

Assessment of the Social Economic Effects of Covid 19 and the Policy Response in Tanzania

Vicent Stanslaus

(BA-Economics, MIB, MSc Economics)-Assistant Lecturer, The Open University of Tanzania,
Faculty of Business Management, Department of Marketing and Entrepreneurship

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v11-i10/11334> DOI:10.6007/IJARBSS/v11-i10/11334

Published Date: 07 October 2021

Abstract

The study intended to assess the social economic effects of COVID 19 and the policy response in Tanzania. The study was important due to the tremendous effects of the pandemic to the social and economic wellbeing of citizens. The study adopted a conceptual modeling to present a description framework which can unite the significant social economic factors of COVID 19 and policy response in Tanzania. To build the conceptual model, the study reviewed several research papers in detail. The literature review of more than 55 papers was conducted through searches in different data bases with different search words in different combinations. Special emphasis was given to studies conducted in the context of social economic factors of COVID 19 and policy response in Tanzania.

The study found out that the country has experienced three waves of the epidemic, with an increased impact of subsequent waves. It found out further that economic growth has slowed significantly due to COVID 19, increase in the number of cases and death, effect on the individual income, effects on tourism and hospitality industry, transport and storage sector, whole sale and retail trade, impacts on agriculture, impact on the poor and vulnerable groups and effects on public financing and government budgeting. However, Tanzania has relatively fared well in this pandemic as the country graduated from low-income country (LIC) to lower-middle-income country (LMIC) status. In controlling the pandemic, the country implemented movement restrictions, including bans on large gatherings (except religious services), school closures, and the cancellation of international flights and mandated the wearing of face masks. On fiscal policies, there were increase in government expenditure and amendments in the tax systems. Also, the monetary measures were implemented by BOT. Similar study can be done but with a different methodology especially using questionnaire or time series.

Keywords: Social Effects, Economic Effects, COVID 19

Introduction

COVID 19 is the disease caused by a new corona virus called SARS-CO V-2. The WHO first learned of a cluster of cases of viral pneumonia in Wuhan, Peoples Republic of China, Ministry

of health, community development, gender, elderly and children, (2021). COVID-19 is not new globally; many countries are facing the problem of COVID-19 which has caused social, economic and human impact to citizen. Throughout the year 2020, COVID-19 has turned into a fully blown pandemic, which poses a global risk to health and global economies. The disease was first observed in December 2019 around Wuhan and is caused by Severe Acute Respiratory Syndrome Corona virus 2 (SARS-CoV-2) (Andersen et al., 2020). By March 11th, 2020, the World Health Organization (WHO) declared COVID-19 as a pandemic (World Health Organization, 2020). As of July 9th, 2021, there are 105.8 million confirmed cases and more than 2.3 million fatalities that were related to COVID-19.

Before COVID-19, the world has witnessed many challenging situations throughout history. These challenges were wars sometimes or revolutions that reshaped the socio-politics completely. Another challenge has been contagious diseases. The world had witnessed many epidemics. The plague of the Medieval and its variations and the great influenza of 1918–1920 were the most devastating ones. The contagious diseases having global effects had forgotten long time ago even if there appeared some recent encounters in the past 20 years. The closest epidemic records were SARSCOV of 2002–2003, avian influenza (H5N1) of 2004–2006 and MERS-COV of 2012, (Mofijur *et al.*, 2020). During the first half of 2020, many countries shut down industries as a COVID-19 containment measure with the economy opening in the second half of the year. As a testimony to the decline in business and industry productivity, global carbon emissions significantly declined in the first two quarters of 2020 (Le Qu´er´e et al., 2020).

