E-OPERATIONS SYSTEMS: SUSTAINING THE NIGERIAN TOURISM AND HOSPITALITY INDUSTRY AMID COVID-19 DISRUPTIONS

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ABSTRACT:

Outbreaks of epidemics and pandemics have had devastating effects on human livelihood with enduring scare on the socio-economic foundations of the society. This study sought to examine the impact of "Covid-19" pandemic on the Nigerian tourism and hospitality industry. The exploratory methodology was adopted for the study and it was found that the tourism and hospitality industry remains one of the worst affected industries by the novel Corona virus pandemic in Nigeria. Aside the health crisis that came with the pandemic, the study also found that as Nigerian government resorted to non-pharmaceutical measures such as community lock-down, social distancing, restriction of gatherings, closure of borders and airspace, tourism activities declined severely; resulting to a near-collapse of the Nigerian tourism and hospitality industry. Thus the study proposed robust electronic operations system to boost the industry's performance or at least sustain it from further strain from the covid-19 pandemic. Tourist sites and hospitality operations managers are advised to develop an e-operations system that best suit the unique need of their business, as this technique has recorded great success in the banking, telecommunications, logistics, educational, media and entertainment industries. The study also advised Nigerian government to provide timely support to cushion the effect of Covid-19 in the industry.

Keywords: E-Complaint System, E-Delivery System, E-Marketing System, E-Payment System, E-Tourism, Virtual Tourism.

INTRODUCTION:

Since time immemorial, humanity has experienced intermittent outbreaks of infectious diseases. All through the history of man, outbreak of epidemics/pandemics have had devastating effects on livelihood with enduring scar on the economic, political and socio-cultural spheres of human civilisation. Damir (2019) puts it that only few phenomena have reshaped our society, culture and economics the way pandemics have. Epidemic outbreaks have defined and redefine virtually all aspects of human life and have altered some of the basic tenets of modern medicine, learning, and modus-operandi of business operations. According to Scheidel (2017) pandemics have decimated societies, determined outcomes of war, wiped out entire populations but also paradoxically cleared the way for innovations and advances in science, economy and political systems. For example, since the twentieth century the world had experienced series of pandemics such as

Spanish Flu of 1918-1920 which took place amidst World War 1; and was described as the first true global pandemic with devastating consequences in modern human societies across the world. This flu was triggered by H1N1 strain of influenza virus which was suspected to have originated from France, China, Spain or Austria. The disease spread across Asia, Africa and USA within few months and recorded casualty rate of about 10-20%, claiming over 50 million lives (Centre for Disease and Control, 2018; Antonovics, Hood, & Baker, 2006; Damir, 2019). Another epidemic that shook the world is HIV pandemic which is a slowly progressing global pandemic which swept across borders of nations. The disease slowly progresses in AIDS and ultimately leads to death. Globally, over 40 million people contracted HIV and about the same numbers of people died from it since 1981 (Cohen, Hellman, Levy, Decock & Lang 2008). Wang et al (2016) and World Health Organisation-World Health Organisation [WHO], (2020a) noted that the disease is responsible for over a million deaths annually and up to 45 million people still live with HIV at the end of 2020. Other diseases that have gained global attention include smallpox outbreak of 1927, severe acute respiratory syndrome (SARS) of 2003, Ebola outbreak of 2014 and Zika virus of 2015, all of which have reshaped human lifestyle, business operations, economies of nations and more severely healthcare system and tourism and hospitality industry (Wu et al., 2017; Damire, 2019; Gössling et al., 2020). However, the NOVEL CORONA VIRUS pandemic also known as Covid-19 ravaged nations in a way that kept the world on it toes. The Covid-19 pandemic, a vast-spreading communicable disease described by World Health Organisation (2020) as 'severe acute respiratory syndrome'. The spread of the disease across the world originated from a city in China known as Wuhan. Since the outbreak

