıldırım & Solmaz, 2020:2). Thus, understanding the influence of crisis on individuals' reactions to stressful events and vice versa can be significant to generate effective and meaningful interventions (Marcinko et al., 2020:19)."Senism" is the theory developed by "Assoc. Prof. Dr. Erdal Şen" and was firstly introduced in his book "Senizm" in year 2000, which aims to define, understand and evaluate the individual through the "Sen (You)" inside of "Me" specially within the scope of the new world characterized by the "Digital Revolution". By which, in today's digital world, change is rapidly increasing and resulting in the change and transformation of areas of business into more agile and contemporary forms (Şen & Tarabah, 2020a: 255) and this digital revolution has and will continue to impact individuals' lives as well, for example, everyday life is revolutionized by automation and individuals have adopted such changes so quickly that they might not even be aware that those means are the results of digitalization (Aldag & Eker, 2018:33).

In this matter, understanding the individual's brain and role, the new definitions of the terms associated with systems, institutions and the individual, along with the role of digital technologies can lead to better management of the pandemic, institutions, systems and mainly the individual. To understand the role of neuroscience and technology and analyze the individual in this context, the theory of "Senism" can provide a multidisciplinary basis. In this matter, the presented study presents a conceptual framework that discuss neuroscience, applications of digital technologies and mental health in the post-COVID-19 period within the scope of the theory of "Senism" and to make predictions about this period.

2. Neuroscience

"Neuroscience can be broadly defined as a multidisciplinary field that investigates the neurophysiological functions and the corresponding perceptual processes that underlie the actions and behaviors of humans in response to various conditions or types of stimulation" (Heidenreich & Roth, 2019: 127). The human brain is a complex biological entity and realizing its function (e.g. how its circuits and systems permit perception, behaviors, thoughts and emotions) is the main goal of neuroscience (Jorgenson et al., 2015:1). A healthy brain function is vital for many areas of life including education, social interactions, professional life and childhood development. During COVID-19, there are many reasons for the change in brain chemistry, including its access to the brain via forebrain's olfactory bulb which sends information of smell to other brain regions which have a significant role in learning, memory and emotion (Sahakia & Vatansever, 2020). Moreover, loneliness, social isolation, change in routine habits, loss of jobs, financial insecurities that are all consequences of the social distancing measures for fighting COVID-19 which can be risk factors for PTSD and can have long-term impacts on brain function and physiology (Vatansever et al., 2020: 217). In addition, disorders of cognitive functions including perception, language, attention, memory etc. can impact individuals' quality of life due to their vital effect on individuals' social relationships, academic attendance, employment opportunities and independence and such disorders need cognitive rehabilitation programs that are implemented over an extended period of time, however their implementation have been disrupted by COVID-19 (Mantovani et al., 2020: 926). In times of COVID-19, individuals are also having an intensive worry about contacting and spreading the virus to relatives in addition to helplessness, grief of loss of beloved ones which are all characterized as vital stressors that might increase the symptoms

of anxiety, depression and suicidal thoughts (Vatansever et al., 2020: 217). Moreover, social distancing/isolation is resulting in a high level of anxiety among many populations across multiple countries and individuals need to maintain the continuity and solidarity of their relationships despite the physical distance (Thakur & Jain, 2020: 952). Since social interactions are considered as individuals' basic needs thus, social isolation can have far-reaching impacts on individuals' brain and behavior (Tomova et al., 2019: 1). Taking the well-known theory of needs and motivation "Maslow's Hierarchy of Needs" developed by Abraham Maslow that explains the stages individuals pass through to meet their needs starting from satisfying physiological ones then, safety , love/belonging (social), esteem and finally self-actualization (Urwiler & Frolick, 2008: 84), all the needs presented in this theory such as the physiological, safety, social, esteem and self-actualization have been altered due to COVID-19, for example, the social needs which include love, affection, family, friends, relationships and belongingness have been affected due to the limited access to beloved ones such as relatives and friends (Ryan et al., 2020: 3). Love, which is a complicated neurobiological phenomenon that depends on trust, belief and brain reward activities such as the limbic process which importantly include oxytocin, dopamine, serotonergic signaling and vasopressin, in which love along with lust and pleasure can reduce stress and promote health potential, wellness and well-being (Esch & Stefano, 2005: 187). As such, when individuals look at the people they love, some significant areas of their brains minimize activation including the frontal cortex, parietal cortex, middle temporal cortex and the amygdala, which can also explain the feelings of safety and happiness when individuals hug their beloved ones (Castro, 2014). For instance, the amygdala is manifestly implicated in anger, meaning and fear that decreased activation indicates a decrease of fear (Zeki, 2007: 2578). In this matter, despite that Maslow's Hierarchy of Needs theory is still valid today, however, it might be essential to redefine the individual that is impacted by many changes and transformations in the long term with the emergence of COVID-19 pandemic and reinterpret this hierarchy in this post COVID-19 period (Duygun & Şen, 2020: 63). Since the brain understands the sense of the world through the present information including senses, recalled experiences and emotions which are founded on judgments of value created by individuals' brains that are manifested by feelings as anger, love, empathy, thus, the brain learns by experiences and creates predictions regarding the actions needed be taken for current and future challenges (Kumlehn, 2011: 4). In this matter, if individuals expose the amygdala (which is involved in creating an anxiety response), to new information inconsistent with

the ones previously experienced, it will increase their control over anxiety through making new connections in response to this information and learn from the new experience and here lies the power of exposure (Pittman & Karle, 2015: 125). Besides, multiple exposures can increase desensitization (Tarabah et al. 2016: 3032).

3. Mental Health

COVID-19 is resulting in many mental health problems among individuals including anxiety, depression, denial, fear, anger and stress which have a long-term impact on the overall wellbeing and is also affecting the understanding, decision making ability and attention of many individuals (Kang et al., 2020: e14). According to Fiorillo & Gorwood (2020:1), COVID-19 psychological and mental health impacts can be serious for individuals who (a) were infected by the virus, (b) healthcare workers due to the increased exposure to COVID-19, (c) who are vulnerable to psychosocial or biological stressors and (d) those who follow COVID-19 related news on media channels. Risk factors for mental health issues have been increased by COVID-19, along with uncertainty, change, lockdown, physical distancing which can all result in loss of income, loneliness, decreased activity, social isolation, reduced access to usual services, enlarged access to food, use of alcohol, reduced social and family support as well as online gambling (Moreno et al., 2020: 813). During a pandemic, individuals' sense of trust is confronted with what is liable to be a pandemic of fear, as individuals are not only scared of the emerging disease but also are afraid of people around them and perceive them as potential sources of disease transmission (Strong, 1990: 293). During the COVID-19 pandemic, fear can be categorized into four categories: (1) the fear of and for the individuals' body, (2) fear of and for loved ones, (3) fear of lack of knowledge and fear of knowing and finally (4) fear of taking and not taking an action, by which those fears can mirror the key psychological means of perceiving reality (Schimmenti et al., 2020: 41). Furthermore, pandemics are linked with psychosocial stressors, such as health threats of the own individual and his beloved ones (Taylor, 2019: 5). In this context, COVID-19 Stress can be related to those dimensions: (1) Fears about COVID-19 risk, (2) Fears of objects, surfaces etc. or any source of the virus contamination, (3) Xenophobia associated with COVID-19 such as the fear of foreigners as they might be sources of COVID-19, (4) Continuous checking of COVID-19 related information (e.g. seeking social media, news media, help of health care experts and friends to gain information about the virus etc.), (5) Feelings of dreads about the COVID-19

economic and social results (e.g. disruption of supply chain etc.) and (6) Traumatic stress symptoms associated with the virus (unwelcomed and unwanted thoughts and nightmares about the virus (Taylor et al., 2020: 4).. The findings of a study conducted by Yıldırım & Solmaz (2020: 10), indicate that COVID-19 related stress has also led to higher level of burnout. Moreover, healthcare professionals dealing with COVID-19 patients have reported severe stress by which they are at a high risk when performing their jobs which might lead to burnout and a decreased ability to perform their jobs (Kisa, 2020: 2). Additionally, routines are dangerously disrupted, families and friends are separated, supply of medicine and food can be scarce, salaries loss, in addition to social isolation as a consequence of social distancing measures and quarantine and organizational closure and hospitals are pressured with the increased numbers of patients by which their facilities can be not enough (Ian Freckelton, 2020: 2)**.** COVID-19 has also led to many health problems, change in behaviors, increase in substance-use disorders (Fiorillo & Gorwood, 2020:1). Those negative psychological responses to the virus might result in a chronic psychopathology and impact a huge number of individuals if they weren't effectively acknowledged and treated (Arslan et al., 2020: 2).

4. Industry 4.0 And Digital Technologies

Industry 4.0 refers to the fourth industrial revolution which utilizes emerging technologies and technological information advancements to develop the industry and deal with global challenges (Wang et al., 2016 :2). It offers many technological and physical solutions along with cultural change and thus, it is of increased significance today (Ergün et al., 2020: 3393). Industry 4.0, is characterized by Cyber-Physical System (CPS), Internet of Things (IoT), Augmented Reality (AR), Big Data and Analytics, Internet of Services (IoS), Additive Manufacturing (3D Printing) , Autonomous Robots, Cloud Computing (CM) and Simulation (Tay et al., 2018: 1382-1384). Digitalizing the medical field with multiple technologies of Industry 4.0 such as Big Data, IoT, Artificial Intelligence, Robotics, Additive manufacturing and Holography can provide various benefits (Javaid & Haleem, 2019: 104). For instance, the evolution of neuroscience has been driven by the advent of technology which allow the application of new technologies and tools to better understand the brain (Jorgenson et al., 2015:1). In this matter, digital technologies including artificial intelligence (e.g., Radiology), machine learning (e.g. neural networks), deep learning can contribute to the neuroscience field by which the data provided by these technologies and other technologies as well can

help in analyzing the brain, detecting diseases, diagnosis and much more (NBIB, 2019a). For instance, MRI is an imaging technology used to analyze the brain changes over a period of time by utilizing machine learning (NIBIB, 2019b). In times of COVID-19 , this technology allowed conducting a study among 40.000 participants in the UK to reflect on how brains respond to social isolation and the results showed that the default network which is used for recalling the past, visualizing the future, imagination etc. among individuals who reported loneliness was more strongly wired and their grey matter volume within the default network region was also greater; this can be due to the fact that lonely people use imagination, memories and future hopes to deal with their social isolation (Ratner, 2020). Moreover, telemedicine, augmented reality, games and virtual reality are among the remote communication technologies that can be effective alternatives to support interventions in health care including cognitive rehabilitation and neurorehabilitation (Mantovani et al. 2020: 926). During the pandemic, technological advancements, Industry 4.0, data, information and knowledge are gaining increased significance, acceptance and usage on both the organizational and individual level (Şen & Tarabah, 2020b: 549-550). To this end, in the light of social distancing measures, technology plays an important role in delivering remote mental health services, which proves that COVID-19 crisis has increased the significance of technology utilization in mental health care and that it is the right time to invest in online and mobile mental health to fight against COVID-19 pandemic and any other possible future pandemics (Figueroa & Aguilera, 2020: 523). For instance, the spread of smart mobile phones, mobile networks, the internet and the rise of the fifth generation (5G) have allowed providing online mental health services during the pandemic (Liu et al., 2020: e17). Besides, artificial intelligence, internet-based computer aided mental health, telepsychiatry, recent technologies, digital psychiatry can all provide a global and instant support during the pandemic (Cosic et al., 2020: 25). Also, digital health interventions are being more easily accessed and less expensive than the traditional in person psychotherapy such as teletherapy and different kind of interventions including guided self-help, pure self-help or combination of those interventions, which increase the importance of the availability of digital mental health interventions as a routine part of care rather than just in the pandemic period (Taylor et al. 2020: 1155). Wireless communication had a significant impact in changing individuals' way of living, working and playing, especially in the COVID-19 period, which has changed the normal life and work patterns besides resulting in economic losses, thus, 5G for example can be applied in many sectors impacted with

COVID-19 such as the mental health sector through telemedicine, wearables, remote surgery and contact tracing (Abubakar et al., 2020: 4). Additionally, virtual reality can provide various benefits too, among those are medical training, patient treatment, disease awareness, medical marketing, psychological and mental treatment, physical therapy and management of pain (Singh et al., 2020: 662-664).

5. Decision Making, Rationality And Emotion Management

The process of decision making involves 7 steps as such (1) identifying the decision/problem, (2) collecting related information, (3) identifying multiple alternatives, (4) weighing evidence, (5) selecting the best alternative, (6) implementing the alternative and finally (7) reviewing decisions and controlling the results (Panpate & Takale, 2019: 76). In social sciences, there has been a major view that rationality assumption can model and predict individuals' behavior (Shafir & LeBoeuf, 2002:493). By which, behaviors, decisions, preferences, expectations, decision processes, knowledge and beliefs are prone to be rational or irrational (Hammond, 1997:1). For instance, while making decisions, individuals' memory, related emotions, instant stimuli received and the expected reward impacts consumers' choice (Kumlehn, 2011:5). Panic buying is a multidisciplinary concept that domains social science, behavioral science, supply chain, disaster management, economics and marketing (Arafat et al., 2020a:1). This social phenomenon "panic buying" was experienced during the time of COVID-19, which is the act of a surprising increase in the purchase of one or more essential products in excess of the normal need triggered by difficulties which results in the imbalance between the supply and demand (Arafat et al., 2020b: 100). For example, on March 16, 2020, Al Jazeera (2020), reported that there's a global panic buying across several countries due to the rise of fear of COVID-19, which resulted in empty shelves and a high demand of toilet papers, canned products, hand sanitizers and water and stockpiling was leading to fights among shoppers. In this matter, selfish and individualistic approaches might constitute the most important problems of today's world. As despite that during COVID-19 period, individuals solidarity was seen, yet selfish behaviors have arisen as well, even helping one another has been absent in some cases, which raises the question on whether this pandemic will nurture individuals' collaboration and native sense of empathy leading to increased solidarity or it will withdraw people into their own selves (Schwab & Malleret 2020:70). The limbic system is a brain part responsible for the memory, biochemical triggers and emotions (Solomon et al. 2010: 339) which

shapes how panic, exhilaration, fear and social pressure impacts individuals' choices and it is considered as an important component in consumers' decision making (Jacobson & Elliott, 2008: 340; Solomon et al., 2010: 339). Additionally, this panic buying decision during COVID-19, can be due to multiple reasons such as the fear of unknown, coping behavior, social psychological factors (e.g., Social trust and social influence) and perception (perceived COVID-19 threat and perceived scarcity of goods (Yuen et al., 2020:2). Fear can be an inborn function of subcortical brain areas (LeDoux & Pine, 2016: 1084) and as it is an emotion that occurs in response to a present threat, during pandemics, fears of loneliness, death and disease transmission can shape individuals' behaviors and their sense of relatedness and agency (Schimmenti et al., 2020: 41). In this matter, fear can be one of the most effective emotions that can be employed in many ways within advertisements and the decision-making process (Şen, 2020a:192). Since rational behavior depends on balancing act with multiple components of the brain, the challenge in such an environment and COVID-19 time of panic is that individuals need to consciously involve their prefrontal cortex in decision making and not to allow the amygdala to be the only decision-maker, in this matter, definition of rationality is associated with the individuals' environment (Abadi, 2020: 8). Besides, in order to decrease such panic buying, individuals should be more aware of their vulnerabilities and response to threats and utilize the potential of mobile phones, internet and digital platforms to acquire only verifiable facts, reassure the sufficiency of daily supplies and boost social and psychological support during the pandemic (Sim et al. 2020:1). Emotions have a significant impact on the social and business decisions and in today's world emotional factors shapes the consumer behavior (Consoli, 2010 :1). Thus, emotion management, which is the individual's ability to realize emotions and control them (Hochschild, 1983: 130), can help in managing and controlling populations' emotions within the pandemic period and result in better outcomes.

