

Publication details, including instructions for authors and subscription information:
<http://www.esxpublishers.com>

Digital Terrestrial Television: A Critical Assessment of the Adventures and Misadventures of Nigeria's Digital Switch Over.

Dyikuk, J. J.¹ and Chinda, F. E.²

¹University of Jos, Nigeria.

²Caritas Catholic Newspaper, Bauchi State, Nigeria.

Available online: December 30, 2017.

To cite this article:

Dyikuk, J. J. and Chinda, F. E. (2017). Digital Terrestrial Television: A Critical Assessment of the Adventures and Misadventures of Nigeria's Digital Switch Over. *International Journal of Applied Research and Technology*. 6(12): 40 – 49.

PLEASE SCROLL DOWN FOR ARTICLE

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan, sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instruction, formulae and analysis should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

Digital Terrestrial Television: A Critical Assessment of the Adventures and Misadventures of Nigeria’s Digital Switch Over.

Dyikuk, J. J.¹ and Chinda, F. E.²

¹University of Jos, Nigeria.

²Caritas Catholic Newspaper, Bauchi State, Nigeria.

(Received: 05 December 2017 / Accepted: 14 December 2017 / Published: 30 December 2017).

Abstract

The global movement from an erstwhile Global Analog Switch Off to a Digital Switch Over which debuted Digital Terrestrial Television viewership unveils how the world has evolved a fascinating digital culture. Leaning on what this new and exciting opportunity offers, this study, “Digital Terrestrial Television: A Critical Assessment of the Adventures and Misadventures of Nigeria’s Digital Switch Over” used the *modernisation theory* as theoretical framework to ascertain the level of compliance with the deadline of digital switch over in the country. Compared to other countries which met the requirements of the switch over time limit, the paper discovered that lack of political-will, technical hitches and infrastructural deficits are responsible for the drawback. The researchers suggested cultivating a robust political-will, provision of digitally equipped infrastructure and involving private sector partners as appropriate steps in fulfilling the benchmark. The paper concluded that failure to replicate the Jos, Plateau State and Abuja pilot-initiatives throughout the country amounts to mere lip-service and a calculated misadventure.

Keywords: Digital, Nigeria, Switchover, Television, Terrestrial

For corresponding author:

E-mail: info@esxpublishers.com

Subject: 1217-0210.

© 2017 **Esxon Publishers**. All rights reserved.

Introduction

Sights and sounds are essential components which excite the human mind. This underscores the importance of viewing and listening. When this viewing and listening concerns television, it becomes even more fascinating – The human mind is fashioned in such a way that people retain more of what they see than what they hear. This is why the combination of viewing and listening makes television a darling media organ compared to radio which consists of only the hearing component and newspaper which affords readers only viewership or readership as the case may be. For instance, a study has it that today's average college graduates have spent less than 5,000 hours of their lives reading, but over 10,000 hours playing video games not to mention 20,000 hours watching TV (Prensky, 2001). This brings us to the advantage of watching television. It becomes even more crucial if it concerns Digital Terrestrial Television (DTT) which imposes extra-viewership to people in the comfort of their rooms. It is noteworthy that watching a 3 or 4 G television comes with the luxury of magnifying glasses which not only makes the images real but lives the audience with fun and lasting memories. The lovers of sports, movies, documentaries and other genres of television are cashing in on the advantages digital television offers to not only have a good time in terms of recreation but also learn new cultures and civilization. More than ever, the International Telecoms Union (ITU), the global telecommunications regulator has been championing the global campaign for Digital Switch Over (DSO), especially in African countries, where majority of the countries are yet to align with the global campaign (Okonji, 2017). This is to ensure that Arab, African and Asian countries are not left behind in the rich opportunities this new platform offers. We shall discover whether or not Nigerians are enjoying the full digital delights the DSO offers through the Digital TV.

Since June 17, 2012, Nigeria has failed to meet the target set by the International Telecoms Union (ITU) for the digital switch over - Neither did it succeed in June 17, 2015 and June 17, 2017 to complete the requirements for the DSO process (Okonji, 2017). The inability of the West African country to catch up with other developing nations in terms of giving its populace access to free digital television is crucial to this study. While those in first world countries are spoilt for choices regarding television content, in Africa, the issues are different. One of the challenges people in this part of the world contend with is power-deficit. Without power, television is dead. In Rural-Africa, the excitement of children when light is restored after it is interrupted for days or weeks is akin to the joy of seeing Santa Claus at your door on Christmas morning with a box of gifts. Perhaps an erstwhile gathering of African kids at the family compound or village square for tales by the moonlight tells the story of light (energy) deficit in Sub-Sahara Africa more (Dyikuk, 2016). Due to lack of electricity in the rural areas, only urban dwellers watch TV (Asemah, 2011). Drawing from the *Africa Progress Panel* report 2015 titled "People, Power, Planet," two in every three people in Africa, around 621 million in total are said to live in darkness – this means that they have no access to electricity. According to the report, the poor spend the most on energy with Africa's poorest households spending \$10/kWh on lighting, or around 20 times the amount spent by high-income households with a connection to the grid. The report surmised that on current trends, it will take Africa until 2080 to achieve universal access to light (electricity).