of the disease, all nations of the world have suffered a great loss so much so that it was announced as a global emergency and upgraded from the status of a mere epidemic to a full-fledged pandemic (United Nations Economic Commission for Africa [UNEC], 2020). The devastating effect of Covid-19 cannot be overemphasized, almost no one entity on earth is insulated from the shock with which it ravaged humanity. Due to the Covid-19 pandemic, the world's economy according to United Nations World Tourism Organization-UNWTO (2020) was shut down almost overnight. In the bid to curtail the spread of the virus, tourism industry and hospitality industry became the primary economic victim of the situation. Strategies to flatten the COVID-19 curve by many countries ranges from community lockdowns, social distancing, stay-at-home orders, travel and mobility restrictions, closure of borders and airspace from foreign travelers. This resulted in closure of many tourism/hospitality businesses and significantly decreased the demand for tourism services by few businesses that were allowed to continue operation (Bartik et al., 2020). At first, the world perceived it to be a health crisis but within few months, economies of the world began to feel the heat of the pandemic, not spearing the tourism industry as well.

The problem of this study resulted from the continuous decline of tourism and hospitality activities across Nigeria, despite the gradual ease of lock-down and other restrictions imposed by Nigerian government in a bid to curbing the spread of Covid-19. The tourism and hospitality industry which is one of the fastest growing industries in the world experienced a sharp decline in international arrivals of about 65% through the first quarter of 2020 and about 93% through the next quarter. The world experienced a massive decline of 440 million international arrivals and 450 billion USD export revenue from

international tourism (UNWTO, 2020[b]). This is 500% higher than the loss experienced in 2009 as a result of global economic meltdown. The case is more severe in Nigeria as the country recorded about 90% decline in revenue from the tourism and hospitality industry. Prior to the outbreak of Covid-19, tourism is regarded as one of the most promising industries in Nigeria; as scholars described it as a major diversification alternative to Nigerian overdependence on oil revenue (Akpan & Obag, 2012; Ekundayo & Abutu, 2015; Ndu, 2013, 2018a 20118b). The hospitality industry alone boasted of over 3billion US dollars' worth of investment between the periods of 2014 to 2017 (PricewaterhouseCoopers, 2017). It contributed about N1.7billion ($US 5.5 million) which represents about 4.8% of Nigeria's Gross Domestic Product (GDP), while generating about 651,000 employment opportunity in 2016 (Ekwujuru, 2016; Jumia Travel, 2017). It is however disheartening to say that this same industry was estimated by the Lagos Chambers of Commerce and Industry, LCCI (2020) at N1.4 trillion as at year ending 2019. This continuous decline presents serious leadership challenge to all operations managers and other stakeholders in the Nigerian tourism and hospitality industry.

Furthermore, since the outbreak of Covid-19, operations leaders across industries have realized that there is need for a redefined systems thinking and operations design that will suit this trying period. The pandemic has altered the basic tenets of modern medicine, learning, and modus-operandi of business operations which many believe to be the new normal. One of such is a new business model where all activities are initiated and concluded electronically. Interestingly, over 104.4 million Nigerians use the internet as at January 2021. This figure increased by 19 million between January 2020 and 2021; an increase of about 22% (Simon, 2021). Systems thinkers and

operations leaders in other industry such as the Nigerian banking industry, logistics and delivery industry, cinema and educational institution have begun to take advantage of this opportunity to develop an e-version of the products and services. For example, all banks and financial institutions in Nigeria have developed mobile application through which customers can carry out transactions without necessarily visiting the banking hall. All support systems and customers' complaints are now handled by many organisations via their online customer service platform. Movie producers and musicians now release their albums via online platform for users to download. Aside preventing exposure to the pandemic, e-operations systems has helped business organisations improve on prompt service delivery, simplified payment system and enhanced customers' convenience (Francis & Babajide, 2009). However, it is worrisome to note that tourism and hospitality industry experts in Nigeria have not seen the urgent need and benefits of designing and re-designing electronic operations systems which is becoming the new normal. This challenge could be as a result of the lacuna in literatures that call attention of experts to rise up to the task. Thus the need for this study to explore and discuss the use of E-operations systems in the Nigerian tourism and hospitality industry going forward.