Methodology

In this paper, a conceptual framework has been proposed. The methodology adopted for this paper is a conceptual modeling to present a description framework which can unite the significant social economic factors of COVID 19 and policy response in Tanzania. To build this conceptual model I have reviewed several research papers in detail. A detailed literature review of about 55 conceptual and research papers written by various researchers was carried out. The literature review was conducted through searches in different data bases with different search words in different combinations. The literature search was carried out by using the key terms such as ‘COVID19’ combined with, ‘lockdown’, ‘social’, ‘economic’, ‘healthcare’, ‘diseases’, COVID 19 in Tanzania, ‘National Health Programs’, ‘low socio-economic stratum’, calamities, and or disasters. Searches were made in Google Scholar, Elsevier.com, 4shared.com, and emerald.com from January 1995 to July 2021. A manual search of the references was carried out and articles from several non-academic sources (e.g. news websites etc.) were also accessed. Special emphasis has been given to studies conducted in the context of social economic factors of COVID 19 and policy response in Tanzania. Although limited in number but special attention was given to studies conducted in Africa, Tanzania in particular. This methodology was also used by Stanslaus *et al.*, (2018) and Gao *et al.*, (2021)

Social Economic Effects of COVID 19 in the World

The World Health Organization (WHO), as of July 2021, has reported a total of 186,411,011 confirmed cases and 4,031,725 deaths globally and it has continued to affect all countries around the world impacting health, economies and social functionality of communities around the World. African countries have also been affected by the pandemic which cost many lives, economies and social functionality of communities.

The spread of COVID-19 has affected many economies in the world but since it started in China, economic activities and the Chinese economy in general came to a halt in February 2020. China is a major exporter of commodities to African countries, and the economic contraction in China is expected to have spillover consequences for African countries through the negative impact on African businesses that rely heavily on China for the supply of primary and intermediate raw materials, Klein & Smith (2021). The corona virus crisis is affecting many African countries, and the number of confirmed cases has been rising rapidly with a particularly severe situation in South Africa, Egypt, Algeria, Morocco, Cameroon and Tanzania.

The pandemic has disrupted lives across all countries and communities and negatively affected global economic growth in 2020 beyond anything experienced in nearly a century. Estimates indicate the virus reduced global economic growth in 2020 to an annualized rate of -3.4% to -7.6%, with a recovery of 4.2% to 5.6% projected for 2021. Global trade is estimated to have fallen by 5.3% in 2020, but is projected to grow by 8.0% in 2021 (Congress Research Service, 2021)

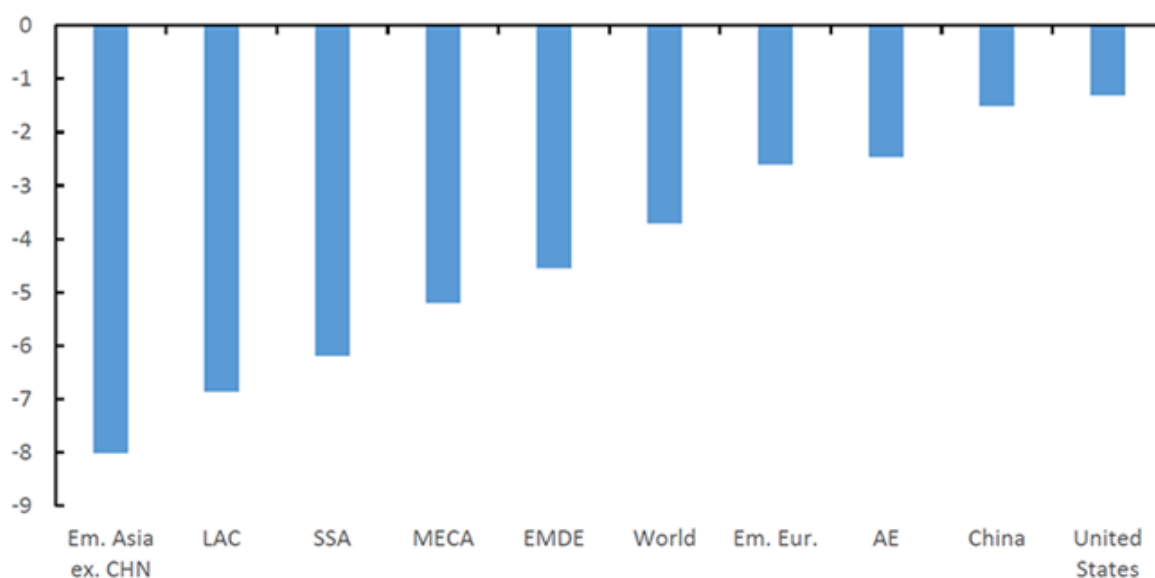


Fig 1: Global GDP Growth 2020

Source: IMF-WEO (2021)

