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Effect of Coronavirus Pandemic (Covid 19) on Nigerian Economy: A study of Tummy-Tummy Noodles Producing Firm in Kaduna, Nigeria

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Abstract

In Africa, the rate at which the incidence of co-vid 19 pandemic is escalating is alarming. Despite efforts made to reduce it through quarantines, lockdown, social/physical distancing and other measures by the Government, yet it is still on the rise especially in Nigeria. The research design adopted for this study is the descriptive design; while structured questionnaire was administered to raise data meant for empirical analysis. Findings from the study showed that Co-vid 19 has a positive and significant effect on Nigerian economy. In addition, Lockdown measure has a significant influence on economic activities of the firms in Nigeria. However, social / physical distancing was discovered to have an insignificant effect on the growth of the firms in Nigeria. Based on these findings, the study recommends that building situational awareness will require sustained investment in infectious disease surveillance, crisis management, and risk communications systems. Investments in these capacities are likely to surge after pandemic or epidemic events and then abate as other priorities emerge. It further recommends that Governments should avoid sweeping and overly broad restrictions on movement and personal liberty, and only move towards mandatory restrictions when scientifically warranted and necessary and when mechanisms for support of those affected can be ensured. This would enhance fast reduction of the spread, restores economies and businesses as well as the standard of living in the country.

Keywords: Co-vid 19 pandemic, quarantine, lockdown, social/physical distancing measures and Nigerian economy

1. Introduction

The outbreak of COVID-19 (coronavirus) has had far reaching effects globally. Of course, the virus' toll on businesses, organizations, people, families and communities is the most significant. But this global health crisis is also affecting the macroeconomic environment. The spread of the virus has caused indirect and direct disruption in the day-to-day operations of companies across industries (Arimah,2019). The impact on business operations — closed manufacturing facilities, supply chain disruption, reduced consumer demand and access — is causing financial uncertainty. This is happening just as companies traditionally set their short-term and long-term incentive plan goals, and many organizations are grappling with how to set goals that are informed, meaningful, motivating to participants and acceptable to shareholders. Before this, Africa's most populous nation had four months to prepare adequately for the eventuality of the virus breaking into its shores. Characteristically, however, the country was caught napping, despite being aware of the devastating effects of the virus. Most firms perceive coronavirus first as an economic crisis before a health risk and this is not surprising seeing that the former's impact is rising strain (Harrison and Pearson ,2015). 'The pandemic has brought global economy to a standstill. So bad the International Monetary Fund says it has never 'witnessed the world economy coming to a standstill... It is way worse than the global financial crisis.' Early estimates, before covid-19 becoming a pandemic, predicated that, should the virus attain global status, most major economies will lose at least 2.4 percent of the value their gross domestic product (GDP) over 2020, leading economists to already reduce their forecasts of global economic growth down from around 3.0 percent to 2.4 percent. To put this in proper perspective, global GDP was estimated at around 86.6 trillion U.S. dollars in 2019 – meaning that just a 0.4 percent drop in economic growth amounts to almost 3.5 trillion U.S. dollars in lost economic output.

According to Achonu et al (2015) in a bid to, first, slow the spread of the virus and then ultimately arrest and contain it, the Federal Government announced a two-week total lockdown in the Federal Capital Territory, Abuja and two states – Lagos and Ogun – which were most affected by the pandemic. The pronouncement has grounded both economic and social activities in these areas and a few others too that keyed into the policy. The economic effect of the Covid-19

pandemic on Nigeria's economy has so far been devastating and yet, the future still looks grim, such that even a diamond can't illuminate.

Nigeria's budget for the year 2020 was earmarked at N10.59trn (representing 11 percent of the national GDP) which was to be financed chiefly by the sale of crude oil with a benchmark price of \$57/per barrel. Since coronavirus became a global pandemic, oil prices have fallen by more than half and currently selling at \$27/per barrel.

Hertel and Tsigas (2017) argued that as the coronavirus outbreak continues to wreak havoc on markets and industries in the U.S. and around the world, businesses are now confronting significant and unique challenges. Successful navigation of these challenges will require thoughtful and comprehensive planning. At the center of the financial impact is the growing disruption to worldwide supply chains across many industries. China is the world's second largest economy, and so the effect of the coronavirus extends – much like the coronavirus itself – far beyond its borders. In fact, according to Fortune.com, by the end of February, 94% of Fortune 1000 manufacturers had been hit with disruptions as a result of the coronavirus (James& Sargent 2020).

In the central Chinese city of Wuhan, all connections of transportations become stopped to prevent entrance and out-going of citizens(Fan,2020). According Beutel et al (2018), across the world, travel plans have been disrupted due to this. China government has adopted more drastic measures. Some companies that make face masks are seeing the boost in demand. In this current scenario GDP is continuously declining (Beutel et al, 2018). Harrison and Pearson (2015) argued that the SARS epidemic lasted for nine months, from late 2002 into the summer of 2003, and had a death rate of almost 7%.

The markets have reacted to news of the spreading outbreak, especially in Asian markets. According to Romer (2020), the outbreak coincides with the annual travel of hundreds of millions of Chinese for the Lunar New Year festival, which begins Friday. Some industries may feel the impact of the outbreak more than others, such as travel businesses and luxury-goods makers. Airlines and other travel companies could see a falloff of bookings if consumer fears grow about the impact of the disease. And European luxury stocks such as the British clothier Burberry declined this week on worries that wealthy Chinese shoppers would cut back spending if they cancel their European vacations or decide to hold off on spending until the outbreak is contained. Burberry has declined by about 10% since Friday, while the French luxury brands conglomerate LVMH has lost about 5% of its value since then. "The government is being more proactive in trying to limit its spread than was the case with SARS,' Capital Economics said in a research note of the Wuhan coronavirus. These measures, as well as people wanting to avoid crowds, will significantly disrupt travel and spending during the Lunar New Year holiday and possibly well beyond (Romer, 2020).