It is expected that this study will contribute to the staple of knowledge on the subject matter. It will also expose operations managers and other tourism experts to the need for electronic operations systems in Nigerian tourism and hospitality industry. The government, policy makers and regulatory agencies/institutions will equally find this study's outcome as an authentic framework for policy making, implementation and monitoring. Tourist site managers and other interested parties can use this study to gain deeper

insights on the e-operations systems and how to design the systems to reflect the current realities in business operations. They will also learn the importance of adopting the systemic approach in the management of their organizations. The study equally addressed the need for tourism systems in Nigeria to measure up to international standards and possibly be at par with other industries across the globe in terms of best practices. By so doing, it stressed the need for tourist site operators (operations managers) to adopt global best practices in designing their operations systems so they can be in tune with current realities at all time.

THEORETICAL FRAMEWORK:

The underlining theory for this study is the unified theory of acceptance and use of technology [UTAUT]. The prevalent use of technology in solving business challenges across the world and in every area of possible use has increased the attention of people of different culture, lifestyle, belief systems to consider how new technology is perceived and accepted by individuals and groups of peoples. The uncertainty around the adoption of new technologies that originate from a single centre will be equally accepted by others from different societies with different beliefs, values, approaches, and even physical characteristics. Moreover, it is still subject to debate if these technologies will be used with the same substance and function in other cultures with satisfying ergonomic features (Kurt & Tingoy, 2017). Scholars have endeavored to provide answers to this uncertainty, with the main focus on behavioral models. However, the most widely-sought theory to answering this question is the robust unified theory of acceptance and use of technology (Al-Senaidi, Lin, & Poirot, 2009; Martinez-Torres et al., 2008; Raaij & Schepers, 2008; Wang, Wu, & Wang, 2009). This theory was developed by Venkatesh et al (2003) and was originally used in higher learning institution to examine teacher's level of acceptance of new technology and its uses by both teachers and students. The framework aims to explain and predict use behavior or monitor changes in the factors that affect technology use behavior through time. This theory identified four key moderators that have a significant influence on technology acceptance and use which are: performance expectancy, effort expectancy, social influence, and facilitating conditions; are the core determinants of behavioral intention or use behavior on the acceptance of the technology. Meanwhile age, gender, experience, and voluntariness of use are the moderators, which have no direct influence on the intention or the use of technology, but have indirect effects on cognitive behavioral factor.

Performance Expectancy shows the degree to which teachers believe that using e-learning environment will help them to perform better professionally. This construct is the most significant indicator of intention, regardless of whether or not technology use is voluntary.

The effort Expectancy is teachers' belief level about how easy it is to use technology in an e-learning environment, or whether this technology is user-friendly.

Social Influence is defined as the degree to which an individual teacher perceives that his or her colleagues and others see the use of e-learning as significant.

Facilitating Conditions include the teacher's beliefs that an organizational and technical infrastructure exists to support the use of e-learning environment. In other words, this is an individual's view of whether he or she has the available resources (tools, equipment, expertise, etc.) he or she needs to use the system.

The application of this theory in this discussion is to equip tourism operations managers with necessary dimensions to

consider when developing electronic operation systems for their organizations. It is pertinent to put all stakeholders into consideration. These include factors such as such as customers, employee, peculiarity of cultures and traditions; belief systems etc. each of which will determine how users perceive their system and subsequently determine acceptance and usage. Thus in developing e-operations systems, they must endeavor to ensure that such system is designed to attract their target audience and capture their interest for continuous usage. Otherwise, such system will not stand the test of time.