The severe social effect of the coronavirus crisis is felt through the imposition of movement restrictions in many African countries. Some restrictive measures that were imposed to control the spread of coronavirus include: restricting non-essential activities, closing schools and universities, encouraging people to stay home, the lockdown of entire cities, requiring essential businesses to run skeletal operations and employees should work from home. These measures inevitably affected economic activities in African countries, and policymakers had to use economic policies, both fiscal and monetary policies, to mitigate the negative effect on the economy. Many African countries deployed the national budget and Central Bank's support in developing policies to mitigate the health and economic crises. Generally, the policy response in several African countries is country-specific because African countries are not closely intertwined.

The study by Gopalan & Misra (2020) discussed socio-economic, health and National healthcare challenges following lockdown, with focus on population belonging to low socio-economic stratum (SES). A literature search was conducted using PubMed and Google Scholar. The study found out that while the nationwide lockdown has resulted in financial losses and has affected all segments of society, the domino effect on health, healthcare and nutrition could possibly pose major setbacks to previously gained successes of National health programs. The study recommended that apart from firm economic measures, all National Health Programs should be strengthened to avert possible surge of communicable (apart from COVID19) and non-communicable diseases. These efforts should be focused on population belonging to low SES.

Ozili (2020) examined the socio-economic impact of COVID-19 and the policy response in African countries. The study used discourse analysis and the findings revealed that African countries have been affected by the coronavirus pandemic, and the effect was more severe for African regions compared to other regions. The rising pandemic affected social interaction and economic activities through the imposed social distancing policies that have different levels of strictness in several African countries. The findings of this study imply that social policies can affect the social and economic well-being of citizens. Secondly, the coronavirus outbreak has revealed how a biological crisis can be transformed to a sociological subject. The most important sociological consequence of the coronavirus outbreak for African citizens is the creation of social anxiety among families and households in the region. The outbreak has also shown how vulnerable African societies are in facing health hazards. The study recommended that policymakers should enforce social policies that unite communities in bad times, to reduce social anxiety.

Haleem *et al* (2020) show that COVID-19 has affected day-to-day life and is slowing down the global economy. They argue that the economic effects of coronavirus include: the slowing of the manufacturing of essential goods, disruption of the supply chain of products, losses in national and international business, poor cash flow in the market, significant slowing down in the revenue growth while the social consequences include the cancellation or postponement of large-scale sports and tournaments, disruption of celebration of cultural, religious and festive events, undue stress among the population, social distancing with peers and family members, closure of hotels, restaurants and religious places, closure of places for entertainment such as movie and play theatres, sports clubs, gymnasiums, swimming pools and so on.

Fornaro & Wolf (2020), using a simple model, show that the coronavirus triggered a negative supply shock to the economy. They suggest that drastic policy interventions both monetary and fiscal might be needed to prevent this negative supply shock from severely affecting employment and productivity. The effects on the supply shock are for all countries Tanzania included.

Kuckertz *et al.* (2020) state that the coronavirus (SARS-CoV-2) and the spread of COVID-19 led many governments to take drastic measures. They argue that the lockdown of large parts of society and economic life came as an exogenous shock to many economic actors and innovative start-ups. Oruonye and Ahmed (2020) find that the outbreak and spread of COVID-19 disease in Nigeria led to rapid shutdowns in cities and states across the country which severely affected the tourism industry. Zhang *et al* (2020) state that the coronavirus (COVID-

19) affected financial markets all over the world. It created an unprecedented level of risk, causing investors to suffer significant losses in a very short period of time.

