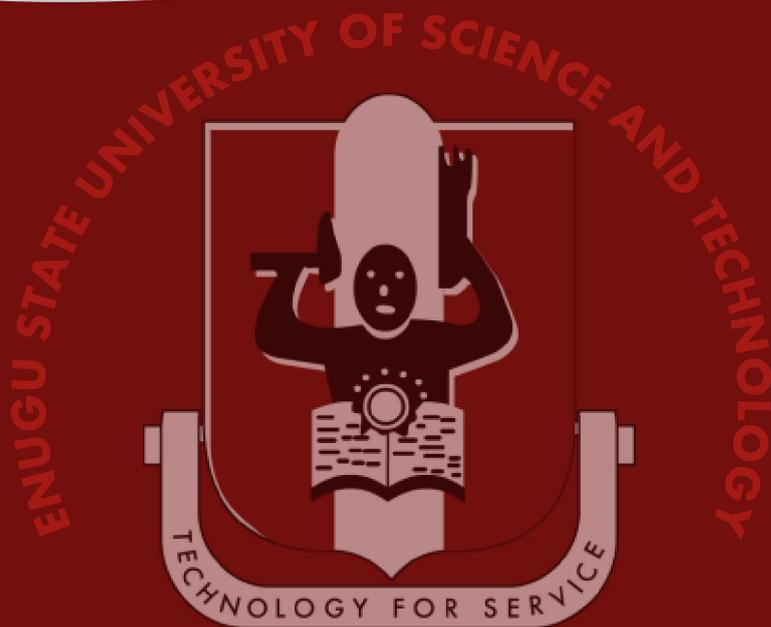


**Enugu State University
of Science & Technology
Journal of Social Sciences**



Journal of Social Sciences

Editor-In-Chief

Prof. Oby Omeje

Managing Editor

Barnabas E. Nwankwo, Ph.D

Associate Editor

Nicholas Attamah, Ph.D

published by

Faculty of Social Sciences
Enugu State University of Science & Technology
www.esutjss.com

Cyber Crime and Underdevelopment of Tourism Industry in Nigeria

Agomoh, M. John

Department of Sociology
Faculty of Social and Management Sciences
Eastern Palm University, Ogboko
agomohjohn@yahoo.com

Eze, Ifeoma Louisa

Department of Sociology
Faculty of Social Sciences
Enugu State University, Enugu
ify4jesus4real@yahoo.com

Nwokoro, Ngozi

Department of Business Administration
Faculty of Social and Management Sciences
Eastern Palm University, Ogboko

Abstract

The issue of cybercrime and development of tourism industries in Nigeria is a critical area that have attracted plethora of public attention especially as it undermines the image of Nigeria. Tourism in Nigeria as an industry, perhaps more than any other, have fully and steadily embraced e-commerce in business and enabled the industry(travel and hospitality) to grow rapidly. Sadly though, it is the most targeted by cybercriminal and activities of cybercrimes. The availability of tourist locations and tourism industries in Nigeria have attracted persons involved in cybercrime, and perhaps most tourists will fall victim. Hospitality industries will collapse as a result of low patronage. This will spell doom for the tourism industries and consequently the economy of Nigeria. Hence, it becomes logical that this paper reviewed content wise cybercrime and underdevelopment of tourism industries in Nigeria. This paper utilized both the quantitative and qualitative research approach to gain an insight into the nature of cybercrime and underdevelopment of tourism industries in Nigeria. The paper noted that in Nigeria, tourism industry have contributed about 4.8% to Nigeria's Gross Domestic Product in 2016 and have employed about 1.6% of Nigerians. The paper also revealed from the content review wise that of the 15 cybercrimes, ATM fraud, yahoo attack and phishing is the cyber-attacks that have been targeted at tourist in Nigeria. The paper also has revealed the impact of unemployment and availability of industries on youth engagement in cybercrime.