1.1. Statement of the Problem

The Corona-virus pandemic which had already disrupted factories and trade in China and across East Asia, is now wreaking havoc in Europe, UK, America and Africa. Japan's economy shrank last quarter even more than initially thought, and Tokyo is toying with another huge fiscal stimulus to goose the economy back to life (Chou,kuo and Peng ,2019). Germany, too, is mulling a multibillion-euro economic injection to offset the worst of the crisis, while France is staring at now-stagnant growth. Italy has essentially shut down the industrial northern part of the country as cases and fatalities continue to mount, all but guaranteeing another recession (Arabi, Balkhy, Hayden, Bouchama, Luke, 2020).

In Nigeria, Economic activities are at the cross-road as federal government shut down markets, churches, mosques and schools as a measure to arrest the developing menace in the country. As the reality of the coronavirus pandemic dawns on Nigeria, the country, like the rest of the world has begun canceling events, flights, and virtually everything that requires social, official, and religious gatherings.

The impact of these measures aimed at reducing the spread of the virus has hit the economy too. These impacts are likely to cripple the economies of Nigeria and other countries of the world, and may lead to the collapse of fragile economies. Nigeria's economy is facing collapse as it largely depends on oil exports. The oil markets have been on a downward trend as COVID-19 has crippled demand. Fuel prices fell and recorded 18-year low trading at less than 22 dollars per barrel and expected to go lower.

Biedrzycki and Lipsitch (2019) argued that the economic fallout of the virus is making clear just how interdependent the global economy really is, despite years of efforts by private individuals and firms to partially undo globalization by forcing companies to move supply chains out of China and restricting trade in certain critical sectors. What's not yet clear is whether the ultimate fallout of the virus will be to accelerate the breakdown of globalization, sending firms scurrying to bring manufacturing back home so as to avoid these kinds of disruptions, or just the opposite.

As the coronavirus outbreak continues to wreak havoc on markets and industries in Nigeria, and around the world, businesses are now confronting significant and unique challenges (Barret and Brown (2018). Successful navigation of these challenges will require thoughtful and comprehensive planning. Invariably, there have been research studies currently going on effect of pandemic (coronavirus) on organizational performance in the World in general and Nigeria in particular irrespective of paucity of materials, none has been carried out to establish the effect of aforementioned on performance of firms in Nigeria Therefore, the purpose of this study is to determine the effect of coronavirus pandemic on Nigerian Economy (A study of Tummy-Tummy Noodles Producing firm in Kaduna, Nigeria).

1.2. Objectives of the Study

The major objective of this study is to determine the effect of Coronavirus Pandemic on Performance of Nigerian Economy (A study of Tummy-Tummy Noodle Producing Firm in Kaduna, Nigeria, while the specific objectives are;

- To Identify the effect of Quarantine Measures on Organizational performance.
- To find out the influence of Lockdown Measures on economic activities of the firm.

- To ascertain the effect of social/physical distancing on the effectiveness and efficiency of the firm.

1.3. Research Questions

This study will be guided by the following research questions;

- What is the effect of quarantine on Organizational performance?
- What is the influence of lockdown on economic activities of the firm?
- What is the effect of social / physical distancing on the effectiveness and efficiency of the firm?

1.4. Research Hypothesis

- Quarantine does not have a significant effect on Organizational performance.
- Lockdown does not have a significant influence on economic activities of the firm.
- Social / physical distancing does not have a significant effect on the growth of the firm.

2. Literature Review

2.1. Concept of Coronavirus (CO-vid-19)

According to Beutels, et al (2018), Coronavirus is a large family of zoonotic viruses that cause illness ranging from the common cold to severe respiratory diseases. Zoonotic means these viruses are able to be transmitted from animals to humans. There are several coronaviruses known to be circulating in different animal populations that have not yet infected humans. COVID-19 is the most recent to make the jump to human infection. Common signs of COVID-19 infection are similar to the common cold and include respiratory symptoms such as dry cough, fever, shortness of breath, and breathing difficulties. In more severe cases, infection can cause pneumonia, severe acute respiratory syndrome, kidney failure, and death. In the word of Biedrzycki and Lipsitch (2019), the covid-19 infection is spread from one person to others via droplets produced from the respiratory system of infected people, often during coughing or sneezing. According to current data, time from exposure to onset of symptoms is usually between two and 14 days, with an average of five days. Two other recent coronavirus outbreaks have been experienced. Middle East Respiratory Syndrome (MERS-CoV) of 2012 was found to transmit from dromedary camels to humans. In 2002, Severe Acute Respiratory Syndrome (SARS-CoV) was found to transmit from civet cats to humans.

Although COVID-19 has already shown some similarities to recent coronavirus outbreaks, there are differences and we will learn much more as we deal with this one. SARS cases totaled 8,098 with a fatality rate of 11 percent as reported in 17 countries, with the majority of cases occurring in southern mainland China and Hong Kong. The fatality rate was highly dependent on the age of the patient with those under 24 least likely to die (one percent) and those over 65 most likely to die (55 percent) (Chou, Kuo, and Peng, 2019).

According to the World Health Organization (WHO), as of 2020, MERS cases total more than 2,500, have been reported in 21 countries, and resulted in about 860 deaths. The fatality rate may be much lower as those with mild symptoms are most likely undiagnosed. Only two cases have been confirmed in the United States, both in May of 2014 and both patients had recently traveled to Saudi Arabia. Most cases have occurred in the Arabian Peninsula. It is still unclear how the virus is transmitted from camels to humans. Its spread is uncommon outside of hospitals. Thus, its risk to the global population is currently deemed to be fairly low.

2.2 Concept of Quarantine

The word 'quarantine' originated from 'quarantina', meaning 'forty days' when the bubonic plague became wide spread. As per Luke (2017), Venice separated ships suspected of carrying the plague before landing them. According to Oxford dictionary, it is a process of separating persons or animals to a safe place, to save them from an infectious disease. During the pandemic period of COVID-19, quarantine also has been used for this purpose. Barret and Brown (2018), called it a situation where, anti-virus software protects the other safe files from potentially malicious contents.