Ataguba (2020) found out that the microeconomic costs of the COVID-19 pandemic relate to those borne by individuals/households, firms and other establishments like schools, hospitals, clinics, health centers, health facilities, health workers and the government. This includes the burden of morbidity and mortality. With the COVID-19 pandemic, families may bear costs for diagnosis and treatment where, for example, they are not covered by the government or health insurance schemes. Even where these costs are covered, households may still incur copayments, transport costs and other related expenses, including the indirect costs of care. These and many other related costs affected the social and economic wellbeing of individuals in the country.

Tanzania avoided a recession in 2020, but the COVID-19 pandemic has significantly impacted lives and livelihoods across the country. The emergency of the COVID-19 novel coronavirus plunged the global economy into a recession in 2020 and the pace of recovery remains uncertain both among advanced and emerging economies. Pandemic-related health restrictions and the adoption of precautionary behaviors by firms and consumers have greatly slowed economic activity, while uncertainties regarding the post-pandemic economic landscape and key policy decisions have discouraged investment. Agricultural and manufacturing firms face serious questions regarding the viability of global value chains, and the unforeseeable course of the pandemic weighs on international trade and tourism (World Bank, 2021).

Social economic effects of COVID 19 in Tanzania

Tanzania has also been impacted by the COVID-19 epidemic both economically and socially with the first case reported on 16th March, 2020, UNDP, (2020). The country has experienced three waves of the epidemic, with an increased impact of subsequent waves. However, Tanzania is said to have fared relatively well compared to its regional peers, but economic growth has slowed significantly. Despite the COVID-19 outbreak affecting the economies of many countries in the world, Tanzania is one of the few countries that remained with positive economic growth by 2020. GDP grew by 4.8 percent compared to 7.0 percent growth in 2019. The long-term effects of COVID-19 are still unforeseeable, but the impact in the year 2020 alone is remarkable: The pandemic is estimated to have caused the largest global recession since the severe worldwide economic downturn in the 1930s (the Great Depression), with millions of people falling into extreme poverty, (Sumner et al., 2020). With a wide range of spread all over the world, the disease had affected Social and Economic activities and people's lifestyle as well as organization performance because of culture, altitude and styles of doing things changed.

In this third COVID 19 wave, there is an increase in the number of cases and death tools and the new government has embarked on prevention measures in order to reduce the spread and thereby reduce the number of death. An increase in the number of cases and death is likely to lower population growth and hence affect economic development and growth.

Table 1

Projected Trends of Population Growth in Tanzania

	2020	2021	2022	2023
Total Population	57,637,628	59,441,988	61,280,743	63,150,477
Total under <15 yrs	24,984,932	25,652,960	26,367,472	27,048,131
15 - 49 years	27,289,943	28,417,503	29,006,123	30,079,782
50 years and above	5,362,753	5,371,525	5,907,148	6,022,564

Source: NBS Population Projection Report - 2013 to 2035

This pandemic has caused tremendous effect on the individual income, national income and the world economy at large. The pandemic has affected the tourism and hospitality industry which is one of the major sources of employment, tax revenue and foreign exchange earnings to Tanzania. In 2019 the total value of foreign exchange earnings generated from tourism amounted to USD.2.557 billion. Among the first majors taken by most countries was to curtail movement of people from the COVID 19 countries as a measure to control the spread of the virus, like Tanzania also was curtail for those countries like Italy, China both of which had in recent years been a major source of tourists. Reduce number of tourists implies depressed hotel activities and closure of most if not all tourist hotels and this decreased economic activities and fall in income due to the strong backward.

The transport and storage sector also has been affected by COVID 19. The transportation and storage sectors employ about 521698 people and contribute 6.48% and 3.2% of Tanzania mainland and Zanzibar GDP respectively. After LATRA ordered level sitting and provision of sanitizer or hand washing facilities by bus operation. These measures though commendable add extra cost to business and reduce income due to fewer passengers per rout.