6. Senism In The Post-Covid-19 Era

"Senism" theory was firstly developed by "Assoc. Prof. Dr. Erdal Şen" and it was firstly introduced in year 2000 in his book "Senizm", then many articles, book chapters and a lot of scientific work was done about this theory specially in the context of the new world and COVID-19**.** "Sen" in Turkish means: "You" in English. "Senism" is the theory for understanding the actualization and/or realization of individual by defining, measuring and analyzing "Sen in me"; in other

words, understanding and explaining "Senism" in fact is understanding and telling "You" (Şen, 2016: 117). Individuals' brain can tell them a lot about themselves specially about the "Sen" created within each individual and shaped him/her. Thus, noticing the process of each ones' brain can result in telling a lot about ones' self. COVID-19 has made people spend more time with themselves which might result in making individuals question their reality, relationships and the "Sen" present within each one of them. Individuals usually take events and create stories about themselves in the aim of creating their own reality, which might not be even real. Stories of being a "victim", "survivor", "strong", "resilient" are all created by individuals due to the "Sen" inside of them that shaped this story and made them call it "reality". Individuals look at same things but interpret them and perceive them differently according to the "Sen" inside of them that makes them perceive things based on a lot of things such as their programmed brain, childhood, biological factors, neurological factors, expectations, perceptions, environment, education, memories, preferences; in other words, how they give meanings and interpret their reality and things around and inside of them. In this matter, redefining a lot of terms can change their power of shaping the "Sen" inside of each individual. During COVID-19 period, many terms have gained new definitions specially on the individual level, such as emotions, behaviors, perceptions, motivation, attitudes, decisions (e.g., consumption, social, individualistic decisions etc.), needs and wants. Emotions such as fear, anger, anxiety, obsessions etc. have been redefined resulting in redefining the individual. For example, now fear has gained a new definition by individuals by which, people are now fearing normal things like sitting beside someone in public transportation or any other settings, fear of a cough or a sneeze, fear of not having enough knowledge about the virus, shaking hands, hugging, having social interactions, not maintaining the right social distance, travelling, conducting face-to-face meetings, going to work etc. In addition, anger for example, has been as well redefined, as a lot of individuals are getting angry at things, they weren't angry at before the emergence of the COVID-19 pandemic, such as the anger of not maintaining the appropriate social distance, anger at people who are not wearing masks or not biding to quarantine measures and at those who are ignorant on taking the PCR test despite of contacting with infected individuals etc. Thus those new definitions of those terms and many other terms have shaped the individual' behaviors and his/her definition of "Sen" inside of him/her which led him/her to change his/her decisions about many aspects of life such as in production and consumption, interaction with other individuals and redefinition of the individual himself/herself. Thus,

it's important to understand how "Sen" within the individual is shaping his/her behavior. A lot of individuals are driven by motivations weather they are extrinsic or intrinsic such as purpose and a lot of them don't know their own goal so instead they create ones without knowing why , if they ask themselves what is this goal really bringing them they will understand what does the "Sen" inside of them wants (e.g. power, achievement, love, learning, experience etc.) and thus, this will help in them reach and define the core values present within them. In this matter, understanding and being able to define the "Sen" within each individual can lead to better understanding of why he/she behave, consume, fear, stress, make decisions, love etc. For example, one can love someone just because that person shapes the "Sen" inside of him/herself. In this respect, it's important to understand how "Sen" inside of each person can be used against him/her in media, advertisements, relationships, life, decisions, consumption patterns (e.g. a product can be only purchased because it gives the sense of "Sen" inside of "me" within an individual). As every individual is being distant of "Sen" inside of "Me" (Şen, 2000: 10), the disruption caused by COVID-19 worldwide, has made the world rethink about what is truly valuable (Schwab & Malleret 2020: 23) and individuals who have getting to discover their life, purpose, values, meaning, reality, humanity, truth and their own selves, in other words: "the Sen inside of Me" might rapidly increase (Şen, 2020a: 199). Thus, this raises the question on how the individual and society will need a reset through redefining and resetting priorities, perceived truth, humanity, individual's interaction with the world, resilience, sustainability, value, awareness, capabilities, time, consumption, and leadership (Şen & Tarabah, 2020c: 449). Digitalization and globalization have had many impacts including economic, social, political and cultural but most importantly their main result was through the "Individual". For example, messages in "Sen Advertisements" that revolve around "Sen" (You), such as "You are beautiful", "You are valuable", "You are unique" etc. have increased the importance of "Me" by putting the individual in the center. In terms of today's digital age , COVID-19 and the "New normal" , one of the most powerful indicators of change and transformation are words starting with "Re" & "New" such as "Redefine", "Restart" , "Recreate", "Re-experience" "Re-adapt, "Re-listen", "Re-alter", "Re-form", "Re-express", "Re-incorporate", "Re-introduce", "Re-begin", "New Management", "New Normal", "New Paradigm", "New Political Structures and Systems". "New Applications", "New Currencies", "New Admissions", "New Economic and Financial Systems", which can all have increased significance in the time of COVID-19 (Şen, 2020b: 58). The new world that emerged as a result

of digitalization demands re-evaluating all the concepts associated with management, in this regard, management being the center of many transformations and change must be re-evaluated in the context of multiple variables including the individual, society, system basis and institutions, so in this matter, "Senism" and "New Management" can result in the change and transformation of the world (Sen, 2020c: 254). In the terms of the digital world, where information, communication, production and many other variables have changed, the definition of the individual might relatively change as well and a lot of theories such as Maslow's Hierarchy of Needs by Abraham Maslow, Capital (1867) by Karl Marx, The wealth of Nations by Adam Smith might need to be updated and evaluated in the terms of the new world and a lot of terms such as desire and need must be redefined prior to the "Sen Age" which is the period ahead of the digital world (Sen, 2020a: 196). In which, digital revolution and globalization were the key variables that directly/indirectly affected the development and formation of the "Sen" inside of "Me" that shapes "Me", perceptions, attitudes, feelings and thoughts (Şen, 2020b: 60). Additionally, in the context of the "New normal", the main and most vital results of digitalization is realized through the "individual" and all the current systems, process and structures are being redesigned in this scope, by which "Senism" theory that lies between "me and Sen in me" approach can provide the future perspective through defining the "individual" and the environment (Şen & Duygun, 2020:129). Likewise, decision-making process, perception, association between feelings and thoughts are significant issues to evaluate the rational-emotional facts that impact behavioral outcomes of individuals, at this point, "Senism" is the theory for analyzing the individual's actualization of self in the process of ascribing meanings to his/her life and all variables associated and the direct relationship between the individual's emotional realm with the real and rational world, namely his/her rationality (Şen, 2016:127). Born with the current situation of globalization and current developments related to digitalization, the breaking point of processes in human history will be through the "role of the individual in the future", thus "Senism", can stand out due to its conceptual concept of "Re-defining the individual" (Şen & Batı, 2020:82).

7. Conclusion

Developments and innovations, especially in "Information and Communication Technologies (ICT)" since the mid-1990s, deeply affected the world (Şen & Tarabah, 2020d: 79). In this context, today's globalized world is characterized with

the rapid changes, information and industry revolution and the development of digital technologies which is resulting in a complex and uncertain environment and also bringing trends of change at both organizational and individual level, making the world strive to develop special strategies and abilities to gain competitive advantages, respond to the high competition and survive in such era of uncertainty (Şen & Tarabah, 2020e: 92)**.** With the emergence of COVID-19, concepts associated with globalization and all the economic, political, social, cultural, military, ecological and technological dimensions are being increasingly analyzed with digitalization and the concepts associated with it. In this matter, the "new normal" will continue to define the individual's existence and role within the production and consumption systems, by which it becomes important to focus on the "individual" as the "new" starting variable within the Social Science field (Şen & İrge, 2020: 228). COVID-19 has also increased the importance of digital technologies and has resulted in many changes in the basic concepts of systems, institutions, nature and most importantly the individual. COVID-19 can be the transition period for individuals that will lead to individuals redefining the "Sen" inside ones' self due to the imposed new normal. In this context, the pandemic will re-define the "individual", "organizations" and "systems" and the history has been re-written within the "Digital Revolution Era", thus, "Senism" is the basis conceptual framework for re-defining and managing the system within the variables of individual and organizations. By which redefining the individual means redefining the systems, organizations and nature as well, since the individual is the center of these variables. The role of individual has changed specially within the pandemic period and will continue to change within the production and consumptions systems as well and this period lays the groundwork for a self-centered and or selfish perceptions (Şen, 2020d). As people started to question themselves more in the light of all the internal and external variables that make "Me", ourselves, our loved ones, our environment, nature etc. thus, the individual whose starting point is "Me" will reveal the importance of the perception of "Sen (You) in Me". Terms associated with the "individual", are explained and better understood by neuroscience which also utilizes technology to better understand the brain physiology and function , in this matter digital technologies such as the ones of Industry 4.0 including machine learning, artificial intelligence etc. can be of significant use and help, especially during the times of COVID-19 pandemic to help in understanding the individuals' brain that has significantly changed at such hard times in order to manage this change and provide early interventions. Understanding the "Sen" within each individual", neuroscience and

the role of technology may lead to define, understand and evaluate the "individual", which can lead to better understanding and managing individuals. The "Era of Me" is making individuals think about themselves independent of nature, society, whole world etc. (Şen, 2020a: 197-201) and this explains a lot of selfish behaviors that occurred during the pandemic. Since the individual has been always put in the center and all the other elements of nature and the external environment in the second place (Şen, 2020a: 178). Thus, this situation can be defined within the scope of the "Theory of Senism", which criticizes the unhealthy consumption model of many individuals in the age of globalization and digitalization (Şen & Tarabah, 2020d: 83). COVID-19 has also impacted individuals' mental health in huge terms, which raises the question on how resilient individuals, systems and organizations will be and how will they be able to survive, recover and bounce back when this pandemic end. Besides, it imposed a big challenge and revealed that a lot of "truth" is different than what it was perceived, it is important to understand the individual interaction with this world that emerged after COVID-19 and leading the process of resiliently adapting to the "new world and "new normal", by which it is apparent that the world needs a reset on all levels and what is known is longer enough to survive this technological and rapid world (Şen & Tarabah, 2020c: 449). It has also made all the populations within the affected countries have almost the same emotions, same way of living and much more, in this matter, it's important to understand and evaluate how will this pandemic leave an impact on individuals and whether it will lead to increased humanity and solidarity or will increase the importance of "Me" more when the pandemic ends. The basic concepts like sustainability, brain function, mental health, production and consumption, emotions, behaviors, attitudes, perceptions, decisions and motivation within the new world characterized by "Digital Revolution" may also be evaluated with managing individuals, organizations and systems interactions.

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7

COVID-19 PANDEMIC AS A DIGITAL TRANSFORMATION CATALYST

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Abstract

During the pandemic period, usual business processes and production methods were interrupted by lockdown and social isolation. Although companies initiating Digital Transformation quickly adapt to this situation, others have been unable to carry out their activities. However, the problems that occurred by the pandemic have been tried to be overcome with the facility of the ecosystem created by the companies that are at the maturity level in digital transformation with the non-competent businesses. With the pandemic, the importance of digital transformation has been understood, and its speed and effectiveness have begun to increase. The catalyst role of the pandemic and the importance of digital transformation for sustainable management and suggestions were shared within the scope of the study.

Keywors: COVID 19, Pandemic, Digital Transformation, Digitalization

1. Introduction

In the organizational and industrial environment dominated by change and uncertainty, efficiency, productivity and sustainable competitive advantage have introduced the concepts of Industry 4.0 and digital transformation into management practice. In this context, digital transformation can be defined as a value proposition process to meet diversified customer expectations by building activity and a participation-oriented digital ecosystem in which all stakeholders are integrated with the opportunities provided by information and communication technologies. At first, the digitalization process was progressing slowly due to

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various obstacles or justifications considered as obstacles. Although it was stated that digital transformation is important in researches conducted on this subject, taking active steps towards digital transformation remained at the level of 3.2%, as seen in a report on 3000 executives covering 17 countries (SAP, 2017). However, the Covid 19 pandemic unexpectedly and rapidly spread around the world and triggered serious problems and unfamiliar situations from social life to economic life. Employees have moved away from the workplace environment, service and product delivery have been interrupted, and the world has been caught unprepared for this. Businesses have sought a platform to reach their customers, a system to reach their employees, and integrated ways to communicate with each other. This difficult situation and the Covid 19 pandemic have accelerated the digital transformation processes of businesses. While businesses that are at a certain level in this regard immediately recovered, businesses that do not include digital transformation among any investments and priorities have made an effort to manage this process with the support of other businesses. In other words, the covid 19 pandemic has a catalytic role in accelerating the digital transformation of businesses (Soto-Acosta, 2020; Agostino, Arnaboldi, & Lema, 2021; Mhlanga & Moloi, 2020; Nagel, 2020). Digital transformation and the preliminary steps in this way have enabled businesses to survive by meeting the needs of the pandemic and adapting to the requirements of the new normal. In this context, the concept of digital transformation and the effect of the COVID19 pandemic on digital transformation were discussed within the scope of the study. In the study, first of all, the literature on the concept of digital transformation was summarized, the reports on digital transformation performance in the world and Turkey were shared, and the impact of the Covid 19 pandemic was explained. In the last part of the study, recommendations to decision-making mechanisms and managers were shared. It is considered that the study has significant contributions to the sustainable social welfare to be created by digital transformation during and after the pandemic period and to increase awareness regarding this.

2. Digital Transformation

As stated by Gartner (2020), Digitalization is a business's changing its current business model, using technology to create an opportunity that generates new income and value, and gaining a digital identity to its business in line with these developments. Digital Transformation, on the other hand, is a definition that covers all kinds of processes from the renewal of the existing information technologies of

the enterprise with a more inclusive and general approach, digital optimization, and the introduction of new business models to respond to the needs (Gartner, 2020). Digital transformation represents the last stage reached after a few stages in the managerial process. As can be seen in detail in Figure 1, the first stage starts with the transfer of analog processes to the digital dimension. The second stage, digitalization includes a comprehensive transformation of core business operations with the help of digital technologies and information management systems. The last stage is digital transformation refers to a fundamental and comprehensive change process, including the culture, workforce, and way of doing business of an enterprise.

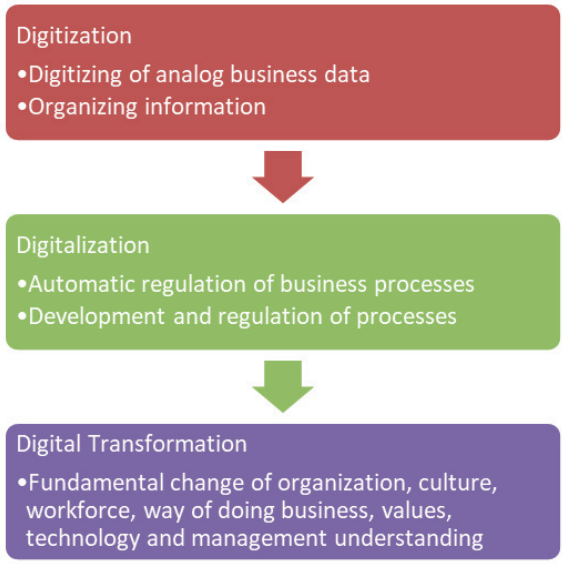

Figure1: Stages of Digital Transformation
Source: Consider the Three Ds When Talking about Digital Transformation (Renitz, 2020)

Digital transformation is not only the use of technological facilities in the operational processes of the organization but actually a value proposition and service delivery for the customer and the business. At this point, the strategic position of the enterprise according to the nature of the operations and the level of IT usage for the product/service is decisive. This situation is summarized in Figure 2 below.

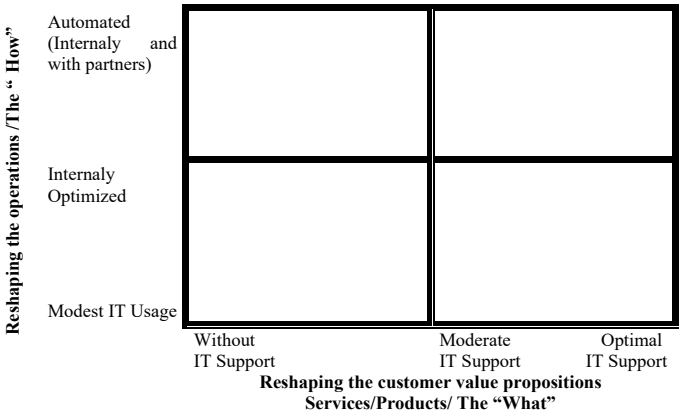

Figure 2: Dijital Transformation Dimensions
(Berman, 2011; Wißotzki, Sandkuhl & Wichmann, 2021)

Having examined Figure 2; It is seen that four areas are consisting of two basic dimensions. "*Reshaping the value proposition dimension*", which is the first of the basic dimensions, includes the review of the current approach of the enterprise, especially at the point of creating value. Here, the business should add new capabilities and approaches to mobility and customer-business interaction by reviewing all processes in its products and services, from obtaining information to customer engagement. In this way, the Business continues in the competition process with the customer value that will be created against various customer expectations. Reshaping the operating model dimension is about the reorganization of the operational processes of the enterprise according to the customer priorities and the expectations of the actors in the value chain. That is, it is related to how operational processes work. In this process, efficiency is realized by the integration of data and operational processes based on internal and external customers' preferences and requirements and an effective information management process. As can be understood from Figure 2, the level to be reached is achieved by using the optimal level of information technology at the top right and the automatic integration of all internal and external processes, thus achieving the main goal in digital transformation. However, the problems faced by companies in this process are examined in detail within the framework of sector reports prepared with the

participation of various institutions and actors. The report prepared by Warning and Weber (2017) stated that companies are seriously affected by the digitalization process. Although this effect is no about the number of employees, it has been stated that digital transformation initiatives affect the dynamics of the employees to be recruited more meticulously and their intention to quit their jobs. With digitalization, different roles are assigned to new employees and it is expected to have skill sets suitable for these roles. Advanced communication skills and knowledge are among these expected capabilities. It is stated that the aforementioned talent gaps and the need for development are the main problems for now. In addition, the financial aspect of digitalization and organizational resilience issues to change also emerge as another important barrier.

Wißotzki, Sandkuhl, and Wichmann (2021) emphasize that it is important for businesses to review three topics for an effective and successful digital transformation process. The first title is **Business Model Management.** The business model is about how the enterprise uses its resources in the value creation and proposition process and how it manages important business processes. Second dimension **Capability Management;** what abilities it has, to what extent it uses its resources, and how well it uses compared to its competitors. Capabilities play an active role in achieving a business's goals. At this point, enterprises should correctly determine their basic capabilities and skills that should be as required by the day. The third dimension is **Enterprise Architecture Management (EAM)**. The Business architecture expresses the basic strategy, governance, and critical business processes of the business. It is about maintaining all business and processes that serve the vision and strategy of the enterprise with a certain procedure and basic approach understanding. *(*Ahlemann, Stettiner, Messerschmidt, & Legner, 2012). With changing and developing technologies, managers have to improve EAM. For example, structural integration of IoT technologies in the organizational environment is important. As you can see, the digital transformation process involves a paradigm shift rather than transferring the workflow or processes to the digital environment as it is. Digital transformation includes a change and innovation process that starts with business and processes and then extends to the business model. This situation also requires being more agile and innovative. It requires an enterprise to be agile, innovative, restructuring and improving its capabilities in its value generation process. Finally, businesses should build the business architecture by this new business model and capital management.

3. The Current Situation of Digital Transformation in the World and Turkey

Digital transformation requires the use of information technology and the secure integration of all actors in every field from business processes to the relationship they establish with internal and external customers. This situation occurs both with the advancement of technology and the desire of businesses to take part in this developmental process. Although the production logic and developing technologies introduced by Industry 4.0 have started to produce value, digital transformation is seen as a costly process and difficult to implement at the point of resistance of internal dynamics to change in the current situation. In this section, the stage at which businesses are globally and in particular in Turkey, and their perspectives on digital transformation will be examined.

