



COVID 19 Lockdown on Revenue in Airline Industry (Domestic Carriers): Nigerian Experience

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Abstract: This paper is well-timed investigation of the COVID 19 Pandemic that is presently desolating the entire world. The main objective of the paper is to study the COVID 19 lockdown on Revenue in Airline Industry (Domestic Carriers): the Nigerian Experience. The methodology adopted is fundamentally quantitative and logical in nature, relating the use of secondary data through journals, publications, government official documents, concern authorities' data and internet materials. Nigeria economy and airline industry in Nigeria particular has been in a collapse, which had been terrified into a massive difficulty. Some of the findings during the lockdown were the closure of all the International and Domestic Airports in Nigeria on 23rd March, 2020 and resumption on the 29th August, 2020, which lasted for one hundred and fifty nine (159) days, revenue loss stand at N21billion naira monthly within the period of lockdown which amounted to N126 billion in aviation sector for the entire period. The debt profile which hit N37 billion in aviation industry and severe loss of jobs. The N5 billion as bailout to airline industry is another shortfall to Nigeria economy, despite the loss of huge revenue during the lockdown. The following recommendations were made; airline industry has to consider the political, economic, social, and technological aspects into consideration and keep airlines working to make its ecosystem as safe as possible, the governments should work in collaboration with other organizations to provide a healthy and sanitized environment for airline and employees, the greater use of data and digital technologies must be an essential part of the airline industry's recovery and resilience planning, airlines should develop a COVID-19 Airline Recovery by tracking the COVID-19 progress and recovery at a global, regional, sub-regional, and country-level, flight demand analysis by identifying the air route for reactivation, tracking the demand for global air travel and through e-commerce strategy.

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Introduction

During the year 2020, COVID-19 has curved into a fully blown pandemic, which poses a worldwide risk to our health and global economies. The disease was first observed in December 2019 around Wuhan, China and is caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARSCoV-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 February 9th, 2021, there are 105.8 million confirmed cases and more than 2.3 million fatalities that were related to COVID-19. 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). Sub-Saharan Africa reported its first case of Covid-19 infection in

Nigeria on February 27, 2020, through an Italian man who came to Nigeria from Milan. Just over one billion people (14% of the world's population) live in the 46 countries of the Sub-Saharan African region (SSA). Their first confirmed case of COVID-19 infection was reported, in Nigeria, on the 28th February 2020, just two months after the first notification of a pneumonia of unknown cause in Wuhan, China. On the 11th March 2020 the Director General of the World Health Organization, Dr Tedros, classified the COVID-19 outbreak as a global pandemic. By 1st April 2020 43/46 sub-Saharan Africa countries had reported confirmed cases of COVID-19. All of the 46 sub-Saharan Africa countries have since reported cases. (NIHR, 2020). As at 9th July, 2021, the total cases of COVID 19 in Nigeria are; Confirmed cases (186,256), Discharge cases (164,415), Active cases (1,719) and Death (2,122). The world total case of COVID 19 recorded 185 million and 4 million death (NCDC, 2021).

The COVID 19 lockdown on the Nigerian economy has been negative with the economy declining by 6.1% year on year in second quarter of 2020, as lockdown measures taken to stem the spread discouraged financial action the nation over. To give some specific circumstance, the oil area shrunk by 6.6% year on year and 10.1% quarter on quarter, which is the biggest compression since the assault on the country's Trans-forcados pipeline in 2016. Except for farming, other key non-oil areas drooped into close to record compressions during the subsequent quarter, as the Covid-19 regulation estimates fundamentally upset monetary action. The assembling, exchange and development areas shrunk by 8.8% year on year, 16.6% year on year and 31.8% year on year individually, determined by store network interruption, and breakdown in buying power because of occupation misfortunes and pay cuts. (Oni, 2020).

Overview of the Current Airline Industry before COVID 19 Lockdown in Nigeria

Civil aviation is a critical element in Nigeria's transportation system and indeed its economy. Nigeria has twenty (20) airports and many regulated airstrips and heliports; 23 active domestic airlines; 554 licensed pilots; 913 licensed engineers and 1700 cabin personnel. Nigeria being Africa's most populous country is an important destination for over 22 foreign carriers. Nigeria currently has Bilateral Air Services Agreements with over 78 countries.