2.3 Concept of Lockdown

According to Aylward, Barboza, Bawo, Bertherat and Bilivogui (2014), Lockdown is a term that refers to measures being placed on the whole of society to restrict movement and services to their essentials, of which mass quarantining is a part. Lockdown is an amorphous term, which includes quarantine measures in its definition. According to Bedrosian, Young, Smith, Cox, Manning and others (2016), quarantine separates and restricts the movement of people who are not ill but may have been exposed to a contagious disease to see if they become ill. A lockdown can also be defined as an emergency protocol implemented by the authorities that prevent people from leaving a given area. Barret and Brown (2018) argued that a full lockdown will mean that the people in a given area must stay where they are and must not exit or enter a building or given area. A preventive lockdown is a preemptive plan effected to address an unusual situation or weakness in a system to forestall any danger to people, organization or system. The nature of the lockdown protocol ordered at a given time will be based on the type of threat and will feature the required flexibility to handle the situation faced during the times.

2.4. Concept of Social / Physical Distancing

The practice of social distancing means staying home and away from others as much as possible to help prevent spread of COVID-19 (Bootsma and Ferguson, 2019). The practice of social distancing encourages the use of things such as

online video and phone communication instead of in-person contact. As communities reopen and people are more often in public, the term 'physical distancing' (instead of social distancing) is being used to reinforce the need to stay at least 6 feet from others, as well as wearing face masks. Historically, social distancing was also used interchangeably to indicate physical distancing which is defined below. However, social distancing is a strategy distinct from the physical distancing behavior. As Carrasco, Lee, Chen, Matchar and Thompson (2020) put it, Physical distancing is the practice of staying at least 6 feet away from others to avoid catching a disease such as COVID-19. As noted above, 'social distancing' is a term that was used earlier in the pandemic as many people stayed home to help prevent spread of the virus. Now as communities are reopening and people are in public more often, physical distancing is used to stress the importance of maintaining physical space when in public areas. Physical and social distancing can be practiced by wear a face mask or covering when you are not in your home and whenever you are around people who are not members of your household. Maintain at least 6 feet of distance between yourself and others. Avoid crowded places, particularly indoors, and events that are likely to draw crowds. Other examples of social and physical distancing to avoid larger crowds or crowded spaces are: Working from home instead of at the office, Closing schools or switching to online classes, Visiting loved ones by electronic devices instead of in person, Cancelling or postponing conferences and large meetings, etc.

2.5. Empirical Review

Agbionu (2019) examined capacity building and co-vid 19 awareness among SMEs in Nigeria. The study adopted descriptive research design of the survey type using multiple regression. It was found that capacity building and co-vid 19 awareness contributed significantly to the fight against the escalation of the pandemic among SME's in Nigeria.

Okachukwu (2020), assessed the impact of Quarantine measure on firm performance in Anambra state of Nigeria. The study made use of primary data collected with the aid of a well-structured questionnaire which were administered randomly sampled from six local government areas of the state. The data were analyzed using descriptive statistics like frequencies and percentages. The result showed that 65% of the respondents accepted that lack of this measures is responsible for high rate of co-vid 19 victims in Nigeria. The study therefore recommended that government should think of the way of developing this measure in order to control the pandemic in the state. Buchi (2019), examined the lockdown measure and sustainable development in Nigeria. The population consisted of 1120 respondents in Niger-delta region of Nigeria. The stratified random sampling technique was used based on the six states in the region. A sample of 120 were used in the study. Two null hypotheses were formulated based on the variables in the study. Mean was used to answer the research questions and the hypotheses were tested at 0.05 alpha level, using t-test analysis. Data were collected with the use of a structured questionnaires. It was found that lockdown measures, although affected the economic activities in the region, contributed significantly to reduction in the spread of the pandemic in Nigeria. Using one sample t-test, Agu (2019) investigated the impact of self-isolation on economic development in Africa. Findings from the researcher's study showed that self-isolation creates an opportunity for less spread of coronavirus in African Continent.

2.6. Current Pandemics Ravaging the Global Business

2.6.1. HIV/AIDS Pandemic

Although the WHO uses the term 'global epidemic' to describe HIV (*'WHO HIV/AIDS Data and Statistics' Retrieved 12 April 2020.*), some authors use the term 'pandemic'. HIV originated in Africa, and spread to the United States via Haiti between 1966 and 1972. AIDS is currently a pandemic, with infection rates as high as 25% in southern and eastern Africa. In 2006, the HIV prevalence rate among pregnant women, business people and private individual in South Africa were 29%, 32% and 27 % respectively. Effective education about safer sexual practices and blood-borne infection precautions training have helped to slow down infection rates in several African countries sponsoring national education programs (Rose and Verikios, 2019)

Year	PPAG (%)	IHIV (%)	IPAG (%)	AIDSD (Million)	HIVP (Million)	HIVN (Million)
1990	1.50	1.75	0.33	0.07	1.90	0.42
1995	2.70	2.56	0.47	0.18	4.20	0.70
2000	3.40	2.17	0.37	0.35	6.10	0.67
2005	3.00	1.38	0.22	0.44	6.50	0.49
2010	2.50	0.99	0.15	0.39	6.20	0.40
2015	2.10	0.80	0.13	0.32	6.10	0.37
2016	2.00	0.76	0.13	0.31	6.10	0.37

Table 1: HIV/AIDS Statistics in West and Central Africa, 1990 To 2016
Source: Wiley Online Library (2020)

PPAG signifies adult (15-49) prevalence; AIDSD stands for number of AIDS-related deaths; HIVP means number of persons living with HIV/AIDS; IPAG implies adult (15-49) incidence rate (per 100); IHIV signifies all ages incidence rate (per 1000); HIVN implies adults and children newly infected with HIV.

2.6.2. Covid-19 Pandemi

A new strain of coronavirus which originated in Wuhan, Hubei province, China, in late December 2019, has caused a cluster of cases of an acute respiratory disease, which is referred to as coronavirus disease 2019 (COVID-19). According

to media reports, more than 200 countries and territories have been affected by COVID-19, with major outbreaks occurring in the United States, central China, western Europe, and Iran. According to Dixon and Rimmer (2019), the World Health Organization characterized the spread of COVID-19 as a pandemic. As of 13 April 2020, the number of people infected with COVID-19 reached 1.85 million worldwide, the death toll was 114,248 and the number of patients recovered was 423,625.

