

How to cite this article:

Younas, A. & Kassim M, A. A. (2022). Empirical review of business challenges and opportunities from the Covid-19 pandemic. *Journal of Business Management and Accounting*, 12(2) July, 63-79. https://doi.org/10.32890/jbma2022.12.2.4

EMPIRICAL REVIEW OF BUSINESS CHALLENGES AND OPPORTUNITIES FROM THE COVID-19 PANDEMIC

¹Afshan Younas & ²Aza Azlina Md Kassim

¹Faculty of Business Studies, Arab Open University, Oman ²Faculty of Business Management and Professional Studies, Management and Science University, Malaysia

¹Corresponding author: afshan@aou.edu.om, aafshan2009@hotmail.com

Received: 16/11/2021 Revised: 23/2/2022 Accepted: 13/3/2022 Published: 31/7/2022

ABSTRACT

The SARS-CoV-2 coronavirus which causes the Covid-19 disease led to the most significant change in the world order over the past century, destabilizing the world's economy, businesses and communities, among others. Covid-19 has generated great uncertainty, and dramatically affected various industries, especially the service sector. This paper highlights the challenges and opportunities posed by the Covid-19 pandemic in terms of the role of businesses to ensure sustainability and safeguarding society. Based on empirical reviews, this study suggests that the pandemic has resulted in many business and economic challenges which include unemployment, low consumption of goods and services, financial distress, unethical business practices, mental distress, heavy business losses and business discontinuity. At the same time, the Covid-19 pandemic has created an opportunity for

businesses in terms of enhance sustainability environment, enhanced voluntary CSR initiatives, shifting towards digital transformation and viable alternative business models. This study concludes that businesses must actively make use of opportunities to overcome or minimize the challenges of Covid-19.

Keywords: Opportunities, challenges, corporate social responsibility, pandemic.

INTRODUCTION

A novel coronavirus infectious disease (Covid-19) started in Wuhan, China in November 2019, and rapidly spread to other parts of the world. It was declared a pandemic by the World Health Organization (WHO) in March 2020 (Abbas et al., 2021). It is a rapidly evolving and emerging situation. In the context of Malaysia, the Prime Minister, Tan Sri Muhyiddin Yassin, officially announced that the Malaysian Government would implement a Movement Control Order (MCO) starting 16th March 2020, as a preventive measure in response to the COVID-19 pandemic. The MCO, effective from 18th March 2020 until 9th June 2020, was implemented under the Prevention and Control of Infectious Diseases (1988) and the Police Act (1967). This MCO meant that Malaysians were subjected to "partial lockdown" whereby only necessary services were allowed to operate while others were to be stopped until further notice.

While the MCO measures largely stemmed the spread of the virus, lockdowns and related economic interruptions, travel restrictions, education institutions closures, and other containment measures had a swift and significant impact on workers and businesses (Blustein et al., 2020; van Dalen & Henkens, 2020), as well as all industrial sectors (Boissay & Rungcharoenkitkul, 2020) (Boissay & Rungcharoenkitkul, 2020). According to Barouki et al. (2021), the world economy during the Covid-19 pandemic faced challenges due to the high degree of global interdependencies and need of preparedness for global health threats. A study by Jingyi et al. (2021) on ASEAN countries found that vulnerable workers in the informal sectors, self-employed workers, gig workers, migrant workers, and micro, small, and medium enterprises (MSMEs) workers were mostly affected by the Covid-19 pandemic

and the lockdown measures taken by their respective governments. Many experts regard the pandemic as one of the most horrible global crises since the World War II (Aguinis et al., 2020). The most critical aspect of the Covid-19 pandemic is not over yet. The pandemic has progressed through phases and waves, whereby each stage and wave is characterised by a different set of needs and requirements. The year 2020 is regarded as the 'new normal' and 2021 is in a transition phase toward the 'next normal' (Barouki et al., 2021). For the year 2022, experts are optimistic that the pandemic is approaching the end and that life may return to normal (Baniasad et al., 2021). Many people are hopeful that this pandemic will be under control and would end in 2021 after vaccinating most of the population. However, new variants, after each wave, have shocked the whole world again (Aguinis et al., 2020). Unfortunately, Charters and Heitman (2021) argued that there is no obvious time when the pandemic will finish and life will get back to normal. Therefore, those who are badly affected during the pandemic, such as businesses owners, need to overcome the challenges and find opportunities from the pandemic.