In Nigeria for instance, the government spent about 9 trillion naira since 1999 (Adeyemi, 2017) on electricity without anything to show for it. Although the country has the capacity to generate 12,000 MW, it currently generates only 6,803 MWs (Fashola cited in Olawoyin, 2017). This grim scenario of the absence of power reveals the misery of potential television users in the country. It also makes it difficult for them to catch up with the new opportunities that digital television offers. How about the economic downturn in terms of partners in the digitalization process who rely on power for the production of Set-top boxes? While others are contending with what to watch based on *the uses and gratification theory*, the issues are different in Nigeria where either owning or watching cable television is a luxury enjoyed by the rich or middle class. Even when poor citizens struggle to acquire a television set, there is still the challenge of inability to afford subscription fees for South Africa's Cable Television such as Digital Satellite TV (DSTV). The inability of the government to implement the minimum wage of 18 thousand naira is equally critical to this study because even if one earns the minimum wage as salary, paying half of that money to a foreign company for the sake of watching television is unwise. Many Nigerians have also criticised DSTV for its inability to enforce prepaid payments for its teaming subscribers – those who manage to subscribe the family view of 3700 naira a month and don't get to watch it because they travelled out for three weeks, lose the legibility of their subscription.

Furthermore, despite having a population three times more than South Africa, Nigeria's television advertising revenue in 2016, at 309 million dollars, was 76 percent behind that of South Africa, at 1.301 billion dollars. The gap between South Africa and Nigeria is projected to marginally decline to 72 percent by 2020. This is due to lack of an audience measurement system or mechanism which is key to fostering growth of the broadcasting industry and making DSO sustainable in Nigeria (Mohammed cited in, News Agency of Nigeria, 2017). Germane to this paper is the alternative that the Nigerian government seems to provide. Moved by DSO deadline, the government rolled out the DTT with pilot studies in Jos, Plateau State and Abuja, the Federal Capital Territory. The objectives are to access Nigeria's digital switchover moves; undertake a critical assessment of its adventures; ascertain whether such a move amounts to misadventure given its many hiccups; do comparative analysis of Nigeria and other countries which met the benchmark of the DSO and Challenge the government not to make this beautiful initiative as a mere lip-service. This paper employs the qualitative method of study by relying on existing data on the subject matter. In the light of a critical assessment, this study intends to garner data towards making an informed opinion about whether Nigeria's digital switchover amounts to an adventure or a misadventure.

Conceptual Spadework

Digital Switch Over, DSO

According to the Collins English Dictionary, Digital Switch Over (DSO) is the process of changing the method of transmitting television from analogue to digital format (Collins English Dictionary, 2017). In this paper, DSO shall be conceived as the global terminology which is used in the telecommunications phraseology to describe the absolute transition from analog to digital broadcasting (Okonji, 2017).

Digital Terrestrial Television, DTT

In this study, Digital Terrestrial Television (DTT) stands for the all-digital terrestrial broadcast services for sound and television (Aginam, 2017). It is the technological evolution and advancement of broadcast television through what is known as terrestrial, land-based or earthbound signals/circuits over analog television. DTT does not require a satellite link between the broadcaster and the end user (Rouse, 2017). The most common features of DTT are: Its circuits use coaxial cable at the subscriber end to connect the network to the TV receiver and fiber optic and/or microwave links between the studio and the broadcast station, or between the broadcast station and local community networks. Compared to analog TV, the new platform provides clearer picture and sound quality with less interference. Because it has more channels, it provides viewers with various choices of programs to choose from. It can be accessed on personal computers and split-screen formats providing viewers the luxury of surfing the web while watching TV (Rouse, 2017).

Theoretical Framework

The *modernisation theory* is a development theory which is linked to the great transformation which began with the industrial revolution in Europe in the early 1990s. The theory which seeks to explain why some countries are rich and others are poorer posits that underdevelopment has nothing to do with imperialism. It also asserts that there is no correlation between development or underdevelopment and the manipulative tendencies of superior economies noting that underdevelopment is a natural phenomenon (Asemah, 2011). Proponents of the *modernisation theory* argue that if third world countries must develop, they ought to mimic developed countries like the U.S and Japan by acquiring their goods and services such as industrialization, economic influence military hegemony, advanced technology, urbanization and parliamentary political processes (Nnoli cited in Asemah, 2011). It further makes the assumption that rapid development can only take place in the continent when these inhibitory characteristics are replaced by modern methods which include technological transfer and foreign investment. This theory blames the underdevelopment of Africa on certain inhibitory characteristics such as geothic interest, extended family system, kingship values and high rate of illiteracy, ignorance and diseases (Asemah, 2011). According to Asemah (2011), the modernisation concept which emerged after the Second World War is a product of three main events in the post-second world war era namely:

- The rise of the US as a superpower to contain the expansion of the international communist movement by financing the industrialization of Western Europe through the Marshall Plan, the industrialization of South Korea and Taiwan as well as the reconstruction of Japan;
- The global growth of communists' movements from Moscow and Beijing with other hot spot areas such as Soviet Union, People's Republic of China, Vietnam and Cuba;
- The process of de-colonization in Africa and Asia as the outcome of the disintegration of the erstwhile European colonies.