Country Name	Total Cases	Total Deaths	Total Recovered	Active Cases	Deaths Percentage %	Recover Percentage %
USA	560,433	22,115	32,634	505,684	3.94	5.82
Spain	166,831	17,209	62,391	87,231	10.31	37.39
Italy	156,363	19,899	34,211	102,253	12.72	21.87
France	132,591	14,393	27,186	91,012	10.85	20.50
Germany	127,854	3,022	60,300	64,532	2.36	47.16
United Kingdom	84,279	10,612	N/A	73,323	12.59	N/A
China	82,160	3,341	77,663	1,156	4.06	94.52
Iran	71,686	4,474	43,894	23,318	6.24	61.23

Table 2: Major Co-Vid 19 Outbreaks across Countries of the World

Source: World Health Organization (2019)

States Affected	No. of Cases (Lab Confirmed)	No. of Cases (on admission)	No. Discharged	No. of Deaths
Lagos	15,627	2,316	13,119	192
FCT	4,241	2,965	1,231	45
Oyo	2,825	1,392	1,402	31
Edo	2,340	174	2,073	93
Rivers	1,911	267	1,591	53
Kano	1,608	264	1,291	53
Delta	1,557	110	1,404	43
Kaduna	1,530	183	1,335	12
Ogun	1,428	200	1,204	24
Plateau	1,294	676	598	20
Ondo	1,243	565	651	27
Enugu	880	377	485	18
Ebonyi	838	19	793	26
Kwara	815	452	342	21
Katsina	746	265	457	24
Borno	634	30	569	35
Abia	625	103	517	5
Gombe	620	68	529	23
Osun	586	273	300	13
Bauchi	574	40	521	13
Imo	472	315	147	10
Nasarawa	360	129	223	8
Benue	356	285	64	7
Bayelsa	342	31	290	21
Jigawa	322	3	308	11
Akwa Ibom	234	55	171	8
Niger	226	81	133	12
Adamawa	176	80	85	11
Ekiti	159	81	76	2
Sokoto	154	1	137	16
Anambra	142	41	83	18
Kebbi	90	0	82	8
Zamfara	77	1	71	5
Taraba	72	13	55	4
Cross River	68	27	33	8
Yobe	67	2	57	8
Kogi	5	0	3	2

Table 3: NCDC Current Situation Reports on Confirmed Cases of Co-vid 19 in various States in Nigeria

Source: Nigeria Centre for Diseases Control (NCDC) July, 2020

2.6.3. Highlights

- On the 6th of August 2020, 354 new confirmed cases and 3 deaths were recorded in Nigeria
- Till date, 45244 cases have been confirmed, 32430 cases have been discharged and 930 deaths have been recorded in 36 states and the Federal Capital Territory

- The 354 new cases are reported from 17 states- FCT (78), Lagos (76), Kaduna (23), Ebonyi (19), Oyo (18), Nasarawa (17), Rivers (17), Delta (16), Kwara (15), Akwa Ibom (13), Edo (12), Ogun (12), Plateau (11), Kano (9), Bauchi (6), Borno (6), Ekiti (6)
- A multi-sectoral national emergency operations centre (EOC), activated at Level 3, continues to coordinate the national response activities

The number of deaths in the African countries is nowhere compared to deaths in other continents. In fact, the total number of deaths in the whole African continent is less than total number of deaths in countries such as USA, Italy, Germany, France, Spain and other top leading countries in the number of deaths. Moreso, the total number of confirmed cases positive cases in the African continent are controllable.

Despite having less positive cases many African countries have no enough equipment to help fight against the co-vid 19. Moreso, lack of enough equipment in many African countries makes hard to know the real scale of co-vid 19 infection. In Kenya, 303 people have tested positive for the virus. The whole country has recorded only 14 deaths from the disease, while 83 people have recovered.

2.6.4. Other Pandemics Ravaging the Global Economy

- Plague of Athens (430 to 426 BCE) –During the Peloponnesian War, throughout the four years, a quarter of the population killed by the Typhoid fever. The reason, origin became unknown for many years (Lee and McKibbin, 2020). The University of Athens discovered teeth from underneath the city. In the year of 2006, this helps to confirm the presence of the bacteria.
- Antonine Plague (165 to 180 AD) –Soldiers returning from the Near East, brought the small pox. They infected their friends and many others. All together five millions lost their life.
- Plague of Cyprian (251–266 AD) - 5,000 people died in a single day in Rome due to this. It is also called a second outbreak of Antonine Plague.
- Plague of Justinian (541 to 750 AD) –Initial outbreak of the bubonic plague in Egypt and reached Constantinople the following spring. Approximately 10,000 people killed in a single day. Perhaps 40% of the city's inhabitants (Lee and McKibbin, 2020) are getting affected by this.
- Black Death (1331 to 1353) –According to Lee and McKibbin (2020), 75 to 200 million people lost their life due to this. It returned back to Europe, eight hundred years after the last outbreak. Starting in Asia, the disease reached Mediterranean and Western Europe in 1348.
- Third plague pandemic (1855) –Started in China and spread into India, it effects the life of 10 million people. San Francisco saw its out-break from 1900–1904.
- Spanish flu (1918 to 1920) - It infected 500 million people around the world, including people on remote Pacific islands and in the Arctic, caused deaths to 50 to 100 million people. The Spanish flu had an unusually high mortality rate for young adults. Spanish flu killed more people than World War I did. More people died in 25 weeks than AIDS did in its first 25 years (Narayanan and Walmsley, 2008).