Numerous businesses in different sectors tried to rise to the occasion by seeking innovative means of dealing with the pandemic for survival as well as business growth. Even though many experts and economic analysts have predicted a very gloomy picture regarding business survival (Galindo-Martin et al., 2021), several researchers suggested that a business positive attitude particularly in times of pandemic, world depression, and economic slump is very important (Calabrò et al., 2021; Lahiri & Sinha, 2021). Inevitably the pandemic has put businesses under test for their commitment to ethical business conduct and corporate social responsibility (CSR). Some may argue that the financial strain, both short-term and long term, caused by the outbreak could significantly push businesses to pursue short-term gains, sometimes through fraud and misconduct and reduce long-term CSR investment, probably due to lack of lack resources and mounting pressure for survival (He & Harris, 2020). Despite facing the pandemic, businesses need to show responsible behavior and attitude towards people, thus the concept of CSR was mostly highlighted and acknowledged by different researchers during the pandemic.

This paper aims to identify the challenges and opportunities that arises during the Covid-19 pandemic. The Covid-19 pandemic possessed

immediate and long-term effects and it will continue to influence the world positively as an opportunity and negatively as a challenge. It opens up many discussion fora and opportunities for researchers in several disciplines (Brodeur et al., 2021). This study identifies the business challenges and opportunities generated by the Covid-19 pandemic with special focus on the concept of CSR as an opportunity for businesses to overcome the challenges. Since the pandemic is not yet over and it runs in the form of waves, the current study focuses on the impact and severity of each wave on the business environment.

LITERATURE REVIEW

Pandemics are not new and have occurred at several stages in human history (Broekhoven et al., 2006) such as the plague, smallpox, and tuberculosis. From the year 2000, there has been a significant increase in the frequencies of pandemics. A pandemic is defined as an outbreak of infectious disease that spreads throughout the world and infects a significant proportion of the human population (Qiu et al., 2017). Over 100 years ago, the world was experienced the Spanish Flu Influenza pandemic, which resulted in approximately 500 million infections and an estimated 100 million deaths (Coccia, 2021). This pandemic runs in three waves and the world experienced a significant economic slump in developed as well as in developing countries. During the pandemic, the GDP per capita of developed countries decreased by approximately 6 percent (Burdekin, 2021). The influenza pandemic is regarded as Asian Flu in 1957 and Hong Kong Flu in 1968. Since the travel industry is not well structured at that time, the spread of influenza was controllable up to some extent.

After the beginning of the new millennium, the most notable and threatening pandemics were the SARS outbreak in 2003, the Swine Flu influenza in 2009, the MERS coronavirus outbreak in 2012 and the Ebola virus in 2018 (El-Chaarani, 2021). Table 1 summarises the series of the pandemics over the last 100 years. Overall, the impact of Covid-19 on the global economy is likely to be unprecedented since the 1930s Great Depression (Euronews, 2020), even compared to the Spanish Flue influenza outbreaks in terms of global reach and number of infections

 Table 1

 Pandemic Timeline over the Last 100 Years

Pandemic	Time Period	Туре	Death Toll
Spanish Flu	1918 - 1917	H1N1 virus	50 million
Asian Flu	1957 - 1958	H2N2 Virus	1.1 million
Hong Kong Flu	1968 - 1970	H3N2 virus	1 million
Swine Flu	2009 - 2010	H1N1 virus	0.2 million
SARS	2002 - 2003	Coronavirus	770
Ebola	2014 - 2016	Animals	11,000
MERS	2015 – still	Coronavirus	850
Covid-19	2019 – still	Coronavirus	4.2 million