Overview of the Current Airline Industry during COVID 19 Lockdown in Nigeria

The aviation industry, just like every other sector of the economy in 2020, had its own share of the disruption courtesy of COVID-19. The outbreak of the coronavirus from Wuhan, China, and its threat to lives and businesses led to the introduction of lockdowns and other stringent measures across cities of the world to curtail its spread. Nigeria, like other countries, had begun the 2020 business year on a promising note. But when in March 2020, the first confirmed case of the disease was reported, the hope of a bright economy prosperous 2020 becomes deemed. Nigerian ground handling firms in the aviation industry consequently, counted revenue losses due to the pandemic-induced plunge. Aviation stakeholders have expressed divergent views on the effects of COVID-19 induced lockdowns and travel restrictions, which had forced ground handling firms to consider job cuts and cost reduction measures in a bid to survive. A former President, National Associations of Nigerian Travel Agencies (NANTA), Bankole Bernard, said that in the first two months of the global lockdown, the Nigerian travel industry lost more than N180 billion and thousands of jobs. Bernard said that in Nigeria, about 24,000 jobs

were cut, while many employers had ceased payments for a few, who still had their jobs retained until business situations improve. (IATA, 2020).

From Nigeria, air travellers can fly directly to many of the world's business centres such as London, Paris, Frankfurt, New York, Johannesburg, Atlanta, Amsterdam, Dubai and Jeddah to mention a few. With the attainment of America's Federal Aviation Administration (FAA) International Aviation Safety Assessment (IASA) Category One Certification, Nigerian registered carriers can now fly directly into the United States of America (USA). In recent years, domestic and overseas passenger traffic has risen steadily at an average of 10% per annum and Murtala Muhammed International Airport (MMIA) Lagos, the Nation's main gateway, accounting for over 60 per cent of the total passenger and aircraft movement. The consistent rise in passenger and aircraft has spun a thriving service industry, driven not just by private-sector profit motives but also by innovation and the strong desire to satisfy customers. The airport is being repositioned as a regional hub by the Federal Government of Nigeria. The effort of Government to reposition the airports in Nigeria is being complimented by the Nigerian Airspace Management Agency which has made massive investments in the upgrade of Navigational facilities including new radar systems and modern landing aids. The Agency has well-trained personnel which includes 490 Air Traffic Controllers.

The Nigerian International airports, notably in Abuja, Calabar, Kano, Lagos and Port-Harcourt, are leading cargo centers. An important segment of the air transport sector, the air-freight business is kept alive by a combination of shippers, airlines, leading currier firms (such as UPS and DHL) and handling companies (such as NAHCO and SAHCOL). All the essential components in the sector, airlines, passengers, aircraft, crew, service providers are working in harmony to deliver a safe and economically sound air transport system that meets national and international standards. (NCAA, 2021)

Challenges to the Nigerian Airline Industry

The flying business in Nigeria has been confronting a tone of difficulties since its commencement in 1920. These difficulties range from helpless wellbeing and safety efforts, insufficient subsidizing and assets, out-dated and deficient air terminal foundation, insufficient talented labour, absence of empowering and administrative systems, distance and restricted availability, and to significant expense of activities and support;

Safety and security challenges: Safety is one of the most pressing challenges facing the aviation sector in Nigeria. There have been a series of many plane crashes and near collisions and emergence landings in

Nigeria over the last two (2) decades. The first plane crash in Nigeria was on November 20, 1969 when Nigeria Airways BAC VC 10 crashes on landing killing 87 on board and the second one on January 22, 1975 when Royal Jordanian Airlines flight 707 carrying 171 Nigerian Muslims returning from Mecca and 5 crew men died in the crash in Kano, Nigeria. Since then, there have been many other crashes and emergency landings in the country. The frequency of plane crashes stems largely from inconsistency in the implementation and enforcement of internationally accepted safety standards and practices in the country. In February 2021, a King Air 350 military jet crashed in Abuja, the capital killing all seven (7) crew members, while in March, 2021 another military plane went off rader during a mission against insurgents in Northern Nigeria. The recent plane crash on the 21st May, 2021 (Friday) that killed the Chief of Army Staff Lt. Gen. Ibrahim Attahiru along with 10 others including aides and crew when the aircraft they were travelling in crashed in the Northern State of Kaduna. These include inadequate infrastructure, use of obsolete airport facilities, human error, poor emergency response guidelines, procedures and capabilities to combat air among others.

