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Prospects of ICT For Digital Growth and National Development in Nigeria

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Abstract

The study was aimed at identifying the prospects of information and communication technologies (ICTs) for digital growth and National development. The research adopted a descriptive research methodology where a field survey was conducted. The population of the study comprised of Information and communication technology professionals in Nigeria. Furthermore, 100 information and communication technology professionals were purposively sampled from the academia and the industry, thus making the sample size 100. The instrument for primary data collection was a ten-point questionnaire. The result from the study identified artificial intelligence, robotics, cloud computing, ubiquitous computing, Internet of Things, big data analytics and block chain technology as key ICTs technologies that are driving the digital economy, fostering digital growth and national development. The study further revealed the prospects of ICTs for digital growth and National Development in Nigeria to include; increase in revenue, elimination of the black economy, reduction in corruption; increase in trust, privacy and integrity. These prospects however are hindered by some challenges identified in the study to include; Poor infrastructure, Policy implementation issues, high cost of ICTs, irregular access to ICTs, bureaucratic bottle necks, skills gaps and cyber security issues. The study therefore

recommended in-depth analysis into finding solutions for the challenges facing digitalization in Nigeria as a way of ensuring Nigeria queues in fully into the fourth industrial revolution.

Key Words: Digital Growth, ICT, National Development, Digital Economies, Fourth Industrial Revolution, Nigeria

Introduction

The global economy is undergoing a digital transformation, and it's happening at breakneck speed. Digital economy is the economic activity that results from billions of everyday online connections among people, businesses, devices, data, and processes. The backbone of the digital economy is hyper-connectivity which means growing interconnectedness of people, organizations, and machines that results from the Internet, mobile technology and the internet of things (IoT). The digital economy is taking shape and undermining conventional notions about how businesses are structured; how firms interact; and how consumers obtain services, information, and goods (Deloitte, 2018). The digital economy is the worldwide network of economic activities, commercial transactions and professional interactions that are enabled by information and communications technologies (ICT). It can be succinctly summed up as the economy based on digital technologies. The digital economy reflects the move from the third industrial revolution to the fourth industrial revolution.

Digital growth and national development are orchestrated by digital transformation which is referred to as the Use of new digital technologies, such as social media, mobile, analytics or embedded devices, in order to enable major business improvements like enhancing customer experience, streamlining operations or creating new business models (Fitzgerald et al, 2013). As such, the Digital Transformation goes beyond merely digitizing resources and results in value and revenues being created from digital assets (McDonald and Rowsell-Jones, 2012). Digital Transformation is now commonly interpreted as such usage of Information and Communication Technology, when not trivial automation is performed, but fundamentally new capabilities are created in business, public government, and in people's and society life. As with any ICT-enabled change, it is not enough to bring the ICT to the organization (Benjamin & Levinson,1993); the Digital Transformation success depends on process and operations management changes (Dremel et al, 2017). To accomplish such management, people must be trained in a change process that takes into account the unique challenges presented by Information Technology (Benjamin &Levinson, 1993). A digital revolution is positively developing the digital and standardized working environments (Lei & Jing, 2010).

Thus, the society as a whole is facing a fast and radical change due to the maturation of digital technologies and their ubiquitous penetration of all markets (Ebert & Duarte, 2016). To add to the increased demand from customers, companies are facing ever tougher competition due to globalization (Westerman et al, 2011) and putting pressure to go digital before others do, seeking to survive and attain competitive advantages (Bharadwaj, 2000). Successful Digital Transformation requires an organization to develop a wide-range of capabilities, which will vary in importance depending on the business context and the specific organization's needs. Digital technology needs to become central to how the business operates, and organizations effectively need to re-think and possibly re-invent their business models in order to remain competitive (Carcary et al, 2016).

The digital economy has created waves of disruption. New companies and new ways of interacting have emerged. According to Deloitte (2018), many companies and industries that did not or could not capitalize on the technologies to change their operations have faced declining sales, falling market share and even complete collapse. Leading business experts agree that the digital economy is at its start. To compete in the years ahead, organizations whether they are for-profit businesses, service-oriented entities, such as healthcare systems, or non-profit and government institutions will need both leaders and employees who are able to innovate. They will need to leverage today's emerging technologies, such as IoT and prescriptive analytics, to better connect with existing and potential customers and to be more responsive while also being more efficient and effective.