Segment	Short-term effect	Long-term effect	Analysis
Commercial Real Estate	Demands for office space will potentially decline in affected areas.	Fixed costs for businesses holding leases will remain the same, during declining occupancy and declining revenue.	Presidential Executive Order: Amendment to E.O. 13295 Relating to Certain Influenza Viruses and Quarantinable Communicable Diseases.
Utilities (Electric, gas and other infrastructure power supplies)	Potential loss of workers could see system degradation.	Permanent destabilization of the energy sector, leaving it more susceptible to disruption than at present.	Utilities in general, need greater business continuity assistance due to the lack infrastructure being replaced.
Energy industry (oil & gas)	Potential loss of employees worldwide resulting in higher prices for energy and related products.	Potential long-term demands may not reach current levels.	Worldwide refining capacity is currently under pressure. A pandemic could see facilities forced to shut down either by quarantine or due to lack of workforce.
Communications industry (voice, data and other information systems, etc.)	Potential increase in demand due to pandemic causing more people to work remotely.	Fixed costs remain unchanged regardless of demand. Due to potential loss of workforce, system reliability may be impaired.	Heavy dependence on information systems for operations creates security vulnerabilities for this industry.
Banking & finance	Potential demands for cash can outstrip the amount of cash in circulation. Significant short-term disruption to economies worldwide.	Businesses impacted due to loss of workforce and falling revenue. Markets worldwide could see significant declines that will last for prolonged periods. Potential for long term disruption to economies worldwide.	Heavy concentration in large metropolitan areas, dependence on information systems for operations,

Segment	Short-term effect	Long-term effect	Analysis
Transportation	Pandemic could be the single most devastating event for this sector ever. Quarantine, flight restrictions, lack of workforce, inability to ship goods to markets.	Air, land, sea transport potentially effected in such a way that they never recover. Cargo security will be a high-profile area.	Quarantine could have devastating effects. Difficult to ensure security, information systems are vulnerable.
Water supply systems	Potential loss of workers could see system degradation.	Loss of expertise within the workforce could result in a permanent destabilization of the energy sector.	Water systems need greater business continuity assistance due to the lack infrastructure being replaced.
Emergency services	Potential loss of workers could see system degradation as demand for service would escalate to unprecedented levels.	Potential loss of workers could see system degraded in the aftermath of the pandemic. Demand for general services would be impacted.	Degradation of emergency services combined with degradation of transportation could present significant infrastructure concerns for continuity planning efforts.
Continuity of government	Loss of workforce could create inability to implement current pandemic plans. Possible inability to protect population and infrastructure.	Potential chaos with targeting of government facilities for disruption. Worldwide tensions as scarce resources are in demand and loss of population leave governments vulnerable.	Governments worldwide would be under tremendous stress. From a continuity planning perspective, the need for collaboration would never be greater. Government could invoke orders to force business cooperation (i.e., US Presidential Executive Orders).

Table 4: Below Speculates on Some of the Possible Outcomes When the Pandemic Strikes

Source: Researcher'S Fieldwork (2020)

2.6.5. Steps Businesses Can Take to Reduce the Impact of Coronavirus

As per the opinions of the Crisis managers, technology helps to minimize business disruption from coronavirus. Everbridge, a critical event management (CEM) platform inform about infectious disease emergencies like SARS, MERS and the H5N1 avian influenza. It helps to keep track of assets and employees, providing real-time risk intelligence to know where danger lurks. Employees along with facilities, suppliers and distribution routes get connected through this software. As per Biedrzycki and Lipsitch (2019) suggestions there are four phases for managing the crisis.

2.6.5.1. Visualize and Assess the Problem

Information is the most valuable commodity in an emergency. Companies should have a standardized method of gathering and processing the current situation. Information relates to workforce, facilities, technology, operations and reputation. Everbridge is leveraging its accumulated expertise for the current crisis, using health-related incident reports and bulletins from around the globe, airport and travel terminal closures etc.

2.6.5.2. Match the Threat with the Locations of Your Employees and Operations

The human capital and the operations, the two critical part of a business get affected by the disease outbreak. With the Everbridge CEM, businesses can match the current extent of the virus's presence with employee travel itineraries and office assignments. They can also check where employees with a compromised immune system work. The platform dynamically locates people using multiple methods and helps to expose the threats.

2.6.5.3. Act and Communicate

At this stage, the CDC recommends establishing a process to integrate employees, suppliers and customers. It starts with the identification of contagious cluster in the region. After the evaluation of the situation is done, at-risk employees and contractors are being identified. This stage helps to take actions and mitigate the coronavirus emergency. Effective communication helps in this regard.

2.6.5.4. Assess Your Performance

When the current COVID-19 emergency eventually subsides, it will be all too easy for businesses to return to their status quo. Such complacency will not serve their long-term interests. This post-event review process will provide vital insights and lead to improvements in response time and resourcing.

2.7. Impact of Covid 19 Pandemic on Nigerian Economy

The price of oil hit its lowest level in 17 years, declining from \$59 to \$28 per barrel within a month as a result of lower demand and a lack of coordination between OPEC and Russia to reduce supply (CBN Co-vid 19 Report,2020). For Nigeria, where revenue from oil production is 31% of the 2020 budget revenue and oil accounts for 90% of foreign exchange - the effect of the sharp and persistent fall in oil price will lead to cuts in government spending and net exports, two critical components of economic output. The Minister of Finance already announced that there will be cuts to non-critical capital expenditure. If oil prices don't stabilize soon enough, critical expenditure like roads could also take a hit. On the private sector end, fewer dollars - normally earned from oil sales - will be available for Nigerians to import goods and services. This is particularly worrisome given the lack of foreign reserves to supply the system. Our dollar reserves at the Central Bank of Nigeria (CBN) have dropped from \$45 billion last year summer to \$35 billion today.

As a result of the shortage in foreign exchange earnings, the CBN has 'devalued' the naira from an official rate of ₦307 to ₦360 per dollar. The dollar exchange rate for foreign investors was also changed from ₦360 to ₦380.

The devaluation, or as the CBN called it, realignment, has been praised by experts as it leads to the closer alignment between Nigeria's multiple exchange rates. It also allows the Nigerian government to earn more naira from its currently low dollar oil sales. One barrel of oil at \$30 now gives the government ₦10.8 billion, an increase from ₦9.2 billion at ₦306. While this move will reduce the dollar required to meet foreign exchange demands, it also has negative effects on Nigeria's equity and fixed income markets. With the naira losing value to the dollar, foreign investors are more reluctant to hold naira-denominated assets and as such, more inclined to sell off their naira assets.