Inadequate funding and resources: A major impediment to Aviation development in Africa in general and Nigeria in particular is the issue of funding. Most African governments run huge debt portfolios which make increased borrowing to fund aviation development low on their priority. 33 out of the 40 Countries classified as highly indebted poor countries (HIPC) are in Africa. Aviation business is highly capital intensive and requires huge amount of investment in aircraft, spare parts and other infrastructure requiring massive capital outlay (Chattopadhyay, 2015).

Obsolete and inadequate airport infrastructure: The air transport industry in African countries, Nigeria included faces various challenges including poor airport infrastructures, lack of physical and human resources, limited connectivity, and lack of transit facilities. Although substantial progress has been made during the past decade, Africa still lags behind other regions in terms of “soft” and “hard” infrastructure. Many airports in Nigeria are in a state of complete disrepair, lacking basic infrastructure such as adequate runway capacities and terminal facilities are often lacking at major airports in the country (Phillips, 2015).

Inadequate skilled manpower: For the past several years a major obstacle in Africa's inability to meet its safety oversight functions in aviation industry is the lack of requisite competent manpower. According to the World Bank, Africa will find it very challenging to produce the number of development professionals needed to sustain economic growth in the aviation sector without a serious change in the continent

educational and labour policies. A conservative estimate from Boeing in 2012 dictates that Africa needs to provide an additional 725 pilots and 810 aircraft engineers every year for the next 20 years to be able to man its aviation sector planned capacity. Nigeria's population is 18% of Africa's, and thus, this means that the country is expected to provide the appropriate 18% of the manpower. Failing to meet this target means Africa will have to mitigate the shortfall by employing expatriates. These will eventually repatriated both the acquired skills and revenue back to their home countries to the detriment of this continent. Nigerian Civil Aviation Authority (NCAA) has recently reported that most Nigerian airlines prefer employing foreign pilots, to the detriment of local pilots who are often also well qualified. (Pam, 2013).

Lack of enabling and regulatory frameworks: The existences of growth-hindering policies and regulations, such as multiple taxation and poor consumer protection laws, have been major challenges to the Aviation sector in Nigeria (Phillips, 2015). The bottom line of the problems facing Aviation Industry in Africa in general and Nigeria in particular lies in the variance between policy formulation and the government's political will to implement such policy (Omoleke, 2012).

High cost of operations and maintenance: There are so many costs incurred in aviation business, among which, cost of aviation fuel is the highest expenditure item for airline carriers. For instance, in 2008, based on a sample of 45 major global airlines, fuel represented 32.3% of the total operating costs. In Africa, aviation fuel is about 20% more expensive, when compared with other continents according to 2015 Annual Review of International Air Travel Authority. Also in Nigeria, experts say the high cost of aviation fuel also known as JET A1, cost airlines operating in the country about 40 per cent of their income, adding that the high cost of aviation fuel has not only make the cost of operation high, it has also make it impossible for local airlines to break even. In a widely circulated publication the NCAA reported that Nigerian airlines spend about USD\$16.3 million every year on pilot recurrent simulator training. Approximately 70% of this cost is expended on acquisition of relevant visas, flight tickets, subsistence allowances, hotel accommodation and other sundry expenses.

Other challenges facing airlines are multiple entries granted to well-funded and efficiently managed international airlines by the Federal Government Nigeria through the Ministry of Aviation, poor management, lack of enough aircrafts in their fleet to operate their scheduled routes, lack of maintenance facilities in the country where domestic airlines can carry out major checks such as C and D instead of taking their aircraft abroad, inability to access funds for

expansion of their airlines, double digit interest rate paid on loans from financial institutions, lack of feasibility study before embarking on airline business, lack of financial discipline, management indiscipline, introducing charges that cannot be explained and government policies, which often a time somersault thereby affecting the operations of airlines. (IATA, 2010).