Digital transformation may not be seen as costly and effective at first due to its complex structure and the need for an integrated working mechanism. However, the estimations made and the reports prepared on this subject show the opposite. A report prepared stated that the digital transformation will create an economic revenue of approximately 30 trillion dollars on a global scale, covering various sectors, especially the automotive and logistics sector. It is stated that, thanks to the Internet of Things, approximately 11 trillion dolars will be realized as of 2025 and that the potential revenue of 30 trillion will be reached in a short time. Within 10 years; 100 trillion dollars, but it is seen that governance has a great role for effective results (Akarun et al., 2020).

In determining the situation for digital transformation in the world, Fujitsu (2019) conducted a study with 900 senior executives in 9 different countries on developments in the digital transformation process, trust in data, AI and people in decision making processes, leadership style, human resources and digital tranformation ecosystem. In this context, it is emphasized that 87% of enterprises have started the digital transformation process, and financial and transportation companies are at the forefront in this regard. The Report pointed out that companies being relatively at the forefront in the digital transformation process and aware of its importance have some common features.

- *Leadership*
- *Ecosystem*

- *Emowered People*
- *A Culture of Agility*
- *Value from Data*
- *Businesss Integration*

It is stated that increasing the effectiveness of these issues and being within the organization are important prerequisites for a successful digital transformation and it is important for organizations to invest in these muscles as "digital muscles". It is seen that one of the important topics in the digital transformation process is "data security for online data". It is stated that 72% of the participants have hesitations both personally and in practical applications. In addition, in AI-based decision-making systems, due to the risks that may arise from manipulation of data or incorrect data, Participants (52%) do not yet rely on AI-based decision-making systems. It is emphasized that a leadership approach based on employee empowerment and an effective work-life balance are important for the healthy progress of digital transformation. An organizational climate that trusts its leader and its capacity within its jurisdiction, and the brand image and trust for a customer who shares personal data with the company in return for the service or goods to be received are important issues. The report also states that 87% of the participants, consisting of 900 senior executives from 9 countries, carried out the planning and test trials in 3 years, and 13% continue their research on this subject. It is stated that while the financial and transportation sectors lead the progress in the digital transformation, the healthcare and wholesale/retail sectors are the most behind.

Again, Fujitsu's (2020) Report, which is prepared for digital transformation on a global scale and includes the changes in the pandemic process, emphasizes that the interest of enterprises in creating value for society rather than profit maximization has increased and digital transformation is the key element in this process. In the process of creating value, the idea that dominates both the management culture of the enterprises and the perspective of the employees was tried to be further developed and that the effort to transform into business strategies and organizational culture in a way that would create value for the society was dominant. The important issue here is that digital transformation, which is dealt with from a single perspective such as profit generation, is now undertaken in a mission to create value for society and the future. In this context, creating value for the employee and the customer and a sustainable society understanding; has become

the main goal of digital transformation. To achieve this goal, it is emphasized that there are gaps in the following issues and should be improved:

- Adapting business strategies and models to an understanding of creating value for society
- A synergistic ecosystem with high collaboration and participation of various actors
- Adopting a long-term and social benefit-based approach

The study conducted by Gurumurthy and Schatsky (2019) on 1200 executives shows that businesses have increased their digital transformation budgets by 25%. In the report, It is shared that enterprises focus on infrastructure and talent issues in the digital transformation process, the importance of digital mindset, and a noticeable increase in the financial performance of those who attach importance to digital transformation. Again, Gurumurthy, Schatsky, and Camhi (2020) discussed why businesses that have made progress in the digitalization transformation process exhibit more financial performance and efficiency in the following headings: "efficiency, revenue growth, product/service quality, customer satisfaction, and employee engagement" . As a result of the first steps taken on the way to digital transformation, the development of IT applications of enterprises has enabled Efficiency to increase. For example, with mobile applications, it was shared that online sales of restaurant chain Chipotle increased 20% compared to store sales in 2019. Again, the competence provided on data has increased the quality and security in production and service. Employee engagement has been increased with customer satisfaction and intra-organizational development programs through digital applications. As can be seen, digital transformation increases financial and managerial efficiency.

Increasing digital transformation awareness with Industry 4.0 has brought developments especially in Turkey and some reports have been prepared for current situation analysis. In a report prepared for the current state of digital transformation in the industry; It is stated that a paradigm shift prevails and digitalization rewrites the rules of the game. These new game rules that come with digital transformation; *"Customer Demands and Mass Customization; Value of Data and New Business Models; Resource Constraints and Sustainability, Investment and Transition to Skilled Workforce "* (TÜSİAD - BCG Turkey's Industrial Digital Transformation Competence, 2017). The main actor of development will be "digitalization". Digital

transformation enables companies to improve their operational processes and to respond to different and diverse customer demands in a correct and high-quality manner. With the benefits of an effective big data analysis, it can be provided service and product beyond the expectations of the customer. It also creates more efficient, environment-friendly, and sustainable production and business processes. The digital transformation process is a transformation process that reconstructs the source of the business and also ensures data security. TÜSİAD - BCG Turkey's Industrial Digital Transformation Competence (2017) report, which is one of the first reports examining the situation of Turkish companies in the digital transformation process, showed that western countries are ahead of Turkey in this regard. In the report, the perspectives of companies in Turkey towards digital transformation are interpreted as follows:

- Companies consider digital transformation with low levels of interest and knowledge.
- Some pilot projects are being carried out.
- Most of the businesses remain in the background in terms of strategy, road map, and governance competencies.
- The biggest obstacle is the investment cost.

As a solution to these issues in the report, it is suggested that a skilled workforce should be developed, data security, and technological infrastructure should be structured by the requirements of digital transformation. With the support of local and international organizations in planning, determining a digital transformation strategy on a national scale and developing governance activities were shared.

As a matter of most reports, although high costs pose a problem for a country where SMEs occur especially for 99.8% of companies in Turkey (TUIK, 2020), it is stated that an unexpected momentum has been gained with the pandemic for digital transformation (Digital Transformation Center's Report, 2020). It is emphasized that big enterprises prepare road plans in the digital transformation stage at certain rates for the expectations of the industries and to establish a competitive advantage, and SMEs accelerate the process to a certain extent in transformation process. In the name of an accurate assessment, barriers to digital transformation have been discussed in detail. The Digital Transformation Center Report (2020, pp.28) summarized the barriers to Turkey's digital transformation as follows. It has been shared that businesses lack inter-sectoral and intra-sectoral

information sharing and initiative, and there are few incentives for digital transformation. In addition, it was shared that the technical infrastructures of the enterprises were not at a sufficient level, regional problems were experienced at the point of a skillful workforce, and the legal regulations were not at a sufficient level. In addition to these, it is stated that the understanding that digital investments can harm existing intra-sector collaborations and the uncertainty about the return of an investment in digital transformation appear as barriers in the digitalization processes of SMEs.

4. The Effect of Covid 19 Pandemic on Digital Transformation

The COVID 19 pandemic, which affected all areas of social life practice in a short time all over the world, deeply affected businesses and the interaction between business and customer. The desire of the enterprises, which are distant from digital transformation to a certain extent, to continue with the traditional business processes, caused the enterprises to encounter serious problems due to the sudden developments in this period. The isolation of social life has forced all businesses to review their current business management and value provision processes. Being distant to digitalization or slowing down this transformation process has not only reduced competitiveness but also negatively affected the life cycle of businesses. It is stated that many businesses, especially the air transport, hospitality, and travel industries (Davies, 2021), and four out of five people's employees (BBC, 2020) are affected. In addition, employees staying at home during the social isolation period triggered a sudden and rapid change in the business model (Sein, 2020; Li, 2020). The fact that even businesses that do not consider working remotely have to perform in this way has deeply affected the strong bureaucratic and mechanical organizational structures and forced them to adopt leadership and organizational climate that offers flexibility and autonomy to employees (Dittes, Richter, Richter, & Smolnik, 2019; Richter, Leyer, & Steinhüser, 2020). Employees suddenly started working remotely on various internet and cloud-based platforms and sought an alternative to the "old normal" to carry out organization operations and interact with the customer. Likewise, customers who have to stay at home are in search of a new platform to interact with businesses (Knowles, Ettenson, Lynch, & Dollens, 2020). An intellectual paradigm shift has been imposed due to the pandemic in the triangle of the customer, employee, and business. It is stated that the behavior of the consumers in the pandemic conditions and the aftermath will affect their consumption habits and trends. It is emphasized that

digital transformation will have to increase even more in this process and businesses should give the necessary importance to digital transformation to survive and grow again (Kim, 2020).

Researches believing that creating value and developing a business model on the platforms offered by digital transformation and digital technology will be the only reality of the future (Remane, Hanelt, Nickerson, & Kolbe, 2017; Porter & Heppelmann, 2014). could not foresee that the future will be experienced at such a high cost by all businesses and customers. As a matter of fact, digital transformation has emerged as a serious alternative to businesses in the face of environmental changes and unforeseen events. External pressures and expectations that occurred during the pandemic period had a faster and more destructive impact (Kim, 2020) than the disruptive innovations and developments experienced between industry and competitors in the usual competitive interactions (Gupta & Bose, 2019).

As Hardy (2020) stated, it is clear that the pandemic brings a new and different perspective to businesses and individuals in digital transformation. It has been understood that technology basically exists for human beings, and digital transformation is not just business speed and growth, is actually a powerful tool and enabler for us to come together to solve complex problems. Cloud-based artificial intelligence, whose usage and spread are approached with hesitation; made important contributions to the development of new treatment methods and vaccines during the pandemic period. Again, Kaggle (a data science tool help scientist) has made significant contributions in interpreting the information about the COVID 19 virus. It has been experienced that digital transformation is no longer a choice, but an important actor in solving social and economic problems deepened by the pandemic and creating value for the society. In this context, it is important to continue the awareness created by the pandemic. As a matter of fact, the pandemic, which is felt in every field from production to consumption, has become more diversified and personalized. Businesses had to digitize more business processes during the pandemic period and had to generate value to survive in existing and emerging markets through digital transformation, which is described as "business model ambidexterity" (Soto-Acosta, Popa, & Martinez-Conesa,2018; Soto-Acosta, 2020).

Various industries developed rapid responses during the pandemic period. Restaurants developed their own applications and package services during the lockdown

and social isolation period. Again, different platforms have produced solutions for businesses that cannot afford time and finance for this transformation. Even artists and museums held exhibitions online (www.digitalmuseums.at; https://www.peramuzesi.org.tr/ ..etc).

Although Digital transformation makes us think that it will cause the loss of the jobs of employees in the pre-19 period, in fact, in a study, it is stated that at most 20% of the jobs can be done with automation, on the contrary, digitalization will bring new business facility and tasks (Reese, 2018; Soto-Acosta, 2020). The pandemic has acted as a catalyst in the development of new business ideas and business models. For example, rentable scoters defined as "Martı (seagulls)" in Turkey, "getir, iste gelsin vb.." have shown that digital transformation enabled digital startups to become stronger. In short, the pandemic has contributed to the widespread understanding of creating value for customers and society, which is the main purpose of digital transformation. Integration of internal and external processes, which is the main purpose, with information systems and the interaction provided with the understanding of value creation has been better understood. In a study examining the impact of the pandemic on SMEs during the pandemic period within the scope of digital transformation, it was stated that businesses at the maturity level accelerated their digital processes, medium-level enterprises with liquidity problems but still accelerate the digital transformation of the sales process, and companies with low digital transformation levels to establish partnerships with higher maturity level companies and continue the competition process through their social capital (Priyono, Moin & Putri, 2020). This shows that all businesses have entered the digital transformation process to a certain extent thanks to the pandemic. As a matter of fact, it is considered that this awareness and the understanding of doing business together with the effect of the pandemic will continue after the pandemic and that the digital transformation will spread further and reach the intended level will make significant contributions to the solution of social problems both financially and socio-economically.

The COVID 19 pandemic has increased digital transformation (Soto-Acosta, 2020; Agostino, Arnaboldi, & Lema, 2021; Mhlanga & Moloi, 2020; Nagel, 2020; Bogdandy, Tamas, & Toth, 2020; Savić, 2020). It is emphasized that digital technology and transformation are important during the pandemic period. As Mine and Dahl (2021) stated; When we left our normal life course, digital business solutions and platforms made it possible for us to continue our lives

and interactions. Digital transformation is "just not nice to have" and is an issue that needs improvement. Both the public and private sectors have made dramatic progress in the digitalization process in a short time, and some of the digitization steps that have been taking for many years have been experienced quickly. In addition, while 52% of the workforce is planned to gain new skill sets within 5 years in the digitalization process in the pre-pandemic period, this table has been reduced to a short period of 12 months due to high job losses and the pandemic. In this context, digital transformation is accelerated in Europe with a high budget. Mine and Dahl (2021) summarize what will be done within the scope of the lessons learned from the pandemic as follows: "It is important to develop data and infrastructure to prevent and treat pandemics and similar diseases like Covid 19, and to prepare businesses for a safe, resilient, innovative and green competitive environment. In addition, it was emphasized that it is important to accelerate digital transformation in public services, reduce energy consumption, develop qualified and good jobs, and take necessary measures against cyber threats.

The report prepared by Mine and Dahl (2021) in question not only set out due diligence and targets but also stated what headings were targeted by 2030. The dimension of digital education, skills, and inclusion is aimed to choose the future professions with the help of AI and to bring the requirements of the digital age to schools. The dimension of digital healthcare is aimed to accelerate research and development activities by improving the health system and safety of the EU, especially thanks to the accessible data of patients. The dimension of digitalizing SMEs and scale-up size is aimed to ensure the development of the commercial activities of SMEs and companies by making public data accessible. With The dimension of digital transformation, innovation, and the Green Deal; In addition to modern building systems and projects, it is desired to make it possible to develop examples of environmentally friendly innovation. the dimension of connectivity and infrastructure is aimed to provide access to data with 5G and structural improvement by enabling urban-rural digital interaction. As can be seen, digital transformation has been identified as an important role and actor in solving the problems caused by the pandemic.

The last report of the Digital Turkey Platform (2021), which reveals Turkey's plan in the digitalization process, expresses the following points. A matter that is unlikely to happen as a pandemic has dramatically affected the social life practice and the way of doing business. Therefore, it is emphasized in the report that it

is understood how important digital transformation is in solving the problems that occur and are likely to occur in the future. It is suggested to create a "digital resilience" by making progress at every stage of this radical change by interacting with society, individuals, businesses, and the public. Within the scope of the report, Turkey's 2025 goals are shared. These are that it is aimed to increase the use of digital services, ensure equality of opportunity, adopt entrepreneurial approaches, increase the rate of digitalization in education and e-government-style platforms, increase the use of cloud computing and improve connectivity. It is stated that Turkey aims to move forward by putting people at the center of the digital transformation strategy. As can be seen, it is clear that with the pandemic digital transformation has become a necessity at the scale of Turkey, and emerged as an important power multiplier of being in both industry and the public sector.

5. Conclusion

COVID 19 pandemic affected all facets of life. It has deepened the socio-economic problems that already exist in the world. Lockdown, social isolation, and various illness concerns have caused individuals to stay at home, to work remotely, to be unemployed, to become unable to meet their basic needs. However, these situations also increased the awareness of businesses that have a fundamental perspective of creating value for society. As a matter of fact, the digital transformation process, which has a relatively slow development curve after Industry 4.0, has been accelerated by the catalyst effect of the pandemic. Digital transformation is the process of developing new business models with the perspective of creating value for society with the integration of information and communication technologies. The negative experiences during the pandemic period accelerated the digital transformation and revealed its importance to continue the interaction between customer-business-employee effectively under all conditions. Companies that have made some progress in digital transformation have increased their investments even more, and some sectors such as the health sector (Fujistu, 2019), which were previously emphasized to be lagging in the reports, have rapidly adapted to the transformation. Again, businesses that are far from transformation due to some financial and cultural reasons have entered the way of digitization with the help of other partners, even if it is limited to the sales channel. The pandemic has important contributions to the vitality and acceleration of digital transformation. Again, as stated in many reports and articles, digital transformation plays an important role in healing the wounds of the pandemic. It is

pleasing that many action plans have been determined in the public and private sectors to continue this awareness and developmental process in this context in the post-pandemic period.

Pandemic has revealed the fact that a digital transformation is a future-oriented approach with a value creation philosophy rather than automation centered solely on profit-making. Employees have noticed their lacking skills during the remote working period, the businesses have understood the importance of being integrated into each other with digital transformation, and that customers have found new ways to diverse expectations on various platforms. The digital transformation process, which accelerated with the pandemic, has increased the awareness of the shortcomings in this regard and the transformation of organizational resistance into "digital resistance" against unexpected conditions. As a matter of fact, it is important to continue with an objective attitude towards what needs to be done towards this awareness, for the permanent solution of the socio-economic problems that occur. To the extent of the experience and determinations gained in this context; decision-makers should consider digital transformation as a paradigm shift and accept a fundamental understanding of change through all internal and external stakeholders. The importance of taking people and the understanding of creating value as the basis of digital transformation is obvious for this situation. It is important to close the talent gaps of human resources through internal and external organizations. In this context, a paradigm change in organizational culture and leadership understanding should be the first way to follow. It is important to enabling the creation of shared value in a way that serves the purpose of digital transformation by improving governance. The "digital mindset" must be created properly both within the organization and in terms of customers. The strengthening of the necessary infrastructure and security protocols for big data, which is heavily available in the hands of the public, and the development of units that make decisions and provide services based on AI and IoT is an important step for digital transformation. Another important issue is to ensure the cybersecurity of both the customers and the companies that will be integrated into the common system.

With the impact of the pandemic period, the rules of the game have become even more challenging, and digital transformation has become the most important factor for competitive advantage and survival. It is considered that it is important for decision-making mechanisms and managers to further the digital transformation

triggered by the pandemic by creating a participatory, green, innovative ecosystem and organizational culture for a sustainable and effective management approach.

