

COVID-19 Pandemic: Its Public Health Concern and Economic Outcomes in Pakistan and Future Impact

AUTHORS DETAIL

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INTRODUCTION

The epidemic of coronavirus infection 2019 has serious impact on national as well as global economy. Several enterprises are challenging with this issues with firm degree of losses. The major problems include decline in demand and disturbance of supply chain, export order cancellation, shortage of raw material and interruption of transportation. It is now clear that enterprises around the world are facing the significant effects of COVID-19 outbreaks on their business. Main victims of COVID-19 outbreak are micro small and medium sized enterprises (MSMEs) as compare to larger enterprises, because MSMEs don't having enough resources and are not ready for such disturbances likely to go longer than expected (Prasad et al. 2015; Bartik et al. 2020).

According to United Nation Conference on Trade and Development (UNCTAD 2020a), currently, Pakistan might be at the great threat by the COVID-19 pandemic. Thus this justify the requirement to analyze the effects of COVID-19 eruption on MSMEs operative especially in Pakistan. Moreover, the constant pandemic disaster will rigorously obstruct the operation of these business, as MSMEs were mainly reliant on the cash economy that had been seriously disturbed by the pandemic (Williams and Schaefer 2013).

World Health Organization has already stated the COVID-19, as a pandemic. In the initial phase of 2020, the whole

world was facing this pandemic that was truly a black swan event. In Pakistan on daily basis 6825 cases were reported on 14 June, 2020 and 213 cases were the lowest official number which were reported on 30 August, 2020. On second week of October, 2020 second COVID-19 wave was started and on 6 December, 2020 maximum number of cases i.e., 3795 cases were reported from Pakistan. As of increasing number of cases, the maximum number remained close to 1000 cases till February 2021. Third COVID-19 wave in Pakistan was officially identified to have started in the second week of March 2021. On March 2021 number of cases were enhancing at an infection rate of 8% and CFR was 1.2%. Total number of cases was >600 thousand and was estimated to enhance due to increase in infection rate as well as outbreak of new variant of virus. It was worth mentioning here that significant part of Pakistan's labor force was working in informal sectors, thus it was understood that due to this fact Pakistan's population was seriously affected by the closure of economic activities, idleness and scarcity was likely to enhance manifold if the condition continues for longer period (Pakistan Economic Survey 2020-2021). The Government relief's package mediated to decline mental stress of community and enhance the worth of their lives. IMF stated that during June 2021 Pakistan's GDP was bounced back at 4% growth. Fig. 1 and Fig. 2 analyzes the COVID-19 impact on the working population of Pakistan.

Impacts of COVID-19 on the Worldwide Economy

The consequences of the COVID-19 infection on community and economy may be observed from the lockdown of cities worldwide, restriction of labor mobility, bans on travel, airline suspension and significantly drop of the economy. COVID-19 disaster became a worldwide issue from 21 February to 24 March, 2020 and still the number of infected persons were rising promptly on daily basis. It was expected that COVID-19 outbreak had main effects on worldwide GDP growth rate (Word Economic 2020). Due to the global outbreak of COVID-19, the worldwide GDP growth rate was probably to be infected ranging from 2.4-4.9% (ADB 2020). Moreover, it had also been expected that COVID-19 pandemic may result in worldwide foreign direct asset to shrink by 5-15% (UNCTAD 2020b). Additionally, UNCTAD report explore that the world requires a funding package of upto 2.5 \$ trillion to manage such huge destruction (UNCTAD 2020a). Therefore, on the basis of this statistics, the recent worldwide disaster would probably be