The post-independence era for these countries meant that there was need for a paradigm shift from the past aimed at promoting capitalist economic development and political stability and a New Social Order. To achieve this, the modernisation theory was suggested with its two distinctive yet interrelated disciplines namely, the classical evolutionary theory and the functionalist theory. The basic assumptions of the theory are:

- Modernisation is a homogenizing process: Societies tend towards convergence which could justify cultural imperialism by the central powers of which globalization is part of;
- Modernisation replaces European/North American Values or World View: Underdeveloped countries should emulate the models of Western Europe and the US;
- Modernisation is an Irreversible Process: Once less developed countries come in contact with developed economies, they would be able to resist adopting capitalist tendencies;
- Modernisation is a Transformative Process: Societies must drop their traditional ways of thinking or human relations so as to adopt those of western societies like Western Europe and North America (Asemah, 2011).

An Overview of Nigeria

Territorially and politically, the Federal Republic of Nigeria consists of 36 states with Abuja, the Federal Capital Territory and seat of political power. It is a multi-ethnic and culturally diverse society which has over 270 distinct tribes and more than 374 languages (Logbaby, 2017). It has the largest natural gas reserves and is the largest exporter of oil in the African continent. Nigeria has approximately 184 million people. The country accounts for 47% of the population of West Africa and acclaimed to have one of the largest youth populations in the world (World Bank, 2017). Economically, the West

African State is richly endowed with both human and natural resources. Its beautiful climate is a delight for tourists. The country's dwindling economy has resulted in renewed efforts at diversification towards expansion of the private sector to boost job creation. Based on expected oil-output increase, accelerated implementation of public and social investment projects by the government, it is projected that Nigeria's economy would grow by about 1% in 2017 and 2.5% in 2018 (World Bank, 2017).

Brief History of Television Broadcasting in Nigeria

What we have today as Nigerian Television Authority (NTA) is the first TV station in Nigeria (Yahaya, 2017). It started as Western Nigeria Television (WNTV) which began broadcasting on 31 October 1959 (Ibenegbu, 2017) under the name Western Nigerian Government Broadcasting Corporation (WNTV) with Olapade Obisesan as its first Chairman. It had the aim of creating a platform for regional schools which had shortages in teacher personnel (Ibenegbu, 2017). Based in Ibadan, WNTV was the first television station in Tropical Africa. By 1962 Radio Kaduna Television (RKTU) and the Nigerian Broadcasting Corporation (NBC) came on board (Yahaya, 2017). More so, the Mid-west TV which metamorphosed into Benue-Plateau Television Corporation (BPTV) was debuted in 1972. Interestingly, in May 1977, all these TV stations were collapsed into one TV station with the name Nigerian Television (NTV) with the mandate of taking over all the existing television stations as well as establishing and operating new television stations in state capitals which had no stations (Yahaya, 2017 & Akinwalere, 2013). This later took the current name, Nigerian Television Authority (NTA) (Yahaya, 2017). It is important to note that these regional stations abandoned their initial goals and became commercial platforms (Ibenegbu, 2017).

Before 1992 all TV stations in the country were under the control of the Federal Government but Decree 38 which established the National Broadcasting Commission removed the monopoly of government over TV stations. This groundbreaking development made many TV and Media firms to acquire licenses to operate. Although the government operates about 70 federal channels, nonetheless, since 2007, there have been a dozen privately owned TV channels such as Channels Television, Africa Independent Television and Silverbird Television amongst others with a populace enjoying satellite subscriptions (Ibenegbu, 2017). As an electronic device which provides information, education and entertainment, television makes a massive audience have direct relationship with certain goals and values. This is why in Nigeria, television stations broadcast various programmes such as news, drama, music, documentaries to mention a few are aimed at bringing about development in the society. As the watch dog of society, the media through television serve as a symbol of national unity (Asemah, 2011). It would be recalled that during the commissioning of WNTV, Chief Obafemi Awolowo who as the Premier of the then Western Region said: "Television will serve as a teacher, an entertainer and a stimulus to us all, to transfer Nigeria into a modern and a prosperous nation" (Asemah, 2011).