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8

INVESTIGATION OF THE EFFECT OF THE ORGANIZATIONAL CULTURE PERCEPTION AND JOB SATISFACTION LEVELS OF HEALTHCARE PERSONNEL WORKING IN COVID-19 INTENSIVE CARE ON JOB STRESS DURING THE PANDEMIC PROCES

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1. Introduction

The concepts of health and nutrition are at the top of the concepts that emerged with the existence of human beings. The condition of continuing a life after human existence is directly related to health. In a situation where there is no health, it will not be possible to talk about individual and social welfare. This is why individuals as well as states and even international organizations have to be very careful about health.

According to the World Health Organization, health, which is defined as not only the absence of disease or disability, but also the state of being physically, spiritually and socially as a whole (www.who.int), refers to the absence of any disease or disability in the body of individuals (Beyatlı, 2017: 25).

Countries allocate serious resources in the field of health in order to ensure that the health level of the individual and / or the society remains at a certain standard.

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These resources consist of various items, especially finance and labor. In fact, this resource allocation is so important that the ratio of the budget allocated to health to the total budget is also among the development indicators. It is important to examine the organizational behavior characteristics of the employees as well as the success of the health organizations, which are so important, in terms of institutional and social development.

The aim of health institutions in providing their services in the light of various functions is to ensure the highest level of patient satisfaction by providing services to their patients effectively and efficiently, saving time and cost. From this point of view, the functions of health institutions are grouped under ten basic headings and are as follows (Beyatlı, 2017: 32-34):

- Research and Development Function,
- Education Function,
- Patient Care Functions,
- Administrative Functions,
- Preventive Medicine Functions,
- Financial Functions,
- Hotel Management Functions,
- Social Functions,
- Technical Functions,
- Medical Functions.

Today's rapid and radical changes are made to increase service quality, patient satisfaction and efficiency in the management of the provision of health services listed under the headings above (Barkhordari-Sharifabad, Ashktorab & Atashzadeh-Shoorideh, 2017). In particular, the Covid-19 pandemic period has once again revealed how important the management of healthcare services is, with all its dimensions.

Health management is a multidisciplinary field that tries to respond to the complexity problems that may arise in healthcare services by feeding on many fields in a multidisciplinary format (Taylor et al. 2007).

Increasing resource use in the health sector does not always reflect on patient outcomes or public health at the same rate. There are many reasons for this, the lack of value-based competition in service delivery is the foremost and this deficiency is

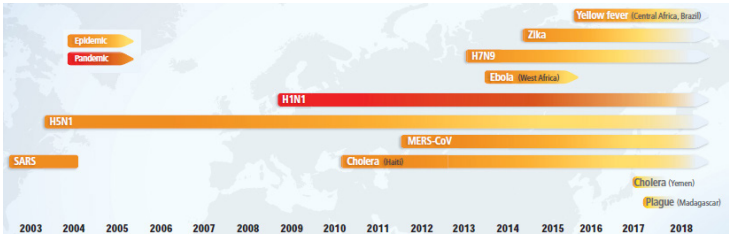
seen as the main dysfunction of the health system (Bozic, 2017). In order to eliminate these reasons, to establish an effective health system and to ensure that the results of the implementation are reflected positively to the customers, it is necessary to establish a chain of activities focused on maximizing the value of customers by offering the highest quality at the lowest price in the sector (Mella, 2019).

In hospitals where the Social Security Institution pays and in the revolving fund applications of the Ministry of Health's own hospitals, pricing is made on the basis of performance-based service delivery in Turkey. In this model, various performance criteria are used, such as feedback after the patient is discharged, annual mortality rates, reporting health outcomes within a certain period of time, completing a care threshold in a quality manner, and following clinical guidelines. The performance-based pricing model also has the flexibility to be used in conjunction with other methods, such as the value-based payment method. Due to this flexibility, it encourages service providers to change their behavior in a way that increases quality (Rosenstein et al., 2009; Navathe et al., 2019). The method has direct practical consequences such as providing services, improving care, improving service quality, reducing health care costs, improving payment efficiency for paying institutions, providing evidence-based care, reducing complications, strengthening care coordination and ensuring an increase in reimbursement (Riley, Doherty & Love, 2019).

2. Pandemic

A pandemic is one of the most important elements that threaten health on a social or global basis. A pandemic is when an outbreak begins to affect a large population and even an entire humanity, moving outside a particular region (Merriam-Webster, 2020).

Figure 1: Important Epidemics Seen In the Last 20 Years. Source: (WHO, 2018: 16).



In Figure 1, the important outbreaks that have occurred in the last 20 years from 2018 can be seen on the historical chart. In particular, it is seen that these epidemics have increased gradually over the years and have turned into pandemics not only as regional epidemics but also threatening the whole world. In parallel, some researchers argue that diseases rarely disappear and new types of diseases are always likely to emerge (Raoult et al., 2013).

Although measures are often taken, the rapid spread ability of flu-like viruses, insufficient amount of vaccines, and most importantly, the weakness of the health systems in countries where the disease continues, cause these pandemics to continue increasingly (Schwetz and Fauci, 2019; Aslan, 2020).

In hospitals or health policies that implement a value-based payment model, when acting in accordance with quality criteria and certain cost goals, people with expensive and intensive care are neglected (Lynn et al., 2015**).** However, the pandemic reversed this situation.

3. Organizational Culture in Healthcare Organizations

Mendenhall et al. (1995: 75) stated that the term "culture" in English comes from "cultura" in Latin. "Cultura" is associated with the word "cultus". While Hofstede (1980) defines culture as "the collectively programmed intelligence that distinguishes one group from another group", Koçel (2018: 76) defines it as "the sum of learned and shared values, beliefs, behaviors and symbols".

Organizational culture is a historical product that influences interpretation and behavior (Ying et al., 2014). Organizational culture is a system of tendencies that is shared by its members (Dubrin, 2005), which holds units together and gives a unique identity (Hoy and Miskel, 2010). This system positively affects the organizational processes and the results of these processes (Jenkins et al., 2008). Culture in health organizations also shows great similarities with other organizations.

The specific characteristics of the organization (Hoy and Miskel, 2010), its history, the characteristics of the employees, the communicative characteristics within the organization (Sadri and Less, 2001), the common sense of the organization (Koçel, 2018) and its identity and components (Robbins and Judge, 2013), are the main determinants of creating, managing and changing the administrative system (Pool, 2000). The sample of our study includes doctors, nurses, healthcare

professionals, assisted healthcare professionals and administrators, each with different cultural identities, and each group works according to their own interpretation systems that affect their understanding of organizational symbols (Yaşar and Sağsan, 2020).

Partial or complete closure practices during the pandemic period not only suppressed human relations, but also suppressed the routine activities of organizations. The patient-oriented but service (local work area) -based intensive service areas have been formed in the health sector, which is one of the sectors most affected by the pandemic unlike the other sectors. Healthcare professionals have begun to undertake different functional tasks in smaller areas compared with the past. Due to the spread of the pandemic, the personnel circulation in the services has increased from time to time. The shortening of patient intervention or health service delivery times has changed the working habits of hospitals.

4. Job satisfaction in healthcare workers

Job satisfaction is one of the most frequently studied job attitudes by organizational behavior researchers (Ghazzawi, 2008). In the context of Industrial Relations, most social scientists who examine work-related issues are concerned with job satisfaction. Some social scientists claim that when they approach job satisfaction from the perspective of the personal value system, the jobs that support the personal development of individuals and enable them to use their personal potentials also give them credit. As such, jobs that increase reputation are thought to contribute to meeting needs. Some social scientists suggest that job satisfaction affects individuals beyond their work lives, and that their quality of life, including the mental and physical health of employees, varies along this axis. Job satisfaction is an effective tool in increasing organizational efficiency and effectiveness (Bayram, 2019). The differences regarding the socio-cultural characteristics specific to the region where the organization is located and the nature of its institutions (Yanık and Tanis, 2020) may cause different results combined with the working hours (Başal and Şarkbay, 2020). There are many factors that affect the job satisfaction of the employees. Short and informative information was mentioned above in order to describe job satisfaction.

Health workers are undoubtedly the heroes of the pandemic era. Healthcare professionals' exposure to intense, stressful and sometimes long working hours can

push their physical limits. In addition to these difficulties, the fact that the risk of covid-19 transmission is almost everywhere in their working environment makes it difficult for them to perform the health service they have to provide. Mandatory rules specific to the pandemic have affected almost all routine health services. The necessity of working in risky environments with the change of the usual order irritates healthcare professionals. The physical and / or psychological changes in working conditions have created a different atmosphere for the employees. The quality of life or the pleasure of life of healthcare workers who deal with all these factors in a complex way will definitely change. These changes cause differences in job satisfaction level.

5. Healthcare professionals and work stress

Stress is a widely used concept today. It is often considered a term that refers to negative stimuli that affect behavior, performance, and correlations with other people. The concept is expressed as a physical, psychological and behavioral response given by a person's body (Kreitner and Kinicki, 2002). According to another definition, stress is defined as the mental and physical strain that occurs when people experience psychological or physical dangers (Palmer, Cooper & Thomas, 2004)). The two most important concepts in stress are stimulus and response concepts (Ivancevich and Matteson, 2002). Some researchers tend to perceive stress as an unfavorable situation arising solely from stimuli (Grimshaw, 2000). If the stress exceeds a certain level, it will have serious consequences for the body, mood and behavior of employees (Tran et al., 2020).

Stress is an integral part of employees ' lives and it occurs in a wide range of work conditions (Murtaza et al., 2015). In recent years, researchers have focused on effects outside of classical concepts (Bayram et al., 2020), such as non-functional factors, such as dysfunctional behaviors, , the driving force of the level of hope (Sucan, Doğan & Urat, 2016) and the diversification of psychosocial factors (Koçak and Koç, 2018) as well as classical variables that cause stress in the workplace.

The fact that people have to be in physically restricted indoor environments not only in homes, but also in health institutions for a long time due to quarantine can reduce psychosocial functionality. Being confined to a limited space itself is already an undesirable and mentally pressurized condition. In addition, the loss

of daily routines and the restriction of both social and physical contacts naturally increase psychological distress (Enli Tuncay, Koyuncu &Özel, 2020).

It is a known situation that there is an intense pressure on healthcare professionals due to the uninterrupted health service of health institutions for 7 days and 24 hours and the rapid and direct impact of the work done on human health (Çankaya, 2020). Because the health sector is service-oriented, all expectations about health affect healthcare professionals in some way. The slightest omission or negligence in service can cause chain reactions that affect each other, from the doctor to the assistant health personnel, from the cleaning staff to the accounting staff. Examples of this are witnessed at least several times a week during the Covid19 pandemic period we are currently experiencing. The pandemic period has affected the normal life as well as caused the stress to spread to almost all areas of hospital services, especially in the health sector.

6. METHOD

The following methods and techniques were used in the analysis of the data in this research, in which the scanning model, one of the quantitative research methods, was used:

6.1. Data Collection Tools

5-point Likert type scales detailed below were used in the research.

6.1.1. Work Stress

Doetinchem Organizational Stress Questionnaire VOS-D, which was adapted to Turkish by Meral Türk in 1997, was applied. The scale consists of sub-dimensions of excessive workload, responsibility, role conflict, not being able to leave the workplace, not being able to participate in the work-related decision process, lack of belief in the necessity of the job, uncertainty for the future, lack of job satisfaction, worries about work, psychological complaints, health complaints, lack of support from the chief and lack of support from colleagues. According to the results of validity, reliability and factor analysis, the last 3 sub-dimensions were not included in the research. The Cronbach Alpha value is 788, and the fit indices of the scale are given in Table 2.

6.1.2. Organizational Culture

"Organizational Culture Inventory" developed by Harris and Moran (1996) and adapted to Turkish was used. In the research, the sub-dimensions of the organizational culture inventory, the level of trust, support of participation and the effectiveness of the communication system were used. The Cronbach Alpha value is 921 and the fit indexes of the scale are given in Table 2.

6.1.3. Job Satisfaction

The 20-item short form of the Minnesota Job Satisfaction Scale, developed by Weiss et al. (1967), was used. The questionnaire has two sub-dimensions as internal satisfaction and external satisfaction. The Cronbach Alpha value is 934 and the fit indexes of the scale are given in Table 2.

6.2. Population and Sample

The sample refers to the process of selecting a piece from the population that reflects all characteristics of the population that constitutes the subject. The sample is a small example of the chosen whole. When choosing a sample, it is important to note that the sample is representative and of sufficient size. The research conducted by selecting a sample can be as valid, healthy and reliable as the results obtained by examining the whole population, as well as time and cost effective.

300 of the 462 healthcare workers working in the intensive care units of Kayseri City Hospital were accessed for the research. While some of the interviews were conducted by face-to-face questionnaire application method, most of them were carried out by sending the questionnaire forms to the employees and collecting them after a certain period of time due to the pandemic process. The collection process of the questionnaire forms took approximately 50 days due to the intensity of the employees' working pace and the shift method.

Table 1. Frequency and percentage distribution of participants according to several variables

Variable (n=300)		Frequency	Percentage (%)
Gender	Male	180	60,0
	Female	120	40,0
Age	Age 18-30	33	11,0
	Age 31-40	45	15,0
	Age 41-50	140	46,7
	Age >50	82	27,3
Experience	1-5 years	72	24,0
	6-10 years	67	23,3
	11-20 years	106	53,4
	21 years or more	55	18,3
Term of employment in hospital	<1 year	64	21,3
	1-5 years	70	23,3
	6-10 years	94	31,4
	11 years or more	72	24,0
Job title	Consultant Dr.	61	20,4
	As. Doctor	30	10,0
	Nurse	126	42,0
	Delivery nurse	51	17,0
	Health officer	12	04,0
	Medical secretary	20	06,6

6.3. Research Model, Hypotheses and Results

The hypotheses of the research conducted to examine the impact of the organizational culture perception and job satisfaction levels of healthcare professionals working in the Covid-19 intensive care unit on job stress during the pandemic process are as follows:

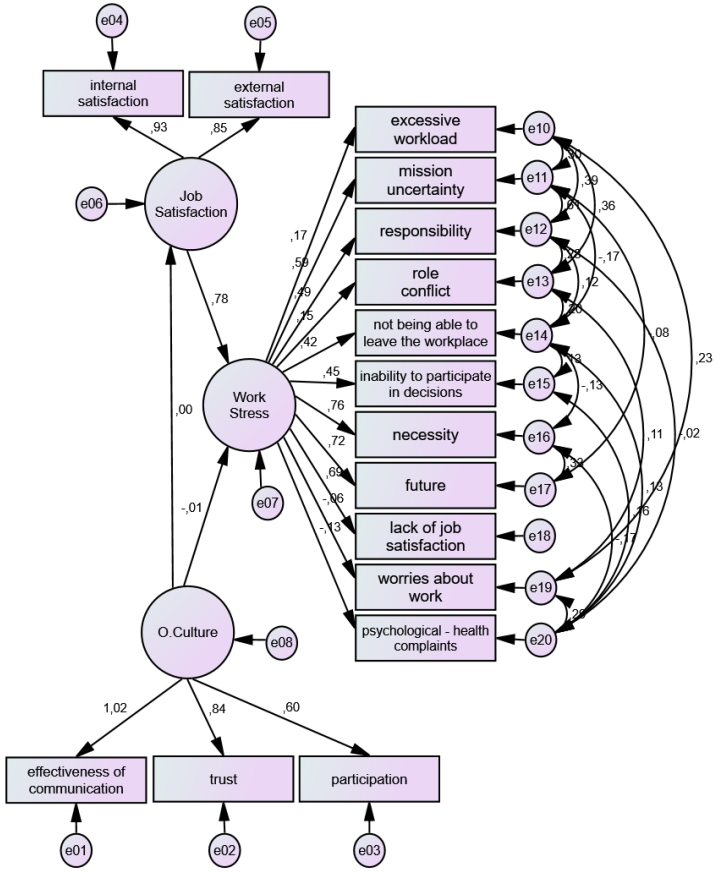
H_1: Organizational culture has an impact on work stress.

H_2: Organizational culture has an impact on job satisfaction.

H_3: Job satisfaction has an impact on job stress.

After the validity and reliability analysis of the scales used in the research, the factorization levels were investigated. After the exploratory and confirmatory factor analyzes were made, the hypotheses were tested through the structural equation model shown in Figure-2.

Figure 2. Research Model



The fit indexes used in the research are as follows.

Table 2. Fit Indices

Fit Measure	Good Fit	Acceptable Fit	Organizational Culture	Job Satisfaction	Organizational Stress	Model
χ2/df	,0 ≤ χ2/df ≤ 2,0	2 ≤ χ2/df ≤ 3	2,790	,797	1,077	1,266
RMSEA	,0≤RMSEA≤,05	0≤RMSEA≤,08	,075	,000	,025	,047
NFI	,95≤NFI≤1,00	,90≤ NFI≤,95	,937	,911	,938	,989
TLI	,95≤TLI≤1,00	,90≤TLI≤,95	,934	,926	,989	,959
CFI	,97≤CFI≤1,00	,95≤CFI≤,97	,965	,967	,995	,972
RFI	,90≤AGFI≤1,00	,85≤AGFI≤,90	,888	,884	,863	,832
IFI	,95≤GFI≤1,00	,90≤GFI≤,95	,974	,923	,995	,973

Sources: (Johnson and Wichern, 2014; Bayram et al., 2020)

Considering the results in Figure 2 and Table 2, the effect of organizational culture on work stress was realized at the level of - .01 (hypothesis 1 was accepted). There is no effect between organizational culture and job satisfaction (hypothesis 2 rejected), and The effect of job satisfaction on job stress was .78 (hypothesis 3 was accepted).

7. CONCLUSION AND RECOMMENDATIONS

Situations such as long working hours, the high number of patients, unfair wage distribution and increasingly intense performance pressures of the management in health organizations that directly struggle with or have to deal with the pandemic may cause employees to exhibit negative attitudes towards their organizations (Bozkurt, 2020: 10). Sector managers have a great job in eliminating or minimizing these negative attitudes. In particular, it is necessary to carry out multi-faceted studies to establish an effective organizational culture, to make it adapt to employees, and to reveal its effects on job stress and job satisfaction.