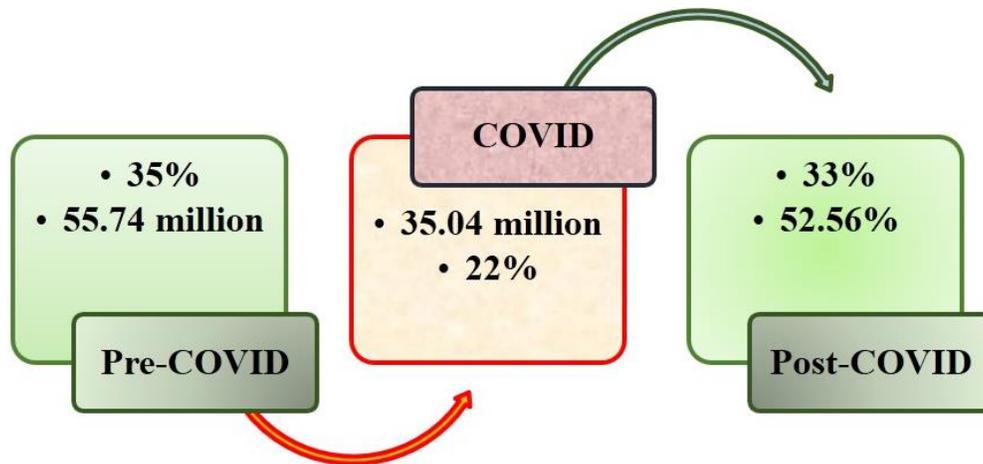


Fig. 1: Analysis of COVID-19 impact on Working Population in Pakistan

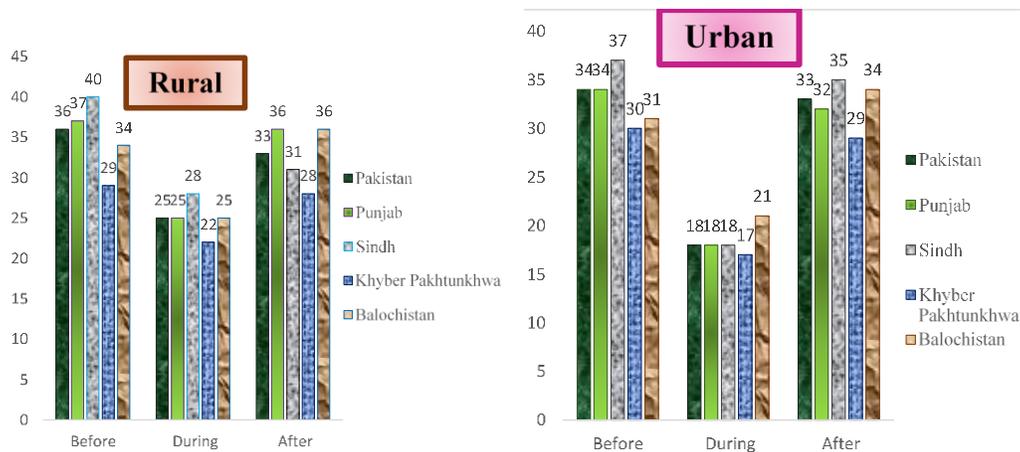


Fig. 2: Analysis of COVID-19 impact on working population in urban and rural areas of Pakistan (Pakistan Bureau of Statistics, Government of Pakistan, survey 2020)

worse as compare to the disaster in 2008 (UNCTAD 2020a). Moreover, based on International Labor Organization (ILO), 25 million individuals might have lost their jobs globally (ILO 2020c).

Currently ILO report exhibits that lockdown measures are influencing 81% of workers worldwide (ILO 2020b). Since the Second World War, this was the worst global disaster (ILO 2020b). It had been analyzed that US citizens had lost 3 million jobs during May-September in 2020 and the tendency will be comparable in European and other regions throughout the world (Siddiqui 2020). It had been estimated that the effect of COVID-19 on the economic outcome of accommodation and food services, wholesale, real estate and retail trade of motorcycles were excessive, however utilities, social work activities, public administration and defense, human health and education were also decreased (ILO 2020b). In developing countries COVID-19 will have high impact, and in under developed countries it will be more challenging for Government to implement active stimulus without facing binding foreign interchange limitations (UNCTAD 2020a).