CONCEPTUAL FRAMEWORK:
Concept of Covid-19

Covid-19 is an infectious disease caused by a novel coronavirus (WHO, 2020b). According to Merriam Webster (2020), it is a mild to spartan respiratory sickness that is caused by a unique coronavirus and is transmitted basically by contact with the respiratory droplets on materials, surfaces, and objects by a causative virus and is branded mainly through cough, shortness of breath and fever, which may advance to lung inflammation and respiratory failure. The disease if highly infectious and can be transmitted from one person to another whenever there is an exposure to the droplets of an already infected person. The Covid-19 pandemic, a vast-spreading communicable disease described by World Health Organisation (2020) as 'severe acute respiratory syndrome'. It is possible to contract the disease from persons that are asymptotic. At the early stage, it is mild; however, it can cause illness that becomes serious, leading to death. The mortality rate also associated with Covid-19 suggests that the virus is more deadly than influenza. Officially, WHO on February 11, 2020, named the novel coronavirus Covid-19. COVID here refers to the short form of coronavirus disease, while the number 19 is an indication that the disease was first detected in humans in 2019. Like many other diseases, the common symptoms of covid-19 include sore throat, fever, congested nose, muscle pain and chills. Others are breathlessness, headache, body pain, loss of taste and smell, and repeated shaking with chills (Medical News Today, 2020). Most infectious diseases are identified based on their symptoms (Osuchukwu, Agba & Emeh, 2017); the symptoms associated with Covid-19 are similar to those of common cold, malaria and fever. Thus, coronaviruses belong to a large family of zoonotic viruses responsible for a range of illnesses, including common cold to severe acute respiratory diseases. This suggests that it can also be transmitted from animals to humans.

COVID-19 AND THE NIGERIAN TOURISM/HOSPITALITY INDUSTRY:

Tourism according to World Tourism Organisation – WTO (1993), is a chain of activities of persons including travelling and staying in environments outside their usual place of residence for the purpose of business and leisure, for not more than one successive year. Tourism industry and hospitality therefore comprise activities of people and organisations involved in the production and provision of services for individuals on tour or holidays. The tourism industry is an embodiment of all companies and organisations which provide the services, and products used by tourists at different stages of their travelling and touring. Camilleri (2017), summarized tourism and hospitality industry into four major units which include the tourism industry: accommodation, transportation, sales and distribution, as well as ancillary services. The transportation sector deals with all the activities concerned with mobility of tourists from one location to another of the tourism industry which includes – airline industry,

water transport, car rental, railway, coach services and spacecraft. Accommodation sector is concerned with all aspects of hospitality hotels, shared accommodation, camping, cruises, time-share accommodation, and farmhouse accommodation. In other words, the hospitality industry consists of any business involved in providing accommodation, food, drinks as well as other accompanying services that may be required by tourists.

Tourism and hospitality industry is one of the largest and fastest growing industries in the world (Akpan & Obag, 2012; Attah, Agba & Nkpoyen, 2013; Ekundayo & Abutu, 2015; Ndu, 2018). This was affirmed at the United Nations Conference on Trade and Development – UNCTAD (2013), where scholars and industry experts reported that the tourism industry accounts for an estimated 5 per cent of global gross domestic product (GDP) and creates 6 to 7 per cent of the total jobs available in the world. The industry also generates about 10 per cent of the GDP in countries, where tourism is a vital pillar of the economy. The sector not only boasts of immense contributions to the GDPs of nations, other economic benefits such as foreign exchange earnings, revenue generation, economic diversification opportunity can be traced to the industry (Umoh & Ndu, 2013, Ndu & Umoh, 2020). Richardson (2010) posited that the tourism industry contributes to economic growth, ensures food security and increase countries participation in the global economy. It contributes significantly to the world's growing service sector. This is apparently true in Africa, where tourism accounts for an estimated 55 per cent of the overall service sector exports annually (Ocheni, Agba, Agba, Eteng, 2020). Prior to the outbreak of Covid-19, tourism is regarded as one of the most promising industry in Nigeria as scholars described it as a major diversification alternative to Nigerian

overdependence on oil revenue (Akpan & Obag, 2012; Ekundayo & Abutu, 2015; Bello, 2018).