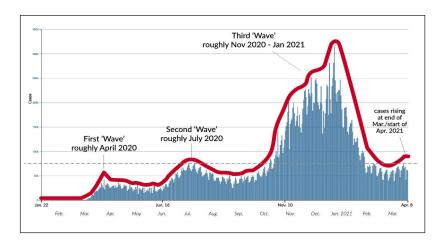
The Covid-19 was first reported as a pneumonia case in Wuhan, China on 4th January 2020 (Tian et al., 2020), and the first death due to Covid-19 was reported on 11th January 2020 (Tian et al., 2020). The first Covid-19 case outside China was reported in Thailand on 13th January 2020 and within a couple of days, the confirmed cases were reported from Nepal, France, Australia, Malaysia, Singapore, South Korea, Vietnam, and Taiwan (Li et al., 2021). On 30th January 2020, WHO declared Covid-19 as a Public Health Emergency of International concern. On 8th March 2020, the Covid-19 virus had reached more than 100 countries and Italy had the largest outbreak. WHO declares Covid-19 a pandemic on 11th March 2020 (Abbas et al., 2021) since Covid-19 had a wider and faster spreading pace compared to previous pandemics (Engidaw, 2022). As at 29th July 2020, the pandemic had spread to 220 countries and territories around the world, with a total of 197,128,396 people infected, 4,210,120 deaths, 178,378,694 patients recovered out of these and 14,539,582 were active cases (Carlsson-Szlezak et al., 2020).

Figure 1 shows that the Covid-19 pandemic runs in the form of waves. The world witnesses the first wave from the first quarter to the third quarter of 2020, while the last quarter of 2020 is regarded as the second wave. Furthermore, the first and second quarter of 2021 marked the third wave, and the third quarter of 2021 is considered the fourth wave. Finally, the end of 2021 towards beginning of 2022 will

witness the fifth wave (Eubank et al., 2020). The WHO has warned that several waves may come in the form of different variants and with more severity. However, these waves and their numbering are slightly different from country to country and region to region (Falk et al., 2021).

Figure 1

Daily Trend in Number of Covid-19 Cases



During the outbreak of Covid-19, severe measures were adopted to limit viral transmission which includes travel restrictions, border closures, lockdowns, curfew, and bans on social events and gatherings. All these stringent measures were taken to control and curb Covid-19, but on another side, these measures adversely affected businesses and their operating environment. The short-term impact of Covid-19 was felt immediately due to the widespread lockdown and social distancing measures globally. Even though the pandemic will end, it is already set to have long-lasting profound economic, social, political and cultural impacts. Businesses are the most devastated as the pandemic eats away business opportunities and pose other challenges. Several studies reported economic and businesses losses due to closures leaving no industry unaffected (Forsythe et al., 2020). According to Xiang et al. (2021), relocation and shut down of businesses and supply chains were experienced in almost every sector and even governments have put the economies aside and are hoarding basic necessities. In fact, businesses that were facing financial difficulties have adopted down-skilling by cutting back employees of high-skill more than low-skill to reduce their costs and try to sustain their businesses (Al-Abrrow et al., 2020; Hite & McDonald, 2020). Therefore, since the nature of the current pandemic is different and more brutal compared to previous pandemics, it is important to highlight the challenges and opportunities created by Covid-19.

CHALLENGES POSED BY COVID-19 PANDEMIC

Hassan (2020) identified three main diffusion channels which the pandemic posed a challenge for the economy. The first is the direct effect, whereby the pandemic directly reduced consumption of goods and services. The second is the indirect effect, which impacts the financial market and then further affects the economy. Finally, is the logistics effect, which negatively affects the supply chains, labor demand, employment, and caused downsizing. Such large-scale disruptions increase uncertainty and the risk for businesses in terms of their survival and continuity (Chen et al., 2021). Compared to agriculture, manufacturing, and other industries, the service industry has been affected more negatively, especially sub-sections or entities within the industry that are unable to operate remotely. Gafni (2020) revealed that the entertainment sector, retailing sector, tourism sector, travel industry, food retails, hospitality, as well as sports, leisure and art activities, are all crumbling and many of them are getting bankrupt. The socio-economic conditions of the world have aggravated. Many managers and entrepreneurs have signaled that the continuity and the sustainability of their businesses are not guaranteed. Undoubtedly, this catastrophic event poses a huge challenge to the continuity of business production and operations. However, it is noteworthy that the impact of catastrophic events on businesses differ based on business size and the particular industry.