Highly susceptible regions in several countries were those that were having inferior health infrastructure, highly reliant on tourism and trade sector, highly indebted and also dependent on unsteady capital flows (World Bank 2020a). By monitoring the COVID-19 worse impacts it was expected that economy will be recover later, however, the threats of constant financial stresses were high even after 2020 (World Bank 2020a). Additionally, it had also been assessed that scarcity was enhancing as nearly 11 million people were severely affected (World Bank 2020a). While the consequences of COVID-19 pandemic were persistent and was progressively impulsive, it was understood that the condition in developing economies would get severe prior to get improved (UNCTAD 2020a). Based on the United National Development Programme (UNDP), income losses in emerging countries were mainly to be exceeded 220billion \$ (UNDP 2020b). Additionally, World Bank in its current report had expected that South Asia might challenge with inferior economic performance during last 40 years along with 50% of the countries falling into a severe downturn (World Bank 2020b).

Table 1: In Pakistan magnitude of domestic and external shock in 2019-2020 and 2020-2021

	2019-2020	2020-2021
Domestic		
Reduce in the accessibility of domestically produced Goods	-10	-5
Reduce in the accessibility of imported Goods	-15	-5
External		
Volume of World Trade	-30	-15
Unit \$ Value of Import	-30	-20
Unit \$ Value of Export	-20	-10
Remittances	-15	-10
From March-June 2020		

In Pakistan projected growth rate (%) in 2020 and 2021

Year	Pakistan Economy	World Economy
2020	-4.8	-3.0
2021	2.6	5.8

IMF, UNDP Macroeconomic Model

Impact of COVID-19 on Pakistan Economy and MSMEs

It had been recognized that Pakistan had lost 1/3rd of its income and foreign trades fallen by 50% due to the COVID-19 pandemic and strict lockdown (Junaidi 2020).

Researchers notify downturn of economy in Pakistan during virus lockdown (Naqvi 2020). Likewise, the World Bank also informed that Pakistan might be falling into a decline (World Bank 2020b). Due to the constant disaster of COVID-19 pandemic, Pakistan's actual GDP growth rate in FY20 was estimated to diminish nearly 1.32%, along with sharp decline in global as well as national economy during last few months of fiscal year (World Bank 2020b). Additionally, COVID-19 outbreak deteriorate and endures slower than estimated as Pakistan actual GDP growth rate in COVID-19 during fiscal year 2020 was reduced by 2.2% and earlier during FY21 just improving of 0.3% growth rate (World Bank 2020b). Table 1 enlisted the magnitude of domestic and external shocks in Pakistan during 2019-2020 and 2020-21.

Major and most instant effect of the lockdown was the stoppage of industrial processes. Lockdown was firstly declared in Sindh province during 23rd March, 2020. Karachi as the capital city of Sindh province was reflected as the main industrial zone and account for about 30% of total interchanges. However due to the lockdown, in Karachi out of total 2700 factories only 55 were working on the first working day (Hussain 2020). Moreover, it had been stated that only 5 million people in Pakistan who live just at or below survival line, however, there were masses of largely unskilled people i.e. labors, waste cycler, transport worker, construction worker and domestic worker, who work in several industries, agriculture services, and rely on daily wages to meet their requirements. It had also been analyzed that in Karachi nearly 4.1 million people were working on daily paid basis (DPB), and about 4 million peoples were working on DPB in the Punjab province. Such daily paid workers were extremely affected by lockdown. After that, micro enterprises i.e. household business, small shop owner, and street venders are highly depend on their micro business.

Such business are typically run by whole members of family in several industries i.e. from agriculture to education. Moreover, such micro enterprises were measured as a part of informal economy and mostly their contribution was not well-known. It had been analyzed that micro enterprises were accounted approximately 35.7% during 2017-18 of total nationwide employment (Sohail 2019). Moreover, during 2019, nearly 55.6% of such businesses were susceptible, out of which >87% of work was in agriculture, 3/4th of the jobs were in retail trade and whole sale, approximately 50% of worker in restaurants, 3/4th of jobs in business and in real estate, and >2/5th of workers in communication and transport were susceptible (Sohail 2019).