The whole sale and retail trade employs about 2528771 people in labor force majority in the informal sector with a high proportional of women has share of 9.12% in contribution of GDP and contributes about Tzs 71.6 millions in domestic. Since the outbreak of the COVID 19 virus the sector has been adversary affected through the number of global, regional and domestic channels. In order to stop of spreading this virus the governments close off the borders in an attempt to reduce further spread of virus.

Impacts on agriculture; the sector provides direct lively hood to a majority Tanzanians 66% of whom with farmers bellow 20 hector and categorized as small scale farmers and medium scale farmers. According to bank of Tanzania, the sectors average share of contribution to the national real GDP from 2014 to 2018 was 22.42% for Tanzania mainland. Tanzania is likely to suffer from a double edged sword impact of COVID 19 on international trade for agricultural production. The reduced foreign exchange revenue is likely to affect the nation's ability to import such essential food items leading to price hikes means (food price inflation)

The ongoing challenges experienced in the aforementioned sectors have started to affect the finance and insurance sectors mostly through weakened liquidity position, deterioration of credit quality thus high risk of non- performing loans emanating from challenges in sectors such as tourist and trade, large borrowers in transport and logistics and general business slow down as well closures.

Impact of COVID 19 on the poor and vulnerable groups. First COVID 19 like other crises is hugely resource demanding one of the main preventable measures against COVID 19 is the use of running water of sanitizers both of which are costly and in most cases a luxury and as such most of the poor and most vulnerable will be without protection. Most in rural areas without access to water which is the key in the fight against COVID 19. Most of the poor and vulnerable that are self-employed in the informal sectors have been affected by reduce demand for their production.

Impact on public financing and government budgeting; one of the most difficult challenges the government is facing and will continue to face is around public budgeting and social service delivery as a result of and during the COVID 19 crisis. COVID 19 pandemic will undoubtedly increase demand for public expenditure on health mainly in procurement of medicine, medical equipment. Pressure on increased public expenditure on health sector mounts; the cash flows in governed revenues are expected to decline due to decrease in variety of direct and indirect taxes levies fees.

COVID 19 continues to have considerable devastating impacts on the economy affecting incomes of enterprises and individuals and ultimately government revenue collection and its abilities to provide social and economic services. During June and July 2020, the World Bank conducted a COVID-19 Business Pulse Survey (COV-BPS) covering 1,000 small and medium enterprises in Tanzania. The survey data indicate that about 140,000 formal jobs were lost in June 2020, and another 2.2 million nonfarm informal workers suffered income losses. Tanzanians employed in informal nonfarm microenterprises tend to be especially exposed to economic shocks, as they often have limited savings to draw on in a crisis. Firms reported an average decline in sales of 36 percent, which has jeopardized the solvency of more than three-quarters of small and medium enterprises. Most affected firms have not benefited from any type of government support, and respondents suggested that tax deferrals for firms in the most severely affected sectors, including tourism and related services.

Policy response to COVID 19 in Tanzania

Tanzania reached an important milestone in July 2020, when it formally graduated from low-income country (LIC) to lower-middle-income country (LMIC) status. This reclassification reflected the country's rising gross national income (GNI) per capita, which reached US\$1,080 in 2019, surpassing the US\$1,035 threshold for LMIC status. Tanzania's achievement reflects sustained macroeconomic stability that has supported growth as well as the country's rich natural endowments and strategic geographic position. Tanzania's graduation to LMIC status presents an opportunity to assess the quality of past growth and to develop a roadmap to guide its successful transition to middle-income status. These perspectives provided the basis for raising the bar, as Tanzania strives to achieve qualitative development goals that extend beyond income per capita.

The decline in economic growth was as results of the adverse effects of COVID 19 especially to the aviation and tourism sectors and the general private sector which is badly hit by the pandemic.