Keywords: Cybercrime, Underdevelopment, Tourism

Introduction

Nigeria with a population of 186 million people (World Bank, 2016) and an approximate of 195 million in 2018 (World population review, 2018), is blessed with abundant natural resources, with rich cultural heritages that have the potential of attracting and also has attracted tourism and the emergence of tourism industries. Nigeria has about 250 ethnic groups and spoken language (United State Embassy, 2012). Nigeria accounts for the highest number of youths and is one of the most populous countries in Africa. Incidentally and sadly, Nigeria accounts as one of the countries with the highest rate of unemployment and high incidences of crime. Apart from the crimes of armed robbery, kidnapping, one major crime that has attracted the involvements of youths is cyber crime. One of the major industries that have suffered the most impact of cyber crime is the tourism industry. This is given that apart from local patronage, most patronage for tourism industries in Nigeria are visitors and foreigners. Considering the technology involved in areas as bookings, flights, currency transactions, the potency of cyber crime becomes effective.

Tourism industry is the total of all businesses that directly provide goods or services to facilitate business, pleasure and leisure activities away from the home environment (Tourism Business toolkit, 2014). Tourism has remained steadfast with a global worth of \$2bn/day in the post 9/11 era. Sadly though, the increasingly reliance on the internet and other information technologies has made it a potential threat from cyber vulnerabilities (Tauner&Olding, 2007).

As Interpol has reported, cybercrime is a fast growing area of crime. More and more criminals are exploiting the speed, convenience and anonymity of the internet to commit a diverse range of criminal activities that know no borders, either physical or virtual, cause serious harm and pose very real threats to victims worldwide (Interpol, 2018). Burton (2018) hinted that organised cyber criminals are increasingly targeting the tourism market. About 3.9 billion malicious login attempts occurred during the last year against sites belonging to airlines, cruise lines, hotels, online travel, automotive rental and transport organizations.

Cybercrime is the use of a computer to commit crime. Americans, because of the adoption of computers and the use of internets were the earliest victims of cybercrime. By the 21st century, it has spread to the other parts of the world (Michael, 2018). The major motive for the engagement in cybercrime is the financial gain, which arose and considering certain socio-economic factors and indicators like poverty, unemployment, wrong policies especially directed at youth development. However, Suleman (2017) has pointed out other primary motivation for cybercrime, to include corruption and e-waste disposal of phones and computers. The Conservation (2017) also followed in this direction, however, added money to include one of the primary motives for engagement in cybercrime. In this instance, cybercrime is prevalent and growing rapidly in Nigeria, as Nigeria is a major destination for e-waste disposal of phones and computers. It will continue unchecked as long as there is lack of data encryption, poor awareness and under reporting of breaches (Oluwatosin, 2018). An important aspect of cybercrime is its nonlocal character which made it possible that crimes can occur in areas spread across chains of networks with open areas. The non-enclosed boundaries in committing and engagement in cybercrime poses severe problems for law enforcement and agencies

(Michael, 2018). Between 2006 and 2010 over 90% of crimes reported to the FBI-run Internet Crime Complaint Centre were cyber fraud related. Under this specific category Nigeria was found to be the third most cited nation (Suleman, 2017).

The following top cities were found to be a base for most persons involved in cybercrime in Nigeria; Abuja, Abeokuta, Ogun State, Kaduna, Awka, Enugu, Owerri, Warri, Port Harcourt, Benin City and Lagos state, which happens to be the headquarters of internet fraudsters(Umar,2017). Incidentally, these cities are some of the major tourist destinations in Nigeria and also locations for hospitality industries. For instance in Ogun state there is the Olumo rock, Ibeno beach located in Eket Akwa Ibom State, Obudu ranch in Cross Rivers State, Osun Osogbo spring in Osun State, Ngwo pine forest and Awhum water fall in Enugu State, Arochukwu long juju in Abia state, Okenidanre in Ondo state, Bar beach in Lagos state, Abuja art and craft village, Kainji national park in Niger state and Yankari park in Bauchi state, and other numerous tourist destinations to mention.