The spread of the disease across the world originated from a city in China known as Wuhan on a patient Wei Guixan and by March 2020, the virus has spread to over 148 countries including the United States of America. As of March 2021 which is about a year later the pandemic has spread into over 180 countries across the world. In Nigeria, the first case of covid-19 was the case of an Italian citizen who worked in Nigeria as reported on 27th of February, 2020 by Nigerian Centre for Disease Control-NCDC (2020). Since the outbreak of the disease, all nations of the world have suffered a great loss so much so that it was announced as a global emergency and upgraded from the status of a mere epidemic to a full-fledged pandemic (Anderson et al., 2020; United Nations Economic Commission for Africa [UNEC], 2020). The devastating effect of Covid-19 therefore cannot be overemphasized, almost no one entity on earth is insulated from the shock with which it ravaged humanity. Due to the Covid-19 pandemic, the world's economy according to UNWTO (2020) was shut down almost overnight. This worrisome trend has spurred several scholars (Ocheni, Agba, Agba, Eteng, 2020; Dube et al., 2020; Gossling et al., 2020) to examine the impact of the pandemic on the tourism and hospitality industry. Their findings gave corroborating evidences that the impact of the pandemic on Nigerian tourism and hospitality industry is devastating. These include revenue loss, job loss, drastic fall in tourism activities, closure of tourist centres and hotel accommodations etc. However, these studies focused on government's interventions to solving the challenges, not essentially inspiring tourism experts, operations managers to re-design their operations systems in tune with current realities. Furthermore, these studies were not orchestrated to examine possible alternatives to the physical

appearance of tourists and other stakeholders along the value chain of tourism and hospitality activities. This creates a gap in knowledge and practice which this study seeks to address.

CONCEPT OF E-OPERATIONS SYSTEM:

Digitalization of the traditional travel and tourism system and its transformation into e-tourism system is not just a virtual future, but actual reality (Velina & Hristina, 2019). An E-operations system is an electronic transformation of the daily operations systems in an organisation. The creation of an e-tourism system is a logical sequence of the digitalization of all processes in the value chain of the tourism and hospitality industry. Thus the concept of e-tourism cannot be understood in isolation. It exists as part of a robust e-business system. Electronic business involves all activities along the value chain of processing the exchange, buying and selling of products, services and information via computer networks including the internet (Turban, Lee, King, & Chung, 2000). This implies that the e-business system relies heavily on information technology-ICT. Buhalis (2003) defined "E-tourism as the digitization of all the processes and value chains in the tourism, travel, hospitality and catering industries that enable organisations to maximize their efficiency and effectiveness". This definition implies that for e-tourism to be effective there is need for a robust electronic operations system through which all the processes and procedures for tourism and hospitality activities are initiated and entirely completed with the use of ICT. Thus the e-operations systems must be uniquely designed to takes different forms that can be accessed by the customers through different channels and delivery systems.

Every business exists to accomplish one goal or the other as enshrined in their mission, vision and statements of objectives. Therefore, the purpose of operations systems is to provide a path (structure, process and resources) through which the objectives of the organisation are accomplished. It provides a guide for carrying out the day-to-day activities of an organisation. It is a leadership responsibility to provide simpler, cleaner and better organisational model for organisation and providing means of successful management (Carlos & Jose, 2015). The advent of information technology has revolutionized virtually all business operations in the world. The continuous development in technology, communication and particularly the Internet, has transformed the entire tourism industry, by generating new business models, restructuring the distribution channels, reshaping the production process involved in tourism and hospitality industry. The relevance of tourism and hospitality industry revolves around the unending desire of man to explore, discover new frontiers and enjoy the beauty of nature. Thus electronic operations systems in tourism and hospitality industry also known as E-tourism has come to these help fulfill this desire in a more convenient and enjoyable manner (Ibukun, Okuboyejo & Kelechi, 2016). For example, in tourism businesses, the Internet offers the potential to make information and booking facilities available to large number of tourists at relatively low costs. It also provides a tool for communication between tourism suppliers, intermediaries, as well as end-consumers. Organization for Economic Co-operation and Development - OECD (2000) revealed that the advent of Internet-based electronic commerce offers considerable opportunities for firms to expand their customer base; enter new product markets and rationalize their business. WTO (2001) also indicated that electronic business offers businesses the opportunity to undertake their business in new and more cost-effective ways. It is important to note that the application of technology has transcended from

