ISSN: 2659-0778

Challenges of Migration from Analogue to Digital Broadcasting among Television Stations in Asaba, Delta State

Bieni Victor Emenike
Department of Mass Communication
Crown University Int'l, USA
victorbieni@gmail.com

Abstract

This study examined the preparedness and challenges faced by television stations in Asaba, Delta State, Nigeria, toward the migration from analogue to digital broadcasting. A descriptive survey design was adopted, with data collected through structured questionnaire administered to 160 staff members of selected television stations in Asaba. The findings revealed a moderate level of preparedness among the stations, with efforts made in staff training and communication about the migration process. However, gaps were observed, particularly in public awareness campaigns. The study further identified key challenges, including financial constraints, inadequate technical expertise, insufficient digital equipment, poor infrastructure, regulatory delays, staff resistance, and high maintenance costs for digital equipment. These challenges were found to have a high intensity, significantly hindering the progress of the digital migration process. The study contributes to the growing body of literature on digital transition in Nigeria by focusing on the unique context of Asaba, Delta State. The study recommends that stakeholders, including policymakers, media organizations, and regulatory bodies, need to invest in infrastructure, secure funding, enhance technical expertise, and improve public awareness to ensure a successful digital transition for television stations in Asaba and beyond.

Keywords: Analogue, Broadcasting, Digital migration, digital transition, television,

Introduction

Technology is the driving force of the modern world, shaping every sector of human life. This phenomenon is particularly evident in the mass media industry. One of the major changes technology is introducing into the mass media landscape is digital broadcasting. The International Telecommunication Union's (ITU) Regional Radio-communication Conference (RRC-06) in Geneva, Switzerland, held in June 2006, made a case for switching from analogue to digital broadcasting. Since then, issues concerning digital broadcasting have continued to attract the attention of mass media stakeholders. Scholars have established that the advent of digital broadcasting has revolutionized the production, distribution, and consumption of media content globally. It also represents a major technological shift, bringing improvements in signal quality, expanded media offerings, and the introduction of interactive services. As a result, the transition from analogue broadcasting to digital has remained a top agenda for many governments and media owners worldwide, including in Nigeria. However, this transition has also presented significant challenges, including infrastructure demands, regulatory adjustments, and the persistence of the digital divide across different socio-economic groups.

In line with global mandates from the International Telecommunication Union (ITU), the Nigerian government has committed to a full transition to digital broadcasting. The ITU highlights the benefits of digital broadcasting, including enhanced transmission quality and more efficient use of bandwidth. Through digital terrestrial television (DTT), broadcasters can transmit multiple channels simultaneously within the same frequency spectrum that previously accommodated a single analogue channel (Kanazawa, 2012). Moreover, digital broadcasting supports various revenue-generating opportunities, such as pay-per-view services, targeted advertising, and interactive content, thereby enhancing the sustainability of the media industry (Suzuki & Yamada, 2017).

Despite these advantages, the digital transition in Nigeria faces numerous challenges. Prominent among these are the high costs of acquiring digital transmission equipment, the need for widespread consumer awareness campaigns, and disparities in access to digital services between urban and rural communities (Mitomo, 2020). Furthermore, concerns persist regarding the affordability of set-top boxes required for digital reception, along with the need for a robust regulatory framework to facilitate a smooth and inclusive transition (Suleiman, 2018). Addressing these challenges is essential for realizing the full benefits of digital broadcasting, particularly among terrestrial television stations in Asaba, Delta State.

Statement of the Problem

The global shift from analogue to digital broadcasting has been marked by significant technological advancements, offering improved signal quality, expanded media services, and more efficient use of the frequency spectrum. Since the Geneva conference of 2006, Nigeria has made efforts to migrate to digital broadcasting. For example, in 2007, a year after the conference, the then Nigerian President, Umaru Yar'Adua (now late), approved the initiation of the digitization of the broadcast industry in Nigeria (Ocholi, 2009). This led to the inauguration of a high-power, multi-sectoral team of communication experts into the Presidential Advisory Committee (PAC) on the transition from analogue to digital broadcasting on 31st October 2008, with the task of creating a blueprint for achieving digital broadcasting in Nigeria (Olalere et al., 2013). Despite these efforts, Nigeria failed to meet the June 2012 deadline. In December 2012, under the administration of Goodluck Jonathan, the federal government inaugurated a 14-man team called "Digiteam Nigeria" to drive the process of digital migration (Olalere *et al*., 2013). However, this team also failed to meet its goal (Okonji, 2017). Similarly, the 17th June 2015 deadline was missed, and as a result, the ITU set a final deadline of June 2017 for Nigeria to switch off analogue broadcasting (Okonji, 2017). The administration of President Muhammadu Buhari has since commenced the digitization process in phases, but as of the time of this study, Nigerian broadcast stations have not fully migrated to digital broadcasting.