Contrary to the general acceptance, the organizational culture does not have an effect on job satisfaction during the pandemic period according to the results of the research conducted to examine the effect of the organizational culture perception and job satisfaction levels of healthcare personnel working in the covid-19 intensive care unit during the pandemic period. The main reason for this is that the services to be provided by healthcare personnel during the pandemic or treatment process are almost the same everywhere and there is almost no difference

between the health organizations in relation to the pandemic process. In fact, this situation has reached such a level that it has become almost impossible to talk about differences in the intervention of the disease (covid-19) or in the way the treatment process is managed. Even the expertise of the physicians (excluding directly related departments such as infectious diseases) has dropped to a secondary level at this stage.

Employee performance shows where the employee, group, working unit or organization doing a job can reach the target through that job (Bekiş, Bayram & Şeker, 2013). Based on the fact that healthcare is a team work, providing effective protective equipment regarding the pandemic for hospital or health institution employees working at every stage can be specified as the primary action. However, considering the management of human resources in the health sector, it has also become important to determine the need for physicians and auxiliary health personnel in the settlements where the epidemic density is high and the health institutions and organizations in these settlements and to be taken into account in workforce planning. It is recommended to create working and resting environments that will ensure the control of not only the risk of contamination, but also other risk factors due to insomnia and fatigue, to re-plan the working hours, and to carry out supportive administrative activities to reduce stress and anxiety levels by planning the rest of the healthcare personnel (Sakaoğlu et al., 2020).

The diagnosis process, which is the most important step of the pandemic process, has become uniform, even if it was different in the past. The intensive repetition of the new diagnosis and treatment process may cause this job to be perceived as routine for healthcare professionals. The fact that the treatment process is also constant causes the performance of healthcare workers at these stages to not differ. This non-differentiation may cause perception misconceptions as the inability to perform externally. Cumulative analyzes based on numerical increases and decreases in patients bring the misconception that individual performances will be ignored.

A small proportion of healthcare professionals (less than one tenth) who think that some employees do not comply with the rules, do wrong practices, and are incapable of doing the jobs they are responsible for, are known to have conversations within their peer groups about the situation they encounter (Maxfield, 2005).

It is stated that heavy workload causes burnout and tension in healthcare professionals that are difficult and require responsibility. However, nurses' use of effective time management approaches such as planning the working day in advance, focusing on the most important tasks first, not allowing interruptions or breaks while doing business, being organized, and transferring their duties when necessary will make a significant contribution to making their working lives more satisfactory (Eldeeb and Eldosoky, 2016). At this stage, the leadership behaviors of managers will affect the job satisfaction of nurses and will also have a positive impact on patient outcomes (Bormann and Abrahamson, 2014; Brady Germain and Cummings, 2010).

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9

EFFECTS OF COVID-19 ON CONSUMPTION IN TURKEY

Sidar Atalay Şimşek[1]

Abstract

The covid-19 virus, which emerged in China in December 2019, has caused economic, sociological and psychological effects all over the world. The world has been struggling with covid-19 since the beginning of 2020, when covid-19 was declared as a pandemic. Turkey has participated in this struggle since March 2020, when the first case occurred. One of the main measures taken in the world and in Turkey has been closure. In the closing period, people had to do their jobs, needs and trainings remotely. Covid-19 has also changed people's consumption patterns. With the panic of the closing decisions, hoarding, adaptation to the remote order method, digitalization and as a result, more use of the internet has been realized. The postponement of some consumption due to the closure and planning for the post pandemic is the harbinger of an economic recovery in the world after the closure.

1. Introduction

Since the end of 2019, the world has faced a new crisis. This crisis, which is more effective than economic and political crises, is a pandemic crisis. The world initially perceived covid-19 as an ordinary epidemic. However, after the images we watched people die on the street in China, the world realized that this situation was a major pandemic crisis. The world has entered a period of rapid closure and has tried to weaken the impact of the pandemic. During the closing periods, consumption patterns have also changed. Before the pandemic, people had to transfer their consumption from shopping malls, stores and markets to the virtual environment. In this study, the development of the pandemic will be examined and the change in consumption habits during the pandemic period will be examined.

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2. Development of the Covid-19 pandemic

In December 2019, New Type Coronavirus disease with symptoms of fever, cough and shortness of breath emerged in Wuhan, China (Republic of Turkey Ministry of Health, 2020). This new type of coronavirus disease has been named Covid 19. Here, "Co" defines corona, "Vi" virus, "d" disease and 19 defines 2019. Previously, this disease was described as "2019 novel coronavirus" or "2019-nCoV". COVID-19 virus is a new virus linked to the same virus family as the SARS virus (Bender, 2020). The outbreak was initially detected in an animal market in Hubei province of China. At the beginning of the epidemic, contradictory statements were made about human-to-human contagion, but later it was understood that it was transmitted from person to person and spread to other provinces of the People's Republic of China and other countries of the world(Republic of Turkey Ministry of Health, 2020). Defining a disease as an epidemic by the World Health Organization means that any virus must be new and have the ability to reach dangerous dimensions with very fast and continuous spread among people. Covid-19 virus was declared as a global epidemic by the World Health Organization (WHO) on March 11, 2020 (https://www.who.int/en/).

Covid-19 is not the first epidemic the world is facing. Especially in the 20th century, the world faced with many epidemic threats. The historical ranking of these outbreaks is given in Table 1. When the Spanish flu broke out in 1918, a third of the world's population was affected by this virus and killing more than 50 million people. This number is higher than the number of people who lost their lives in the first world war and constitutes 15% of the world population. Influenza-A virus, which started in China, is a disease that is transmitted to humans by mutating in ducks. The disease, called the Asian Flu, has claimed the lives of nearly 1.15 million people. With a vaccine found, the epidemic was prevented and 40 million people were vaccinated in about a year. Asian Flu has become one of the prime examples demonstrating the importance of mass vaccination. Hong-Kong Flu seen in Hong Kong in 1968 spread to Asian countries in a short time. The epidemic spread to the USA, Japan, South America and Africa, especially with the exposure of US soldiers to the virus during the Vietnam war (Aslan, 2020:35-38). The first detectable example of the HIV virus, which was understood to be transmitted from monkeys to humans in the mid-20th century, was seen in Congo in 1959. However, it was only diagnosed and named in the 1980s. There is still no solution that can definitively cure the virus, which has

claimed the lives of 35 million people in the last 30 years. Regarding this virus, it is only necessary to take precautions and to use drug therapy for life after getting the disease (https://tr.euronews.com/2020/05/12/ tarihteki-en-olumcul-salginlar-hangileriydi -neden-olustular-ve-nasil-sona-erdiler). The Ebola virus, which was detected in Congo and Sudan in 1976 and named after the Ebola river in Congo, is an RNA virus from the Filoviridae family. Ebola virus is a type of virus that is transmitted from infected monkey, gorilla, chimpanzee, antelope and fruit bat in Africa and is also transmitted from person to person. Although there is no approved vaccine yet against the disease, there is no specific treatment(Açıkel, 2014: 194). SARS-CoV is a type of virus that first appeared in civet cats and infects humans. MERS-CoV, on the other hand, is the virus that infects humans as a result of contact with camels with this virus after it is detected in camels (Alpago and Alpago, 2020:1).

Table 1: Major Pandemics in the 20th Century

Virus Name	Period	Virus Type	Dead Number
Spanish Flu	1918-1919	H1N1	50 Milyon
Asian Flu	1957-1958	H2N2	1,15 Milyon
Hong-Kong Flu	1968-1970	H3N2	1 Milyon
HİV/AIDS	1981-Günümüz	Virüs	35 Milyon
Ebola	2014-2016	Ebolavirüs	0,1 Milyon
Sars-CoV	2002-2003	Coronavirüs	0,77 Milyon
Mers-CoV	2015-Günümüz	Coronavirüs	0,8 Milyon
Covid-19	2019- Günümüz	Coronavirüs	1,4 milyon

Source: *WHO, https://covid19.who.int/ and https://www.dogrulukpayi. Com /bulten/ tarihteki-buyuk-salginlar, (Access date: 26.11.2020).*

The Chinese government initially implemented wrong policies against the covid-19 virus due to tourism income and economic concerns. One reason for this is China's past SARS experience. Based on the experience of China sars, China thought that Covid-19 would mutate and disappear after a certain period of time, just like SARS. Therefore, instead of a general quarantine, it only applied a regional quarantine. The main purpose of the regional quarantine application is tourism income concerns. The SARS virus affected the tourism income the most, but as a result of the effective policies of the Chinese government, the SARS virus was brought under control within 6 months. However, as a result of these wrong

policies, the Covid-19 epidemic spread rapidly and became uncontrollable. People were horrified to see the harsh quarantine practices implemented in Wuhan, China, and people fluttering on the street on TV.

When the Chinese government realized that it could no longer hide the facts, it announced the Covid-19 virus to the world on December 30, 2019. China, the only country that knows that the epidemic is out of control, quickly took quarantine measures, and built pandemic hospitals within 1 month in addition to classical measures such as travel restrictions and quarantine. However, the World Health Organization, especially the USA, the EU and developed countries, were shocked because they did not know how to combat this epidemic. On the other hand, China managed to control the epidemic with strict measures by overcoming the first shock.

The first case in Turkey was seen on March 10, 2020. The World Health Organization declared a Pandemic on March 11, education and training were first suspended on March 12, and then online education was switched to. In the same week, restrictions were imposed on international travel. As of March 22, a curfew was imposed on citizens aged 65 and over to reduce the death rates. Citizens under the age of 20 were banned from going out to prevent the spread of the epidemic. On April 11, a curfew was imposed in 31 cities on weekends. Mass production of household breathing apparatus started on April 20 in order to get rid of external dependence in the fight against the epidemic. Ongoing economic activity caused by the increase in the unemployment rate to prevent layoffs is prohibited by Law No. 7244 on 17 April. In order to ease the burden of this law on employers, companies whose activities are slowed down or stopped due to COVID-19 have been given the opportunity to apply for a "short-time work allowance". At the end of May 2020, within the scope of the Economic Stability Package, 5.5 million citizens were paid 1000 TL in cash support, about 6 billion TL in partial work allowance and unemployment allowance for 4.5 million citizens.

3. The Effect of Covid-19 on Consumption

The COVID-19 pandemic primarily changes the consumer, the consumer's purchasing decisions and habits in terms of marketing discipline and practices. During the COVID-19 pandemic, many entrepreneurs are keeping their businesses closed, and many consumers are limited to shopping due to prohibitions and

rules imposed by governments. This situation causes the consumer to arouse different emotions such as panic and stress. According to the study of Sheth (2020), COVID-19 suggests that eight different types of consumers have developed during the pandemic process. These; Hoarding, Improvisation, Suppressed Demand, Adopting Digital Technology, Shopping from Home, Uncertainty of Work and Home Life, Meetings with Friends and Family, Discovery of Talent. Evaluating these new consumption types for Turkey will be useful for understanding the pandemic effect.

3.1. Hoarding;

The hoarding tendency is intended as a safeguard against famine. Hoarding is a common response to managing the uncertainty of future product supply for basic needs. These groups of consumers are those who constantly stockpile products such as food and cleaning products during the COVID-19 pandemic. This consumer group causes the products to be exhausted on the shelves. In addition to hoarding, there is also the emergence of the gray market, where unauthorized middlemen stockpile product and raise prices. This has happened in PPE (personal protection equipment) products for healthcare workers, including N95 masks (Sheth, 2020;281).

Consumer demand in Turkey focused on basic needs. Demand for food spending, home textiles, cleaning materials and hygiene products increased. The demand for vacation, entertainment and travel has rapidly declined. Consumers started to spend their financial resources much more carefully due to the uncertainty of the process. The biggest problem in the supply process was the disruptions in the supply chain. Factories interrupted production in some production areas. Opportunity-oriented moves such as hoarding were observed in products with high demand (https://pazarlamasyon.com/covid-19-surecinde-perakendecilik-sektoru/). Since March 2020, when pandemic bans began in Turkey, especially food, masks, cleaning products and cologne products have been hoarded. In the coronavirus agenda, where everything is uncertain and moving rapidly, some of the people have done this with the perception that there will be famine and nothing will work.

According to a study conducted by the Sabri Ülker Foundation in Turkey during the Covid 19 period, consumers; (https://sabriulkerfoundation.org/TR/sabri-ulker-vakfindan-covid-19-donemi-beslenme-davranislari-arastirmasi)

- During the COVID-19 period, more than 55 percent of respondents stated that their food consumption and money spent on food increased.
- 48.3 percent of the respondents stated that planned grocery / food shopping has increased.

The situation that reinforces the research of Sabri Ülker foundation is given in table 1.

Table 2.Comparison of the sectors with the highest increase in 2019 and the first 6 months of 2020

	Food Supermarket	Software	Home garden	White goods	Electronic	Clothing
2019	0,33 Billion TL	0,76 Billion TL	1,1 Billion TL	5,9 Billion TL	3,7 Billion TL	5,1 Billion TL
2020	1,8 Billion TL	1,6 Billion TL	2,1 Billion TL	11,3 Billion TL	5,9 Billion TL	7,4 Billion TL
Rate of Increase	% 434	% 116	% 95	% 90	% 58	% 45

Source: TÜSİAD E-Commerce Report 2020.

The sales of the sectors with the highest sales in Turkey before the pandemic in 2019 and 2020 after the pandemic are given in table 1. When Table 2 is examined, it is observed that the biggest increase is in the food sector with 434%. The most important factor in this increase is that people resort to food stocking method with the effect of panic in restrictions, as is the case all over the world. With the increase in digitalization during the pandemic period, a 116% increase was experienced in the software industry. During the pandemic period, it increased its sales by 95% in the home and garden sector, as detached houses and houses with gardens were preferred due to restrictions.

3.2. Improvisation;

Consumers learn to improvise when there are constraints. In this process, existing habits are thrown aside and new ways of consuming are invented. The coronavirus has unleashed consumers' creativity and flexibility for traditional events

such as weddings and funerals. Pavement weddings and Zoom funeral services replace traditional venue-centered events (Sheth, 2020; 281).

With the pandemic, the transfer of social interaction to the digital environment all at once and completely is a development that will have permanent effects on consumption trends. This should not only be read as e-commerce becoming more widespread and increasing in volume. The assumption that there is a dialogue between business organizations and their customers is at the heart of modern marketing understanding. This dialogue was only taking place digitally, even before the pandemic, for institutions born into the digital world. However, this was not true for every institution. With the pandemic, physical contact disappeared almost completely and suddenly. Think of the competencies required to provide a satisfactory digital contact with the customer: smart algorithms, biometric security steps, data privacy and security, user experience, smart and personal interfaces, fast and instant service, new collection methods, flawless complaint management ... Institutions that are not ready have a hard time and if they do not gain these skills quickly, they will most likely disappear. Those who were ready found themselves in an environment where the competitive bar was constantly rising rapidly (Varnalı, https://mag.bilgi.edu.tr/tr/haber/pandeminin-tuketim-psikolojisi-uzerindeki-etkileri/).

3.3. Suppressed Demand;

In times of crisis and uncertainty, the general trend is to delay the purchase and consumption of products or services. This is generally the case for durable goods. This causes demand to shift from today to the future. (Sheth, 2020; 281).

Management consulting firm McKinsey & Company has prepared a report on the effects of the COVID-19 outbreak on different areas. In the first months of the pandemic, in China, the USA and Western Europe; The sudden and deep decline in consumer spending resulted from services abandoned due to health concerns. The abrupt cessation of face-to-face services such as travel, entertainment, and meals, along with restrictions, was the reason for a drop in demand, ranging from 11 to 26 percent. McKinsey experts, at this point; He states that the pent-up demand of consumers, combined with significant savings for some segments, can turn into a "revenge exchange". It is emphasized that in the US and Western Europe, an increase in savings rate of 10 to 20 percentage points puts

many households in a strong position to spend. It is stated that this increase rate coincides with the doubling of annual savings in the USA (https://www.marketingturkiye.com.tr/haberler/arastirma/iste-pandeminin-tuketici-davranislari-uzerindeki-kalici-etkileri/).

This table indicates that an effective vaccine application that will end the pandemic; shows that increased consumer confidence, fed by pent-up demand and accumulated savings, can be instrumental in reaching pre-pandemic levels in demand. In addition, the recovery observed in consumer spending with the control of the epidemic in China stands out as another reason for optimism for most countries. In addition to all this positive picture, in the report; It is pointed out that one of the expected negative aspects of a crisis of this scale is job losses and income uncertainty in low-income households. Although high-income households can overcome their savings by increasing their savings during the pandemic period or to a great extent without being damaged, it is predicted that the recovery will be irregular, especially in the USA, due to the negativities experienced by low-income householdshttps://www.marketingturkiye.com.tr/haberler/arastirma/iste-pandeminin-tuketici-davranislari-uzerindeki-kalici-etkileri/).

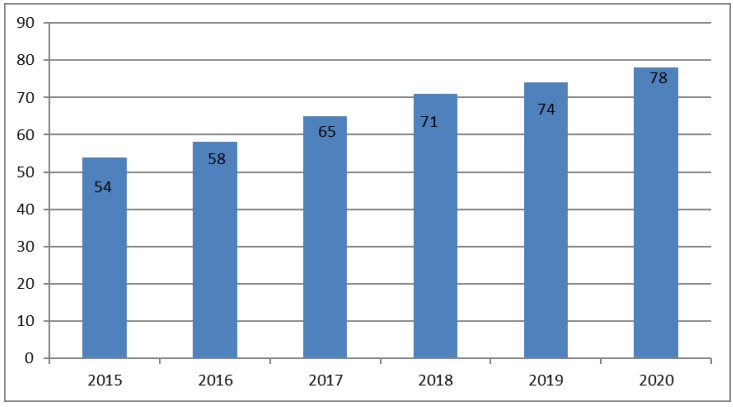
As a matter of fact, during the Covid-19 period, luxury consumption products were also negatively affected by the fact that the stores were closed due to the epidemic in Turkey and the consumers closed to their homes. The interaction of jewelry and jewelry product groups, which are the luxury consumption category in Turkey, has decreased in Turkey since the beginning of March. This decline continued throughout the period (Deloitte, 2020).