The availability of tourist locations and tourism industries in the mentioned cities above will attract persons involved in cybercrime, and perhaps most tourists will fall victim. Hospitality industries will collapse as a result of low patronage. This will spell doom for the tourism industries and consequently the economy of Nigeria. Hence, it becomes logical that this paper will review content wise cybercrime and its impact on the underdevelopment of tourism industries in Nigeria.

Methodology

This paper utilized both the quantitative and qualitative research approach to gain an insight into the nature of cybercrime and underdevelopment of tourism industries in Nigeria, with further identification and enumerates of the statistics of cybercrimes in Nigeria. The issue of cybercrime and development of tourism industries in Nigeria is a critical issue that has attracted plethora of public attention especially as it undermines the image of Nigeria. Based on this, content analyses and review of reports on the activities of cybercrimes both local and international is important.

Therefore, the study is using existing statistics on cybercrime rate in Nigeria. To improve on the reliability and validity of the paper, multiple secondary sources of data were used.

Conceptual and Theoretical Insights

Cyber Crime

There are identifiable indicators observed in the definitions of cybercrime as a concept. However, there are degrees of ideas and conceptual definitions from various authors. Cybercrime refers to as the series of organized crime attacking both cyber space and cyber security (Dike, 2017). In another definition, cybercrime is defined as a crime in which a computer is the object of the crime (hacking, phishing, spamming) or is used as a tool to commit an offense (child pornography, hate crimes).It both makes use of the computer and the internet,

in this instance cybercrime is defined as a crime committed on the internet using computer as either a tool or a targeted victim (Aghatise, 2006). Cybercrime in a narrow sense (computer crime) covers any illegal behaviour directed by means of electronic operations that target the security of computer systems and the data processed by them (Gercke, 2012). In the conceptual position of Dashora, (2011), “Cybercrime may be said to be those species, of which, genus is the conventional crime, and where either the computer is an object or subject of the conduct constituting crime”.

The Nigerian Communication Commission (NCC) says Nigeria currently ranks third globally in cybercrimes behinds the UK and the US. According to a report by Technology Time, over 8400 malware sampled originated from Nigeria scam emails during the period from 2014 to 2016 (Technology Time, 2016) Maitanmi, Ogunlere, Ayinde and Adekunle (2013) identified fifteen (15) types of Cyber-attack, which include; yahoo attack, hacking, software piracy, pornography, credit card or ATM fraud, denial of service attack , internet relay chat (IRC) crime, virus dissemination, phishing, cyber plagiarism, spoofing, cyber stalking, cyber defamation, salami attack and cyber terrorism. Of the 15 cybercrimes identified above, credit card or ATM fraud, yahoo attack and phishing are the cyber-attacks that have been targeted at tourist in Nigeria. While Munguno in Iroegbu (2016) listed some of the common cyber-crimes in Nigeria to include: computer virus and malware infections, identity theft and privacy invasion, fraudulent electronic transaction, and theft of intellectual property. Others are: radicalization and violent extremism, terrorism perpetrated through the cyber space, website hacking and defacement and distributed denial of service attacks amongst others.

This paper theoretically is anchored on the Relative deprivation theory. This theory is relevant because as the theory informed us that when individuals measures their socio-livelihood wellbeing against others and considers the disparity when compared with what they have, a sense of inequality (wrongly disadvantaged) sets in which triggers anger and even jealousy and resulting willingness to commit crime.

Tourism and Tourism Industry

The travel and tourism industry is one of the world’s largest industries with global economic contribution (direct, indirect and induced) over 7.6 trillion US dollars in 2016 (Statista, 2017). In Nigeria, tourism industry contributed about 4.8% to Nigeria’s Gross Domestic Product in 2016 and has employed about 1.6% of Nigerians (Jumia, 2017). It is a major sector that has created employment, generates income especially as its potential lies in the ability to effectively manage the industry, create enabling environment for tourist to move freely and with comfort and most importantly security. The latest value for international tourism, expenditures (current US\$) in Nigeria was \$9,200,000,000 as of 2015. Over the past 20 years, the value for this indicator has fluctuated between \$11,009,000,000 in 2008 and \$501,000,000 in 2005.