Although television as a medium plays a critical role, it is yet to be seen if it has actually taken Nigeria to the Promised Land. Although Nigeria has managed to enter the modern digital era because of the deregulation of broadcasting in country through decree 38 of 1992, (Ibenegbu, 2017) many television viewers in the country prefer DSTV because of the variety and quality it offers. Besides, NTA is controlled by the government which many fear could be biased in the broadcast of news items and programmes which affects the government. It important to note that on the political front, TV stations emerged to serve regional interests and later became commercial; from the economic perspective, they sought to enrich their owners like the government which began to accept advertisements when the NBC act of incorporation was amended in November 1960 (Akinwalere, 2013). The DSO process and the advent of DTT was to set the country on the path of digital enchantment in terms of catching the sights and sounds of television.

Attempts at Digital Switch Over in Nigeria and Implications

The global process of the DSO started on 16 June 2006 after the completion of a treaty which was signed at the conclusion of ITU's Regional Radiocommunication Conference (RRC-06) in Geneva. This agreement brought about the development of "all-digital" terrestrial broadcast services for sound and television. To establish a more equitable, just and people-centered information society which connects the unconnected in underserved and remote communities, there was a move to close the digital divide. This move led to the digitalization of broadcasting in Europe, Africa, Middle East and the Republic of Iran by a benchmark deadline of 17 June 2015. This major milestone tagged the new digital GE06 Plan was aimed at providing new possibilities for structured development of digital terrestrial broadcasting and sufficient flexibilities for adaptation to the changing telecommunication environment (Zoubi, 2017).

Although, the National Broadcasting Commission (NBC) insists that so much has been achieved, Nigeria has failed to meet the deadline set by the International Telecoms Union (ITU) for the digital switchover since 2012. Because Nigeria failed to meet up with the global benchmark for the entire process of digital migration, in agreement with ITU, June 17, 2012 was chosen as the first deadline to complete the DSO which was not possible due to adequate preparation by the government. Again, June 17, 2015 was chosen to catch up with the migration but it ended woefully. A third date, precisely June 17, 2017 was set for the completion of the DSO process, but the country could not cover 95 percent digital access across the country, which is the benchmark for the DSO. The DSO process was initiated in two cities of Nigeria, Jos and Abuja, with plans to roll it out in the six geopolitical regions of the country (Okonji, 2017). Unfortunately, as things stand, this has not been achieved. In September 2016, the government released N10Billion to the NBC for the full implementation of the DSO (Kawu, 2017) yet, the deadline is far from being met. It appears that the instant excitement which DTT provides often suffer setbacks from the technical to the political perspective. Following the pilot programmes in Abuja and Plateau, NBC had planned a systematic roll out that will cover the six states in each of the geo-political zones – Kwara in the North-Central,

Osun in the South-West, Gombe in the North-East, Kaduna in the North-West, Enugu in the South-East and Delta in the South-South in the next phase of the analog to digital switch over until the whole country is covered (Adepetun, 2017 & Kawu cited by, Jannah 2017). Accordingly, the government explained that this was done in stages because the process is expensive (Kawu cited by, Jannah 2017). It is important to note that the June 20, 2017 deadline for the switchover from analog to DTT brought about the development of all-digital terrestrial broadcast services for sound and television for 119 countries which belongs to ITU Region-1 (Europe, Africa, the Middle East and Central Asia) and the Islamic Republic of Iran (Aginam, 2017). What then are the implications for failing to meet up with the DSO time limit?

- The grave implication of missing the switch over deadline is, apart from missing the Global System for Mobile Telecommunications Association (GSMA) estimated \$82 billion digital revenue for countries which successfully switched over, there is also the high possibility of broadcast interference from neighboring countries that have migrated (Adepetun, 2017).
- Nigeria's failure to meet the cut-off date will cause economic losses for the country and create a gap in the telecommunication and broadcast sector, as well as violate an international treaty on digitization (Mohammed cited by, Channels Television, 2016).
- There is also the problem of trans-border signal interference from analogue transmitters especially from countries in the ECOWAS sub-region besides the huge financial, technical and logistical challenge that the DSO process poses (Kawu, 2017).
- Nigeria may not be able to hold its head high among the comity of nations and other countries that have met the DSO requirement.
- Failure to cash in on the economic gains the full implementation of the DSO portends for a country that runs on an oil economy.
- The possibility of enjoying the full benefits of viewing the DTT free by the Nigerian populace on the 36 states and the FCT is removed.