The stock market has already taken a hit as a result of the virus. The Nigerian Stock Exchange (NSE) lost ₦2.3 trillion in the three weeks after Nigeria's first case - an 18% drop. Uncertainty is a big factor under this current scenario. The shutdown of offices and non-essential businesses will reduce productive effort and output.

2.8. Effect of Coronavirus (CO-VID-19) Pandemic on Organizational Performance

The effect of the pandemic (coronavirus) is not felt by the individual alone. It goes far beyond the household level affecting firms and businesses. Most of the individuals likely to be infected by the pandemic are usually in the active working people and are involved in the process of production. The United Nations Department of Economic and Social Affairs (2020) reports that if coronavirus prevalence reaches a high level in a country or within a firm, the effect of the disease may be dramatic for the business or firm involved. Coronavirus impact organizations in form of costs, productivity and profitability. As the disease infection progresses, workers who are infected most often absent themselves from their duty post. During the periods of their absence, productivity of the firm will be negatively affected, most especially if the worker occupies a very crucial position in the firm and the firm will be adversely affected to a large extent if also his post is such that is so technical that he is difficult to replace. Coronavirus deaths may result to a decrease in the number of available employees, since the deaths affect workers in their most productive years, as younger, less experienced workers take over from experienced workers, worker productivity may be reduced. Coronavirus can also impact the firm based on the skills of affected workers. If skilled workers who occupy important positions in the firm fall sick or die from the disease, the organization may lose the skills that these employees have gathered over the years. Increased medical costs may be borne by the employer over these sick workers. The insurance scheme of the firm may become more expensive as insurance companies increase the costs of coverage in response to high Coronavirus prevalence rates in firms. Higher costs could reduce saving for investment. Coronavirus in the workplace may also lead to increased funeral expenses for workers. As infected person dies, the morale and productivity of the remaining workers may also suffer. Company will have to spend more to recruit and retrain new workers who will be taking over from the dead ones. According to Fan (2020), the extent to which Coronavirus affects organizations will be based on factors like the number of people infected in the firm; their role in the company; the structure of the production process and its ability to cope with absenteeism; the benefits provided by the company; and the effect on the business environment of Coronavirus in other companies and in the Government.

A study has it that the world economy has been brought to a standstill as lockdown order by the government, which has forced people indoors, has paralyzed the economy. Biedrzycki and Lipsitch (2019) found that the companies in china with high incidence of Coronavirus infected workers had 72% of their workers ill. Another study carried out in USA reveals that number of Coronavirus related deaths could increase easily, showing that 25 per cent of the estate's workforce was infected with the Coronavirus and would die within some months this saps the productivity of the firm. In the same vein a study in Europe, in 2020 shows Coronavirus was disrupting the company's operations leading to a high staff turnover from Coronavirus related deaths, increasing absenteeism and a general loss of productive hours (Barret and Brown, 2018).

The United Nations Department of Economic and Social Affairs & Population Division (2020) in its report opine that the effect of Coronavirus on firms depends on the age structure of the workers in the firm. According to this study conducted in Zambia in Barclays Bank, the mortality was high among the age group of 30 to 39. The death rate rose from 0.4 per cent to 2.2 per cent between 1987 and 1991. This caused the bank to pay more than 10million Kwacha (\$58,140) to the families of employees who died from Coronavirus (Arimah, 2019). This also showed that medical expenses and training costs rose while man-hours reduced.

The pandemic can also negatively affect attendance at work. The studies of Biedrzycki and Lipsitch (2019), carried out among service firms, with COVID-19 in Ghana, revealed that the infected workers were absent from work cannot be allowed back to work unless scientifically proved sound.

2.8.1. Covid-19 and Organizational Performance

Performance is not directly the observable actions of an individual, but it consists of mental productions like answers or decisions. According to Biedrzycki and Lipsitch (2019), certain factors other than employee behaviour can influence performance. Therefore performance is not the same as effectiveness. One can put great effort at performance but other conditions may predict the result of the efforts. Performance is important in an organization because it reflects the organization's outcomes and successes. Individual's performance can be influenced by motivation, that is, the desire to do the job; ability, that is, the capability to do the job; and the work environment, that is, the tools, materials and information needed to do the job (Lee and Mckibbin,2020). Dixon and Rimmer (2019) also agrees that there are many factors that impact performance positively or negatively, and considerable research has gone into identifying these factors. Some of the important performance factors is the/availability of the right tools for the job, access to the right information and performance objectives (a short statement of what someone should be able to do after receiving a piece of information that they might not have been able to do before).

However, human beings are active organisms with many needs, pushed and pulled about by all sorts of internal and external motivations that lead us to set objectives for ourselves and for others (Dixon and Rimmer, 2019). All action of humans is aimed at the achievement of either short term or long term goals. Achieving goals or objectives requires the performance of some action, some steps, some behaviour, some procedure or process in order to realize the set goals. It is unfortunate however, that sometimes, even though the motivation to perform is there, other factors which is not a direct intention of the worker may affect productivity and performance negatively. Despite the aforementioned, inability to perform the job role well, has been linked with a lot of negative consequences which affect the well-being of workers and the effectiveness of the organization. This study has identified Covid-19 as one of the factors that may lead to reduced worker productivity (Harrison and Pearson,2015). When workers become ill, their attendance to work decrease, including decreased output which may put sick workers in jeopardy of losing their jobs and impose financial burdens on employers. A report from International NGOs (2019) also reported that the pandemic has left the majority of workers infected and affected which has impacted their performance negatively. The report further opined that organizations struggle because of loss of staff through sickness, death, care for relatives, reduced performance of staff, rising medical expenditures and discrimination and stigma aimed at workers living with or affected by the pandemic. This problem is exacerbated by lack of information among staff to make informed decisions, and lack of treatment, care and support.