The tourism development corporation act of 1992, established the functions of the corporation- to encourage people living in Nigeria to take their holidays therein and people from abroad to visit Nigeria, to encourage the provision and improvement of tourism amenities and facilities in Nigeria including the development of hotels and ancillary facilities. For those coming from abroad referred as international inbound tourist, they are the number of tourists who travel to a

country other than that in which they have their usual residence, but outside their usual environment, for a period not exceeding 12 months and whose main purpose in visiting is other than an activity remunerated from within the country visited (Tourism Development Corporation, 1992).

Underdevelopment

The term underdevelopment refers to that state of an economy where levels of living of masses are extremely low due to very low levels of per capita income resulting from low levels of productivity and high growth rates of population (Neha, 2018). According to the United Nations definition, an underdeveloped country is one which has a real per capita income that is lower in relation to the real per capita income of the USA, Canada, Australia and Western Europe. Underdevelopment is the state in which full realization of development in a country has not been attained either due to lack of resources or underutilization of the available resources. Underdevelopment is characterized by many factors which include; low per capita income, overpopulation, dual economy, over dependence on agro-allied product, lack of technology and unemployment.

The later unemployment is importance and also directs the focus of this work. Firstly, the failures of the industrial sectors to develop have resulted in partly the high rate of unemployment in Nigeria. This is so because the industrial sector accounts for one of the major employer of labour in Nigeria. Also the increasing numbers of graduates from Nigeria's tertiary institutions without the corresponding jobs have increased the number of unemployed graduates in the country. Youth employment rate in Nigeria though increased 33.10 percent in the third quarter of 2017 from 29.50 in the second quarter of 2017 (Trading Economics, 2018), it has not yielded the desired results in terms of the fluctuating nature of the sustenance of industries in Nigeria. Youth unemployment rate in Nigeria averaged 21.73 percent from 2014 until 2017, reaching an all high of 33.10 percent in the third quarter of 2017 (Trading Economics, 2018).

One of the major effects of unemployment especially for the youths is the increase in deviant behaviours as associate with involvement in crimes of diverse nature. One of the many crimes associated with most unemployed youths is cybercrime. Although some number of gainfully employed persons have been found to have engaged in cybercrime. However, statistics have shown that most youths who engage in cybercrime are unemployed as at the time they were apprehended. It is in this regard that Adesina (2017) pointed out that Nigeria's rising cybercrime profile may not come as a surprise, considering the high level of poverty and high unemployment rate in the country. Youth unemployment rate in Nigeria averaged 23.63 percent from 2014 until 2018, reaching an all-time high of 38 percent in the second quarter of 2018 (National Bureau of Statistics, 2019), and a record low of 11.70 percent in the fourth quarter of 2014 (Trading Economics, 2019), though it gradually decreased to 36.50 percent in the third quarter of 2018 from 38 percent in the second quarter of 2018.

Due to the economic situation of the country, most parents of internet fraudsters /cyber criminals' claim that the high rate of unemployment and poverty in Nigeria led their children

into the act (Rotimi, 2015). Britain alone has lost over £150 million a year to Nigeria due to cybercrime.