The migration process in Nigeria has been fraught with several challenges, particularly for terrestrial television stations operating in various parts of the country. Key among these challenges are the high costs of digital transmission equipment, limited technical expertise, and inadequate infrastructure to support effective digital migration. Additionally, consumer-related barriers, such as low awareness levels, the affordability of set-top boxes, and uneven access to digital services, further complicate the transition. Regulatory inconsistencies and the absence of sustained government support have also exacerbated the difficulties faced by broadcasters. While several researchers (e.g., Alalibo, 2017; Eze, Orekyeh & Ezeanwu, 2017; Obot & Inwang, 2017) have examined digital broadcasting in Nigeria, few studies have combined issues related to the challenges, progress, and readiness for adoption among television stations in Asaba, Delta State. This lack of localized studies limits a comprehensive understanding of the situation and the development of context-specific solutions. Therefore, this study seeks to examine the specific challenges confronting terrestrial television stations in Asaba, Delta State.

Objectives

This main objective of this study is to analyze the challenges undermining the digitization of terrestrial broadcast TV stations in Asaba, Delta State Nigeria. Specifically, it seeks to:

1. To assess the efforts made by Television stations in Asaba, Delta state toward Digital switch over.
2. To examine the challenges television stations in Asaba, Delta State in their effort toward digital switch over.

LITERATURE REVIEW

Review of Concepts

Analogue Broadcasting

The term Analogue broadcasting refers to the traditional method of transmitting audio and video signals over the airwaves using continuous electromagnetic waves. In analogue systems, information is conveyed through variations in amplitude, frequency, or phase of the waveforms (Acholonu, 2019). This form of broadcasting dominated the radio and television industries for much of the 20th century and was the primary means of mass communication before the advent of digital technology. RURA, (2008) explain that Analogue broadcasting uses analogue signals throughout its broadcasting chain. Each programme being broadcasted in analogue format is assigned a frequency channel making it the responsibility of the broadcaster to distribute signals to be transmitted to all transmission sites as well as operating/managing transmitters in all areas the programme has to cover hence a TV station broadcasting three programmes needs three separate frequency channels. Elaborately, African Union (2017) explain that Analogue television broadcasting system entails a system whereby the television pictures and sound are sent from broadcasting transmitters as analogue signals. The analogue signal is made of continually varying radio waves. A transmitter modulates both picture and sound into analogue signal then sends this signal over the air (terrestrial) via satellite, or through terrestrial network or a cable for a TV set to receive. The receiving antenna receives analogue signals and feeds it directly to TV set, which converts the signals into picture and sound for viewing.

The reception quality of analogue signals is highly dependent on factors such as transmission distance, geographical barriers, and atmospheric conditions, often resulting in signal degradation**,** static noise**,** ghost images, and interference. Despite these limitations, analogue broadcasting played a crucial role in shaping global media, making radio and television accessible to the public and driving cultural, political, and economic communication across societies. In Nigeria, as in many parts of the world, terrestrial television and radio stations initially operated exclusively through analogue means. This method allowed for widespread dissemination of content, local contents especially in the pre-digital era when technological infrastructure was less advanced. With the advancement in technology, the limitations of analogue systems became apparent, particularly and the desire for digital broadcasting became eminent.

Digital Broadcasting

Digital broadcasting refers to the transmission of audio, video, and data signals using digital technology, rather than the traditional analogue methods. Unlike analogue broadcasting, which relies on continuous waveforms to convey information, digital broadcasting encodes information into binary formats — a series of zeros and ones — allowing for clearer, more efficient, and more versatile transmission of content (Ju & Shin, 2020). Similarly, Digitisation is the process of transforming analogue data into digital data. Manuscripts, books, photos, maps, audio recordings, motion pictures, ephemera, and other things might be transformed. Oyedokun *et al* (2022) explain that in digital broadcasting, the signal can be distributed in four

different ways: by cable, satellite, digital terrestrial television, and mobile phones. Onyiaji and Okwumba (2019) explained that digital broadcasting has transformed the global media landscape, introducing higher-quality services, broader channel offerings, and interactive media features. According to Digital broadcasting is considered as critical evidence of technological advancements. Digital broadcast contents are regarded as having superior quality in addition to other advantages that come with digital broadcasting.