Several small and medium sized enterprises were challenging the enormous concerns. Such as, the textile and garment industry had been affected predominantly due to the imposition of lockdown. 54% of Pakistan's industrial sector exports food i.e. tobacco, beverages and textile, and a decline in export demand for such sectors will have an inconsistent impact on Pakistan economy (World Bank 2020b). Similarly, agriculture sector had no concession. For example, harvesting of wheat crop typically begin in Sindh and southern Punjab province during March to June. Due to the stoppage of transport and un-availability of labor this sector faced numerous problems. Likely, in case of transport business, several drivers of local transportation along with buses, rickshaws and taxi drivers had been gone to home. The cessation of business and interference of national supply chain were having the marked effect on the wholesale and retail, warehouse, transport and communication facilities (World Bank 2020b). Similarly, the condition of other businesses was not varied. Most significantly, during Ramadan, several sectors i.e. saloon, clothing, electronic, food and shoes etc were rigorously impaired. Such small and medium businesses were estimated to face liquidity problems and severely affected by constant disaster. Moreover, those companies which were still functional faced extra challenges to buy masks, sanitizers and gloves etc in term of handling the health and protection of workers. Moreover, during COVID-

19, currency of Pakistan had been diminished that poses another risk for the industries. Based on current report of World Bank, foreign exchange rate of Pakistan that remained comparatively stable from June 2020-February 2021 had been devalued by 7.32% in March (World Bank 2020b). Based on Pakistan Labor Force Survey during 2017-2018, the unemployment ratio in the country was 5.81% (Sohail 2018). While, due to constant disaster and lockdown, the unemployment rate was estimated to be reached nearly 8.12% during the fiscal year 2010-2021. The nation is currently facing numerous difficulties that were twisted with each other, including a medical crisis, economic uncertainty and uneven commodity prices. In 2020 World Economic position has expected global growth fall to 3%. From January 2020, there had been a marked decline of 6.3%. Due to the COVID-19 outbreak and lockdown, Pakistan had lost 1/3rd of its income, and exports declined by 50%. In Pakistan, economists inform of downturn of economy due to lockdown. Similarly, the World Bank also informs that Pakistan could fall into a worse downturn. Due to the current disaster produced through the COVID-19 pandemic, Pakistan's GDP growth rate in FY20 was estimated to be diminish approximately 1.32%, as the global and national action go-slow sharply during the last few months of the financial year (Siddiqui 2020). The above conversation designates that Pakistan's economy would suffer extremely. The effects of coronavirus on worldwide and Pakistan economy will leave significant marks. However, it was tremendously significant to empirically evaluate the effects of COVID-19 pandemic on MSMEs to support policymakers and consultants to update their schemes and to support such industries survived from such constant disaster. Fig. 3 and Fig. 4 highlights the decrease in household income in different provinces of Pakistan due to COVID-19 pandemic.

Public Health Concern

The COVID-19 virus is spread by respiratory secretions of infected individuals to oral and respiratory mucous membrane cells. Coronavirus has the single stranded RNA genome enfolded in nucleocapsid protein and 3 primary proteins present on surface. COVID-19 virus is enveloped, having membrane and spike that replicate and reach the lower airways and possibly lead to severe pneumonia (Funk et al. 2020). The local spread of corona virus was estimated to be 92%. The stress of continuous staying on housebound was also lead to effect on the mental health of families. While ease in lockdown and opening of shops and markets had enhanced the transmission up to 10-fold, and according to pandemic experts, COVID-19 will keep on transmitting for the next 18-24 months until 60-70% of the community has been infected. With hospitals overload and a large number of patients and deaths, Pakistan's health scheme was trying to overcome an improbable shock (Funk et al. 2020). COVID-19 pandemic claims intrapersonal behavior alteration and found very complex challenges for public

health. An airborne infection i.e., COVID-19, transmission occurs easily by social contact, assails human relationship through significantly alter the ways by which humans interrelate. Vaccine programmes were being rolled out in different countries throughout the world which might afford by peoples, while the novel and highly transmissible variants of the virus were also being exposed. The retrieval journey looked long, with sustained interruption to social interactions. The social cost of coronavirus infection was just began to arise, while the mental health effect was already significant (Bambra et al. 2020; Pierce et al. 2020). Information of COVID-19 epidemiology accumulated rapidly, while indication of most effective policy response remained tentative. The terminology of social isolation rapidly became embedded both in public and policy dissertation. The equivalence of physical distance with social distance was undesirable, since only physical vicinity led to viral spread, while several forms of social closeness such as conversation while walking outdoor were at minimal threat, and were essential to sustain relationship helpful for health and well-being of humans (Long et al. 2022).