Furthermore, the arrival of Covid-19 has a negative impact on economic indicators of businesses whereby majority of firms are facing major financial issues which are mostly liquidity problems (El-Chaarani, 2021). Firms around the world are not able to pay their financial dues like wages and loans. Even the government has shown their supports by offering loans to help businesses, but such loans may not be too helpful as it creates additional financial stress in the coming years especially for SMEs (D'Auria & De Smet, 2020). This

financial stress leads employees to be stressed, which ultimately affects productivity. In addition, leaders or entrepreneurs who are in charge of the financial aspects of the business can be susceptible to psychological forces in times of pandemic that would distract them from their roles as risk managers (Dirani et al., 2020).

Besides, Covid-19 also poses challenges to firms and business with regards to CSR. It has been reported that some firms or retailers have tried to profiteer from this crisis. Many countries, particularly developing nations, have reported unethical behavior of businesses in the form of increase in prices of goods and creation of artificial shortages (He & Harris, 2020). Udell et al. (2020) revealed that some businesses preferred to hoard and increase the price of personal protective equipment (PPE) such as masks. In one complaint, a New York store owner allegedly charged a 1,348 percent markup on sales of PPE. Other charges involve fraudulent claims of COVID-19 cures, receiving kickbacks for referring patients to COVID-19 test sites and tampering with shipments of PPE (Udell et al., 2020). Some retailers also tried to earn super-profits from the crisis through creating shortage of goods. Bulk buying of goods at the beginning of pandemic resulted in high prices which creates additional responsibility on businesses and even the government to ensure availability of products at the right price (Albergotti & Siddiqui, 2020).

Apart from challenges facing businesses and economy, the Covid-19 pandemic also made several socio-economic impacts on the society which includes behavioral effects (Colizzi et al., 2020), social isolation (Banerjee & Rai, 2020), mental health and wellbeing issues (Forsythe et al., 2020; Javed et al., 2020), as well as racial inequality (Chen et al., 2020). It was common for people to experience mental stress, anxiety, frustration, and social isolation due to social distancing and lockdown measures. Overall, the lockdown policy adversely affected public health due to loneliness, boredom, and emotional depression. In addition, domestic violence cases due to Covid-19 were reported from different parts of the world (Krishnakumar & Verma, 2021).

Numerous research evidence, media fora and reports highlight the most common effects of Covid-19 as reduced labour force participation, decreased in work hours and increase in unemployment rate (Ibrahim, 2021). According to Li et al. (2021), the unemployment rate reached 14.8 percent in April 2020, which was reported to be the highest rate since 1948. Whereas in May 2021, the unemployment rate recorded

an increase trend and it is still high (5.8 percent) compared to February 2020 (5.3 percent). A major sector facing unemployment problem is leisure and hospitality sector, as a large number of workers lost their jobs since March 2020.

In response to different challenges, countries and businesses tried to identify survival strategies. At this point, it is important to understand the different types of recoveries. Hassan (2020) identified three types of recoveries during post-pandemic. The first recovery is labeled as 'V-shaped', whereby general production is moved, and the economy quickly recovers from the crisis. The second recovery is labeled as 'U-Shaped' which indicates that the general production drops quickly, but it does not go back to the previous level. Thus, the gap between old and new output exists. The third recovery is labeled as 'L-shaped', where general production and growth rates both continue to decline and the gap between old and new production continues to widen.

At the organisational level, numerous firms and businesses tried to implement a cost control strategy (El-Chaarani, 2021). Other strategies adopted by businesses as downsizing. This strategy enable businesses to control cost, but on the other hand, it creates unemployment and worsen the pandemic's effects on society, for instance, social issues, domestic violence and financial consumption issues. Besides, some large organisations decided to close their non-profitable sections and branches (Gourinchas et al., 2021) as one way to limit their losses. Adjusting marketing strategies by shifting to online platforms was also used by lots of businesses to promote their products. Even though online marketing platforms has zero cost, businesses still faced other issues such as low and restricted purchasing power of customers due to loss of jobs and distorted international supply chains. Whatever the most appropriate strategic orientation to overcome the pandemic challenges, the post-Covid-19 market place will be remarkably different