Merits of the Digital Switch Over and the Digital Terrestrial Television

- ***Access to Internet and Information for all:*** According to the International Telecommunications Union (ITU) one of the digital dividends which will accrue to users in the telecom industry is increased access to internet (Adaramola, 2017). Through the DTT, irrespective of their class, creed or location, people are able to have access to information. Viewers would also enjoy the luxury of a host of value-added services such as news, information and video on demand (Aginam, 2017).
- ***Access to Free Digital Television Content:*** The new technology of digital broadcasting enhances access to free digital television content in a most revolutionary manner (Kawu, 2017). All that is required for an average home today to access the various types of entertainment this new opportunity offers is a television set, a Set-top box and a VCD/DVD player. With these, they will have access to Nollywood releases, with or without the internet and with a remote control that could convert the TV into a computer (Mohammed cited in, News Agency of Nigeria, 2017). Viewers would also access over 30 new free-to-air channels (Aginam, 2017).
- ***Diversification of the Economy:*** The process is able to create a new leading digital economy, TV and content ecosystem – there would be two hundred billion per annum boost from additional advertising, content and Nollywood income streams and the development of high tech STB manufacturing industry. Through it, government is expected to receive one hundred billion income from spectrum sales as well as a thriving digital economy generating at least fifty five thousand highly skilled jobs (Aginam, 2017). Also, as a game changer, the DSO could help the government to achieve one of its cardinal goals which is the diversification of the economy. It has the capacity for job creation and igniting the huge creative potentials of the youths. It is also a solution to some of the intractable problems affecting the Creative Industry which includes piracy and distribution (Mohammed cited by, Adekunle, 2017 & Nwafor, 2017). When completed, the process is expected to create three hundred and twenty billion per win-win-win for consumers (Aginam, 2017).
- ***Transforms the TV Experience of Viewers:*** The terrestrial television transforms the TV experience of viewers - The transition from analog to digital broadcasting in the country is aimed at giving Nigerians total television viewing experience, transforming the life of the people and changing TV viewing forever (Mohammed cited in, News Agency of Nigeria, 2017).
- ***Multiple Programmes and High Quality:*** Apart from increasing the number of programmes, digital systems have the capacity to provide new innovative services such as interactive TV, electronic programme guides and mobile TV as well as transmit image and sound in high-definition (HDTV) and ultra-high definition (UHDTV) (Aginam, 2017). These multiple channels have better quality of broadcast (Adaramola, 2017). The advantages digital TV broadcasting has over analog systems for end-users, operators and regulators is that aside from increasing the

number of programmes, digital systems have the capacity to provide new innovative services such as interactive TV, electronic programme guides and mobile TV (Aginam, 2017).

- **Requires less Energy:** Digital TV requires less energy to ensure the same coverage as for analog while decreasing overall costs of transmission (Aginam, 2017).

Factors Militating against the Digital Switchover/ Digital Terrestrial Television

- **Power Deficit:** With only 6,803 MWs (Fashola cited in Olawoyin, 2017) of electricity, it is difficult for manufacturers of Set-top boxes to deliver their products as at when due. Viewers of the terrestrial television would also not be able to benefit from the exciting package it presents.
- **Lack of Political Will:** One of the reasons why the digital switch over policy is slow is lack of political will by government. Where bribery and corruption takes precedence, it is difficult to deliver to the Nigerian people what the digital television promises.
- **High Cost of Equipment/Poor Infrastructure:** The migration from analog to digital broadcasting in the country is slow due to the cost of procuring the equipment needed. For example, the 650,000 boxes which were procured for the first phase costs \$26m; considering that there are about 35m television homes in Nigeria with each box costing about \$45 per box (Kawu cited by, Jannah 2017). Government had explained that the process is expensive that is why it undertook the project in phases giving a bouquet of 30 programmes which will continue to expand as more and more producers of television content come on stream (Kawu cited by, Jannah 2017).
- **Court Cases/Corruption:** Although Pinnacle Communications Limited has returned to the process of effecting the DTT, the initial alleged litigation the company had with the NBC which arose from the way that the contract with them was handled by the regulatory body affected meeting the DSO deadline. Now that Pinnacle Communications has reportedly dropped the litigation against the NBC, it is hoped that there would be respite. It would also be recalled that 850, 000 Set-top boxes, STBs were to be imported from China but EFCC seized the funds from the NBC. As a result, the commitment of the total sum of \$26million could not be met (Kawu, 2017).
- **Apprehension of Stakeholders about Payments:** Usually, stakeholders are apprehensive about their payments especially those who had huge banking commitments like Set-top box manufacturers, satellite companies, signal distributors, call center operators and the content aggregators. Even though government claims that it has met its financial commitment to these stakeholders, (Kawu, 2017) it is unlikely that the said payments have not been fully made – otherwise why is it that the DSO has not being fully implemented?
- **Challenges with Set-top boxes or decoders:** In a report earlier this year titled, “Users of Free To-Air Digital TV in FCT complain of challenges” by Nwafor (2017) some customers of the free-to-air digital television who spoke to the media in Abuja complained that they were not enjoying viewership because the television Set-top boxes or decoders were not working as expected.
- **Technical challenges/Limited channels:** There were also complains about problems with installing the antenna since the device does not come with an antenna; instability of the channels and lack of many channels as advertised as many people watch only four out of the expected 30 channels. There are fears that some international channels such as BBC, CNN, Super Sports are not on the bouquet (Nwafor, 2017).