The arrival of COVID-19 carried the global health emergency led to the transmission of coronavirus infection having impacts on under developed countries and developed nations globally (Silva et al. 2020; Azomahou et al. 2021). The global economic disaster has antagonistic impacts on individual's quality and mental health (Mann et al. 2020; Mtimet et al. 2021). The coronavirus pandemic was firstly appeared in Wuhan (Hubei region, China), and in this region first patient was reported on 31st December, 2019. The epidemic of COVID-19 has led to worldwide health emergency. The pandemic of coronavirus infection had affected nearly 220 territories, countries and regions along with 174.116 million infection, 3.75 million death and 157.157 million positive patients recovered from this deadly infection, as of 7th June, 2021. The arrival of COVID-19 pandemic had also immensely harmed the Pakistan's economy (Shafi et al. 2020; Tisdell 2020; Abdullah et al. 2021).

The COVID-19 infection symptoms differ, however, normally start from fever (Islam et al. 2021), cough, headache (Islam et al. 2020), breathing difficulties, tiredness, loss of taste and sense of smell (Oran and Topol 2021; Saniasiaya et al. 2021). The occurrence of this infection may appear from day 1-14 or more after the exposure to contaminated environment or individual. Investigation showed that 35% of infected individuals don't exhibit prominent symptoms (Nejhaddadgar et al. 2020; Shuja et al. 2020; Oran and Topol 2021). Individuals with visible infectious symptoms are considered as the actual patients (Yoosefi Lebni et al. 2021). Over 81% people showed visible mild to moderate health problems i.e., pneumonia and 14% COVID-19 infected individuals showed various sign and symptoms such as dyspnea and hypoxia. Additionally, 55 individuals showed acute symptoms of coronavirus that lead to shock, respiratory failure and other health problems i.e., multiorgan dysfunction. It has been analyzed that persons having weak

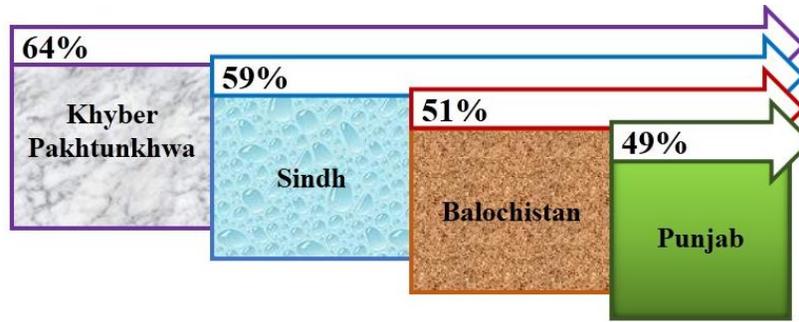


Fig. 3: % Decrease in household income in each province

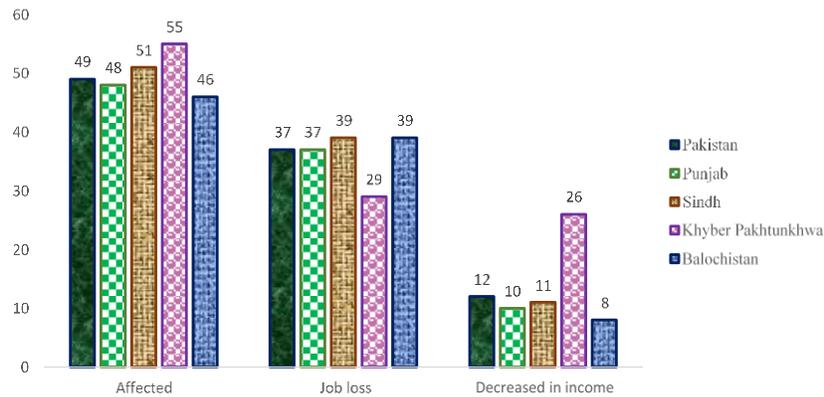


Fig. 4: Incidence of job loss in working population and decrease in income in Pakistan during COVID-19 (Government of Pakistan, survey 2020)

immune system i.e. older people facing higher threat of COVID-19 attack and lead to acute symptoms. Some infected individuals have also faced numerous health problems for months after effective retrieval from this COVID-19 infection (Shuja et al. 2020).