COVID-19 AS AN OPPORTUNITY

Undoubtedly, the current Covid-19 pandemic offers a wide range of significant opportunities to those with some level of business acumen. In a wider perspective, Covid-19 provides positive outcomes on the sustainability environments. Praveena and Aris (2021) revealed that the positive effects of COVID-19 lockdown and movement restriction

on the Southeast Asian regional environment included a reduction in air pollution, improvement of air and water quality, lower noise levels, and reduced land surface temperature. Albergotti and Siddiqui (2020) reported that the Air Quality Index and the fine particulate matter concentrations went down by 25 percent within a couple of weeks of lockdown in larger and industrialized cities. In addition, the lockdowns and curfews led tp the limited use of vehicles which also led to a reduction in Nitrous Oxide emissions (Forsythe et al., 2020). The lockdowns effect is not limited to the environment, but also road accidents deaths decreased significantly across the world (Forsythe et al., 2020).

Further, Covid-19 pandemic offers great opportunities for businesses to actively engage with their CSR strategies and agendas for business sustainability. Focusing on CSR activities has proven in a previous economic downturn as one of the important measures for business existence (Marom & Lussier, 2020). During the pandemic, CSR can be viewed as the commitment of organisations to reduce any negative business impact and to increase positive contribution to the community. In fulfilling CSR agenda, numerous companies distributed free products and provided assistance to fight against the pandemic. In addition, products were offered at discounted prices as part of assisting consumers who faced financial difficulties. Besides, many businesses were opportunistic by playing a key role in the market to become market stars and heroes (Dwiyedi & Kumar, 2021). Not wanting to be left behind, many firms around the world shifted their production towards health kits. For instance, car manufacturers such as Ford and General Motors (GM) started the production of ventilators, medical equipment, and machines to support the governments during pandemics (Albergotti & Siddiqui, 2020). Similarly, many fashion designers such as Gucci, Zara, and Prada shifted their manufacturing to the production of face masks and protective gowns (Silchenko & Visconti, 2021).

Even though these CSR efforts caused substantial costs, it as an opportunity for businesses to serve the society by creating positive image and to gain trust (Huang & Liu, 2020). A business's genuine CSR will build stronger rapport among its customers and the general public, as they have built up strong expectation from leading brands, particularly their favourite brands, during the pandemic with regard to their efforts in combating the Covid-19. Consumers would feel proud of their brands helping their employees, donating money and

equipment during the crisis. The bond established between the brand and consumer during this crisis era can be more meaningful and lasting than during "peaceful" times.

Further, the Covid-19 pandemic presented the opportunity to digitize business or identify a viable alternative business model which can well be utilised by businesses that are looking to expand their horizons. A good example of such businesses would be private educational institutions which have not only adapted online platforms to hold virtual classes but have also designed educational products which combine interesting asynchronous instructional pedagogies with synchronous classes (Tronvoll et al., 2020). In order to capitalize on the opportunity for digitization, businesses need to be agile and rapidly develop capabilities that can help them survive the changes that the pandemic environment imposes on them. Such dynamic capabilities relate to specific strategic and organisational processes like product re-development; identifying and working with new partners in an ecosystem; and strategic decision making that create value within such dynamic environments by manipulating available resources into new value-creating strategies (Ratten, 2020).

CONCLUSION

The main purpose of this study is to identify and highlight the Covid-19 challenges and opportunities for business, economy and society generally. Overall, this study suggests that the Covid-19 has significantly changed business patterns, government environment and individual lifestyles. The study highlighted several challenges which led to intense global disruptions and cause unemployment, discrimination, disturbed mental health, high prices and low production and consumption. The study emphasized the opportunities and positive impacts of Covid-19 which include reduced environmental emission, enhanced voluntary CSR initiatives, shifting towards digital transformation and identification of a viable alternative business model. Overall, the challenges created by Covid-19 need to be addressed by the businesses and the society at large so that they can controlled and overcome. The opportunities created by the current pandemic are unique, but it is important to identify the right strategies. It is suggested that CSR works is one of the most suitable tools for attracting public trust and creating a positive image since business needs to work for survival and growth during these hard times.