Among the policy measures taken by the government of Tanzania include those in March and April 2020, where the authorities implemented movement restrictions, including bans on large gatherings (except religious services), school closures, and the cancellation of international flights and mandated the wearing of face masks. This was after confirming the first cases of COVID-19 in March 17, 2020. However, in May 18, 2020, the government lifted

the ban on international flights and in June 1st, the government allowed the reopening of secondary and tertiary schools and the resumption of sports activities and events, and in June 29th all other educational institutions reopened and by July 2020, all COVID-19-related restrictions had been lifted.

On fiscal policies, the government spent US\$8.4 million to directly counter the health and economic effects of COVID-19. To support the private sector, the government expedited the payment of verified expenditure arrears, with priority given to the affected SMEs. In March 2020, the authorities cleared US\$376 million in arrears. The government has also expanded its social security schemes by US\$32.1 million to account for the increase in new unemployment claims due to COVID-19. In addition, the government has granted VAT and customs duties exemptions for imported medical equipment and medical supplies.

The monetary measures were witnessed in May 12th 2020 when the BoT lowered the discount rate from 7 percent to 5 percent and reduced collateral haircut requirements on government securities. Also, the Statutory Minimum Reserves requirement dropped from 7 percent to 6 percent. In addition, the BoT started providing regulatory flexibility, on a case by case basis, to banks and other financial institutions that carry out loan restructuring operations. The measure intended to boost money supply to the economy since commercial banks could easily borrow from the central bank and lend to their customers at a minimum interest rate. Finally, the daily transaction limit for mobile money operators was raised from about US\$1,300 to US\$2,170 (Tsh 3,000,000 to Tsh 5,000,000), and the daily balance limit was raised from US\$2,170 to US\$4,340 (Tsh 5,000,000 to Tsh 10,000,000). The measure intended to enable Tanzanians transact through mobile money (saving and withdrawal) thereby reducing queues and therefore control COVID 19 transmission.

In response to the third COVID 19 wave, the government has imported 1 million Johnson & Johnson vaccine in order to vaccinate people will to use the vaccine.

Conclusion and Policy Recommendations

COVID 19 has brought about adverse social and economic effects in the world and in Tanzania. Among the discovered social economic issues include death, unemployment, movement restrictions, effects on the tourism and hospitality industry, effects on individual income, business stagnation and closure, the slowing of the manufacturing of essential goods, disruption of the supply chain of products, losses in national and international business, poor cash flow in the market, significant slowing down in the revenue growth while the social consequences include the cancellation or postponement of large-scale sports and tournaments, disruption of celebration of cultural, religious and festive events, undue stress among the population, social distancing with peers and family members, closure of hotels, restaurants and religious places, closure of places for entertainment.

The third wave has increase the number of COVID 19 cases forcing the government to start reporting, abiding to the WHO guidelines and taking serious measures to reduce the spread. The Government Issue directives on the prevention measures including wearing face masks, washing hands, social distancing and avoiding public gatherings and taking precautions for necessary gatherings among others. It is relatively impossible to implement lockdown in Tanzania but the government must continue insisting on the issued guidelines. Risk areas like in public transport, public social service centers like hospitals must be given the second eye.

With support of the monetary policies implemented by BOT, fiscal policies must be carefully implemented especially to avoid reducing further the population's disposable income. Government expenditures must be in areas that leads to economic development (areas that provide employments) such as agriculture, TARULA and SIDO. The obtained income through multiplier effects will cutter for the increased cost of new COVID 19 items such as sanitizers and face masks. The tax policies and adjustments passed by the parliament in the 2020/2021 budget must be implemented accordingly and with care and adjustments were necessary in order to reduce the economic hardship caused by COVID 19.