Aim and Objectives of the Study

The aim of the study is to identify the prospects of information and communication technology for digital growth and National development in Nigeria. The specific objectives include:

1. to identify the information and communication technologies driving the digital economy
2. to identify the prospects of information and communications technology in promoting digital growth and national development in Nigeria.
3. to identify the obstacles to harnessing information and communication technology's potentials in a truly digital economy.

Research Questions

Providing answers to the following research questions would help in achieving the aim and objectives of the study. The research questions include:

1. What are they Information and communication technologies driving the digital economy?
2. What are the prospects of information and communication technologies in promoting digital growth and national development in Nigeria?
3. What are the obstacles that hinder harnessing of the potentials of information and Communication technology's potentials in a digital economy?

Review of Related Works

Research carried out on the impact of the internet on economic growth such as Koutroumpis (2009) and Czernich et al. (2009), found that a 10 per cent increase in internet penetration correlates with a 0.9–1.5 and a 0.3–0.9 percentage point (pp) in gross domestic product (GDP) growth respectively. With the exception of Garcia Zaballos and Lopez-Rivas (2012), who found that broadband correlates with a 3.2 per cent increase in GDP in 26 Latin American countries, much less work has been done with sets of developing countries (Minges 2015). However, there are some studies that look at the impact of the internet and other ICTs at a global level while classifying countries into different economic development levels. A study by Qiang et al. (2009) showed that a 10percentage point increase in broadband penetration correlates with GDP

growth of 1.38percentage points. The study shows that fixed telephony, mobile telephony, [dial-up] internet, and broadband all have different effects on economic growth in ascending order. Similarly, in a study of 107 countries (although not categorized by income level) Vu (2011) finds that personal computers, mobile phones and the internet all have positive effects on economic growth in ascending order. Katz and Callorda (2013) found that broadband penetration led to an average annual increase in income of 3.67 per cent respectively overall in Ecuador, but that the gains were higher for computer and internet users at 3.92 and 5.01 per cent respectively. The discrepancy between mobile, dial-up and broadband may be partially explained by the fact that broadband users spend 64 percent more time browsing the web and use it for more content-intensive and socially interactive purposes (Qiang et al. 2009).

According to Qiang et al. (2009) an increase in national broadband penetration rate of 10pp was found to lead to a 1.21percentage points and 1.38percentage points increase in GDP per capita growth in developed and developing countries respectively. However, the broadband and internet results were less statistically significant in developing countries because of lower uptake levels. Broadband is now approaching ubiquity in many developed countries and internet adoption has tripled in developing countries since 2005 (World Bank 2016). Faster broadband technologies have been developed while most new internet users in developing countries are getting their first and only tastes of the internet via mobile phones. In 2006, 3G mobile internet was still an emerging technology. Today, 4G mobile broadband is already commonplace in many markets and 5G is already in the pipeline and its speeds are expected to dwarf anything around today (CNET 2015).

Deloitte (2012) attempted to address the gap concerning the impact of switching ICT technologies by measuring the effects of switching from 2G mobile wireless to 3G. They found that a 10 per cent substitution of 2G for 3G correlated with an average increase of GDP per capita of 0.15 per cent in a group of 96 countries. Furthermore, adding 3G connections seemed to be more beneficial for countries with low 3G penetration. A doubling of mobile data use is associated with an increase in GDP per capita of 0.5pp. Furthermore, Ericsson (2013) also suggests that broadband speed matters. A doubling speed was correlated with a 0.3 per cent increase in GDP and increasing speed from 0.5 to 4 megabits per second (Mbps) was correlated with increases in income for households in Brazil, India, and China of US$46 per month.

Methodology

The study adopted a descriptive research methodology in which a field survey was conducted between September and November 2018.The population of the study included information and communication (ICT) experts in Nigeria. However, 100 ICT experts were purposively selected from the academia and the industry, hence bringing the sample size of the study to 100. The instrument for primary data collection was a ten-point questionnaire. The questionnaires were distributed to the sampled population; all were correctly filled out and returned hence giving a response and return rate of 100%. Secondary data were collected through review of related literature.

Results and Discussion

The findings from the research are presented and discussed in the section below.