This article offered some initial thoughts on how the Covid-19 pandemic poses challenges and offers great opportunities for businesses. However, this paper acknowledges certain limitations. First, the Covid-19 pandemic is not over at the time of writing the paper, hence, it will take time or life to become 'normal' or to attain a 'new normal'. Second, the Covid-19 pandemic runs in the form of waves, and each wave is different from another. At this moment, no one can forecast how the upcoming waves will change the world, how many waves will come and at the same time, nobody is sure that vaccines will transform the world back to its normal rhythm or not. Third, this paper focuses mainly on the challenges and opportunities created by Covid-19 on businesses and the economy. Therefore, the discussion is limited to these contexts only as there are many other implications areas that are not covered in this paper.

Future research may cover the specified limitations of the current study. Since the pandemic is not over yet, there is a need for continuous research in these areas. Different waves of Covid-19 impacted the world differently. As the world is experiencing the fifth wave at the time of writing this paper, it is highly desirable that future researchers should continue their contributions in this area and study the impact of these waves on society and businesses. In addition, a comparative study could be conducted by other researchers to view the effects of each wave and the country's responses to these waves. Besides, more areas of business opportunities can be identified due to Covid-19 since the current paper only relies much on CSR and other aspects as business opportunities. For instance, companies involved in vaccine manufacturing, medical supplies and pharmaceutical businesses have found Covid-19 initially challenging, but now it can be regarded as an opportunity because of a significant increase in their sales. Hence, future research may cover these areas to examine the impact of Covid-19 on different business sectors. Similarly, future research may focus on how these businesses donate to poor countries as a form of CSR activities

ACKNOWLEDGMENT

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

REFERENCES

- Abbas, J., Wang, D., Su, Z., & Ziapour, A. (2021). The role of social media in the advent of COVID-19 pandemic: Crisis management, mental health challenges and implications. *Risk Management and Healthcare Policy*, *14*, 1917-1928.
- Aguinis, H., Villamor, I., & Gabriel, K. P. (2020). Understanding employee responses to COVID-19: A behavioral corporate social responsibility perspective. *Management Research: Journal of the Iberoamerican Academy of Management*, 18(4), 421-438.
- Al-Abrrow, H., Al-Maatoq, M., Alharbi, R. K., Alnoor, A., Abdullah, H. O., Abbas, S., & Khattak, Z. Z. (2021). Understanding employees' responses to the COVID-19 pandemic: The attractiveness of healthcare jobs. *Global Business and Organizational Excellence*, 40(2), 19-33.
- Albergotti, R., & Siddiqui, F. (2020). Ford and GM are undertaking a Warlike Effort to Produce Ventilators. It May Fall Short and Come Too Late. Washington Post.
- Banerjee, D., & Rai, M. (2020). Social isolation in Covid-19: The impact of loneliness. *International Journal of Social Psychiatry*, 66(6), 525-527.
- Baniasad, M., Mofrad, M. G., Bahmanabadi, B., & Jamshidi, S. (2021). COVID-19 in Asia: Transmission factors, re-opening policies, and vaccination simulation. *Environmental Research*, 202, 111-127.
- Barouki, R., Kogevinas, M., Audouze, K., Belesova, K., Bergman, A., Birnbaum, L., & HERA-COVID-19 working group. (2021). The COVID-19 pandemic and global environmental change: Emerging research needs. *Environment International*, *146*(1), 106-117.
- Blustein, D. L., Duffy, R., Ferreira, J. A., Cohen-Scali, V., Cinamon, R. G., & Allan, B. A. (2020). Unemployment in the time of COVID-19: A research agenda. *Journal of Vocational Behavior*, 119(1), 103-114.
- Boissay, F., & Rungcharoenkitkul, P. (2020). *Macroeconomic Effects of Covid-19: An Early Review*. Report No. 7. Bank for International Settlements.
- Brodeur, A., Gray, D., Islam, A., & Bhuiyan, S. (2021). A literature review of the economics of COVID-19. *Journal of Economic Surveys*, 35(4), 1007-1044.