Role of the Regulatory Body

It is curious to know why the National Broadcasting Commission (NBC) which was established in Lagos in 1962 (Akinwalere, 2013) as the government agency responsible for driving DSO in Nigeria is insisting that so much has been achieved in the entire process since 2016 (Okonji, 2017) when not much can be seen. This brings us to the role of the regulatory body in the digitalization process:

- The NBC is the body that provides the regulations as far as television content and packaging are concerned;
- It is within the mandate of the NBC to sanction companies who do not operate within the confines of the law;
- It falls within its prerogative to also advice government on what it takes to meet the DSO deadline;
- It has the crucial role of finding ways of engaging with these various stakeholders involved in the transition to make the DTT more tenable;
- It is within the powers of the NBC to license companies which would give value to the Nigerian populace in terms of quality TV viewership;
- The NBC has the responsibility of prudent management of funds so as to fully implement the desired digital television experience for Nigerians.

Private Sector Partnerships

There are various private sector partners or stakeholders in the DSO and DTT process. These include: DIGITEAM, signal distributors, set-top-box manufacturers, middle ware suppliers, content aggregators and significant players (Kawu, 2017). Others are, broadcasters, educational institutions, marketers and suppliers of broadcast equipment, the international community, among others on the success of the DSO (Jimada cited by, Adepetun, 2017). Government, legislators and the NBC must find ways of engaging these stakeholders which are involved in the transition to make it feasible. For instance, the installment of facilities by the Second National Signal Distributor, Pinnacle Communications Limited without receiving any financial assistance by from government is commendable. By mobilizing significant financial and other logistical resources towards a successful launch of DSO in the FCT (Kawu, 2017), the company has made a strong statement that government cannot do everything by itself. The gesture further reveals that much can be achieved through government/private sector partnership. This can be enhanced if the country is investor-friendly and the economy is diversified to woo foreign investors. The fresh funds secured by NBC through licensing of MTN Nigeria Ltd to use a part of the 700 MHz to provide digital pay TV broadcasting services is a welcome development (Aginam, 2017) in this regard.

Downsides of the Modernisation theoretical framework

By way of critiquing the *modernisation theory*, the assumption that underdevelopment is a natural phenomenon is farfetched. In the estimation of this paper, underdevelopment is a consequence of lack of ideological and practical leadership as well as bad choices. It is also not entirely true that the underdevelopment of Africa is based on certain inhibitory characteristics like geo-ethnic interest, extended family system, kingship values and high rate of illiteracy, ignorance and diseases (Asemah, 2011). If even thing, these African values can further be harnessed to bring about the desired technological development in Nigeria. Suffices to note that a blend of the positive sides of the *modernisation theory* like leaning on advanced technology, urbanization and parliamentary political (Nnoli cited in Asemah, 2011) processes from international best practices like the US and Western Europe remain necessary in bringing DTT to the homes of all Nigerians.

Conclusion and Recommendations

It is commendable that the DSO process is being designed and implemented by Nigerians. Perhaps that is why it has been pointed out that the Zambian broadcasting regulatory body and the Sierra Leonean government have begun discussions with some Nigerian companies engaged in the Nigerian DSO process to partner with them in kick-starting the process in their countries (Kawu, 2017). Nigeria has to make concerted efforts at catching up with other countries like Kenya and Mexico otherwise the “Giant of Africa” appellation would remain a hyperbole. The government’s mission of switching off analog completely up to 95 percent so as to give access to Free Digital Television content to all across the country is still a mirage given that the June 17th, 2017 benchmark deadline for the DSO (Kawu, 2017) has passed. The delivery of the DSO process as mandated by the Nigerian law and people (Kawu, 2017) requires strengthening the resolve to take the DSO further than where it is presently. This study has established that DTT would bring a great deal of digital dividends which includes more channels for viewers, the option of higher quality images, multimedia variety and more involving and inclusive television (Adaramola, 2017). It is expected that a successful DSO and DTT implementation would not just move Nigeria from analog to digital experience in a simple technical sense but ensure a total overhaul of the whole TV watching experience as well as revamp the economy (Mohammed, Nwafor, 2017). As such, it behooves the government and all stakeholders to do the needful. Since DTTV is impractical where there is no cable, DSTV has become popular especially in rural areas and small towns. It is essential to note that few people who reside in cities nonetheless prefer DSTV even when they have the option of subscribing to DTTV (Rouse, 2017). It is hoped that with the desired political will in place, the government through the NBC would give DSTV, Startimes run for their money and Nigerians, value for their viewing time. Based on the findings of this study, it is recommended that The DSO process would not be completed without the provision of digitally equipped infrastructure. The DTT infrastructure that needs to be in place include, set top boxes, signal transmission infrastructure, pay TV DAF cash, channels RFP, CAS/data centre and contact centre set up (Aginam, 2017). At the heart of digitalization is power. Therefore, the provision of steady power by the government would make the digitalisation process complete. Those responsible must make Power Holding Company of Nigeria (PHCN) work to deliver on its mandate to the Nigerian people. Full digital migration can be achieved in Nigeria if the government and all its relevant agencies develop the requisite political will to do all that is required for the DSO and DTT to take place. Engagements with main stakeholders like DIGITEAM, signal distributors, set-top-box manufacturers, middle ware suppliers, content aggregators and significant players in government such as the National Assembly of the Federal Republic of Nigeria remains a critical driver to Nigeria’s DSO (Kawu, 2017). Synergy is also an important step in revamping issues of power and digital television in Nigeria. The Outsource Company (TOC) which is the call center managers for the switch made over, must live up to its expectation of meeting the demands of viewers who either want to activate their boxes and make complaints or inquiries (Kawu, 2017). Other major players that must be engaged are the chain-content producers, chain programmers, point-to-point links such as between the studio and the transmitter station, manufacturers and end users (Adaramola, 2017). Also, the Ministry of Information and Culture, the NBC and the signal distributors must partner with government to deliver on this new digital platform (Modibbo cited by, Adekunle, 2017 & Nwafor, 2017). In line with the *modernisation theory* used in this study, if developing countries like Nigeria want to progress, they ought to emulate developed countries like the U.S and Japan by acquiring their goods and services such as industrialization, advanced technology, urbanization and parliamentary political processes (Nnoli cited in Asemah, 2011). Replacing inhibitory characteristics with modern methods like technological transfer and foreign investments (Asemah, 2011,p.325) is key to the expansion of digital television in Nigeria. The initial