being a mere business tool to a game changer in the marketplace, causing a kind of disruption never experienced by man. The Institute of Chartered Accountants of Nigeria-ICAN (2019) reported that the airline industry achieved 150 million customers in 68 years; transport industry did the same in 62 years while television businesses took 14 years to achieve this height. Astonishingly, Facebook, Instagram and Pokémon achieved the same 50 million customers in 3 years, 2 years and 3 weeks respectively. These statistics showcase the power ICT. There is an urgent need for tourism operations managers to join the leagues of industries benefiting from e-business operations.

The traditional nature of tourism and hospitality business in Nigeria revolves around the physical presence of parties involved such as tourist service providers, tourists and others stakeholders along the value chain. This process without doubt is obsolete and may not stand the test of time particularly with the continuous innovations in science and technology. Tourists desire the most effective platform available to make their tourism experience more enjoyable. This situation does not put the Nigerian tourism and hospitality industry in a competitive position with other foreign tourism destinations. For instance, Ndu (2018) noted that most Nigerian elites prefer tourist destinations in United Kingdom, Europe, United Arab Emirates, United States of America, The Caribean Islands etc. A good number of Nigerian private schools organize regular holiday tours especially during the summer holidays. But most unfortunately, they rarely consider tourist destinations in Nigeria as choice destinations. Rather, they prefer to spend more resources to go to places like South Africa, Ghana, Kenya, Dubai, London etc.; whereas several of our tourist sites are begging for visitors. This may be an indication of the inherent problems of our tourist sites; which in the thinking of the researcher is the relative poor quality of service systems at these sites. Such systems only attracted very few first-timers who most likely would not revisit or make referrals to the site. In other cases, dilapidated facilities, non-functional and abandoned tourist sites (Anwunor, 2017), environmental degradation (Hall, 2000; Weaver, 2006; Yadzi, 2012); loss of socio-cultural values (TAO in Yadzi, 2012) and in extreme cases, loss of capital invested were all manifest. Evidences of these undesirable maladies are not far-fetched; as literature is awash with problems and challenges bedevilling the Nigerian tourism industry. However, none of these studies have proposed pragmatic e-operations systems as a possible way forward. Also literatures on electronic operations systems for tourism industry are sparing and are mostly domiciled outside the country.

PROPOSED E-OPERATIONS SYSTEMS:

To better appreciate the simplified e-operations systems proposed by the researchers for Nigerian tourism and hospitality industry, it is pertinent to briefly highlight a few of the major e-tourism options viz-à-viz the players and their activities.

E-TOURISM DESTINATIONS:

These are tourist attraction sites being visited by the tourists. Destinations are combinations of tourism products, facilities and services which comprise the total tourism experience under one brand name. For example, there are over 249 tourist sites in Nigeria, none of which to the best knowledge of the researchers is fully digitized.

E-HOSPITALITY:

This sector is concerned with all aspects of hospitality including hotels, shared accommodation, camping, cruises, time-share

accommodation and farmhouse accommodation. The development of the Internet has provided more benefits as it reduces the capital and operational costs required for the promotion of hotels. The basic requirement to increasing customer inflow is a functional hotel website. To record success, operations managers must build a user-friendly, interactive, website with effective interface, information and ease of navigation so as to facilitate the ease of obtain relevant information.

E-TRANSPORTATION:

This is popularly known as e-airline since air transportation is a major means of tourists' movement. E-airlines deal with activities related to the movement of tourist from one destination to another. Specifically, it includes Electronic bookings, Online, ticketing, E-auctions for very last minute available seats, Yield management and other related activities along the value chain of e-transportation. The electronic airline enables tourists to choose the options on unbundled packages in terms of travel insurance, additional luggage, Food, Choice of seat etc. more conveniently.