- Broekhoven, H. V., Alm E., Tuominen T., Hellman A., & Dziworski W. (2006). *Actuarial Reflections on Pandemic Risk and its Consequences*. Oxford: Europe Actuarial Consultative Group.
- Burdekin, R. C. (2021). Death and the stock market: International evidence from the Spanish Flu. *Applied Economics Letters*, 28(17), 1512-1520.
- Calabrò, A., Frank, H., Minichilli, A., & Suess-Reyes, J. (2021). Business families in times of crises: The backbone of family firm resilience and continuity. *Journal of Family Business Strategy*, *12*(2), 104-114.
- Carlsson-Szlezak, P., Reeves, M., & Swartz, P. (2020). What coronavirus could mean for the global economy. *Harvard Business Review*, *3*(10), 1-10.
- Charters, E., & Heitman, K. (2021). How epidemics end. *Centaurus*, 63(1), 210-224.
- Chen, J. A., Zhang, E., & Liu, C. H. (2020). Potential impact of COVID-19–related racial discrimination on the health of Asian Americans. *American Journal of Public Health*, *110*(11), 1624-1627
- Chen, J., Huang, J., Su, W., Štreimikienė, D., & Baležentis, T. (2021). The challenges of COVID-19 control policies for sustainable development of business: Evidence from service industries. *Technology in Society*, 66, 101-126.
- Coccia, M. (2021). The relation between length of lockdown, numbers of infected people and deaths of Covid-19, and economic growth of countries. *Science of the Total Environment*, 775, 145-158.
- Colizzi, M., Sironi, E., Antonini, F., Ciceri, M. L., Bovo, C., & Zoccante, L. (2020). Psychosocial and behavioral impact of COVID-19 in autism spectrum disorder: An online parent survey. *Brain Sciences*, 10(6), 341.
- D'Auria, G., & De Smet, A. (2020). Leadership in a crisis: Responding to the coronavirus outbreak and future challenges. *Psychology*, 22(2), 273-287.
- Dirani, K. M., Abadi, M., Alizadeh, A., Barhate, B., Garza, R. C., Gunasekara, N., Ibrahim G & Majzun, Z. (2020). Leadership competencies and the essential role of HRD in times of crisis: A response to Covid-19 pandemic. *Human Resource Development International*, 23(4), 380-394.
- Dwivedi, M. K., & Kumar, V. (2021). Impact of lockdown and CSR activities undertaken by the corporates during COVID-19 in India. *International Journal of Indian Culture and Business Management*, 22(4), 558-589.

- El-Chaarani, H. (2021). COVID-19: Problems, challenges and business opportunities. *Journal of Contemporary Research in Business Administration and Economic Sciences, 1*(1), 135-149.
- Engidaw, A. E. (2022). Small businesses and their challenges during COVID-19 pandemic in developing countries: The case of Ethiopia. *Journal of Innovation and Entrepreneurship*, 11(1), 1-14.
- Eubank, S., Eckstrand, I., Lewis, B., Venkatramanan, S., Marathe, M., & Barrett, C. L. (2020). Commentary on Ferguson, et al.: Impact of non-pharmaceutical interventions (NPIs) to reduce COVID-19 mortality and healthcare demand. *Bulletin of Mathematical Biology*, 82(4), 1-7.
- Euronews (2020). COVID-19: World economy in 2020 to suffer worst year since 1930s Great Depression, says IMF. Euronews Online.
- Falk, A., Benda, A., Falk, P., Steffen, S., Wallace, Z., & Høeg, T. B. (2021). COVID-19 cases and transmission in 17 K-12 schools: Wood County, Wisconsin, August 31-November 29, 2020. Morbidity and Mortality Weekly Report, 70(4), 136-148.
- Forsythe, E., Kahn, L. B., Lange, F., & Wiczer, D. (2020). Labor demand in the time of COVID-19: Evidence from vacancy postings and UI claims. *Journal of Public Economics*, 189, 104238.
- Gafni, N. (2020). COVID-19: How companies can support society. In *World Economic Forum*.
- Galindo-Martín, M. Á., Castaño-Martínez, M. S., & Méndez-Picazo, M. T. (2021). Effects of the pandemic crisis on entrepreneurship and sustainable development. *Journal of Business Research*, 137, 345-353.
- Gourinchas, P. O., Kalemli-Özcan, Ş., Penciakova, V., & Sander, N. (2021). COVID-19 and small-and medium-sized enterprises: A 2021 "time bomb"?. *AEA Papers and Proceedings*, 111, 282-826.
- Hassan, A. (2020). Businesses Corporate Social Responsibility (CSR)

 Duties Towards Communities in the Covid-19 crisiS | EAUC.