Table 1: Information and communication Technologies driving the digital economy

S/NO	RESPONSE	FREQUENCY	PERCENTAGE (100%)
1	Artificial Intelligence	100	100
2	Robotics	70	70
3	Internet of Things	100	100
4	Virtual Reality	80	80
5	Cloud Computing	90	90
6	Big Data Analytics	95	95
7	Block Chain	75	75
8	Ubiquitous Computing	85	85

Source: Field Survey, 2018

Results from table 1 above showed that topmost among information and communication technologies identified by the sampled population as key drivers of digital growth and national development in a truly digital economy included Artificial Intelligence (100%), Internet of things (100%), big data analytics (95%), Cloud computing technologies (90%), ubiquitous computing (85%), and Virtual Reality (80%). Other technologies identified by the study as being very important components fuelling the digital economy included the Block chain technology (75%) and finally Robotics (70%).Within this context of profound technological and societal changes powered by these new technologies which is taking us towards global digitalization, industrial cyber security will become a leading sector as security of these emerging technology will go a long way to assure user acceptance and improved usability.

Table 2: Prospects of Information and communication Technologies (ICTs) for digital growth and National Development in Nigeria

S/NO	RESPONSE	FREQUENCY	PERCENTAGE (100%)
1	Collaborative consumption	90	90
2	Massive Increase in Revenue	100	100
3	Elimination of Black Economy	80	80
4	Increase in job Opportunities	85	85
5	Reduction of Corruption	100	100
6	Reduction of Insecurities	95	95
7	Introduction of Agile Governance	90	90
8	Promotion of Trust, Integrity and Transparency	100	100
9	Increased Food Security	75	75
10	Improved Healthy Living	70	70
11	Evolution of Smart Cities	95	95

Source: Field Survey, 2018

The results of the study as seen in table 2 above identified the prospects of ICTs for digital growth and national development in Nigeria. 100% of the sampled population submitted that ICTs have the potential of bringing massive increase in revenue for Nigeria in a truly digital economy. This is because when the transactions are digitized, monitoring sales and taxes becomes convenient. Since each transaction is recorded, bill for every purchase will be made and issued; merchants are bound to pay the correct sales tax to the government. This, in turn, increases the revenue of the government – thus resulting in growth of the overall financial status of the country. ICTs as seen from the research result in table 2 above also promises to promote trust, integrity and transparency (100%). This promotion of trust, integrity and transparency can be achieved with the full deployment of Block chain technology in government processes. Block chain technology which is digital "ledger" technology allows for keeping track of transactions in a distributed and trusted fashion. It replaces the need for third-party institutions to provide trust for financial, contract, and voting activities.

ICTs as seen from the responses in table 2 above also has the potential of reducing corruption to its barest minimum (100%). Other prospects ICTs tend to hold for Nigeria include evolution of smart cities (95%), and Reduction of insecurities (95%). ICTs also have the potentials of fostering collaborative economies (90%), which refers to a model in which people and organizations connect online to share goods and services. It is also known as sharing or peer-to-peer exchange. Some of the best-known examples of the sharing economy are Uber and Taxify (transportation) and Airbnb (housing), Cars45 and Jumia (Retail) etc. Introduction of Agile governance (90%) is a prospect ICTs holds for digital growth and national development in Nigeria. ICTs would help pave the way to e-governance**,** the quicker, safer, and more efficient alternative to traditional governance; e-governance will be the ultimate outcome of the digital economy. From birth certificate to death certificate, everything would be available online. Thus, it is convenient for people to access the information they need on the go. Delivery of all government services would be done electronically. The potential for democratization and transparency is incredible; it will surely be exciting to see what the future truly holds in the face of a truly digital nation with more government corporations applying agile governance principles to their systems.

Increased Job Opportunities is another potential ICTs would bring in hope of achieving digital growth and National Development in Nigeria. One of the biggest advantages of moving towards digital economy is that it gives an empowerment to the citizens. The digital economy has a lot of potentials to enhance job opportunities in new markets as well as increasing employment opportunities in some of the existing occupations in the government. This way, the unemployment rate in the country is bound to decrease. The emerging digital economy Nigeria is hoping to achieve has the potential to generate new scientific research and breakthroughs, fuelling job opportunities, economic growth, and improving how people live their lives.

ICTs would help eliminate the black economy (80%). This is achieved by monitoring transactions made digitally. Any payments made will be recorded; there will be no means for illegal transactions to occur. Restricting the cash-based transactions and using only digital payments, helps the government efficiently expel the black economy. Other benefits and Prospects ICTs hold for digital growth and National development in Nigeria include increased food security (75%) and improved healthy living (70%). ICTs impacts on biotechnological

research, as this have given rise to cutting age technologies used in enhancing food production. Farmers around the world are using data from seeds, satellites, and sensors to make better decisions about what to grow and how to adapt to changing climates. These are some of the potentials the digital economy holds for Nigeria and the world at large. Advances in medical sciences and diagnostics are offshoots of technological advancements in ICTs. We are looking at a situation where mobile data is going to be being used to identify malaria infection patterns and identify hotspots that guide government eradication efforts.