E-TOUR OPERATORS:

These operators are involved in arranging tourism packages offered by travel agencies. Most Leisure travellers often purchase "packages," consisting of charter flights and accommodation, which are usually arranged by tour operators. Tour operators tend to pre-book these products and distribute them through brochures displayed in travel agencies. Innovative tour operators maximize the use of Internet to extensively promote their products and to attract direct customers.

E-TRAVEL AGENCIES:

As the name implies, travel agencies serve as links between customers and

principals. Tourists sometimes use the services of travel agents to gather information on available reservation for tourism products. With the aid of ICT, travel agencies operate in different reservation systems which enable them to intermediate real-time between tourists (customers) and tourism service providers (sellers).
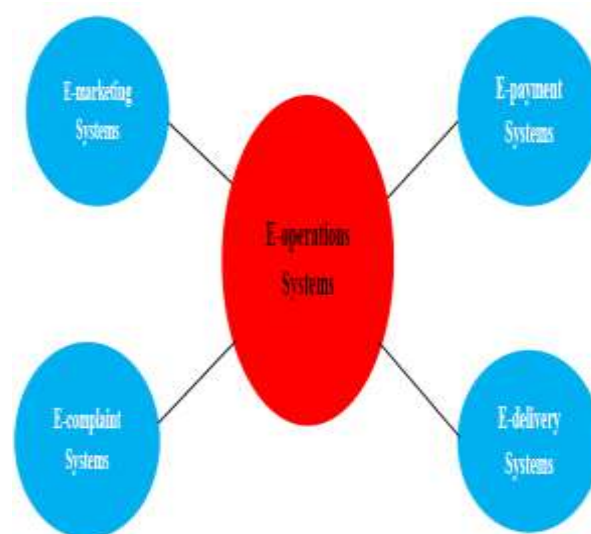

Figure 1: Proposed Simplified E-operations Systems

SOURCE:

Researchers' Conceptualization, 2020

METHODOLOGY:

The researchers adopted theoretical exploratory technique for this study on the basis that data for the study was gathered from secondary source via the use journal publication, conference proceedings, statistical reports, internet contents etc. furthermore, this technique was considered suitable for the study since the adoption of e-operations systems in the Nigerian tourism and hospitality industry is still at its cradle and fetching first-hand primary data appears not realistic.

FINDINGS AND DISCUSSION:

This study examined the application of e-operations systems in Nigerian tourism and

hospitality industry amidst covid-19 disruptions. The major findings of the study revealed that covid-10 pandemic has caused a major disruption in the tourism and hospitality industry. In-fact it was found that in Nigeria tourism and hospitality industry is one of the most affected industries by the pandemic. Due to the pandemic, activities in the industry have witnessed over 90% decline. This decline is characterised by loss of revenue, loss of employment, decline in tourism activities and demand for tourism products. The study also found that despite the gradual ease of lockdown, tourism and hospitality industry may take few more years to pull through the adverse effect of covid-19 because tourists still prefer to stay indoors to contacting the virus as a result of too much tourism activities. People are still reluctant to patronise tourist destinations or to eat at hospitality facilities such as restaurants, hotels, bars and clubs due to the fear of exposure to the virus. The cold attitude of Nigerian government to public gathering also contributes to the slow recovery of the industry; the government still discourages large gathering of people. These findings align with those of Ocheni, et al (2020), Gossling et al (2020) and Dube et al (2020) who found that hospitality the industry is experiencing strains in its operations and revenue generation capacity as a result of COVID-19 pandemic. Specifically, they reported that the impact of the pandemic on the Nigerian tourism and hospitality industry is devastating and includes revenue loss, job loss, drastic fall in tourism activities, closure of tourist centres and hotel accommodations.