Future Way-out

Effective management of COVID-19 pandemic recognized that economic as well as social and health distress were complexly interlinked. It’s clearly known that future inquiry and policy consideration should emphasize on the community consequence. Policies should be made by involving the communities in order to restrict the transmission of virus. Costs and their inadequate effect must not be overlooked in short term efforts to prevent an outbreak. Few public health responses such as limitation on transnational holidays travel and well-organized test and trace systems have moderately small interactive costs and must be prioritized (Long et al. 2022).

Conclusion

The COVID-19 pandemic was an extraordinary global phenomenon. It was revealed by Pakistan labor force survey conducted during 2017-2018 that unemployment rate in the

country was 5.8%. While due to current disaster and lockdown, the frequency of jobless people was suspected to be enhanced up to 8.1% during financial year 2020-2021. The above debate shows that Pakistan would suffer extensively. The effects of COVID-19 on Pakistan, as well as the global economy will leave deep scars. COVID-19 transmission was very fast across the globe. According to WHO, COVID-19 cases had been reported from 206 countries with terrible deaths of >4000 individuals. The prime focus was essentially on control, cure the ill person and supporting the communities to cope with the outbreak. Our descriptive scenario designates that excessive loss of income in affected countries might be substantial along with worldwide GDP decreasing up to 4% and developing countries affected badly. Government will require to give significant funds for supporting the affected businesses and households. It is tremendously important to evaluate the effects of the COVID-19 outbreak on micro, small, medium-sized enterprises (MSMEs) to support policymakers and practitioners for streamlining their strategies to assist these businesses and to survive the current disaster.

REFERENCES

Abdullah M et al., 2021. Measuring changes in travel behavior pattern due to COVID-19 in a developing country: a case study of Pakistan. *Transport Policy* 108: 21-33.