Table 3: Obstacles hindering harnessing of the potentials of ICT in a digital economy

S/NO	**RESPONSE**	**FREQUENCY**	**PERCENTAGE (100%)**
1	Poor Infrastructure	100	100
2	Policy Implementation Issues	75	75
3	High Cost of ICTs	90	90
4	Costly and Irregular Internet Access	100	100
5	Bureaucratic Bottlenecks	80	80
6	Skills Gap	95	95
7	Cyber Security Issues.	100	100

Source: Field Survey, 2018

Result from table 3 above highlights obstacles that hinder harnessing the full potentials of ICTs in a digital economic context. These obstacles include poor support infrastructure (100%), topmost on the list of infrastructures that is lacking in Nigeria Lack of power supply. Electricity provides business owners with access to online information and resources, while power provides business owners with information that is critical to operating their business successfully, whether that information is about local national or international markets, new economic policies or tax regulations. This allows small business owners in rural areas to engage with the wider business community and learn best practices from other individuals working in the same industry. It is clear that by investing in energy infrastructure, governments can help both small and large firms simultaneously, while also helping to alleviate poverty and in turn grow the economy. The study as seen in table 3 above identified costly and irregular access to the internet (100%) as a challenge to full harnessing of the potentials of ICTs. Internet access is the soul of digitization, without the internet attaining a truly digital economy will be a mirage. Internet access in Nigeria is not only very expensive, the quality of service delivered is also very epileptic. This trend is very worrisome as it frustrates and genuine potentials presented by ICTs in its attempt to attain digital growth and national development in the wake of the fourth industrial revolution.

Cyber security issues (100%) was identified as an obstacle in the way of harnessing ICTs prospects in a truly digital economy. As technology and the internet continue to evolve, the world is rapidly becoming a global village, with almost everything running on the cyber space affecting most aspects of human lives, enabling growth, dismantling barriers to commerce and allowing people across the globe to communicate, collaborate and exchange ideas. But hackers are becoming more sophisticated by the day. These place the burden of securing IT infrastructure and users on us IT professionals hence the need to be vigilant and prompt in

responding to incidents of cyber-attacks as well as proactive in ensuring that cyber-attacks are mitigated against in all its entirety. Nigerian law enforcement agencies as it were lack the cutting-edge expertise to match that of hackers and cybercriminals who are sophisticate, dynamic and are constantly advancing their skills hence always staying ahead of security personnel. This is a big challenge and the clog in the wheels of ICTs development and full implementation.

Skills Gaps (95%) was identified as a huge challenge inhibiting the harnessing of the prospects of ICTs for digital growth and National development. There exists a rapidly widening skills gap between the academia and industry practitioners in the ICT sector in Nigeria. Graduates of computer science, computer engineering and information technology are found inadequate to fit into ICT industry roles. These challenge results to the importation of manpower and ICT infrastructure. The current computing curriculum in Nigeria is grossly inadequate. Computing profession is one characterized with rapid evolution. Programming languages evolve with lightning speed and change more rapidly with passage of time. Nothing prepares the graduate from Nigeria tertiary institution for what they are to be faced in the industry after graduation. Common practice as well is that companies now have to retrain employees to industry roles after employment, hence incurring higher overhead and running cost. This wide disparity between the quality of computing graduate produced versus challenging industry roles can be traced to the quality of the academia teaching in the nations tertiary institution. As dynamic as the computing profession is, academia and faculty members ought to be as fluid as possible to equip themselves with the required expertise needed to face the rapidly changing computing world if we ever want to close the gap between the quality of graduates and expatriates required by industry.