However, consumption of durable consumer goods in Turkey did not decrease as Stech stated, on the contrary, it increased. According to the data of the Turkish Statistical Institute (TUIK), the expenditures of durable goods such as refrigerators, washing machines, dishwashers and watches, antiques and musical instruments increased by 48 percent during the pandemic period. However, demand in the tourism sector decreased during the pandemic period. (https://tr.sputniknews.com/ ekonomi/202103021043930025-tuik-hane-halkinin-gecen-yil-salgin-dolayisiyla-hizmet -butcesi-dustu-beyaz-esya-ve-gida harcamasi /)

3.4. Embracing Digital Technology;

Consumers have adopted several new technologies and their applications during the pandemic period. The clear example of this is Zoom video services. Just to keep up with family and friends, most homes with internet have learned to attend Zoom meetings. Most consumers love social media including Facebook, WhatsApp, YouTube, WeChat, LinkedIn, and others. The Internet is both a rich medium and has a global reach. One of the fastest growing fields is influencer marketers. Most of them have millions of followers. The impact of digital technology and social media in general on consumer behavior is very large in scale and spreads to the daily life of the consumer. It will be interesting to see if technology adoption will break old habits (Sheth, 2020; 281).

Table 3. Ratio of Internet Users to the Population%



Source; *Asendia, https://www.asendia.com/hubfs/E-commerce%20Reports %202020 / Global_E-commerce_Report_2020_RetailX.pdf*

It is observed that internet usage in Turkey has increased significantly during the pandemic period. Internet usage rate, which increased significantly after 2015, increased by 4% in 2020 compared to the previous year. This shows that approximately 3,350,000 people started using the internet thanks to the pandemic.

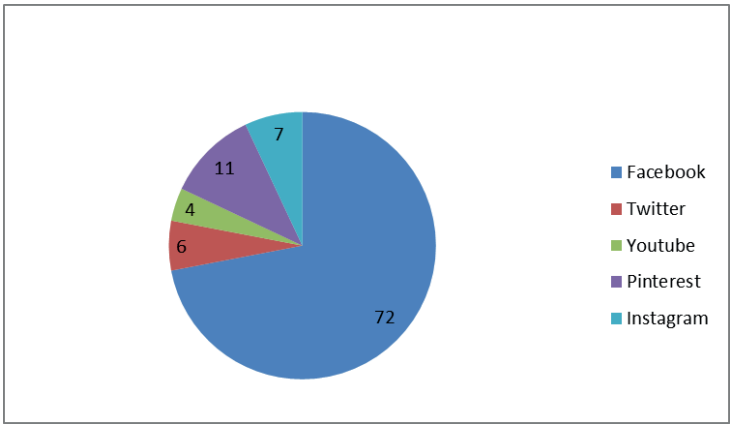


Figure 1; *Social Media Use in Turkey, 2020, %*
Source: *Asendia, https://www.asendia.com/hubfs/E-commerce%20Reports %202020 / Global_E-commerce_Report_2020_RetailX.pdf*

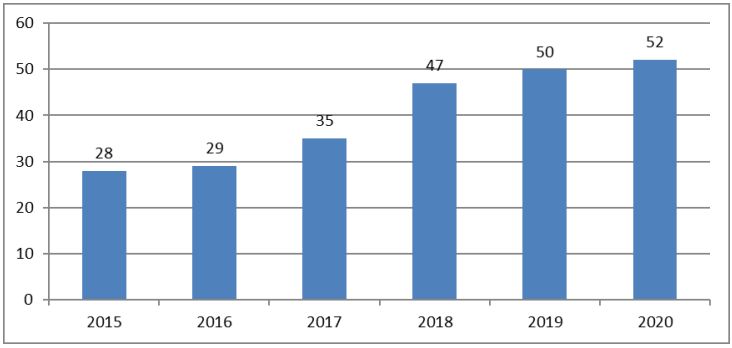
As seen in Figure 1, the most used application during the pandemic period in Turkey was facebook with a rate of 72%. Instagram is in the second place with a rate of%. Another popular application was twitter with a rate of 6%.

3.5. Shopping from home;

This consumer group is the group that shoppers from home. During the pandemic period, consumers cannot go to the market or shopping malls due to pandemic restrictions, especially in India, South Korea, China, Italy and other countries. Instead, the store comes home. So is work and education. This reverses the flow of work, education, health and purchasing and consumption. Home delivery of everything, including streaming services such as Disney, Netflix, and Amazon Prime, has been made possible. At the same time, this increases comfort and personalization in consumer behavior (Sheth, 2020; 281).

The rate of online shoppers in Turkey is shown in Table 4. While this rate was 28% in 2015, it reached 47% in 2018 and was 52% in 2020. More than half of Turkey's population is shopping online. As stated in Table 5, this rate is 65% in the USA, 73% in the United Kingdom and 70% in Germany.

Table 4. The ratio of online shoppers to the population in Turkey for the years 2015-2020 (%)



Source: *Asendia, https://www.asendia.com/hubfs/E-commerce%20Reports %202020 / Global_E-commerce_Report_2020_RetailX.pdf*

Table 5. Share of online shoppers in the population by country

ÜLKE	**Share of online shoppers in the population by country (%)**
USA	65
UNITED KINGDOM	73
GERMANY	70
JAPAN	59
ÇHINA	46
TÜRKİYE	49

Source: TÜSİAD, E-Commerce Report, 2019.

4. Consultation

The Covid-19 pandemic has caused many social impacts. During the Covid-19 Pandemic, the consumption patterns of people have changed. The COVID-19 pandemic primarily changes the consumer, the consumer's purchasing decisions and habits in terms of marketing discipline and practices. During the COVID-19 pandemic, many entrepreneurs are keeping their businesses closed, and many consumers are limited to shopping due to prohibitions and rules imposed by

governments. This situation causes the consumer to arouse different emotions such as panic and stress.

The stress and panic experienced during the pandemic process caused people to hoard. Especially in the first period of the pandemic, there were difficulties in reaching basic foodstuffs due to hoarding. The shortage of masks and cologne in our country is one of the great examples of this. The demand for foodstuffs in food products increased by 434% in Turkey. Of course, hoarding played a role in increasing the prices of goods.

The second main consumption effect of the pandemic was the delay of demand. People have postponed their demands in some commodity groups due to the closure process experienced during the pandemic process. It is thought that this demand, which was suppressed after the pandemic, will play an important role in the recovery of the world economy.

Another effect of the pandemic has been on shopping from home. The digitalization, that has taken place in the world for the last 20 years, has accelerated during the pandemic period. During the pandemic period, there was a significant increase in the rate of online shoppers. It is estimated that online shopping will be used widely in the world after the pandemic. As a result, it is thought that the effects of the covid-19 pandemic on consumption, which cause many social effects in the world, will be permanent.

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OUTLOOK ON THE COVID-19 PANDEMIC PROCESS FROM THE FRAMEWORK OF ULRICH BECK'S RISK SOCIETY THEORY

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1. Introduction

Throughout the ages, world societies have been classified based on certain characteristics unique to them. Such classifications are based on the formal qualities revealed by the scientific and technological developments that shape societies. According to some authors, with the scientific and technological developments experienced, modernism has now completed its evolution and entered a new era for today's societies. Scientific studies defining this new social era and revealing its framework have attempted to determine the characteristics of the new society by developing different concepts. These include Bell's *"Post-Industrial Society"*, Manuel Castells' *"Network Society"*, and Anthony Giddens' *"Late Modernity"* studies. The common point of these conceptualizations is the reality of the globalized world created by scientific and technological development and its reflections. In the literature, the view that defines today's societies as post-modern societies is also very common.

Ulrich Beck used *"Rick Society"* concept to define the stage after industrial society. Beck, defined *"risk"* as the state of being systematically faced with the threats posed by the modernization process. The strategies that arise depending on the impacts of the said risk on society in the scope of *"Risk Society"* concept. Beck points out that as a result of the insecurity, uncertainty and uncontrollability faced by the new society, which he names the emerging risk society, all national, local, class and individual spheres are affected and have to change. He builds

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Risk Society Theory on this basis. Accordingly, societies faced with great threats feel that they are not safe and enter into an ongoing struggle to escape. In order to prevent this situation, it is accepted that reflexive modernization should be adopted. Beck, who is the pioneer of the theory of risk society pointed out that modernity must now face the consequences it creates. Modernity must be reshaped as it reflects on itself.

In this study, the social order emerged in the context of the new risk and uncertainty perception caused by the COVID-19 pandemic, which was started as a pneumonia epidemic caused by a novel coronavirus in Wuhan city of China in December 2019 and then spread to many countries of the world to create a global crisis was tried to be explained in relation to Ulrich Beck's Risk Society Theory.

2. The Concept of Risk

Risk is a concept that has been used for centuries to express the concern for danger and loss that human beings may face. Its first uses emerged before the modern period. In these periods, the concept of risk was used to express the dangers that may be encountered in sea voyages with a meaning excluding the idea of human error and responsibility. (Lupton, 2013, p.5-6). In the pre-modern period, societies explained events such as epidemics, death, hunger, war as supernatural events and linked their sources to superhuman causes. (Soydemir, 2011, p.170). In other words, in this period, the source of risk was seen as threats that fall beyond the conscious intervention of individuals and societies. Bayhan (2002: 189) notes that the concept of rich was used as *"sailing to unknown waters"* by Western discoverers and passed to English from Spanish and Portuguese. In the 19th Century, the scope of the concept started to develop and the concept of risk gained a new meaning within the framework of arguments in the modern period and the dynamics of industrial society. Thus, the concept that was perceived as consequences of uncontrollable and natural disasters had a new conceptual integrity as dangers that could be calculated (thus damage reduced) and could be protected from (Lupton, 2013, p.7). In other words, it was started to be accepted that the risk arises as a result of threats created in line with decisions of individual and society. Thus, risk became a result of conscious actions. When attempts at defining the concept of risk in this development process is inquired, it could be noted that it was described as *"an event that damages a person's physical, mental, and spiritual integrity, fortune or assets to threaten continuance of social life and/or*

make it impossible" (Seyyar, 2007, p.777) in its lexical meaning. Similarly, Frank Furedi (2001:43) described risk as *"possibility of damage, injury, sickness, death, and other adverse conditions happening in connection to a certain danger"*. Thus, by associating risk with the concepts of danger and probability, he emphasized its unpredictability due to its uncertainty and insecurity aspects. In this respect, it can be said that the source of risk is based on uncertainty. Defining the concept of risk as *"a function of probability"*, Strachan-Morris (2012: 180) pointed at estimated particulars of possibilities. At the same time, the author stated that the concept of risk should be considered and understood together with threat assessments. At this point, probabilistic calculations could be seen as a useful element in mitigating the severe consequences of dangers and threats rather than making the risk controllable and manageable.

If the concept of risk is expressed in its broadest terms, *"it is a threat expecting the actor in return for an action"* (Ertürk, 2018, p. 281). In this context, the person (actor) who takes an action is aware of the possibility of encountering negative situations. According to Beck (2000a: 213) *risk,* expresses *the state, thought, and action between safety and destruction with perception of threatening danger*. At the same time, the author explains the concept of risk as the systematic confrontation with the threats posed by the modernization process. Beck (2019: 24) points at individuality of risks in pre-modernity and argues that *"they were not global dangers threatening the entire mankind such as nuclear fusion or storing radioactive fuel…they do not evoke the danger of self-destruction of all life on earth but courage and adventure"*. According to Beck (2009a:4), the post-modernity risk emerges as future threats, a product of the achievements of civilization.

Beck draws attention to the need to separate the concepts of *"Risk"* and *"Disaster"* and underlines a major distinction between risk and disaster. According to Beck (2019: 357) "*risks do not mean disaster, but foresight of disaster."* Risk is an important indicator in terms of predicting a disaster situation that may arise. Thus, risk is abstract and turns into substantial when predicted. In other words, it expresses the controversial reality of a possible situation. (Beck, 2009a, p.9). In this sense, although there is a fundamental difference between risk and disaster, these concepts are not completely independent from each other. Risk is based on probability and predictions about devastations caused by disasters. (Beck, 2019, p.45). In this sense, situations that threaten to damage could be prevented with predictable risks.

It was observed that with the effect of modernization, individualization was increased in societies. Thus, monitoring of individual decisions and behaviors became difficult and the threat of *"uncertainty"* at the social level came to the fore. Drawing attention to risk caused by this uncertainty, Beck (1992: 20) pointed at broadening of *"risk adjustment"* tendency between societies with the impact of modernity. On the other hand, the author argued that unlike class societies, risk society also removes the limits of the victimization posed by global risks. Beck draws attention to (2019: 68) *"friend and foe, east and west, up and down, city and country, black and white, South and North are subject to the equalizing pressure of the increasing risks of civilization*". In other words, the power that breaks the boundaries in risk society and forces humanity to come together without classes, points to the new position created by the global risks endangering their existence on the whole of civilization. On the other hand, due to the global character of the emerging threat, the burden of need and the obligation to make life-or-death decisions increases with uncertainty. (Beck, 2009a, p.115). Considering the effects of globalization, it is seen that it is difficult to detect the risk posed by the threats created by individual interventions. In other words, with globalization, it became almost impossible to identify the source of risks created on an individual basis. In fact, these issues, that take place with domino effect, reveal the characteristics of the risks that were taken to a different dimension with modernization. Such issues that are influenced by each other and the features they create in risk perception can be listed as follows:

1. Threats have started to surface consciously on individual level *(individualism).*
2. With globalization information became instantly accessible all around the world *(risk adjustment)*.
3. Determining source of risk became almost impossible *(uncertainty)*.
4. Risks have increased in intensity *(unpredictability).*
5. Risks went beyond perception of space and time *(boundlessness)*.

As it could be understood from definitions and explanations made above, the concept of risk brought about diverse perceptions in historic process. Studying this condition with "*Risk Society Theory"*, Beck (2019: 357-359) emphasized three distinctive particulars regarding perception of risk:

1. Delocalization: Causes and consequences of risk are not limited to one single geographical region.

2. *Incalculability:* Consequences of risk cannot be calculated, but conducted based on hypotheses. Also considering disasters threatening all due to their destruction potential, risk calculations based on experience and rationality are insufficient.
3. *Non-compensability:* Perceptions on risk controlling unclear consequences and dangers have disappeared with unclear causes, irrevocable consequences, and irrecoverable situations.

Currently risk does not involve the natural disasters and devastations of pre-modernity not calculable and controllable dangerous situations of the 18th and the 19th Centuries. Without doubt, individuals are faced with low predictability, even incalculable and uncontrollable dangers with modernity. Individualism and emotions such as mistrust that emerged with modernity drag the individual to a new chaos environment dominated by danger and uncertainty. Now the concept of risk turned into a concept the uncontrollable unknowns born from the effect of the modern period and the fear and major perception of threat towards such unknowns.

3. The Concept of Risk Society: New Modernization

The concept of Risk Society took its place in the literature with Ulrich Beck's book titled *"Risk Society"* published in 1992. Ulrich Beck defines *"risk"* as the systematic subjection to threats caused by the process of modernization and *"risk society"* as strategies caused by impact of the said risk on society.

Beck (2013: 33) points at the risk society emerging as a dysfunction of Industrial Society and argues that *"it is a development stage where the social, ecological, and individual risks created by innovation dynamic of modern society go beyond supervision of industrial society and sphere of influence of security institutions"*. According to him, this dysfunction is based on institutions of the industrial society becoming both creator and legitimizer of threats it cannot supervise (Beck, 2013, p.34). In other words, industrial modernity produces risks while also leaving the individual with a personal search for escape and struggle with these risks it could not prevent or calculate. A consequence, risk exposure comes about. Beck defines the said dysfunction of industrial society as a failure (2019: 87), and points at the systematically theoretical/methodological approach of sciences towards risks instead of humans or disciplines as the source of this failure. According to Beck

(2013: 34), risk society *"emerges during the spontaneous movement of autonomous modernization processes that became impervious to blind dangers".* Beck notes it is necessary to consider the new system and period change as a natural consequence of globalization (2013: 36-37) and describes the basic stages of transformation from industrial society to risk society as follows:

1. Changing relationships between the nature and culture *(sources consumed and separated)*
2. Relationship between threats created with society and their consequences *(differentiating situation of social threats)*
3. Individually facing the resulting uncertainty and threat *(individuals exposed to risks being deprived of the security of feudality)*

The *Risk Society Theory* put forward by Ulrich Beck presents a new understanding of modernization. According to Beck (2013: 68) social change took place in three stages: *Pre-modernity*, *Simple Modernity, and Reflective Modernity*. Beck, develops his risk society theory in the framework of the basic relationship between reflex and reflection. While explaining the concept of reflective modernity he explains that he does not mean reflection that the concept of *"reflective"* would bring to mind and defines the concept as *"society being faced with itself"* (Beck, 2013, p.34). The said condition of society being faced with itself here expresses an involuntary/reflex-like condition different from a conscious thinking activity. Thus, it is seen in different studies that he uses *Reflexive Modernity* term to describe the new modernity. Beck (2000: 24) draws attention to the fact that the term he calls Reflexive Modernity expresses *overall change of society instead of change in society* in its broadest sense. According to him, this new modernization period *"must be faced with consequences specific to risk society inside the industrial society system, that are not processed and digested with institutional criteria".* (Beck, 2013, p.35).