2.8.2. Coronavirus and the World Economy

It's been trying times for the world since coronavirus (COVID-19) broke out in Wuhan in the Hubei Province of China on December 31, 2019. From China, the virus had spread to other countries of the world, infecting at least 1.6 million people with 90,000 deaths and 366,000 recoveries as of Friday. On January 30, 2020, the World Health Organisation declared the disease a public health emergency. On March 11, 2020, the WHO declared it a pandemic.

As of April 10, the virus had spread to 210 countries and territories around the world as well as two international conveyances, namely the Diamond Princess cruise ship and the Holland America's MS Zaandam cruise ship, as well as the United States aircraft carrier, USS Theodore Roosevelt, where over 400 sailors out of about 5,000 crew members tested positive. The US was the worst hit globally with over 469,000 cases and over 16,000 deaths as of Friday. Spain followed with 157,000 cases and 15,000 deaths. Italy had 143,000 cases and 18,000. As the pandemic spreads across the globe with no vaccine yet, cities had been locked down, human traffic restricted, schools shut, religious houses closed, airports shut, public facilities closed down, international travel bans enforced. Markets, except those selling essential commodities, had also been closed. International and national events in every sector of the economy either postponed or cancelled. Meanwhile, Nigeria recorded its first coronavirus case on February 27 when a 44-year-old Italian entered the country on a business trip.

With respect to country-specific Covid-19 figures, data from UNAIDS show that prevalence among the adults across the countries of focus as well as incidence for all age groups in most cases are above 1%, with the highest prevalence of 6.3% in 2019. Number of people living with Covid-19, new infections, and other-related deaths remain high in most of the countries, with Nigeria recording the highest number of Covid-19 morbidity in Africa in 2020.

2.9. Burden of Pandemics on Business

Quantifying the morbidity and mortality burden from pandemics poses a significant challenge. Although estimates are available from historical events, the historical record is sparse and incomplete. To overcome these gaps in estimating the frequency and severity of pandemics, probabilistic modeling techniques can augment the historical record with a large catalog of hypothetical, scientifically plausible, simulated pandemics that represent a wide range of possible scenarios.

Scenario modeling of epidemics and pandemics can be achieved through large-scale computer simulations of global spread, dynamics, and illness outcomes of disease (Arimah, 2019). These models allow for specification of parameters that may drive the likelihood of a spark (for example, location and frequency) and determinants of severity (for example, transmissibility and virulence).

These millions of simulations can be used to quantify the burden of pandemics through a class of probabilistic modeling called catastrophe modeling, which the insurance industry uses to understand risks posed by infrequent natural disasters such as hurricanes and earthquakes (Agbionu, 2019).

When pandemics cause large morbidity and mortality spikes, they are much more likely to overwhelm health systems. Overwhelmed health systems and other indirect effects may contribute to a 2.3-fold increase in all-cause mortality during pandemics, although attribution of the causative agent is difficult (James and Sargent 2020). If indirect

deaths are taken into account, the average annual global deaths from influenza pandemics could be greater than 520,000, although there is a significant uncertainty in the estimate.

3. Methodology

The study employed the descriptive survey design whose purpose according to Ezeani (2014) is to collect detailed and factual information that describes an existing phenomenon. The target population was 457 members of the firm. Stratified sampling was primarily used to ensure that different members made up of the population are adequately represented in the sample so as to increase the population's level of accuracy when estimating the parameters. The stratum is made up of different categories of workers in the firm. The strata are formed based on members that shared the attributes. A sample from each stratum is taken in a number that is proportional to the stratum's size when compared to the population. These subsets of the population are then pooled to form the sample. The above reason formed the basis for the use of stratified sampling for the study.

3.1. The Population of the Study

S/N	Categories of Workers in the Firm	Population
i.	Managers	12
ii.	Supervisors	89
iii.	Casual workers	356
	Total	457

Table 5: The Population of the Study Is That of Categories of Workers in the Firm Thus;
Source: The Firm'S Magazine, 2020

3.2. Determination of Sample Size

Smith (1984) sample technique was used to estimate a sample size out of the study population. The Smith (1984) formula is given by:

$$n = \frac{N}{3 + Ne^2}$$

Where: N = Population size

3 = Constant

e = Margin of error

$$n = \frac{N}{3 + Ne^2}$$

Substituting into the formula, we have

$$n = \frac{457}{3 + 457(0.05)^2}$$

$$n = \frac{457}{3 + 457(0.0025)}$$

$$n = \frac{457}{4.1425}$$

$$n = 110$$

Proportional allocation formula was applied to each stratum to ensure even-spread as captured in the table below. The proportionate formula used is given as:

$$nh = \frac{nN_h}{N}$$

Where: nh = number allocated each class strata

n = total sample

Nh = total population of each strata

N = total population

S/N	Categories of workers in the Firm	Population	Sample
i.	Managers	12	$\frac{12 \times 110}{457} = 2.9$
ii.	Supervisors	89	$\frac{89 \times 110}{457} = 21.4$
iii.	Casual workers	356	$\frac{356 \times 110}{457} = 85.7$
	Total	457	110

Table 6: Categories of Workers in the Firm Thus;
Source: The Firm’s Magazine, 2020

3.3. Instrument for Data Collection

Questionnaires were the instruments used in data collection and were then self-administered by the researcher to ensure high level of accuracy. The questionnaire was made up of two sections; Section A which handles the biography of the respondents and section B handled the variables of the study. Likert-5 scale of strongly agreed to strongly disagreed. The respondents were required to read each question carefully and indicate their agreement or disagreement with the statement using scaling units.

4. Testing of Hypothesis

In line with the statistical research, the three hypotheses formulated in this study were approached with the aid of independent sample T-Test. The level of significance for the study is 5% (for a two-tailed test), while the conclusion would however be taken based on the probability values.

- Hypothesis one: H01: Quarantine does not have a significant effect on workers’ performance

Variable	Levene’s Test for Equality of Variances	t-test for Equality of Means
Quarantine Measures	Equal variances assumed	F-test Sig. 32.140 T-test Sig.(2-tailed) 0.0001
	Equal variances not assumed	7.106 0.0000

Table 7: Independent Sample Test
Source: Researcher’s Computation, 2020 (SPSS, 24)

From the independent sample T-test result in table 7, the calculated t-value for the relationship between quarantines and organizational performance is 4,85 and the p-value computed is 0.0001 at 95% confidence levels. Since the p-value is less than the 0.05 used as the level of significance, we reject the null hypothesis and conclude that the Quarantine measure has a significant effect on workers’ performance.