Tourism Industries declining in the face of cyber crime

Nigeria is said to have an estimated loss of about 127 billion naira to cybercrime in 2015. Nigeria ranks third in global internet crimes behind the UK and US. A critical factor militating against Africa's economic resurgence is the weakness of its institutions. Nigeria ranks 169 out of 199 on the World Bank's ease of doing business rankings (Umar, 2017). Shiloh and Fassassi (2016) reports that cybercrime costs the world economy the sum of US \$ 500 billion, more than the GDP of South Africa (350.6 billion dollars) and slightly less than that of Nigeria (521.8 billion dollars), the continent's largest economy for Nigeria alone, cybercrime cost the Nigerian economy the sum of \$ 500 million per annum which is huge price to pay to the scourge. The federal government has said the estimated annual cost of cybercrime to Nigeria is 0.08 per cent of the country's Gross Domestic Products (GDP), which represents about N127 billion (Iroegbu, 2016).

At the end of the first quarter of 2016 (January – March 2016), Nigeria ranks as the 16th highest ranked country engaged in cybercrime, moving up two places from 18th position in the preceding quarter (Rogers, 2016). More disturbing is the report of Morgan in Cyber Security Business Report (2018) that cybercrime damage costs will hit \$6 trillion. According to US and European police forces, vacation related fraud is growing rapidly with those committing the crimes using fake websites, false advertising, bogus phone calls and email scams. With the most likely to targets are those booking airline tickets, seeking package holidays – especially those related to sports or religion – or self-catering villas and apartments. There are also a growing number of frauds connected with online applications for foreign visas (Caribbean Council, 2018).

This will gradually happen in Nigeria, because tourism as an industry, perhaps more than any other, has fully and steadily embraced e-commerce. Information technology is thriving in Nigeria; information technology has also enabled the industry to grow rapidly, using booking engines and other platforms able to perform complex in-house tasks in ways that make hotel management more efficient and profitable. So adaptive has Information Technology become in the country and the world at large especially in travel and hospitality that statistics for example from respected industry bodies suggest that in Britain, 76 per cent of all travelers now source and book their vacations and travel online, in the US, 88 per cent do so when it comes to hotels, and around 90% now use the internet to book flights. Unfortunately, however, industry experts suggest that the sector has become a major target for cyber criminals. Incidentally, cyberspace is a place of innovation and opportunity, and full of good people. But sadly, it is also a place of risk and danger, where bad actors take advantage of security weaknesses to cause harm (Akindeinde, 2014).

Internet Crime Report (2014) confirmed the classification of cybercrime cases according to the countries of origin of complainants, and have mentions three African countries among the 50 most affected: they are South Africa in the 11th place (434 complaints), Nigeria (24th place,

with 215 complaints) and Egypt (45th, 95 complaints). When the cases are classed according to the damages caused, South-African complainants are, there again, in first position with 6.5 million dollars lost; followed by Nigeria (2.9 million dollars) and Egypt (523.000 dollars), (Shiloh & Fassassi, 2016).

West African cybercriminal activity is driven by two types of threat actors: Yahoo Boys and Next-Level Cybercriminals. Yahoo Boys, named for their reliance on Yahoo apps to communicate, became the primary type of cybercriminal in this region in the early 2000 (Raimund, 2017). They focus on less technically advanced schemes, including advanced-fee, stranded traveler and romance scams under the supervision of a ringleader. Next-Level Cybercriminals are able to execute more sophisticated attacks, such as Business Email Compromise (BEC) and tax scams (Raimund, 2017). An increase in the number of targeted threats focused on enterprises: Given the potential for monetary gain from compromised corporate intellectual property (IP), cybercriminals have turned their attention toward enterprises. Attackers are leveraging the abundance of personal information openly available on social networking sites to synthesize socially engineered attacks on key individuals within targeted companies (Nigerian Communication Commission, 2016).