Debt Profile on Airline Industry: The management of the Nigerian Civil Aviation Authority (NCAA) has met with airlines in the country over the N22 billion debts owed the agency and decided on a payment plan. This was disclosed by the Director-General, NCAA, Captain Musa Nuhu, according to a source in the agency that prefers anonymity. Domestic carriers owe the agencies \$6.9 million and N19.6 billion respectively. This includes 5% charge from the NCAA, passenger service charge, landing and parking fees to the Federal Airports Authority of Nigeria (FAAN) and over flight charges to the National Airspace Management Agency (NAMA). Last November, the Minister of Aviation, Hadi Sirika stated that the debts of Nigerian airlines over the last 10 years to aviation agencies is worth over N22 billion. (Uche, 2020).

The federal government has raised concerns over a 37 billion naira debt owed by airline. The Minister of Aviation, Hadi Sirika told a media conference today that the airline debt owed agencies like Nigeria Airspace Management Agency (NAMA), Nigerian Civil Aviation Authority (NCAA), Federal Airport Authority of Nigeria (FAAN) has accumulated for over thirteen years and contributes to the poor management of Nigeria's civil aviation sector. Based on the position, the government is intensifying plans towards the concessioning of international airports in the country by the early second quarter of 2022 and has been duly consulted organised labour. (Channel Tv, July, 8th 2021).

N5billion Bailout Funds for Airline Industry in Nigeria

There is a strong indication that the federal government would soon start disbursing the approved bailout fund of N5billion to operators in the aviation sector, which is intended to ameliorate the harsh realities of the COVID-19 pandemic on their business operations.

The disclosure was made by the Minister of Aviation, Senator Hadi Sirika, to the key stakeholders, during the on-going three-day public hearing to repeal and enact Acts of the Nigerian Civil Aviation Authority (NCAA), the Nigerian Airspace Management Agency

(NAMA), Accident Investigation Bureau (AIB), Nigerian College of Aviation Technology (NCAT), Nigerian Meteorological Agency (NIMET), and that of the Federal Airports Authority of Nigeria (FAAN).

The Minister of Aviation said, out of the N5 billion bailout fund, N4 billion would go the domestic airlines, while the balance of N1 billion will be fairly shared amongst other agencies and other relevant aviation companies that were severely affected by the pandemic. (Uche, 2020).

Federal Government of Nigeria (FGN) and Senate disagree over N5billion bailout for airline operators and others. The Senate asked the FGN to raise the bailout fund, saying it was too small, the other party are against the review of fund.

The COVID-19 is a global and on-going pandemic and countries all over the world are providing bailout funds for airline operators. "Certainly, the aviation industry was the most affected by this virus attack and, therefore, needs all the support possible to resuscitate the industry. In the absence of this, so many airlines will struggle to stay in business or worst still, be forced to withdraw their services. (Vanguard, 3rd Nov., 2020).

The federal government has started disbursing the N5 billion it had promised operators in the domestic arm of the country's aviation sector whose operations were ravaged by COVID-19 pandemic. In addition, the federal government and airline operators are now working together to ensure that the domestic carriers survive posts COVID-19. The first step to rescue the airlines was the release of N5 billion bailout to the airlines and other operators in the industry last weekend by government, while the airlines have kick-started several levels of cooperation, including interlining and code-share to ensure that they are able to sustain their operation. Scheduled flight operators were given 70 per cent of the sum, while charter operators received 30 per cent. The major objective of the bailout is for government to empower the airlines to be able pay salary to their personnel henceforth; so 70 per cent of the fund was for salary payment, while 30 per cent was for aircraft maintenance, the Nigerian Civil Aviation Authority (NCAA) had to confirm the number of technical staff and number of aircraft in each airline and it was concluded that charter operators had a total of 2000 staff, while scheduled operators have 6, 428 staff. The payroll of beneficiary airlines were also checked to ensure that they paid their staff February and March, 2020 salaries before the lockdown occasioned by the COVID-19 pandemic. (Thisday, January, 5th, 2021).