4. Pandemics from the Past to Today

It is seen that outbreaks due to different microorganisms have emerged since the existence of humanity and humans struggled against these. However, as a result of research conducted on the origins of pandemics, the science of medicine explored that diseases predate human existence (Özdemir, 2005, p. 15). In this sense, although microorganisms causing outbreaks date back, its effects could be identified and it was possible to search for solutions. However, because struggle

for survival was at the forefront upon initial emergence of humanity, development of social life and reaching its current state took a long time (Tunç and Atıcı, 2020, p.338). Accordingly, identification of outbreaks and efforts for their removal also started late. In order to ascribe meaning to mass deaths and serious diseases that emerged during this time, outbreaks with causes that could not be scientifically understood were attributed to supernatural forces and interpreted in different ways. With transition to settled life, consciousness on impact of outbreaks started to increase. Thus, it was understood that in addition to supernatural forces, diseases became common based on increasing interaction between humans. Especially because some nations could prove diseases were transmitted by humans to humans, outbreaks became subject of scientific studies. Diamond who made scientific contributions to this field (2018: 236), emphasizes two significant particulars of outbreaks as *rapid spread due to being contagious* and *death or recovery after severe disease*. In addition, outbreak in its broadest form is defined as *a disease going over its normal progress to create more serious effects on the society or region* (Hacımustafaoğlu, 2018, p. 172). Outbreaks can be given two different names based on their area of impact as *epidemics* and *pandemics*. Epidemic is used synonymously with outbreak, but it is defined as *outbreak impacting on national level* (Hacımustafaoğlu, 2018, p. 172). Based on the rate in which outbreaks spread, when they start impacting several countries, they could reach the level of pandemic. However, the World Health Organization describes three factors are needed for a disease to reach the level of a pandemic: *1) It must be a factor that is not completely known like a new virus*, *2) It must be transmissible to humans* and *3) It must carry the risk of rapid and easy transmission between humans*. While a disease carrying these characteristics are defined as an outbreak, with declaration by the World Health Organization it is named a pandemic. The concept of pandemic that is not limited to a certain country but presents perceivable impacts in the world at large is created from union of Ancient Greek words *pan (all)* and *demos (humans)*. Generally speaking, pandemic is defined as *the general name of outbreaks that spread to a broad area and affect several countries* (TÜBA, 2020, p.20).

Impact of pandemics or epidemics on people vary depending on many factors such as structure of the virus, health level of society, and development of health services. Some pandemics that emerged in history with various impact levels and created perceivable effects can be listed as follows (Üstün and Özçiftçi, 2020, p.144; Nişancı, 2020, p.89): Athens Plague Epidemic (430-427 B.C.), Justinian Plague Epidemic (541-542), Black (Bubonic) Plague (1347-1351), Smallpox

(1520), Great Plague of London (1665-1666), The First Cholera Pandemic (1817-1823), The Second Cholera Pandemic (1829-1849), Typhus Epidemic (1847), The Fourth Cholera Pandemic (1860-1879), The Fifth Cholera Pandemic (1881-1896), Russian Flu (1889-1890), Modern Plague (1894-1903), The Sixth Cholera Pandemic (1899-1923), Spanish Flu (1918-1919), Asian Flu (1957-1958), HIV/AIDS (1960 to our day), The Seventh Cholera Pandemic (1961 and today), Hong Kong Flu (1968-1969), SARS Epidemic (2002-2003), Swine Flu (2009-2010), West Africa Meningitis Epidemic (2009-2010), Haiti Cholera Epidemic (2011-2017), MERS (2012), Congo Measles Epidemic (2014- out day), West Africa Ebola Epidemic (2014-2016), COVID-19 Pandemic (2019 and our day).

The said outbreaks emerged in different periods but caused social, cultural, economic, etc. impacts on societies. Some of these outbreaks reached the size of pandemics and caused even bigger effects. *The Black Plague (Grand Plague)* that is one of the outbreaks described as pandemic caused devastating impacts in Europe. Known to have caused death of around 50,000,000 people (Nişancı, 2020, p.89) the black plague had a high rate of infection which lead to application of quarantines. In this sense, it is the first outbreak where quarantine was applied (Sertdemir, 2020, p. 16). The Cholera Pandemic that caused several lives emerged in more than one wave in the Nineteenth and the Twentieth Centuries and was effective in human lives for a considerable time. Another type of pandemic that gained place in world history in terms of their consequences were flu pandemics. In this sense three types of flu pandemics that were effective in the Twenties Century could be mentioned: *1) The Spanish Flu, 2) The Asian Flu* and *3) The Hong Kong Flu.* Causing millions of lives, the Spanish Flu Pandemic caused the highest number of deaths in the United States of America. The pandemic was given this name because the most transparent information flow was ensured in Spain despite the fact that many countries were affected by the pandemic (Sertdemir, 2020, p.16). In emergence of the second flu pandemic, the Asian Flu, genetic mixing of viruses originated in birds and humans is considered to have been effective (Temel, 2012, p. 17). The flu that is thought to be visible in China initially affected many countries such as Asia, Europe, Australia and the United States of America. The Hong Kong Flu that followed the Asian Flu is also considered to be caused by bird origin viruses. This pandemic that was first seen in China and was effective in many countries caused death of about 1 million people (Koçer, 2020, p.2). In addition to these flus that emerged in the Twentieth Century and caused major effects in broad areas, the *Swine Flu* that emerged in

the Twenty-First Century is also considered among flu pandemics. Seen in Mexico and the USA initially, this disease emerged through a virus that is thought to be originated in swine and spread among people to reach a level that could impact wide masses (Temel, 2012, p.19). The condition was taken under control with vaccines and drugs that were developed and its threats to life were prevented. The *COVID-19 Pandemic* that is currently continuing its impact was first seen in Wuhan city of China and in a short time was spread to many countries. Described as COVID-19 by the World Health Organization, the virus causing this pandemic is known as *"SARS-CoV-2"* (TÜBA, 2020, p.41). At the time of study this virus caused death of about 3 million people but deaths have not been completely prevented. In this scope, the COVID-19 Pandemic is being tried to be taken into control with developed vaccines while its social, economic, and psychological impacts continue to affect humanity.

5. COVID-19 Pandemic from Risk Society Window of Ulrich Beck

It is possible to talk about many pandemics humans were faced with in different periods in history and that created major and multidimensional changes such as the black plague, cholera, and flu pandemics. The COVID-19 Pandemic that we have been going through doubtlessly drags societies to an overhauling change encompassing all its elements just like other pandemics. COVID-19 Pandemic expresses a process that will be tried to be understood not just in terms of its health but also in terms of its social effects. This complicated process brings with itself deep impacts whereby our probabilities, priorities, expectations from the future and all routines embedded in our daily lives are reshaped, maybe completely reformed. Its social, psychological, economic, political effects and the new duties these would ascribe to societies and individuals are still not definitely known. However, it can be foreseen that the COVID-19 Pandemic will change our social and individual perceptions to a great extent. This change can be considered as a view hinting at existence of a social order going through transformations with new risks and new perceptions pointed at by Beck in his *Risk Society Theory*, that is the risk society.

Although Beck did not clearly indicate pandemics among global risks in his studies building and explaining Risk Society Theory, considering differentiating risk definitions of the modern era and characteristics of the risk society, epidemics and pandemics are clearly a grand global risk type whether they are viewed as a

laboratory product or a spontaneous product of external effects on the natural environment. Thus, it sheds light on our determination of new global risks in their current states with qualities and effects of global threats and threats defined by Beck. Therefore, the COVID-19 Pandemic comes forward as a social perspective that could be re-read from the window of Beck's Risk Society Theory ensuring a clear understanding of what the social change created by it would uncover.

Beck (2009: 3), emphasized unpredictability of risks regarding their effect of shaping perceptions and attitudes and describes the process as *"boundless thirst for reality". Boundless thirst for reality* expresses *the individual's need to know predictability of risks and threats it shall/will face*. According to Beck (2006: 338), risks feed feelings of fear and insecurity in individuals due to their unpredictability and imponderability qualities and lead them to the chaos of a deep uncertainty and obscurity. Beck (2009b: 3) defines obscurity of risk as a doubtful existence in its nature. It is impossible to describe risks with altered quality and quantity dimensions, because the new risks describe a deep obscurity Beck describes as *"imaginary, allusive existence: present and absent, existing and nonexistent, doubtful and real"*. The effect of unrecognizability, obscurity, and implied existence pointed at by Beck and "boundless thirst for reality" is the first socio-political consequence all societies are faced with in the process of the COVID-19 pandemic. From the first day COVID-19 started to spread from China to other countries, individuals tried to remove obscurities about this pandemic and pursued a major acquaintance effort. Various risk analysis started to be made on the emerging novel COVID-19 pandemic and its effects about whether the pandemic constitutes threat to life and if it could be controlled in a short time. Inability to make a clear definition of risk and varied assessments on the virus paved the way in some countries to late introduction of preventing policies and practices, leading up to individual and social unpreparedness.

The second important question underlined by Beck in risk society is removing limits of causes and consequences of with a single geographical region defined as *"Delocalization"*. Delocalization emerging with the effect of globalization caused new risks to become risks of the world societies. Humankind that created risks of the modern era is actually the only target of these risks. Arguing that with globalization risks also gained global characters and aggrievement went beyond regional and class boundaries, Beck (2019, p.68) draws attention to the fact that *"friend and foe, east and west, up and down, city and country, black and white, South*

and North are subject to the equalizing pressure of the increasing risks of civilization". On the other hand, as a reflection of the said emerging delocalization the said equalizing pressure acts as a glue dragging nations to a supra-national union that he calls compulsory cosmopolitanism (Beck, 2009b, p.3-4). In the cosmopolitan state it is not possible to make a distinction between national and international with set boundaries. In cosmopolitan state distinctions between national and international are redefined as supranational categories (Beck, 2007, p. 287). The COVID-19 pandemic process impacted all countries in a short time after its emergence in China with the global conditions of modern era as referred to by Beck. The COVID-19 that brought all humanity face to face with threat of death without discriminating between regions, geographies, wealthy, and poor and hauled world societies to a state of anxiety and worry in a short time. The COVID-19 Pandemic that goes beyond states and national borders, causing all humanity to come together around fear of death like a glue, also revealed a global cosmopolitan reaction as the effect of a delocalization impact in the framework of joint studies and preventive and controlling precautions. Thus, the need partnership that brought societies together in pre-modernity left its place to anxiety partnership just as described by Beck (Beck, 2019, p.72). The COVID-19 pandemic process brought new consolidating power to the fore that makes common anxiety societies emerging against global risks dependent on each other as persistently underlined by Beck. However, what is described here is much different that class belongingness. It expresses a unity brought forward by anxiety creating threat centered around fear, a social standing formed by coming together. Joint anxieties emerging in the face of global risks make societies dependent on each other. This newly emerging unifying force could be considered as an important consequence in terms of socio-political effects of the pandemic. Beck (2006: 338) explains effect of global risks as an unpredictable and impersonal force in the modern world on human lives with the concept of *"Risk Cheat"* and argues that the response to give in this case would be possible with global organizations. In the COVID-19 process vaccine studies and efforts to meet some medical needs with mutual support forms another important detail in terms of their constituting an example to international global cosmopolitan reactions.

Another subject Ulrich Beck pointed at in his Risk Society Theory is related to those dimensions of new global risks that could not be compensated. Indeed, Beck defines the said existence of grand and comprehensive consequences of risks by scaling the boundlessness mentioned earlier. It is noted that risks pointing at the

calculable and monitorable situations of the 18th and the 19th Centuries leaving societies and individuals as a subject to even grander dangers incalculable and uncontrollable with low predictability. According to Beck (2009a: 4) *"global dangers threatening the entire humanity"* defines new risks. Destructions that create/would create gives rise to systematic and in most cases irretrievable damages in short and long term (Beck, 2019, p.27). COVID-19 Pandemic continues to threaten human lives in a speed that caused a total of 3,003,794 deaths with current data from World Health Organization dated April 18th, 2021. Although some individuals are not directly affected from the pandemic, the fear and insecurity they have is perceived at a very high level. Because death (end of life), is the greatest vital anxiety of individual. Thus, outbreaks are assessed as one of the important risk factors where worry and anxiety is experienced at a high level. "Being faced with the risk of illness and death leads humans to reconsider meaning of life, their close relationships, expectations from the future and priorities" (Karataş, 2020, p.15). Thus, as a factor with deadly effects threatening continuance of life, COVID-19 increases social worry and anxiety and leads persons to a psychological and social questioning and search for re-interpretation.

6. Conclusion

COVID-19 Pandemic process expresses not just a health crisis but also a social change and social crisis phenomenon affecting individuals and society on many levels. Thus, pandemics create strong changes in individual memories and social living conditions with their lasting impacts. With the COVID-19 Pandemic process the world was faced with how unprepared it could be against risks and threats it created itself in modernization process and was dragged into an uncertainty and chaos environment. Considering a reflection of the unforeseen and incalculable new risks and obscurities, COVID-19 Pandemic compels us to re-read Risk Society Theory put forward by Beck. Because with new global risks and characteristics placed in the center of risk society, Beck assumes a key role in formulating an opinion on the process we are currently in and its impacts. Purpose is to make an intellectual contribution to the literature by evaluating the pandemic process, which is considered as a reflection of the uncontrollable and unpredictable qualities of modernization on the post-modern period, in other words, on the present. Although it is not exactly known exactly what socio-psychological, economic and political effects on individuals and societies COVID-19 will make and which

new duties such effects will attribute to societies and individuals, it seems that COVID-19 will greatly change social and individual perceptions.

Regarding the source of risk, it has moved away from the external attributions (as in natural disasters) that are based on superhuman causes, except for the conscious intervention of individuals, societies or countries. Today, risk became a result of conscious interventions and decisions. Individualism also started to increase in the society with the effect of modernization. Thus, individual decisions and behaviors emerge as new causes of risk in the post-modern period. significant changes in the nature of risk with differing causes feeds unpredictable and unclear qualities of consequences. In this scope *"information"* and especially *"accessing correct information"* in Beck's words *"boundless thirst for truth"* in busy dataflow, became the main search of individual in the new social structure. Individuals are insecure in risks and uncertainty they bring. Individuals in boundless thirst for truth needs to know risks and dangers it is/will be faced with, recognize new risks thus, to secure itself as pointed out by Beck. COVID-19 pandemic revealed curiosity and thirst for knowledge regarding source of the pandemic, characteristics of the virus causing the pandemic, and consequences of the pandemic process in the grand insecurity it caused on global societies. In addition, quarantine and isolation cause individuals to feel lonely, weakening their expectations from the future. This is a new process that everybody is aware of but do not have information on or predict what happened or how it is going to happen. In line with unpredictable risk understanding pointed out by Beck, global societies in the pandemic process are faced with a major obscurity which devastating consequences they would face including death and if they have the means to prevent these definitely. Individual and social perceptions and attitudes change in the grip of insecurity, obscurity and threat of death and get reshaped with socio-psychological impacts of the process and emerge as a new reality with irretrievable breaks and changes.

Following the process of pandemic our individual and social expectations, national and local boundaries and our policies are faced with the obligation to change. States remembered once again that they have to act together against such boundless and globally threatening risks – whether produced in laboratory conditions or created with natural mutations – and think together in the common fight for life. It could be argued that the existence together brought by globalization – the obligatory association that *"danger shapes and reveals acting like a glue"* as pointed

out by Beck – creates the new supra-identity of post-modern risk society. It could be expected that new policies and supranational strategies would be on agenda not just against health risks but against many new possible risks and dangers and pave the way for new creations in economic, political, and social areas.

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11

EXAMINING THE REOPENING OF SCHOOLS IN THE MEDIA IN THE CONTEXT OF COVID-19: EXAMPLES FROM THE WORLD

Murat Tezer[1]

1. Introduction

The World Health Organization (WHO) states that children get Covid-19 less than adults (between 1-3 percent). Whether or not a child goes to school again due to the pandemic also depends on his current health status. In other words, it can be said that those with an existing disease are more likely to get Covid-19 disease (asthma, diabetes, obesity) than normal healthy individuals. With the onset of the epidemic, schools have been closed in many countries around the world. The World Health Organization has recommended that schools be reopened by trying to prevent the spread of Covid-19 (WHO, 2020).

It may be useful to open schools. However, the benefits and risks of opening schools, the capacity of local health services and their coordination with schools are also issues to be considered. There are many benefits to opening schools. For example; Social and psychological well-being, access to more reliable information, prevention of violence, return of parents to working life are some of them, as well as students' receiving the necessary education. In addition to all these, the adequacy of the infrastructure of the schools should be considered in reopening schools. Because, in geographical regions where the number of cases is high in many countries, blended learning models, also known as mixed learning, such as distance education, hybrid and blended learning models, have been deemed more appropriate (Baysal & Gürbüz, 2020). 2020 yeni öğretim yılında, okulların yeniden açılması kapsamında Türkiye ve Kuzey Kıbrıs Türk Cumhuriyeti'nde de hibrid öğretim modeli uygun görülmüştür (Yaman, 2021; Egeli & Özdemir, 2020).

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2. WHO Standards for Reopening Schools after Pandemic

The necessary practices for the health and safety of all school personnel, including those at risk due to Covid-19 disease, must be taken by the Ministry of National Education. For young children, they may have difficulties with the necessary physical distance or proper use of masks. During school closing or reopening, students may have difficulty meeting and dropping off. It is important for students to comply with hand hygiene and environmental cleaning measures during their time at school in order not to get sick. In schools, he can make a schedule for daily cleaning. At school, attention should be paid to the cleanliness of the whole classroom and environment, hand hygiene and the use of masks. If necessary, all school staff and students should be trained on these issues. If the masks are fabric, their care should be controlled. (WHO, 2020; Öcek, 2020).

In case schools are reopened during the Pandemic, it is important to check and determine the sick students, teachers or other school personnel who have caught Covid-19. The list to be prepared for the sick students, teachers and school staff should be taken into consideration that these people should be retested and return to the school on their return to the school. The ministry of education and school administrations are required to inform students and parents about all practices and measures (WHO, 2020; Öcek, 2020).

It is also necessary to provide nutrition, psychological counselling and guidance services support and the continuity of all basic services at school. Physical distance of at least 1 meter between people should be applied in schoolyards and classrooms. In order to increase the distance between the tables in the classroom, to avoid overcrowding in the schoolyard during breaks or lunch breaks; It is necessary to limit classes or age groups, to consider smaller classes or alternative curricula, and to provide good ventilation in classrooms (Robert KochInstitut, May 2020; WHO, 2020; Öcek, 2020).