 Eauc.Org.Uk. https://www.eauc.org.uk/7017
- He, H., & Harris, L. (2020). The impact of Covid-19 pandemic on corporate social responsibility and marketing philosophy. *Journal of Business Research*, *116*, 176-182.
- Hite, L. M., & McDonald, K. S. (2020). Careers after COVID-19: Challenges and changes. *Human Resource Development International*, 23(4), 427-437.

- Huang, H., & Liu, S. Q. (2020). "Donate to help combat COVID-19!" How typeface affects the effectiveness of CSR marketing? *International Journal of Contemporary Hospitality Management*, 32(10), 3315-3333.
- Ibrahim, I. (2021). Factors effecting employees retention in the Malaysian manufacturing industry during the pandemic Covid-19: The mediating role of job satisfaction. *Asian Journal of Research in Business and Management*, *3*(3), 24-39.
- Javed, B., Sarwer, A., Soto, E. B., & Mashwani, Z. U. R. (2020). The coronavirus (COVID-19) pandemic's impact on mental health. *The International Journal of Health Planning and Management*, 35(5), 993-996.
- Jingyi, L., Lim, B., Pazim, K. H., & Furuoka, F. (2021). Covid-19 pandemic's impact on the labour market in ASEAN countries. *AEI-Insights: An International Journal of Asia-Europe Relations*, 7(1), 59-76.
- Krishnakumar, A., & Verma, S. (2021). Understanding domestic violence in India during COVID-19: A routine activity approach. *Asian Journal of Criminology*, *16*(1), 19-35.
- Lahiri, S., & Sinha, M. (2021). A study of the socio-economic implications of the COVID-19 pandemic. *Australasian Accounting, Business and Finance Journal*, 15(1), 51-69.
- Li, Y., Liang, M., Yin, X., Liu, X., Hao, M., Hu, Z., Wang Y & Jin, L. (2021). COVID-19 epidemic outside China: 34 founders and exponential growth. *Journal of Investigative Medicine*, 69(1), 52-55.
- Marom, S., & Lussier, R. N. (2020). Corporate social responsibility during the coronavirus pandemic: An interim overview. *Business and Economic Research*, 10(2), 250-269.
- Praveena, S. M., & Aris, A. Z. (2021). The impacts of COVID-19 on the environmental sustainability: A perspective from the Southeast Asian region. *Environmental Science and Pollution Research*, 28(45), 63829-63836.
- Qiu, W., Rutherford, S., Mao, A., & Chu, C. (2017). The pandemic and its impacts. *Health, Culture and Society*, *9*, 1-11.
- Ratten, V. (2020). Coronavirus (covid-19) and entrepreneurship: Changing life and work landscape. *Journal of Small Business & Entrepreneurship*, 32(5), 503-516.
- Silchenko, K., & Visconti, L. M. (2021). Facemask: From pandemic to marketplace iconicity. *Consumption Markets & Culture*, 1-24.

- Tian, S., Hu, N., Lou, J., Chen, K., Kang, X., Xiang, Z., ... & Zhang, J. (2020). Characteristics of COVID-19 infection in Beijing. *Journal of Infection*, 80(4), 401-406.
- Tronvoll, B., Sklyar, A., Sörhammar, D., & Kowalkowski, C. (2020). Transformational shifts through digital servitization. *Industrial Marketing Management*, 89, 293-305.
- Udell, J. Ahalt, K. & Armas, J. (2020), DOJ Launches COVID-19-related Fraud and Price Gouging Cases. Law.Com,
- van Dalen, H. P., & Henkens, K. (2020). The COVID-19 pandemic: Lessons for financially fragile and aging societies. *Work, Aging and Retirement*, 6(4), 229-232.
- Xiang, S., Rasool, S., Hang, Y., Javid, K., Javed, T., & Artene, A. E. (2021). The effect of COVID-19 pandemic on service sector sustainability and growth. *Frontiers in Psychology*, *12*(1), 633-652.