One of the primary distinctions of digital broadcasting is its superior signal quality. Digital signals are less susceptible to degradation, noise, and interference compared to analogue signals, leading to clearer images and sound. Furthermore, digital broadcasting enables better spectrum efficiency, allowing multiple television or radio channels (a process known as multiplexing) to be transmitted within the bandwidth that previously accommodated just one analogue channel (Kanazawa, 2012). Maduka (2014) notes that obviously, digital broadcasting has many advantages over the analogue. Programme presentation would be well improved in terms of clarity and quality of signals and spectrum efficiency. He further states that digital broadcasting will opened a world of possibilities for broadcasting stations whereby, a huge spectrum will be available for radio and television broadcast. It will also afford the industry opportunities for interactive broadcasting as the television sets would now do much more than just receive signals.

The African Union (2012) specifically explained that Digital TV broadcasting is the advancement of analogue broadcasting system whereby the television pictures and sound are sent from broadcasting transmitters as digital signals to the Television Set (TV set). It involves the compression of the digital data. The compression of the video and audio in digital television makes it possible to fit more than one television program into the same channel spacing occupied by one single analogue television programme and releases spectrum i.e. the digital dividend. This is actually the main driver for the transition.

Considering the importance of digital broadcast in modern time, The International Telecommunication Union (ITU) set guidelines and deadlines for countries to switch from analogue to digital broadcasting. The tentative deadline was June 2015. Digital switchover (DSO) is described as the process of launching the DTT platform and switching off analogue terrestrial television platform (Oyedokun, et al 2022). In response, countries like Nigeria initiated plans for a Digital Switch Over (DSO), aiming to modernise broadcasting systems nationally (Suleiman, 2018).However, such switch has not been completed about ten years since the declaration by the ITU.

Review of Empirical Studies

Several studies have examined the issue of digital switchover, particularly in Nigeria. For instance, Oyedele (2019) investigated the readiness of television stations for digital transition. A total of 108 staff members from the *Nigerian Television Authority* (NTA) Ibadan, *African Independent Television* (AIT), and *Broadcasting Corporation of Oyo State* (BCOS), *MITV, New Frontiers Television, and Galaxy Television* were surveyed. The findings revealed that, despite significant obstacles, the stations had begun making major strides toward delivering the promised digital broadcasting experience. Similarly, Acholonu (2019) examined the extent to which broadcast stations in Rivers State were meeting the ITU deadline for digital switchover. Staff members from *Rivers State Television*, Rivers State Broadcasting Service (Radio), *Silverbird Television*, and *Rhythm 93.7 FM* were surveyed. Findings showed that the public-owned stations were not fully prepared for migration, while the privately owned stations were more advanced in their transition to digital broadcasting.

In addition, Harvey *et al.* (2024) explored public perception of the level of digital switchover in both public and private television broadcasting stations in Delta State. Their findings revealed that not all broadcast stations in the state were fully digitized, primarily due to constraints such as inadequate funding. The study recommended that privately owned media

stations in Delta State should be supported through federal budgetary allocations to overcome financial challenges. In a related study, Benike (2022) investigated the migration from analogue to digital broadcasting in selected government and private media stations in Delta State. The study found that digital equipment was available in both government-owned and private stations, but was more effectively utilised by private stations, giving them a greater operational impact.

Corroborating these findings, Ibekwe, Ezike, and Obibuike (2024) assessed the challenges and prospects of digitalization in selected broadcast stations in Southeast Nigeria using a mixed-methods approach, including surveys and in-depth interviews. Participants included reportorial, editorial, production, and engineering staff from 15 selected radio and television stations. The study revealed numerous challenges hindering the full implementation of digitalization, the most significant being the insufficiency of digital equipment and poor manpower development. Furthermore, Chike-Iyo, Udoudo, and Ochonogor (2024) assessed Nigeria's preparedness for the transition from analogue to digital mainstream broadcasting. Using a sample size of 384 drawn from a population of 31,000,331, their findings indicated a high degree of awareness of digital broadcasting among audiences of the selected stations. The study also found a positive disposition among audiences toward purchasing digital televisions, set-top boxes, and paying annual access fees for digital signals. Additionally, it was observed that the stations had acquired hybrid digital broadcast equipment and implemented various approaches to staff training and development.