Table 1: Number of tourist arrivals and income generated in Nigeria from 1995-2015

Year	Number of Tourist	Value
1995	656,000	\$938,000,000
1996	822,000	\$1,318,000,000
1997	611,000	\$1,840,000,000
1998	739,000	\$1,589,000,000
1999	776,000	\$640,000,000
2000	813,000	\$610,000,000
2001	850,000	\$858,000,000
2002	887,000	\$910,000,000
2003	924,000	\$2,076,000,000
2004	962,000	\$501,000,000
2005	1,010,000	\$3,536,000,000
2006	1,111,000	\$6,664,000,000
2007	1,212,000	\$11,009,000,000
2008	1,313,000	\$6,236,000,000
2009	1,414,000	\$8,348,000,000
2010	1,555,000	\$9,533,000,000
2011	715,000	\$9,240,001,000
2012	486,000	\$9,150,000,000
2013	600,000	\$9,068,000,000
2015	1,255,00	\$9.200,000,000
2016	1.899,000	\$4,511,000,000

Source: World Tourism Organization, Yearbook of Tourism Statistics, Compendium of Tourism Statistics and data file.

From the table reviewed, there was a decline in the income generated in 2016 \$4,511,000,00 even with an increase in the number of tourist 1.899,000, when compared to for instance year

2007 when 1,212,000 tourist arrival generated the highest income of \$11,009,000,000. It is important to state that the decline in revenue even in the face of tourist arrival emphasizes. Shiloh and Fassassi (2016) reports that cybercrime alone costs the Nigeria economy alone the sum of \$ 500 million per annum. And for 2014 Nigeria ranked (24th place in the world, with 215 complaints). During this period Nigeria lost about (2.9 million dollars) per annum, an increase of 498.1 million dollars following a two years review upward. This tallies with the conclusions of a cybersecurity expert, the chief executive officer, cybersecurity business report, Steve Morgan who stated that Nigeria loses billions daily to cybercrime. He averred that cyber security spending will exceed \$1trillion from 2017 to 2020 and that damage costs will hit \$6 trillion annually by 2021 as well as that the global ransom ware damage costs will exceed \$5 billion this year alone (Leadership, 2017). The tourism industries and tourist will bear much of the loss of the mentioned above.

Conclusion

Cybercrime is on the increase and following the advancement in information technology it has increased the potency of cybercrime and makes it easier to commit and have a wider coverage. One of the many industries that will be seriously affected by the activities of cyber criminals is the tourism industry. The innovations in e-bookings for tourist have made tourist potential targets of cyber criminals. As cyber criminals are armed with data of tourist and also can carry out their activities thanks to globalization which has created an interconnectedness of industries, people and technology, the task of seeking potential targets especially tourist who want to take advantage of leisure provided by the tourism industries will become easy target.

The activities of cybercrime alone have adverse effect globally and on Nigeria in particular as the paper have identified. It will remain so if one of the major indicators that directs person's engagement in cybercrime that is unemployment is not checked. Most unemployed youth have found solace in cybercrime considering their inability to be gainfully employed. And also considering the lucrative nature of cybercrimes, the activity will continue. Sadly, tourist who patronize tourism industries have continued to fall victim to cyber criminals. This will in advent reduce the number of tourist who arrive Nigeria, and spell doom for tourism industries in the country.

References

- Adesina, O. S. (2017). Cybercrime and Poverty in Nigeria. *Canadian social science*,13 (4).
- Aghatise, J. (2006). Cybercrime definition: cybercrime. https://www.researchgate.net/publication/265350281_Cybercrime_definition.
- Akindeinde, O. (2014). Technology is major challenge for cybercrime investigators. Nigeria communication week.