importation of Set-top boxes from China (Kawu, 2017) was needless. Thankfully, the inauguration of the ultra-modern Digital Set-top box manufacturing plant owned by the Gopell Digital Technology located at Calabar Export Free Zone (News Agency of Nigeria, 2017) has further given a boost to the Nigerian content. This has shown that through government/private sector partnership, the STBs are produced at home. Even if this was not possible, it would have been possible through technological transfer which would provide the opportunity for the Chinese to come over to the country to teach Nigerians how to make these boxes. In any case, their production in Nigeria would further enhance both employment and technical competence. Pilot studies rise to their full potential when they are replicated in the population sample areas. Therefore, it is appropriate to replicate the Jos and Abuja pilot studies in the remaining 35 states of Nigeria. This can only be possible if the pilot study goes beyond the four LGAs in Plateau State and the Federal Capital Territory. Where the initial efforts at ensuring free digital television have shortfalls, its full replication in all the states of the country becomes a far cry. Putting in place a robust Audience Measurement System in line with global standards is important. This is because it would enable content producers to receive their just due for the value of the content they create while the advertising community is guaranteed return on their investment on media placements (Mohammed cited in, News Agency of Nigeria, 2017).

References

- Adaramola, Z. (2017). TV digitization: Everything you need to know. Jan 14. www.dailytrust.com.ng/news/business/tv-digitization-everything-you-need-to-know/180694.html. Accessed October 23, 2017.
- Adekunle, A. (2017). FG to roll out Digital Switch Over DSO in six states. June 28. www.vanguardngr.com/2017/06/fg-roll-digital-switch-dso-six-states/amp/#ampshare. Accessed October 23, 2017.
- Adepetun, A. (2017). Nigeria targets regional digital switchover plan. 29 May. Guardian Newspapers. www.guardian.ng/technology/nigeria-targets-regional-digital-switchover-plan/. Accessed October 23, 2017.
- Adeyemi, L. (2017). TVC News. A Multi-billion naira project abandoned for years. Broadcast on October 23.
- Africa Progress Panel Report, (2015). People, power, planet: Seizing Africa's energy and climate opportunities. www.africaprogresspanel.org. Accessed October 24, 2017.
- Aginam, E. (2017). Digital switchover. www.daargroup.com/daar-group/latest-news/vanguardngr-2017-digital-switch-over-fresh-breath-of-hope-as-nbc-unfolds-new-strategy-direction. Accessed October 19, 2017.
- Akinwalere, I. (2013). The history of the Nigerian television. www.newsnowmagazines.blogspot.com.ng/2013/03/the-history-of-nigerian-telelvision.html?m=1. Accessed October 25, 2017.
- Asemah, E. (2011). Selected media themes. Jos: Jos University Press.
- Channels Television, (2016). Nigeria Must Meet 2017 Digital Switchover Deadline – Mohammed. March 15. www.channelstv.com/2016/03/15/nigeria-must-meet-2017-digital-switchover-deadline-mohammed/?utm_source=dlvr.it&utm_medium=plus. Accessed October 18, 2017.
- Collins English Dictionary, (2017). Digital Switchover. HarperCollins Publishers. www.collinsdictionary.com/dictionary/english/digital-switchover. Accessed October 24, 2017.
- Ibenegbu, G. (2017). Brief history of broadcasting in Nigeria. www.naij.com/1109799-brief-history-broadcasting-nigeria.html. Accessed October 24, 2017.
- Jannah, C. (2017). Why implementation of digital switch-over policy is slow – DG NBC, Modibbo- Kawu. www.dailypost.ng/2017/06/06/implementation-digital-switch-policy-slow-dg-nbc-modibbo-kawu/. Accessed October 18, 2017.
- Kawu, I.M. (2017). Press conference on Nigeria's digital switch over. June 16. Sheraton Hotel, Lagos. www.nbc.gov.ng/posts/press-conference-on-nigerias-digital-switch-over-79D4C5FD-E6EE-B580-99E2-9320A127734A. Accessed October 21, 2017.
- Logbaby, (2017). Nigeria: Overview, history and summary information. www.logbaby.com/encyclopedia/nigeria-overview-history-and-summary-information_46.html#.WiZhadko_qA
- News Agency of Nigeria, (2017). Why Nigeria broadcasting sector is underdeveloped – Lai. August 22. www.today.ng/news/nigeria/6959/nigeria-broadcasting-sector-underdeveloped-lai. Accessed October 22, 2017.
- Nwafor, P. (2017). Users of Free To-Air Digital TV in FCT complain of challenges. 3 April. www.vanguardngr.com/2017/04/users-free-air-digital-tv-fct-complain-challenges/amp/. Monday, October 9. Accessed October 17, 2017.
- Okonji, E. (2017). Nigeria's Quest for Digital Switch Over. Thisday Newspaper. www.thisdaylive.com/index.php/2017/06/22/nigerias-quest-for-digital-switch-over/. Accessed October 23, 2017.
- Olawoyin, O. (2017). Nigeria's current electricity generating capacity is 6,803 MW – Fashola. www.premuimtimesng.com/news/more-news/240258-nigerias-current-electricity-generating-capacity-6803-mw-fashola.html. Accessed October 23, 2017.
- Prensky, M. (2001). Digital Natives, Digital Immigrants. From *On the Horizon* (NCB University Press, Vol. 9 No. 5, October 2001).
- World Bank, Group (2017). Nigeria overview. www.worldbank.org/en/country/nigeria/overview#1.
- Yahaya, A. (2017). The first TV station in Nigeria: NTA brief history. www.nigerianinfopedia.com/first-tv-station-in-nigeria-nta-brief-history/. Accessed October 25, 2017.