Similarly, Eze, Orekyeh, and Ezeanwu (2017) assessed TV consumers' awareness of the digital migration process in Enugu metropolis. Using a survey method and questionnaire, the study found a generally low level of awareness among residents regarding the digital migration process. Additionally, Ihechu, Iwabi, Megwas, and Anaba (2023) investigated the attitudes of broadcast journalists towards digital broadcasting in Abia State. Using a survey research design, the study found that the majority of journalists exhibited positive attitudes toward the digital transition. However, the study also identified lack of public awareness and poor financing by government and stakeholders as major challenges hindering the transition process.

It can be deduce from the above that while previous studies have provided valuable insights into the general readiness of broadcast stations for digital migration across different parts of Nigeria, several gaps remain. Many of the studies focused broadly on states or regions (e.g., Rivers State, Southeast Nigeria) few give attention to the unique experiences of stations in Asaba, the capital of Delta State. Moreover, earlier research often emphasised audience awareness or journalists' attitudes, while limited attention was paid to station-level operational challenges, particularly within smaller urban centres like Asaba. This study, therefore, is unique and important because it specifically investigates the challenges of migration from analogue to digital broadcasting among television stations in Asaba.

Theoretical Framework

This study is anchored on the Modernization Theory. The theory Originated from the ideas of German sociologist Max Weber and later popularized by Talcott Parsons (Kendall, 2007), the theory posits that internal factors within a country significantly influence its technological growth. It asserts that social variables, such as literacy levels, access to technology, and infrastructural development, shape the pace and nature of social evolution. The theory has been widely applied to explain patterns of technological adoption in Africa and the Middle East. Kendall (2007), in applying the theory to Africa, argues that the continent's underdevelopment largely stems from limited access to literacy and media technologies. According to the theory, Africa's advancement depends on systematic technology transfer from the West and the gradual shift from oral traditions to modern, electronically mediated communication. Recent technological innovations such as the internet, the World Wide Web

(WWW), and the digitalization of media are seen as critical stages for Africa's development across various sectors. This theory is particularly relevant to the study on the challenges of migration from analogue to digital broadcasting among television stations in Asaba, Delta State, as it highlights the inherent internal challenges — such as infrastructural deficits, funding limitations, and technical know-how — that may impede the digital transition, while also pointing to the critical role digital broadcasting can play in advancing media development and broader societal progress in Nigeria.

Methodology

This study adopted a survey research design to systematically gather data from professionals within the broadcast media industry in Asaba, Delta State. The survey approach was selected because it enables researchers to collect structured responses from a large sample, making it an effective method for assessing the challenges and effects of digitization on broadcast media quality, revenue streams, and infrastructure. The study was conducted across four television stations in Asaba: *Delta Broadcasting Service (DBS) Television, African Independent Television (AIT) Asaba, Rave TV Asaba, and Channels Television Asaba.* The total population consisted of 160 professionals, including journalists, camera operators, presenters, and technical personnel. A purposive sampling technique was employed to select participants based on their expertise and direct involvement in broadcasting, ensuring that only individuals with relevant experience in digitization were included. Data were collected using a structured questionnaire the questionnaire was administered face-to-face to ensure a high response rate, with participants recruited directly from their respective television stations. The instrument's validity was confirmed through expert review. Reliability was established using the test-retest method with a two-week interval among ten journalists outside the study population, and a Pearson's Product-Moment Correlation Coefficient of 0.70 was obtained, indicating acceptable reliability. Data collected were analysed using descriptive statistics, specifically mean scores, with the aid of the Statistical Package for the Social Sciences (SPSS) to ensure accuracy and efficiency.

Results

Table 1: Demographic Characteristics of Respondents (N = 160)

S/N	Demographic Variable	Category	Frequency (n)	Percentage (%)
1	Gender	Male	95	59.4%
		Female	65	40.6%
2	Age	18–25 years	25	15.6%
		26–35 years	70	43.8%
		36–45 years	45	28.1%
		46 years and above	20	12.5%
3	Job Role	Journalist/Reporter	50	31.3%
		Presenter/Anchor	40	25.0%
		Camera Operator	30	18.8%
		Technical/Engineering Staff	40	25.0%
4	Years of Experience	Less than 5 years	40	25.0%
		5–10 years	65	40.6%
		11–15 years	35	21.9%
		16 years and above	20	12.5%