List of Domestic Airlines in Nigeria

Airline	ICAD	IATA	Callsign	Hub Airport (s)	Website
Air Peace	APK	P4	PEACE BIRD	Murtala Muhammed International Airport	https://www.flyairpeace.com/
Allied Air	AKJ	-	BAMBI	Murtala Muhammed International Airport	alliedairng.com
Arik Air	ARA	W3	ARIK AIR	Murtala Muhammed International Airport, Nnamdi Azikiwe International Airport	www.arikair.com/ng
Associated	SCD	-	ASSOCIATED	Murtala Muhammed International Airport	http://www.nigeria.to/airlines/Associated-Aviation/Associated-Aviation.php5
Azman Air	AZM	-	AZMAR AIR	Mallam Aminu Kano International Airport	https://www.airazman.com/
Dana Air	DAN	9J	DANACO	Murtala Muhammed International Airport	https://www.flydanaair.com
Dornier Aviation Nigeria	DAV	-	DANA AIR	Kaduna Airport	http://www.dananig.aero/
First Nation Airways	FRN	-	FIRST	Murtala Muhammed International Airport	www.flyfirstnation.com
Hak Air	HKL	-	HAK AIRLINE	Murtala Muhammed International Airport	https://www.hakair.com/
Kabo Air	QNK	N2	KABO	Mallam Aminu Kano International Airport	www.airfleets.net
Max Air	NGL	NR	-	Mallam Aminu Kano International Airport	maxair.com.ng
Med-View Airline	MEV	VL	MED-VIEW	Murtala Muhammed International Airport	medviewairline.com
Overland Airways	OLA	OJ	OVERLAND	Nnamdi Azikiwe International Airport	www.overlandairways.com
TAT Nigeria	-	-	-	Murtala Muhammed International Airport	-

Source: Nigerian Civil Aviation Authority (NCAA)

Revenue Loss during the COVID 19 Lockdown in Airline Industry in Nigeria

Based on the trend of events before COVID-19, the total loss is about N21 billion approximately plus about N3 billion tangentially and this is divided in this form: N7 billion for aviation agencies which they lose in a month, N10 billion for airline and N4 billion for ground handling, catering and others and the tangential N3 billion. The Nigerian government had on March 23 shut all international airports in the country for an initial period of one month. Local airports were also shut days later. Following the one month completion, the airport closure was extended by two weeks. An additional four weeks extension was announced on Wednesday

afternoon. The move was part of efforts to contain the spread of the virus which has affected over three million people worldwide and killed over 270,000. However, the government said emergency and essential flights could be operated from any of the airports within the period. The minister said statistics from the International Airline Transport Association (IATA) on COVID-19's economic impact on Nigeria has revealed a revenue loss of \$994 million. "Also the figures from the International Airline Transport Association (AITA) Economics gave economic impact in Africa's largest aviation market and that for Nigeria; airline revenue loss is \$994 million. In terms of employment at risk in Nigeria, it is 125,370 and loss of contribution to the

GDP is \$885 million. These are IATA figures and because the sector has to do service delivery and it has not been able to render services, then the revenue are lost because the service has not been rendered and that means I have lost it, the aviation sector was the fastest growing sector in the country before the COVID-19 outbreak (Sirika, 2020: IATA, 2020).

Empirical Literature

In term of the effect of COVID 19 lockdown in Airline Industry on the revenue of airline transportation in various countries, large volume of empirical studies with mixed finding using different scope and study area across the world.

World Bank (2017) that the travel and tourism sector is responsible for more than 10% of global GDP, 7% of all international trade, and 30% of the world's exports in services. In lower- and middle-income countries, tourism directly contributes 4.5% to 6.3% of GDP (Jansen, 2013). As of the end of April 2020, every country and territory in the world had imposed travel restrictions related to Covid-19, including totally closing borders to tourists, suspending international flights, banning entry to people arriving from or transiting through particular countries, or requiring quarantine or self-isolation measures – measures that have never been so extreme or widespread (UNWTO, 2020a). International tourist arrivals are forecast to decline in 2020 by up to 30%, with a loss of international tourism receipts of up to US\$450 billion (UNWTO, 2020b). This is approximately ten times the global financial impact of the SARS epidemic (Shretta, 2020).