- Hypothesis two: H02: Lockdown does not have a significant influence on economic activities of the firm.

Variable	Levene`s Test for Equality of variances	t-test for Equality of Means			
		F-test Sig.	T-test	Sig.(2-tailed)	
Lockdown Measures	Equal variances assumed	16.89	0.000	3.174	0.0024
	Equal variances not assumed			7.106	0.0010

Table 8: Independent Sample Test
Source: Researcher`s Computation, 2020 (SPSS,24)

The Independent sample T-Test result in the table 8 revealed that the calculated t-value for lockdown measure and economic activities of the firm is 3.174; with an associated p-value of 0.0024. Since $p < 0.05$, we reject the null hypothesis and accept the alternative hypothesis, and conclude that Lockdown measure has a significant influence on economic activities of the firm.

- Hypothesis three: H02: social / physical distancing does not have a significant effect on the growth of the firm

Variable	Levene`s Test for Equality of Variances	t-test for Equality of Means			
		F-test Sig.	T-test	Sig.(2-tailed)	
Social/Physical distancing	Equal variances assumed	5.870	0.049	1.911	0.1987
	Equal variances not assumed			1.124	0.4045

Table 9: Independent Sample Test
Source: Researcher`s Computation, 2020 (SPSS,24)

Lastly, the findings from the results of the independent sample T-test in the table 9 for the relationship between social /physical distancing and firm`s growth gave a t-calculated value of 1.911; and with an associated p-value of 0.1987. Since the p-value of 0.1987 is greater than 0.05, the study accepts the null hypothesis and thus concludes that social / physical distancing does not have a significant effect on the growth of the firm

5. Discussion of Findings

Findings from the study showed that Covid 19 has a positive and significant effect on Nigerian economy. The implication of this result is that experience acquired in the course of this study had created more avenue for awareness and measures to put in place to reduce the spread among workers of the firm. The study is in agreement with Akachukwu (2020), whose findings suggest that lack of quarantine measures contributes to high rate the pandemic not only in Nigeria but across the globe.

In addition, Lockdown measure has a significant influence on economic activities of the firm. This implies that although lockdown paralyzed the economy a bit but reduce the fast spread of the pandemic in Nigeria in particular the Africa in general as security operatives stormed the streets, roads, town, villages and states to get implemented, especially in Nigeria. This is in agreement with Buchi (2019) whose findings showed that observing the lockdown measure is an antidote to reducing the pandemic among workers. Furthermore, the study by Agbionu (2019) also revealed that lockdown measures have caused people to resort to the usage of modern information and communication technologies in transacting their businesses.

However, social / physical distancing was discovered to have an insignificant effect on the growth of the firm. The implication of this finding is that workers who engage in social/physical distancing do not interact among themselves and often worker as supposed to improve performance. This further highlight the fears and individualistic tendencies inculcated in the lives of workers by this measure. The findings from this study contradicts the results of Agu (2019) which revealed that social distancing creates awareness of the pandemic at a lower cost, enhances campaign on the dangers of the pandemic on global economy.

6. Conclusions and Recommendations

Preparation of pandemic is very challenging compared to natural disasters. Pandemics are rare events. Based on the accountability for preparedness, many countries got affected in different manner by pandemics. As pandemics spread quickly irrespective of geographical areas, ethical and global health imperatives for building capacity to detect and respond to pandemic threats are being required. It spreads first in countries where weak preparedness is high. The less the preparation the more risks it show.

Investments made to combat the pandemics give few short-terms results. However, lessons emerge after multiple regional epidemics and global pandemics. To combat pandemics, situational awareness is very much required. Creation of situational awareness will require sustained investment in infectious disease surveillance, crisis management, and risk communications systems. Investments in these capacities are likely to surge after pandemic or epidemic events.

Risk transfer mechanisms such as catastrophe risk pools offer a viable strategy for countries to manage pandemic risk. Governments should avoid sweeping and overly broad restrictions on movement. When quarantines or lockdowns

are imposed, governments are obligated to ensure minimum facilities like food, water, medicines etc. Ensuring continuity of these services and operations means that public agencies, community organizations, health care providers, and other essential service providers are able to continue performing essential functions to meet the needs of older people and people with disabilities. Finally, researchers must address the significant knowledge gaps that exist regarding LMICs' pandemic preparedness and response. Improving the tracking of spending and aid flows specifically tied to pandemic prevention and preparedness is vital to tracking gaps and calibrating aid flows for maximum efficiency. Systematic data on response costs in low-income settings are scarce, including data regarding spending on clinical facilities, supplies, human resources, and response activities such as quarantines. Bridging these data gaps can improve pandemic preparedness planning and response through evidence-based decision making and support efforts to prevent and mitigate epidemics and pandemics.

6.1. Contribution to Knowledge

The study discovered that Co-vid 19 would be properly controlled if awareness and education programmes on the pandemic by the government are obliged both in Organizational and Non-organizational settings. The study contributed to knowledge by discovering that with proper quarantine measures, Lockdown measures, and social /physical distancing as well other measures are strictly followed, it will reduce fear of the pandemic from workers and will enhance productivity. Also having identified the paucity of information on the effect of pandemic (coronavirus) on Nigerian Economy (A study of Tummy-Tummy Noodle Producing firm in Kaduna, Nigeria, this study contributed to knowledge by filling this gap. Therefore, this study contributed to knowledge by providing an empirical evidence on the effect of pandemic (coronavirus) on Nigerian Economy.

6.2. Suggestion for Further Studies

It is suggested that further studies should be carried out to determine the effect of Co-vid 19 pandemic on service providing industries in Nigeria. Also, further studies should be carried out on effect of Co-vid 19 pandemic on organizational performance in other manufacturing industries.

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