The adverse effects of COVID 19 are difficult to forecast and the effects comes from around the globe. The quickly evolving nature of the COVID-19crisis continues to raise a number of issues that make it difficult to estimate the full cost to global economic activity. For example on June 1st 2021, OPEC ministers and other oil producers announced the slow increase in oil output in response to rising demand for energy as the global economy revives from the depths of the pandemic-related economic recession and in response to this, the International oil market prices rose above \$71 per barrel for the first time since January 2018, Raval et al (2021). This alarms Tanzania also to embark on Investment Policy Instruments Adopted at the National and International level to address the COVID-19 Pandemic. These include; Alleviation of administrative burdens and bureaucratic obstacles for firms, use of online tools and e-platforms for COVID-19-related information services, create administrative and operational support during the crisis, provide financial or fiscal incentives to produce COVID-19-related medical equipment and incentives for conversion of production lines, incentives for enhancement of contracted economic activities and acquisition of equity in companies, including nationalization, financial or fiscal support for domestic suppliers (such as SMEs).

Other policy measures can include application and potential reinforcement of FDI screening in pandemic-relevant industries, mandatory production, export facilitation and export bans for necessity goods and ensure import facilitation COVID 19 related items that are not locally produced. Also, another important area for policy implementation is the general authorization of non-voluntary licensing and to speed up research and development (R&D). Also, ensure international pledges in support of cross-border investment, reform of International Investment Agreements (IIAs) to support public health policies and to minimize investor State dispute risks. The implementation of the aforementioned policies will likely lead to the functioning of the economy thereby minimizing the social economic effects of COVID-19 in Tanzania.

Finally, full control and care to the economy is highly needed to avoid intervening factors that might affect the social economic and wellbeing of individuals during the pandemic hence limiting the full assessment of the long term effects of COVID-19 in Tanzania. Intensive care must be taken with the imported vaccine (Johnson & Johnson) since there are doubts among Tanzanians due to the fact that the vaccine does not eliminated total risks of the disease.

References

- Andersen, K. G., Rambaut, A., Lipkin, W. I., Holmes, E. C., & Garry, R. F. (2020). The proximal origin of SARS-CoV-2. *Nature medicine*, 26(4), 450-452.
- Ataguba, J. E. (2020). COVID-19 pandemic, a war to be won: understanding its economic implications for Africa.
- Ataguba, J. E. (2020). COVID-19 pandemic, a war to be won: understanding its economic implications for Africa.

- Ceylan, R. F., Ozkan, B., & Mulazimogullari, E. (2020). Historical evidence for economic effects of COVID-19.
- Congress Research Service. (2021) Global Economic Effects of COVID-19
- Congress Research Service. (2021). COVID-19 Vaccines: Global Health Issues doi: <https://doi.org/10.1016/j.jairtraman.2021.102062>.
- Fornaro, L., & Wolf, M. (2020). Covid-19 coronavirus and macroeconomic policy.
- Gao, Z., Xu, Y., Sun, C., Wang, X., Guo, Y., Qiu, S., & Ma, K. (2021). A systematic review of asymptomatic infections with COVID-19. *Journal of Microbiology, Immunology and Infection*, 54(1), 12-16. Geneva: World Health Organization, 2020
- Gopalan, H. S., & Misra, A. (2020). COVID-19 pandemic and challenges for socio-economic issues, healthcare and national programs in India. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*.
- Gopalan, H. S., & Misra, A. (2020). COVID-19 pandemic and challenges for socio-economic issues, healthcare and national programs in India. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*.
- Gopalan, H. S., & Misra, A. (2020). COVID-19 pandemic and challenges for socio-economic issues, healthcare and National Health Programs in India. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, 14(5), 757-759.
- Haleem, A., Javaid, M., & Vaishya, R. (2020). Effects of COVID-19 pandemic in daily life. *Current medicine research and practice*, 10(2), 78. html.india/india-s-slow-growth-is-a-drag-on-the-world-imf-11579541807331.
- Klein, A., & Smith, E. (2021). Explaining the economic impact of COVID-19: Core industries and the Hispanic workforce
- Kuckertz, A., Brändle, L., Gaudig, A., Hinderer, S., Reyes, C. A. M., Prochotta, A., ... & Berger, E. S. (2020). Startups in times of crisis—A rapid response to the COVID-19 pandemic. *Journal of Business Venturing Insights*, 13, e00169.
- Le Quéré, C., Jackson, R. B., Jones, M. W., Smith, A. J., Abernethy, S., Andrew, R. M., ... & Peters, G. P. (2020). Temporary reduction in daily global CO₂ emissions during the COVID-19 forced confinement. *Nature Climate Change*, 10(7), 647-653.
- Liu, W., Zhang, Q. I., Chen, J., Xiang, R., Song, H., Shu, S., ... & Liu, Y. (2020). Detection of Covid-19 in children in early January 2020 in Wuhan, China. *New England Journal of Medicine*, 382(14), 1370-1371.
- Mofijur, M., Fattah, I. R., Alam, M. A., Islam, A. S., Ong, H. C., Rahman, S. A., ... & Mahlia, T. M. I. (2020).
- Mofijur, M., Fattah, I. R., Alam, M. A., Islam, A. S., Ong, H. C., Rahman, S. A., ... & Mahlia, T. M. I. (2020). Impact of COVID-19 on the social, economic, environmental and energy domains: Lessons learnt from a global pandemic. *Sustainable production and consumption*.
- Mofijur, M., Fattah, I. R., Alam, M. A., Islam, A. S., Ong, H. C., Rahman, S. A., ... & Mahlia, T. M. I. (2020). Impact of COVID-19 on the social, economic, environmental and energy domains: Lessons learnt from a global pandemic. *Sustainable production and consumption*.
- Oruonye, E. D., & Ahmed, A. Y. (2020). Covid-19 and challenges of management of infectious medical waste in Nigeria: A case of Taraba State. *Int J Waste Resour*, 10(3), 381-5.
- Ozili, P. (2020). COVID-19 in Africa: socio-economic impact, policy response and opportunities. *International Journal of Sociology and Social Policy*.