Ozili and Arun, (2020). The travel restriction imposed on the movement of people in many countries led to massive losses for businesses in the events industry, aviation industry, entertainment industry, hospitality industry and the sports industry. The combined loss globally was estimated to be over \$4 trillion. Several governments in developed countries, such as the U.S. and U.K., responded by fiscal stimulus packages including social welfare payments to citizens while the monetary authorities loan relief to help businesses during the pandemic. There were also spill overs to poor and developing. The effect was more severe on developing countries that have a weak public health infrastructure and non-existing social welfare programs.

Taylor, A, (2020), The drop in business and tourist travel caused a sharp drop in scheduled airline flights by as much as 10%; airlines estimated they lost \$113 billion in 2020 (an estimate that could prove optimistic given the Trump Administration's announced restrictions on flights from Europe to the United States and the growing list of countries that are similarly

restricting flights), while airports in Europe estimated they lost \$4.3 billion in revenue due to fewer flights. Industry experts estimated that many airlines could face bankruptcy in 2020 under current conditions as a result of travel restrictions imposed by a growing number of countries. The loss of Chinese tourists was another economic blow to countries in Asia and elsewhere that benefitted from the growing market for Chinese tourists and the stimulus such tourism provided.

Gap in the Literature

Based on the empirical literature regarding COVID 19 lockdown in airline industry on revenue from various countries, summarised in the earlier section, we discuss several direction of future research hoping that more research efforts could be focused on the part of revenue in the aviation sectors on other countries.

Conclusion and Recommendations

The airline industry was not prepared for the COVID 19 lockdown and was one of the worst affected industries across the globe. This research study investigate the COVID 19 lockdown on revenue in airline industry (Domestic Carriers) Nigerian experience, the activities of activities of international and domestic airport were closed for the period of 159 days. The findings revealed that airline industry revenue was decline negatively with 90% which is exceptional in the industry of airline industry in Nigeria. The following recommendation were made; airline industry has to consider the political, economic, social, and technological aspects into consideration and keep airlines working to make its ecosystem as safe as possible, the governments should work in collaboration with other organizations to provide a healthy and sanitized environment for airline and employees, the greater use of data and digital technologies must be an essential part of the airline industry's recovery and resilience planning, airlines should develop a COVID-19 Airline Recovery by tracking the COVID-19 progress and recovery at a global, regional, sub-regional, and country-level, flight demand analysis by identifying the air route for reactivation, tracking the demand for global air travel and through e-commerce strategy.

References

- [1]. Baldwin, R. (2020). Trade and Global Value Chains in the Age of COVID-19. The COVID Concussion and Supply Chain Contagion Waves. Retrieved on 2nd June, 2020 from: <https://www.worldbank.org/en/news/video/20>