Table 1 shows a total of 160 broadcast media professionals drawn from television stations in Asaba, Delta State. The gender distribution indicates a higher proportion of male respondents (59.4%) compared to females (40.6%), reflecting a slight male dominance in the industry. The age distribution reveals that the majority of respondents (43.8%) fall within the 26–35 years bracket, followed by 28.1% aged 36–45 years, suggesting a youthful and vibrant workforce. In terms of job roles, journalists/reporters (31.3%) and presenters/anchors (25.0%) constitute the largest groups, while camera operators and technical/engineering staff account

for 18.8% and 25.0% respectively, indicating a balanced representation across editorial and technical functions. Regarding years of experience, most respondents (40.6%) have between 5–10 years of professional experience, while 25.0% have less than 5 years, suggesting that the sample largely comprises individuals with significant exposure to both analogue and digital broadcasting processes, making them well-suited to provide relevant insights into the challenges of digital migration.

Table 2: Respondents Perception of efforts made by Television stations in Asaba, Delta state toward Digital switch over

S/N	Item Statement	SA	A	N	D	SD
1	Our station has made significant investment in digital broadcasting equipment.	20 (12.5%)	40 (25%)	50 (31.25%)	30 (18.75%)	20 (12.5%)
2	Regular training programmes are conducted to prepare staff for digital broadcasting.	30 (18.75%)	50 (31.25%)	40 (25%)	20 (12.5%)	20 (12.5%)
3	Management has developed a clear plan or roadmap for digital migration.	25 (15.625%)	45 (28.125%)	50 (31.25%)	25 (15.625%)	15 (9.375%)
4	Our station has partnered with technology providers for digital broadcasting support.	10 (6.25%)	35 (21.875%)	45 (28.125%)	40 (25%)	30 (18.75%)
5	The station has upgraded its infrastructure to meet digital broadcasting standards.	15 (9.375%)	40 (25%)	60 (37.5%)	25 (15.625%)	20 (12.5%)
6	Public awareness campaigns about digital migration have been organised by our station.	20 (12.5%)	30 (18.75%)	50 (31.25%)	40 (25%)	20 (12.5%)
7	There is sufficient technical support available to maintain digital broadcasting operations.	25 (15.625%)	40 (25%)	50 (31.25%)	30 (18.75%)	15 (9.375%)
8	Management provides regular updates on the station's progress toward full digitalization.	30 (18.75%)	45 (28.125%)	50 (31.25%)	20 (12.5%)	15 (9.375%)
9	Staff are encouraged to attend external workshops/conferences on digital broadcasting.	25 (15.625%)	40 (25%)	50 (31.25%)	30 (18.75%)	15 (9.375%)
10	The station has successfully implemented phases of the digital switch-over process.	20 (12.5%)	40 (25%)	50 (31.25%)	30 (18.75%)	20 (12.5%)
	Grand mean score 2.94					

Decision levels: 3.00-above=High Level; 2.5-2.99=Moderate Level; Less than 2.00=Low Level

The table above presents respondents' perceptions of the efforts made by television stations in Asaba, Delta State, toward the digital switch-over process. The data shows that for most items, the majority of respondents perceive the stations' efforts at a moderate level of preparedness, with a grand mean score of 2.94**.** Items such as "Regular training programmes" and "Management provides regular updates" had higher levels of agreement, suggesting that the stations are making notable efforts in staff preparation and communication about the migration process. However, areas like "Partnership with technology providers" and "Public awareness campaigns" received lower agreement, indicating that these aspects may require further attention and improvement.

Table 3: Respondents Perception of Challenges Faced by Television Stations in Asaba, Delta State toward Digital Switch-Over

S/N	Item	SA	A	N	D	SD
1	Our station faces financial constraints that hinder progress toward digital switch-over.	50 (31.25%)	60 (37.5%)	30 (18.75%)	10 (6.25%)	10 (6.25%)
2	There is inadequate technical expertise to handle digital broadcasting operations.	40 (25%)	50 (31.25%)	40 (25%)	20 (12.5%)	10 (6.25%)
3	Our station struggles with the lack of sufficient digital equipment for the transition.	60 (37.5%)	50 (31.25%)	30 (18.75%)	10 (6.25%)	10 (6.25%)
4	Regulatory challenges, such as government policies, have slowed down our digital transition.	45 (28.125%)	55 (34.375%)	40 (25%)	10 (6.25%)	10 (6.25%)
5	Limited access to training opportunities for staff in digital broadcasting is a major challenge.	50 (31.25%)	60 (37.5%)	30 (18.75%)	10 (6.25%)	10 (6.25%)
6	There is resistance from staff to adapt to new digital technologies and procedures.	40 (25%)	50 (31.25%)	40 (25%)	20 (12.5%)	10 (6.25%)
7	Our station faces delays in obtaining the necessary digital broadcasting licenses.	55 (34.375%)	45 (28.125%)	40 (25%)	15 (9.375%)	5 (3.125%)
8	The infrastructure (e.g., power supply, internet connectivity) in the station is inadequate for digital broadcasting.	60 (37.5%)	50 (31.25%)	30 (18.75%)	10 (6.25%)	10 (6.25%)
9	The public's lack of awareness and readiness to embrace digital broadcasting hinders progress.	50 (31.25%)	60 (37.5%)	30 (18.75%)	10 (6.25%)	10 (6.25%)
10	High costs of acquiring and maintaining digital broadcasting equipment pose a challenge.	55 (34.375%)	50 (31.25%)	40 (25%)	10 (6.25%)	
	Grand mean 3.46					