Tables

Table 1: Global Digital Terrestrial Television Broadcasting: Countries and their Status

Completed	On-going	Not Started	Unknown
Andorra, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Rep., Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Rep. of), Latvia, Lithuania, Luxembourg, Malawi, Malta, Mauritius, Monaco, Mongolia, Montenegro, Mozambique, Netherlands, New Zealand, Norway, Poland, Portugal, Rwanda (Republic of), Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Tanzania, United Arab Emirates, United Kingdom, United States, Vatican.	Albania, Algeria, Angola, Azerbaijan, Bahrain, Belarus, Benin, Bolivia (Plurinational State of), Bosnia and Herzegovina, Botswana, Brazil, Burkina Faso, Burundi, Cameroon, Cape Verde, Chad, Colombia, Congo, Côte d'Ivoire, Cuba, Dem. Rep. of the Congo, Equatorial Guinea, Ethiopia, Gabon, Gambia, Georgia, Ghana, Guinea, India, Indonesia, Iran (Islamic Republic of), Kenya, Lesotho, Madagascar, Mali, Mexico, Myanmar, Namibia, Niger, Nigeria, Oman, Papua New Guinea, Qatar, Romania, Russian Federation, Senegal, Seychelles, South Sudan, Sudan, Suriname, Swaziland, Thailand, Togo, Tunisia, Uganda, Ukraine, Uzbekistan, Zambia, Zimbabwe.	Armenia, Bangladesh, Belize, Central African Rep., Comoros (Union of the), Egypt, Eritrea, Guinea-Bissau, Jamaica, Kyrgyzstan, Lebanon, Liberia, Libya, Moldova, Morocco, Sao Tome and Principe, Sierra Leone, South Africa, Turkey.	Afghanistan, Antigua and Barbuda, Argentina, Bahamas, Barbados, Bhutan, Brunei Darussalam, Cambodia, Chile, China, Costa Rica, Dem. People's Rep. of Korea, Djibouti, Dominica, Dominican Rep., Ecuador, El Salvador, Fiji, Grenada, Guatemala, Guyana, Haiti, Honduras, Iraq, Jordan, Kazakhstan, Kiribati, Kuwait, Lao P.D.R., Liechtenstein, Malaysia, Maldives, Marshall Islands, Mauritania, Micronesia, Nauru, Nepal (Republic of), Netherlands Antilles, Nicaragua, Niue, Pakistan, Palau, Panama, Paraguay, Peru, Philippines, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, San Marino, Saudi Arabia, Singapore, Solomon Islands, Somalia, Sri Lanka, State of Palestine, Syria, Tajikistan, Timor-Leste, Tonga, Trinidad and Tobago, Turkmenistan, Tuvalu, Uruguay, Vanuatu, Venezuela, Viet Nam, Yemen. (Zoubi, 2017).

***In this table, Nigeria notably falls under “Ongoing” in the global index of Digital Terrestrial Television Broadcasting of countries and their status.**