- <https://www.interpol.int/Crime-areas/Cybercrime/Cybercrime>. Connecting police for safer world. Retrieved. 25/4/2018.
- Burton, J. (2018). Hacking your holiday: How cyber criminals are increasingly targeting the tourism market. <https://theconversation.com/hacking-your-holiday-how-cyber-criminals-are-increasingly-targeting-the-tourism-market-98967> 30/1/2019.
- Caribbean council (2008). <https://www.caribbean-council.org/tourism-must-wake-cyber-crime>. retrieved 27/4/2008.
- Cybercrime in Africa: Facts and figures <https://www.scidev.net/sub-saharan-africa/icts/feature/cybercrime-africa-facts-figures.html>
- Dike, C. (2017). Tackling the alarming rate of cybercrime in Nigeria. *Economic Confidential*. June 12.
- Gercke, M. (2012). The ITU publication Understanding cybercrime: Phenomena, challenges and legal response.
- Iroegbu, S. (2016). Nigeria loses over N127bn annually through cybercrime. *The Thisday*, April, 14/2016. Retrieved July 9, 2018.
- Jumia (2017). Hospitality and tourism industry. Pros hare WEBTV.
- Kamini D. (2011). Cyber Crime in the Society: Problems and Preventions *Journal of Alternative Perspectives in the Social Sciences* 13 (1), 240-259
- Maitanmi, O., Ogunlere S., Ayinde, S. & Adekunle, Y. (2013). Impact of Cyber Crimes on Nigerian Economy. *The International Journal of Engineering and Science (IJES)* 2 (4), Pages 45-51.
- Michael, A. D. (2018). Cybercrime encyclopedia Britannica.
- Morgan, S. (2018). Cybersecurity facts, figures and statistics for 2018. Cybersecurity business report.
- Neha, G. (2018). Economic development & policy in India. School of Open learning, University of Delhi. India.
- National Bureau of Statistics, (2019). Youth unemployment. <https://tradingeconomics.com/nigeria/unemployment-rate>.
- Nigerian Communication Commission (2016). Final Report on: Effects of Cyber Crime on Foreign Direct Investment and National Development. Department of New media and information security.
- Oluwatosin, A. (2018). 'Why cybercrimes persist in Nigeria' *The Guardian Newspaper*, 18 July 2018.
- Raimund, G. (2017). Cybercrime on the increase in West Africa. *The PM News*. Retrieved 17 July, 2018.

- Rogers, R. (2016). Cybercrime: Nigeria's ranking gets worse. *The News* June 3. Retrieved July 9, 2018.
- Rotimi, O. (2015). Cyber Crime; the Greatest Challenge of the Nigerian Youths! *The Nigerian Voice*, October, 14.
- Shiloh, J. & Fassassi, H. (2016). Cybercrime in Africa: Facts and figures. www.scidev.net/sub-saharan-africa/icts/feature/cybercrime-africa-facts-figures.html.
- Statista (2017). Global tourism industry-statistics and facts.
- Suleman, I. L. (2017). The view that '419' makes Nigeria a global cybercrime player is misplaced. PhD researcher, Information Security Group, Royal Holloway: The conversation.
- Tauner, P. & Olding, A. (2007). Cyber Vulnerabilities and the Tourism Industry: Developing a Conceptual Framework. 18th Australasian Conference on Information Systems Cyber Vulnerabilities in Tourism 5-7 Dec.
- Technology Time (2016). Cybercrime in Nigeria 'increasing at alarming rate. Tech News.
- The conversation (2017). The view that '419' makes Nigeria a global cybercrime player is misplaced. March 13, 2017. <http://theconversation.com/the-view-that-419-makes-nigeria-a-global-cybercrime-player-is-misplaced-73791>. 30/01/2019.
- Tourism Business toolkit (2014). What is the tourism industry? Tourism-Business-Toolkit. (1) 1. <https://www.techopedia.com/definition/2387/cybercrime>.
- Trading Economics (2018). Nigerian Youth employment rate 2014-2018. <https://tradingeconomics.com/nigeria/youth-unemployment-rate>. Retrieved 9/7/2018.
- Trading Economics (2019). Nigerian unemployment rate. <https://tradingeconomics.com/nigeria/unemployment-rate>.
- Umar, D. & Algereh, A. (2017). Nigeria Third global crimes behind UK-US. August 22.
- United State Embassy (2012). Nigeria fact sheet. Economic section United State Embassy. Retrieved September 8, 2019
- World Population Review (2018). Nigerian population. Worldpopulationreview.com <https://leadership.ng/2017/09/30/cybercrime-nigerias-losing-battle-unrelenting-enemies/>