The study also found that the advent of information technology has revolutionized virtually all business operations in the world, not excluding the tourism and hospitality industry. The continuous development in technology, communication and particularly the Internet, has transformed the entire tourism industry thereby by attracting new customers, restructuring the distribution channels, reshaping the production process involved in tourism and hospitality industry. This conforms previous findings, hence Ibukun, Okuboyejo and Kelechi (2016) found that in tourism businesses, the Internet offers the potential to make information and booking facilities available to large numbers of tourists at relatively low costs. Electronic operations systems in tourism and hospitality industry also known as E-tourism has come to stay as tourist desire a more convenient and enjoyable condition of service. WTO (2001) also indicated that electronic business offers businesses the opportunity to undertake their business in new and more cost-effective ways. This also throws up the possibility of a totally virtual tourism option which entails packaging tourism experiences for virtual transmission only. In which case, individuals can tour destinations virtually without having to leave their homes. All they need to do is to hook up to a screen or online channel, and they can access live events at their desired tourist destinations. If fully explored, this will meet the tourism needs of persons who for one reason or the other, may not travel physically to desired tourist destinations. Such persons may be physically challenged; as such, may not travel with ease. Others include persons having phobia for travelling; those under lockdown situations (as is the case during epidemics and pandemics); those on travel restrictions as well as those with low budgets or persons who cannot afford the luxury of travelling. The virtual tourism option will help them enjoy tourism from the comfort of their homes.

CONCLUSIONS:

All through the history of man, only few phenomena have reshaped our society, culture and economics the way information technology and pandemics have. The outbreaks of

epidemics have had devastating effects on human livelihood with enduring scar on the economic, political and socio-cultural spheres of human civilisation. However, the NOVEL CORONA VIRUS pandemic also known as Covid-19 ravaged nations in a way that kept the world on its toes. Due to the Covid-19 pandemic, the world's economy was shut down almost overnight. The tourism and hospitality industry remains one of the worst affected industries by the pandemic as countries resort to non-pharmaceutical measures such as community lock-down, social distancing, restriction of gatherings, closure of borders and airspace. This almost resulted to a total collapse of the Nigerian tourism and hospitality industry, resulting to a serious operations management challenge. The situation once again calls for a re-defined operations systems in the industry; a challenge which this study sought to address.

Furthermore, the application of technology has transcended from being a mere business tool to a game changer in the marketplace, causing a kind of disruption never experienced by man. The Institute of Chartered Accountants of Nigeria-ICAN (2019) reported that the airline industry achieved 150 million customers in 68years; transport industry did the same in 62 years; while television businesses took 14 years to achieve this height. Astonishingly, Facebook, Instagram and Pokémon achieved the same feat in 3 years, 2 years and 3 weeks respectively. These statistics showcase the power of ICT. There is an urgent need for tourism operations managers to join the leagues of industries benefiting from e-business operations.

RECOMMENDATIONS FOR RESEARCH AND PRACTISE:

The following are the recommendations of the study:

1) This study provides possible panacea to experts and leaders in tourism industry by proposing a robust electronic operations system to boost the industry's performance or at least sustain it from further strain as a result of the covid-19 pandemic.

2) Tourist sites and hospitality operations managers are advised to develop an e-operations system that best suit the unique need of their businesses as this technique has recorded great success in the banking, telecommunications, logistics, educational, media and entertainment industries.

3) Managers of Nigerian tourist destinations should collaborate with other stakeholders such as ICT experts, researchers and government to develop a culture for research and development in order to be abreast with latest best global practices in the industry.

4) Tourist operators are encouraged to attract investment in e-tourism. This will not only generate present economic benefit. It will as well fortify the industry against future uncertainties such as pandemics; thereby assuring the sustainability of the industry.

5) Lastly government should encourage investment in the tourism and hospitality industry by creating suitable policies that will aid the fast recovery of the industry. Some of such policies may include tax reliefs, provision of soft loans and business grants to cushion the effect of the pandemic on the industry players.

FUTURE RESEARCH:

This study focused majorly on application e-operations systems in the tourism and hospitality, leaving discussion on other aspects such as its cost and benefit analysis, technical applicability and challenges that may result from its application. Hence interested researchers can consider investigating the cost and benefit of adopting e-

tourism in Nigerian tourism and hospitality industry. Furthermore, since the study was domiciled in the Nigerian tourism and hospitality industry, similar study can be conducted in other sectors and geographic locations of the world since the adverse effect of covid-19 is being felt all over the world.

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