- 20/0 4/22/trade-and-global-value-chains-in-the-age-of-covid-19.
- [2]. Armstrong, P. M. (2020). Airline Fare Competition in the Post-Merger Era. Honors Theses and Capstones. 496. University of New Hampshire Scholars' Repository. Retrieved on 19th May, 2020 from: <https://scholars.unh.edu/honors/496>
- [3]. Aun, I. I. (2013). Airport development and socioeconomic development of Nigeria. *Journal of Research in National Development (JORIND)*, 11 (1), 196-205. Retrieved on 3rd June, 2020 from: www.transcampus.org/journals; www.ajol.info/journals/jorind/11. September 2014.
- [4]. Chattopadhyay, C. (2015). Aviation Industry : Challenges and Prospects, 3(2), 145–149.
- [5]. Fourie & Lubbe (2006). Fourie, C., & Lubbe, B. (2006). Determinants of selection of full-service airlines and low-cost carriers—A note on business travellers in South Africa. *Journal of Air Transport Management*, 12(2): 98-102.
- [6]. <https://nairametrics.com/2020/11/02/breaking-n5billion-bailout-fund-underway-for-the-aviation-sector-minister/>
- [7]. <https://www.vanguardngr.com/2020/11/senate-fg-disagree-over-n5bn-bailout-for-airline-operators-others/>
- [8]. <https://www.thisdaylive.com/index.php/2021/01/05/airlines-get-fgs-n4bn-bailout-to-pay-workers/>
- [9]. IATA (2010) ‘Economic Briefing’ (Airline Fuel and Labour Cost Share) February 2010
- [10]. Muyiwa Oni, Regional Head of Equity Research, West Africa at Stanbic IBTC Bank PLC, addressed the impact of Covid-19 on the Nigerian economy and business environment. (2020) Interview
- [11]. NCDC (Nigeria Centre for Disease Control), 2020. First Case of Corona Virus Disease Confirmed in Nigeria. NCDC, Abuja, Nigeria. Downloaded on March 30th 2020 from <https://ncdc.gov.ng/news/227/first-case-of-corona-virus-disease-confirmed-inNigeria>.
- [12]. Nigerian Civil Aviation Authority (NCAA) 2021.
- [13]. Niji Oni & Co (2020) Impact of Covid 19 on the Aviation Sector in Nigeria.
- [14]. Nwaogbe, O., Wokili, R., & Victor, O. (2013). An Analysis of the Impact of Air Transport Sector to Economic Development in Nigeria. *Journal of Business and Management*, 14 (5), 41-48.
- [15]. Omoleke, I. I. (2012). Legal policy and aviation industry in Nigeria: Constraints to optimal safety of air transportation. *Journal of Public Administration and Policy Research*, 4(1), 9-22.
- [16]. Pam D.R. (2013) “Nigeria's lethargic aviation industry: challenges & potentials”. Excerpts of an interview with Leadership magazine in 2013.
- [17]. Phillips Consulting (2015). The 2015 Domestic Aviation Industry. Customer satisfaction survey report 2015. Retrieved on 3rd June, 2020 from: www.phillipsconsulting.net
- [18]. Schultz, M., Evler, J., Asadi, E., Preis, H., Fricke, H., Wu, C.-L., 2020. Future aircraft turnaround operations considering post-pandemic requirements. *J. Air Transport. Manag.* 89, 101886.
- [19]. Schaur, G. (2006). Airplanes and Price Volatility. Mimeo, Purdue University. *Sciences*, 3 (1), 77-89.
- [20]. Shretta, R. (2020). The economic impact of COVID-19. Retrieved from Centre for Tropical Medicine and Global Health, Nuffield Department of Medicine, University of Oxford website: <https://www.tropicalmedicine.ox.ac.uk/news/the-economic-impact-of-covid-19>.
- [21]. Sirika, H. (2020). COVID-19: Aviation sector loses N21bn, airlines may not survive post-pandemic. Available on: <https://www.blueprint.ng/covid-19-aviation-sector-loses-n21bn-airlines-may-not-survivepost-pandemic-minister/>
- [22]. Siyan, et al (2020) Impact of Covid-19 on the Aviation Industry in Nigeria, *International Journal of Trend in Scientific Research and Development*, 4(5), 234-240.
- [23]. Sumner, A., Hoy, C., Ortiz-Juarez, E., (2020). Estimates of the Impact of COVID-19 on Global Poverty.
- [24]. Taylor, A., (2020). “Airlines Could Suffer up to \$113 Billion in Lost Revenue Due to Covid-19 Crisis, IATA Says,” *Washington Post*, March 5, 2020.
- [25]. Waribugo, S., and Chiedu, F., A, (2021) Challenges of Airline Operations in Sub-Saharan Africa: An empirical investigation of the Nigerian Civil Aviation Sector, *International Journal of Business and Management Invention*, 10(1), 13-30.
- [26]. WHO (2020a). World Health Organisation Rolling Updates on Corona Virus disease

(COVID-19), Updated 01 June, (2020).
Retrieved on 3rd June, 2020 from:
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>.

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