- Ozili, P. (2020). COVID-19 in Africa: socio-economic impact, policy response and opportunities. *International Journal of Sociology and Social Policy*.
- Ozili, P. (2020). COVID-19 in Africa: socio-economic impact, policy response and opportunities. *International Journal of Sociology and Social Policy*. RBI. Reserve Bank of India [Internet], Reserve Bank of India - Publications. [cited
- Renzaho, A. (2020). The need for the right socio-economic and cultural fit in the COVID-19 response in Sub-Saharan Africa: examining demographic, economic political, health, and socio-cultural differentials in COVID-19 morbidity and mortality. *International journal of environmental research and public health*, 17(10), 3445.
- Renzaho, A. (2020). The need for the right socio-economic and cultural fit in the COVID-19 response in Sub-Saharan Africa: examining demographic, economic political, health, and socio-cultural differentials in COVID-19 morbidity and mortality. *International journal of environmental research and public health*, 17(10), 3445.
- Silva, P. C., Batista, P. V., Lima, H. S., Alves, M. A., Guimarães, F. G., & Silva, R. C. (2020). COVID-ABS: An agent-based model of COVID-19 epidemic to simulate health and economic effects of social distancing interventions. *Chaos, Solitons & Fractals*, 139, 110088.
- Sumner, A., Hoy, C., & Ortiz-Juarez, E. (2020). *Estimates of the Impact of COVID-19 on Global Poverty* (No. 2020/43). WIDER working paper.
- Sun, X., Wandelt, S., Zheng, C., Zhang, A. (2021). COVID-19 pandemic and air TANZANIA ECONOMIC UPDATE FEBRUARY 2021, ISSUE 15. Raising the Bar. Achieving Tanzania's Development Vision transportation: Successfully navigating the paper hurricane, *Journal of Air Transport Management*
- UNDP. (2020). Rapid socio-economic impact assessment of COVID-19 in Tanzania V. *Stanslaus, F. Shayo, S. M. Kapaya, and Jan-Erik Jaensson.*, (2018). Assessment of the Effects of Moderating Factors of Entrepreneurial Orientation on the Performance of SMEs in Tanzania. *Huria Journal*
- WHO. (2020). COVID-19 statistics. World Health Organization. Global health expenditure database.