Other issues identified by the study included High cost of ICTs (90%), bureaucratic bottlenecks (80%) and policy implementation issues. Many nations have found out, having an ICT policy is no guarantee that ICT will actually be an effective enabler. The policy should be able handle issues such as how well integrated and prioritized the ICT policy is within national development programs, how the policy will facilitate the development of a local ICT industry that will reduce import dependence and enhance export opportunities, and how the ICT policy encourage the ICTs industry to promote employment generation and wealth creation through the production, manufacturing, development, delivery, and distribution of ICT products and services. ICT policies in Nigeria need to address high cost of ICT infrastructure, and also address expensive and poor-quality internet access provided by internet service providers in the nation. Policies should address how public-private partnership (PPP) initiatives can be effective. It is particularly important for PPP initiatives to provide, support and use the information infrastructure, to encourage the deployment and use of ICTs within the economy and society. The right environment for the private sector should promote fair competition, opening up new markets, global opportunities and the delivery of high-quality products and services ICTs cannot develop in Nigeria if subscribers cannot afford infrastructure, devices and internet access. The more people who have access to ICTs the more the likelihood of Nigeria joining leagues of developed nations in harnessing the massive and unique benefits of ICTs.

Conclusion/Future Work

The digital economy permeates all aspects of our society, including the way people interact, the economic landscape, the skills needed to get a good job, and even political decision-making. These changes are gradually happening all around us. With the full implementation of a digital nation and economy, the ways in which people connect with others, with information, and with the world is being transformed through a combination of technologies. These technologies will help us solve increasingly sophisticated problems. ICTs holds a lot of prospects for digital growth and National Development in the wake of the Fourth Industrial Revolution, these prospects have a massive impact on the economy as well. Already we're seeing the rise of the sharing economy, blockchain technology, and changes in manufacturing driven by 3D- and 4D-printing. It's hard to predict the speed of these changes, but we know that our evolving digital economy will necessitate enhanced focus on trust, privacy, and transparency. As people continue to share, collaborate, and interact online, these issues will continue to intensify. The world will function quite differently 15 years from now and likely even sooner. Everyone will feel the impact of these individual, organizational, governmental, and societal adjustments.; more food security and less hunger due to improved agricultural production; and a dramatic decrease in disease in the developing world, enabled by new technologies, massive increase in revenue, reduction of corruption to its barest minimum, reduction in insecurity as well as overall well-being of the citizenry. These and many more are potentials we hope to harness in a truly digital economy fuelled by information and communication technology. In the near future it will be exciting to see everyone have regular effective and affordable access to the internet, as this is key to harnessing these numerous potentials ICTs hold for digital growth and National development in Nigeria.

The study identified the key information and communication technologies that play significant roles in digital economic growth and development and as well identifies the potentials of ICTs in Digital growth and national development in Nigeria. The research further identified obstacles hindering the harnessing of the potentials of ICTs in a digital economy. Suggestion for further research include a deep dive into finding modalities for overcoming these identified obstacles and challenges hindering the harnessing of the potentials and prospects of ICTs for digital growth and national Development in Nigeria.

References

Benjamin, R., Levinson, E. (1993). A framework for managing IT-enabled change. *Sloan Manag. Rev.* 34(4), 23–33.

Bharadwaj, A. (2000). A resource-based perspective on information technology capability and firm performance: An empirical investigation. *MIS Q. 24(1)*, 169–196.

Carcary, M., Doherty, E., Conway, G. (2016). A dynamic capability approach to digital transformation–a focus on key foundational themes. 10th European Conference on Information Systems Management. Academic Conferences and publishing limited, pp. 20–28.

CNET (Computer Network) (2015). Your Smartphone Will Be Faster in 2016, Just Not Insane 5G Fast. CNET, www.cnet.com/news/your-smartphone-will-be-faster-in-2016-just-not-insane-5g-fast/.

Czernich, N., Falck, O., Kretschmer, T. & Woessmann, L. (2009). Broadband infrastructure and economic growth. *CESIFO Working Paper 2861*. University of Munic: Centre for Economic Studies Information and Forschung (CESIFO).

Deloitte (2012). What is the impact of mobile telephony on economic growth? Available from www.gsma.com/publicpolicy/wp-content/uploads/2012/11/gsma-deloitte-impact-mobile-telephony-economic-growth.pdf.

Deloitte (2018). What is digital Economy? Available from https://www2.deloitte.com/mt/en/pages/technology/articles/mt-what-is-digital-economy.html'.

Dremel, C., Wulf, J., Herterich, M., Waizmann, J., Brenner, W. (2017). How AUDI AG established big data analytics in its digital transformation. *MIS Q. Executive 16(2)*, 81–100.

Ebert, C., Duarte, C. (2016). Requirements engineering for the digital transformation: Industry panel. Requirements Engineering Conference IEEE 24th International, pp. 4–5.