Due to the onset of the pandemic and the adverse effects of the disease process, it is necessary to conduct education with distance education, submit homework online, broadcast lessons on radio or television, and monitor students' participation in online classes. During transportation to the school, it is important to adjust the seating arrangements in buses. For example, it should be organized so that there is only one child per seat, and if possible, there should be at least 1 meter of physical distance between passengers in school buses. There should be 6 meters

of social distance between the driver and the passenger. However, this may require more school buses per school (WHO, 2020; Öcek, 2020; Sakarya, 2020).

The World Health Organization WHO emphasizes that buildings should be used in the school and classroom environment with clean, natural ventilation and, if possible, without recirculating air. If air-condition is used when air recirculation is required, the filters and duct systems used in ventilation should be cleaned regularly. If necessary, the filters should be changed routinely according to the manufacturer's instructions. Heating and cooling systems must ensure clean hygiene conditions (WHO, 2020).

3. Best Practices from Countries Reopening Schools after Pandemic

With the spread of the Covid-19 virus, the Pandemic situation emerged in Wuhan, China's Hubei province, in December 2019 (Til, 2020). This country is one of the countries well known for fighting the virus, as Taiwan successfully managed the crisis a few months later. The number of cases in this country has not increased much in the country, as it has learned from past epidemics and has been prepared. They tested infected people and close contacts and then took them under control by quarantining them at home for 14 days. Differentiated school closure rules have also been introduced across the country. If a teacher or student becomes sick, they must be quarantined for 14 days at home. If covid-19 is seen in two or more teachers or students, the school must be closed. If closure of one third of the schools in a district or city is foreseen, all schools in that city must be closed. Plastic partitions in classrooms and canteens are used to prevent close contact of students. In addition, routine temperature checks are required and wearing a mask is mandatory. As a result of a study, it has shown that these measures (70%) do not affect the learning of secondary school students (Til, 2020; Ricket, 2020).

Norway and Denmark stand out as good examples in terms of reopening their schools after the outbreak of the pandemic. Both countries reopened their schools in April 2020, one month after they were closed. But in the beginning, they only opened their schools for younger children and kept the high schools initially closed. They took the necessary precautions regarding hygiene and environmental cleanliness and set rules. They kept the number of students in the classroom

limited and kept space between the tables to create distance between students. In addition to these, they provided the students to spend their free time in small groups during the break-time. In both countries, there was no significant increase in cases in the following months. However, as in the whole world, due to increasing cases, there has been an increase in the number of cases in these countries after October 2020. On December 21, 2021, Denmark approved partial closure again and closed schools up to the fourth grade and closed the rest. As of January 2021, the number of cases has decreased in these countries again (The Local, 2020; Rickets, 2020).

With the reopening of schools in Florida and Arizona cities in the USA after the closing in March 2020, a new momentum has been observed in the cases. In a school with 500 students, it was observed that there were approximately four cases of coronavirus. Experts said that depending on the measures the school will take, they can control the cases (Belluck, Mandavilli, and Carey, 2020)

More than 900 students, teachers and school administrations were quarantined due to the possible corona virus threat of a school in the state of Georgia, USA, as she continued classes in early August 2020. They closed the school for a while after the students took pictures closely together and posted them on social media, without using masks and without observing the social distance. Despite the recent onset of the pandemic, the important benefits of reopening many provincial schools in America in mid-2020 were highlighted. Country managers have tried to provide motivation to go back to school. More than 42,000 students attend the Cherokee County Schools in the north of Atlanta. The number of students required to enter quarantine in this region was also stated as 826 students at the beginning of August 2020. The new academic year has started again on August 3, 2020 (The Associated Press, 2020).

According to Strauss (2020), the writer of The Washington Post newspaper, he stated that it will be difficult for the country administrations to make any predictions for September 2020 on the behaviour of the virus in July 2020. All students wanted to go back to their school and continue their education. However, since there is not enough scientific data about the virus, there is an indecision on this subject. Some experts consider a local one-day infection rate of less than 5 percent as society has controlled the virus. In addition, in the newly released guide, the social distance rule was accepted as 6 feet. It was emphasized that the

vaccination issue should be removed from the table in those days, as it was still early for vaccination studies at the beginning of August 2020. In addition, it was claimed in the news that it is not possible to produce the vaccine in the next 6-8 weeks, that is, at the beginning of September. Russian President Vladimir Putin first reported that the Covid-19 vaccine was registered in his country at the beginning of August 2020. However, it has also been stated that this vaccine is in the first clinical stage. As a result, use of the vaccine before schools were opened was not yet possible at the beginning of September 2020 and the claim remained pending (Strauss, 2020).

Many school administrators and healthcare professionals avoid reopening schools with the concern that if schools reopen in September 2020, there is a risk that a significant number of students or teachers will catch Covid-19 disease and that the disease may cause death. Israel reopened schools in May 2020, shortly after the outbreak of the Pandemic. In the months following the pandemic, the Israeli government did not mandate practices that would require compliance with social distance rules for a long time. They have been taught in many classes with about forty students. After May 2020, until the end of July, more than two thousand people in the country's education system were positive after the Covid-19 test and at least one teacher died. Therefore, in Israel and other countries, some parents refused to send their children to school because of concerns about illness. After the adverse effects of the pandemic in the spring of 2020, Israel stated in early August 2020 that it would require quarantine for all students and staff by closing its schools for two weeks due to the increase in coronavirus cases. In Germany, on the other hand, due to the low infection rates, it kept schools open and forced only the close contacts of the infected person to quarantine. It was emphasized that reopening schools under the necessary hygiene measures was very expensive in this period. Because, for students and teachers, masks and face shields, cleaning materials, plastic barriers, safety materials, and conceivable costs are considered. Some schools have recruited more teachers, as more classes are created by reducing the number of students in classrooms. In addition, some schools have improved their ventilation systems and allocated resources to build hand washing stations. Although primary and secondary schools in the USA received $ 13.5 billion in federal aid by the beginning of August 2020, some experts have stated that this funding is not enough to reopen schools in September 2020. In a published report, it was estimated that reopening schools in a school district with a capacity of approximately 3,200 students would cost $ 1.8 million in the United

States if the necessary measures were implemented. For example, it has been said that all public schools in Maine will cost about $ 328 million to reopen in September 2020 (Felter & Maizland, 2020).

4. Sample Practices from Countries Opening Schools in September 2020

Some schools in the state of Massachusetts in the USA have been opened to provide face-to-face education. In fact, if a relative dies from the disease, online or face-to-face psychological support is also provided. The rule of having nurses in schools has also been introduced. It is stipulated that there should be a maximum of 25 people in schools and in general in 1000 square feet. They set a limit of 50 people in an open limited area. If the student is sick, the student must stay at home. A full-fledged website has been made for everyone in the school. While the mixed education environment was used in schools in August 2020, after September 16, 2020, they opened the schools with the preference of face-to-face and distance education (Hanover Public Schools, 2020)

It has been stated that schools will not be opened for a certain period of time in the state of New York in the USA at the beginning of September 2020 and will be opened with a delay. Preschools, kindergartens and primary schools are planned to be opened online on September 21, 2020 and other educational institutions on October 1, 2020. The plan to open face to face on 16 September 2020 has been postponed to later dates. Although at least 6 teachers are known to have died, some families took action to open schools (WPIX Staff, 2020).

In the US state of Kentucky, towns have tried to designate them as green, yellow, orange and red zones. Thus, they identified the risky areas and tried to inform families to open schools in September 2020. They determined the number of cases in the red zone as 25 per 100,000 per day. In schools in this region, instead of normal face-to-face education, they only provided distance education. They determined the number of cases in the orange region as 10-25 people per 100 thousand per day. Distance education has also been carried out in schools in this region. In the yellow zone, they determined the number of cases in the region as 1-10 people per 100 thousand per day. In these regions, it was decided to provide face-to-face or distance education. If there is 1 person in 100 thousand, then it has been decided to do face-to-face or distance education again. In

the state of California, face-to-face or distance education is deemed appropriate in schools (Green Yellow Orange Red - Governor of Kentucky, 2020).

After the decision to open schools in India, they went to close in some regions again in September 2020. However, they plan to open the 10-12 th classes in some regions with the approval of the families. They made an announcement that teachers and students in the risk group in these regions should not come to school. In Uttar Pradesh state, they did not open schools due to the increase in cases due to Covid-19. However, due to the lack of internet in many Asian countries, outdoor lessons continue with insufficient equipment, masks and some precautions (IANS, 2020).

Parents in Malta stated that the reason why they found the schools to open again in September 2020 early was the insufficient precautions and the lack of control over the disease. However, families in Malta are divided into two, over the opening of schools in Denmark, Germany and England. They are also worried about the outbreak of the disease in Italy in November and the collapse of the health system at the end of the year. Church schools have called for classes to begin online, at a minimum (Calleja, 2020)

While Canada opened its schools in September 2020, all schools were opened under high health measures. The Canadian government has offered students an alternative to distance education or face-to-face education by allowing them to choose the teaching method they want (Government of Ontario, 2020).

Since 80 percent of the students in Africa do not have internet, education is tried to be carried out by face-to-face social distance mask, temperature measurement and spraying under difficulties. It was reopened similarly in Tunisia. But at the end of the union actions, the opening of schools in South Africa was postponed (Home learning, reopening schools especially hard in Africa, 2020).

England, on the other hand, opened schools in the middle of September 2020, based on the data obtained from the past. In the statement made, it was stated that the participation in schools was 88 percent (School figures show 88% of pupils were back for start of term, 2020). In December 2020, due to increasing cases, a 2-week break was given in England (Primary schools reopening: Call for remote learning as Covid cases rise, 2020). British Prime Minister Borris Johnson said that it is not possible to reopen UK schools to all students after February

2021, but that it will be possible from 8 March (Covid: English schools could return 8 March 'at the earliest' – PM, 2020).

According to the United Nations report in the news given by CNBC, it is estimated that at least 24 million students will drop out of school. It has been demonstrated that 1.6 billion students cannot receive face-to-face education. Some countries offer resources to students and teachers on distance education (Feuer, 2020).

After the detection of the first Covid-19 case in Turkey on March 11, the Ministry of Education paid attention to the recommendations of the Scientific Committee. In line with these recommendations, Turkey has started the distance education process as of March 23, 2020. With the decision of the Science Board taken on March 25, it was deemed appropriate for schools to continue distance education until April 30. With the new decision announced later, this period was extended until May 31st (Bakan Selçuk yeni okul takvimini açıkladı! Sınıfı geçme nasıl olacak? 2020). In the announcement published in Turkey at the beginning of August 2020 due to the pandemic, it was stated that the professional work of teachers will start on August 24, 2020 in the 2020-2021 academic year. It was stated that the academic year will start on August 31, 2020 and end on January 22, 2021 (Okullar ne zaman açılacak? İşte okullarda 2020-2021 eğitim yılı takvimi, 2020).

Schools were opened in many countries around the world in September 2020. As a teaching model, face-to-face education in regions where the Covid-19 virus is not at risk, face-to-face and distance education in medium-level risk areas, and only distance learning model in high and risky areas with high number of cases. As a result of the recommendations of the Scientific Committee in Turkey, the 2020-2021 academic year has started with the hybrid model. In the first stage, it was decided to start distance education and face-to-face education in the classrooms recommended by the Scientific Committee 20 days later. These trainings were implemented gradually. Schools have been planned for all children in terms of square meters in common areas and classrooms, while maintaining social distance. By reducing the number of students in classrooms, schools are planned to open for 18 million students, but authority is left to the governors in the provinces. Education started in September 2020, with the foresight that schools may not be opened in provinces where unwanted situations exist and where conditions are poor. The Turkish Ministry of National Education agreed on the formula of

40 percent face-to-face and 60 percent distance education. Students who cannot receive face-to-face education are also planned to continue their education with distance education tools. The face-to-face training process, which was interrupted after the Corona virus epidemic in Turkey, started again gradually on September 21. However, due to the increase in the number of Coronavirus cases, the schools, which started face-to-face training gradually, were closed until January 4, while face-to-face training was planned on November 23, 2020 after the break, and the training was carried out online until this date (Uçar, 2020; Okullar ne zaman açılacak, yüz yüze eğitim tarihi belli mi?, 2020).

In the Turkish Republic of Northern Cyprus (TRNC), schools were closed at the beginning of March 2020 due to the Pandemic and remained closed until June 2020. After the summer vacation, face-to-face training started in September 2020, similar to Turkey. As of October 1, 2020, it has been decided that Pre-School (up to 5 years old) schools will start full-time and Primary School 1st and 2nd Grades will start alternately. As of 05 October 2020, it was decided to start the primary schools 3-4 and 5th grades alternately, while secondary and high schools (6-7-8-9-10-11 and 12th Grades) were decided to start alternately as of October 12, 2020. Universities, on the other hand, started with both distance education and face-to-face education. The increase in covid 19 cases in TRNC in the last week of December 2020 caused panic. While workplaces and schools with Covid-19 cases were closed, health measures were increased. After February 2021, completely distance education has been carried out in TRNC primary and secondary schools (Okullar kademeli olarak açılıyor. Karantina uygulaması uzatıldı, 2020; 2020 yılında tüm dünyada olduğu gibi, KKTC de salgından olumsuz etkilendi, 2020). Similarly, in universities, both distance education and face-to-face education are provided (KKTC bir yıldır koronavirüsle mücadele ediyor, 2021).

At TRNC, it is said that students are afraid of getting sick, while students are unwilling to attend school. In addition, students do not want to break their usual routine for the last 6 weeks at the end of the semester. At TRNC, students generally do not attend school preferably. Education and training activities are carried out with distance education. In general, this psychological situation must be overcome at first. In addition, face-to-face training cannot be provided due to insufficient vaccination (Tezer, 2021).

Murat Tezer

According to the New York Post report, many high school students did not go to school in New York, USA. Although some mayors opened a school with trumpets, it was observed that there were less than 15 percent of students attending schools. According to the Washington post, in general, 43 percent of the students in the United States preferred distance education, 17 percent hybrid, and 38 percent preferred face-to-face education. Especially, students preferred distance education more in these schools because they could not solve the necessary infrastructure in the schools where black and foreign students went (Edelman & Klein, 2021).

In a written statement made by the Ministry of National Education in Turkey, it was stated that within the scope of the "on-the-spot decision" implementation in education, in line with the criteria shared with the public as of March 1, 2021, face-to-face and distance education activities will be continued with the decisions to be taken on a provincial basis. In this context, it has been stated that face-to-face education will be held throughout the country in all pre-school education institutions, primary schools, 8th and 12th grades. It was stated that face-to-face and distance education in 5th, 6th and 7th grades and 'high school prep classes', 9th, 10th and 11th grades will be implemented on a provincial basis in line with the decisions of the governorships, depending on the risk situation map. With a decision taken in March 2020, schools in some provinces were quarantined again (Okullar kapanacak mı? Yüz yüze eğitime ara verilen iller, 2021).

In March 2021, there has been an increase in the cases in Van, Turkey, due to teachers coming from the red regions. The Governor of Van said they were in the red zone and quarantined 30 schools (Van Valisi: Kırmızı bölgelerden gelen öğretmenler nedeniyle vakalarımızda artış oldu, (2021).

England reopened its schools on March 8, 2021. However, although the shutdown caused by Covid-19 is less, it has been stated that there are schools that have been closed again. Schools were opened in Germany at the beginning of March. In New York's vaccination campaign, 30 percent of adults and half of those 65 and older got at least one dose of Covid-19 vaccine. Half of Britain's 60 million population has been vaccinated. No more than one in 10 secondary school students come to class since UK schools and colleges have completely reopened from March 2021. Approximately 150,000 middle school students are

out of school every day for reasons related to Covid-19 in the three weeks after schools open. After returning to school in the UK on March 8, 2021, student attendance in secondary schools increased from 81% to 89% (Adams, 2021).

There are considerable regional differences in school closures, according to UNESCO data, and many schools are fully or partially open around the world. Countries with full school closures hold the highest share (22% per capita) in the Latin America and Caribbean region, followed by Western Europe (18%), East and South Africa (16%) and the Middle East and North Africa regions (16%). Eastern Europe and Central Asia (5%), East Asia and the Pacific (6%), West and Central Africa (8%) are among comparatively lower school closers. Latin America, on the other hand, is the country with the highest number of days closed for 158 days (UNICEF, 2021). As of May 16, 2021, 24 countries around the world continue to keep their schools closed. Therefore, 200,895,815 students were stated to be victims. This number stated in the world is 11.5% of the learners. In April 2020, 163 countries had completely closed their schools (UNICEF Global monitoring of school closures, 2021).

5. Conclusion and Suggestions

As a result, all countries in the world have been affected by the Covid-19 virus. Some countries are trying to keep the virus under control by keeping their schools closed. While doing this, they apply distance education where possible. Some countries, on the other hand, use face-to-face and distance education methods in their schools by going to partial school closures, taking into account the number of cases, the population of the country and the capacity of the health systems. Often, low-population countries and countries that vaccinate most of their citizens have low number of cases, so they do face-to-face training. It seems that the pandemic caused by the Covid-19 virus will continue for a while. Therefore, distance education will continue in addition to face-to-face education in schools. Blended education applications are likely to come into play in the new period. Therefore, it can be anticipated that more researches on the pandemic will be needed in distance education.

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THE SOCIAL AND ECONOMIC IMPACT OF COVID-19

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The contributions in this book demonstrate that the Covid-19 pandemic has led to negative socioeconomic impacts, put a tremendous strain on social institutions in many countries, and changed lives of people around the world. Society, economy, business companies, management structures of companies, consumption habits of society, education, and health sector have been significantly affected by the Covid-19 pandemic. Some of these effects are thought to be permanent even after the pandemic subsides. It is obvious that the process of digitization will continue in making a consumer's life more comfortable and safer. Some researchers estimate that approximately 60 percent of companies plan to let their employees to continue working remotely from home offices inthe post-pandemic period. Many experts emphasize that online shopping, which increased rapidly during the pandemic period, will continue to dominate after the pandemic. Therefore, the social effects of the Covid-19 pandemic will be the subject of many academic studies today and in the future.

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