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- ADB, 2020. Asian development outlook: What drives innovation in Asia? Special topic: The impact of the coronavirus outbreak-An update. Manila, Philippines: Asian Development Bank.
- Azomahou TT et al., 2021. Coping with a dual shock: the economic effects of COVID-19 and oil price crises on African economies. *Resources Policy* 72: 1-12.
- Bambra C et al., 2020. The COVID- 19 pandemic and health inequalities. *Journal of Epidemiology and Community Health* 74: 964-968.
- Bartik A et al., 2020. How are small businesses adjusting to COVID-19? Early evidence from a survey. *Harvard Business School Working Paper* 20: 1-37.
- Funk CD et al., 2020. A snapshot of the global race for vaccines targeting SARS-CoV-2 and the COVID-19 pandemic. *Frontiers in Pharmacology* 11: 1-17.
- Hussain K, 2020. The coronavirus economy. *DAWN*, 29 Mar, 2020.
- ILO, 2020b. COVID-19 and the world of work: Updated estimates and analysis. *ILO Monitor*, 2nd Ed., International Labour Organization.
- ILO, 2020c. COVID-19: Protecting workers in the workplace. International Labour Organization.
- Islam MA et al., 2020. Prevalence of headache in patients with coronavirus disease 2019 (COVID-19): a systematic review and meta-analysis of 14,275 patients. *Frontiers in Neurology* 11: 1-9.
- Islam MA et al., 2021. Prevalence and characteristics of fever in adult and paediatric patients with coronavirus disease 2019 (COVID-19): a systematic review and meta-analysis of 17515 patients. *PLoS ONE* 16: 1-21.
- Junaidi I, 2020. Pakistan virus cases cross 5,000 mark. *DAWN*.
- Long E et al., 2022. COVID-19 pandemic and its impact on social relationships and health. *Journal of Epidemiology and Community Health* 76: 128-132.
- Mann FD et al., 2020. Personal economic anxiety in response to COVID-19. *Personality and Individual Difference* 167: 1-8.
- Mtimet N et al., 2021. Zoonotic diseases and the COVID-19 pandemic: economic impacts on Somaliland's livestock exports to Saudi Arabia. *Global Food Security* 28: 1-7.
- Naqvi H, 2020. Economists warn of recession amid virus lockdowns. Available: [Pakistan Today Profit](https://profit.pakistantoday.com.pk/2020/03/30/economists-warn-of-recession-amid-virus-lockdowns/)<https://profit.pakistantoday.com.pk/2020/03/30/economists-warn-of-recession-amid-virus-lockdowns/>.
- NeJhaddadgar N et al., 2020. Effectiveness of telephone-based screening and triage during COVID-19 outbreak in the promoted primary healthcare system: a case study in Ardabil province, Iran. *Zeitschrift fur Gesundheits wissenschaften* 29: 1-6.
- Oran DP and Topol EJ, 2021. The proportion of SARS-CoV-2 infections that are asymptomatic. *Annals of Internal Medicine* 174: 655-662.
- Pakistan Economic Survey, 2020-2021. Impact of COVID-19 on Socioeconomic Situation of Pakistan, Annex IV.
- Pierce M et al., 2020. Mental health before and during the COVID-19 pandemic: a longitudinal probability sample survey of the UK population. *Lancet Psychiatry* 7: 883-892.
- Prasad S et al., 2015. Building disaster-resilient micro enterprises in the developing world. *Disasters* 39: 447-466.
- Saniasiaya J et al., 2021. Prevalence of olfactory dysfunction in coronavirus disease 2019 (COVID-19): a meta-analysis of 27,492 patients. *Laryngoscope* 131: 865-78.
- Shafi M et al., 2020. Impact of COVID-19 pandemic on micro, small, and medium-sized Enterprises operating in Pakistan. *Research in Globalization* 2: 1-14.
- Shuja KH et al., 2020. COVID-19 pandemic and impending global mental health implications. *Psychiatria Danubina* 32: 32-35.
- Shuja KH et al., 2020. Letter to highlight the effects of isolation on elderly during COVID-19 outbreak. *International Journal of Geriatric Psychiatry* 35: 1477-1478.
- Siddiqui S, 2020. COVID-19 lockdown to leave people jobless, businesses closed in Pakistan. *The Express Tribune*.
- Silva PCL et al., 2020. COVID-ABS: an agent-based model of COVID-19 epidemic to simulate health and economic effects of social distancing interventions. *Chaos Soliton and Fractals* 139: 1-16.
- Sohail S, 2018. Labor force survey 2017-18. Islamabad: Government of Pakistan, Ministry of Statistics, Pakistan Bureau of Statistics.
- Sohail S, 2019. Pakistan employment trends-2018. Islamabad, Pakistan: Pakistan Bureau of Statistics, Ministry of Statistics, Government of Pakistan.
- Tisdell CA, 2020. Economic, social and political issues raised by the COVID-19 pandemic. *Economic Analysis and Policy* 68: 17-28.
- UNCTAD, 2020a. The Covid-19 shock to developing countries: Towards a "whatever it takes" programme for the two-thirds of the world's population being left behind. United Nations Conference on Trade and Development.
- UNCTAD, 2020b. Investment trends monitor: Impact of the coronavirus outbreak on global FDI. United Nations Conference on Trade and Development.
- UNDP, 2020b. COVID-19: Looming crisis in developing countries threatens to devastate economies and ramp up inequality. United Nations Development Programme.
- Williams S and Schaefer A, 2013. Small and medium-sized enterprises and sustainability: Managers' values and engagement with environmental and climate change issues. *Business Strategy and the Environment* 22: 173-186.
- World Economic, 2020. World economic prospects monthly. *Economic Outlook* 44: 1-33.
- World Bank, 2020a. East Asia and Pacific in the time of COVID-19. East Asia and Pacific economic update (April), Washington DC, World Bank.
- World Bank, 2020b. South Asia economic focus, spring 2020: The cursed blessing of public banks. Washington DC, World Bank.
- Yoosefi Lebni J et al., 2021. How the COVID-19 pandemic effected economic, social, political, and cultural factors: a lesson from Iran. *International Journal of Social Psychiatry* 67: 298-300.