Ericsson (2013). Socioeconomic effects of broadband speed. Available at www.ericsson.com/res/thecompany/docs/corporate-responsibility/2013/ericsson-broadband-final-071013.pdf.

Fitzgerald, M., Kruschwitz, N., Bonnet, D., Welch, M. (2013). Embracing digital technology: A new strategic imperative. *MIT Sloan Management Review*, Research Report.

Garcia, Z., A. & Lopez-Rivas, R. (2012). Socioeconomic impact of broadband in Latin American and Caribbean Countries. *Inter-American Development Bank Technical Note 471*, https://publications.iadb.org/handle/11319/5754?locale-attribute=en.

Katz, R. & Callorda, F. (2013). Economic impact of broadband deployment in Ecuador. *Dialogo Regional Sobre Sociedad de la Informacion*. Available at https://idl-bnc.idrc.ca/dspace/bitstream/10625/53797/1/IDL-53797.pdf.

Koutroumpis, P. (2009). The economic impact of broadband on growth: A simultaneous Approach. *Telecommunications Policy* 33.9: 471–85.

Lei, Z., Jing, Y. (2016). Study on human resource reform in the digital transformation. *Proceedings of the 2016 Joint International Information Technology, Mechanical and Electronic Engineering.* AER – Advances in Engineering Research, vol. 59, pp. 471–477.

McDonald, M., Rowsell-Jones, A. (2012). The digital edge: Exploiting information & technology for business advantage. Gartner Inc.

Minges, M. (2015). Exploring the relationship between broadband and economic growth. Background paper for the World Development Report 2016, Washington DC: World Bank. Available from wwww.ds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2016/02/01/090224b084121f4b/1_0/Rendered/PDF/World0developm00and0economic0growth.pdf.

Qiang, C.; Rossotto, C. & Kimura, K. (2009). Economic impacts of broadband. In: *Information and communications for development 2009: Ex-tending reach and increasing impact*. Washington DC: World Bank.

Westerman, G., Calméjane, C., Bonnet, D., Ferraris, P., McAfee, A. (2011). Digital transformation: A roadmap for billion-dollar organizations. *MIT Sloan Management*, MIT Center for Digital Business and Capgemini Consulting pp. 1–68.

World Bank (2016). *World Development Report 2016: Digital dividends*. Washington DC: World Bank, www.worldbank.org/en/publication/wdr2016.

Table 1: Federal Budget Presentation and Approval Timelines (2000 – 2017).

Fiscal Year	Date NASS Received the Budget from President (A)	Date Revised Budget was sent to President for Assent (B)	Date President Assented to the budget (C)	Time lag between President's Presentation and Signature (D)	Fiscal Year	Date NASS Received the Budget from President (A)	Date Revised Budget was sent to President for Assent (B)	Date President Assented to the budget (C)	Time lag between President's Presentation and Signature (D)
2000	24/11/1999	14/04/2000	05/05/2000	5mths 11 days	2009	02/12 2008	03/02 2009	10/03/ 2009	3 months,8 days
2001	09/11/2000	21/12/2000	21/12/2000	1 mth,12 days	2010	23/11/2009	25/03/2010	22/04/2010	4 months,29 days
2002	07/11/2001	28/03/2002	28/03/2002	4mths, 21 days	2011	15/12/2010	25/05/2011	26/05/2011	5months, 11 days
2003	20/11/2002	11/03/2003	10/04/2003	4mths, 21 days	2012	13/12/2011	27/03/2012	13/04/2012	6 months
2004	18/12/2003	20/04/2004	21/04/2004	4mths, 3 days	2013	10/10/2012	21/12/2012	26/02/2013	4 months, 16 days
2005	12/10/2004	18/03/2005	12/04/2005	6 months	2014	19/12/2013	-	23/05/2014	5 Months, 4days
2006	6/12/2005	21/02/2006	22/04/2006	2 mths,16 days	2015	17/12/ 2014	-	19/05/2015	5 Months, 2days
2007	6/10/2006	22/12/2006	22/12/2006	2mths, 12 days	2016	22/12/2015	07/04/2016	6/05/2016	4 Months, 15 days
2008	8/11/2007	27/03/2008	14/04/2008	5mths, 7 days	2017	4/12/2016	19/05/2017	12/06/2017	5months,28days

Source: Adapted from Ogujiuba, & Ehigiamusoe, (2014), and modified by Authors (2019)