Decision levels: 3.00-above=High Level; 2.5-2.99=Moderate Level; Less than 2.00=Low Level

From the table above, it is evident that the respondents perceive significant challenges in the efforts toward digital switch-over in Asaba, Delta State. The highest challenge is faced in the areas of lack of digital equipment and infrastructure deficiencies, followed closely by financial constraints, delays in licensing, and high equipment costs. The grand mean score is 3.46, the level of these challenges are classified as high.

Discussion of Findings

The study was guided by two objectives. The first objective sought to unravel the level of preparedness by television stations Asaba, Delta State, toward digital switch-over. The findings of this study reveal that television stations in Asaba, Delta State, show a moderate level of preparedness for the digital switch-over, as indicated by the grand mean score of 2.94. While there is notable progress in areas such as staff training and communication regarding the migration process, gaps remain in other areas like public awareness campaigns and partnerships with technology providers. These findings resonate with previous studies, such as Oyedele (2019) and Harvey et al. (2024), which reported that while some stations in Nigeria have made significant strides towards digital transition, challenges like inadequate funding and limited equipment continue to hinder progress. The findings also informed by the Modernization

Theory, which explains that technological growth in a country is shaped by internal factors such as literacy levels, infrastructure, and access to technology. This theoretical framework is particularly relevant to the digital switch-over process, as it highlights the challenges within the media infrastructure in Asaba, such as inadequate funding, insufficient technical expertise, and infrastructural limitations. These factors align with the findings of Ibekwe, Ezike, and Obibuike (2024), who identified similar challenges in Southeast Nigeria. Additionally, the theory emphasizes the critical role that technological advancements, such as digital broadcasting, play in the broader development of a country. As the study indicates, addressing these challenges in the digital migration process is essential for improving media development and, by extension, societal progress in Nigeria.

The second objective of this study aimed to examine the challenges faced by television stations in Asaba, Delta State, in their efforts towards the digital switch-over. The findings reveal that the stations encounter several significant obstacles, including financial constraints, inadequate technical expertise, insufficient digital equipment, and poor infrastructure. These challenges are further compounded by regulatory delays, staff resistance, and the high costs associated with maintaining digital equipment. The high grand mean score of 3.46 classifies these challenges as being of high intensity, indicating that these obstacles are substantial and significantly hinder the stations' progress toward a successful digital migration. The challenges highlighted in this study are consistent with the findings of previous studies, such as Oyedele (2019) and Acholonu (2019), who also identified financial constraints and insufficient infrastructure as major impediments to the digital transition process in Nigerian broadcast stations. Specifically, Oyedele's study highlighted that while efforts were being made to transition to digital broadcasting, stations still faced significant barriers, including inadequate funding and limited technical knowledge.

Furthermore, the issue of regulatory delays, which was highlighted in this study, aligns with the concerns raised by Harvey et al. (2024), who noted that delays in government policies and the slow pace of regulatory frameworks were impeding the smooth transition to digital broadcasting in various states, including Delta. In the context of the Modernization Theory, these challenges can be viewed as barriers to the technological growth and development of the television stations in Asaba. As the theory suggests, the slow adoption of modern technologies in developing countries, including Nigeria, is often linked to internal limitations such as insufficient infrastructure, inadequate financial resources, and the lack of a skilled workforce. These factors hinder the expected leap in technological evolution that digital broadcasting represents, making it harder for local stations to integrate these advancements effectively into their operations.

Conclusion and Recommendations

This study has examined the level of preparedness and the challenges faced by television stations in Asaba, Delta State, in their transition from analogue to digital broadcasting. The findings suggest that while these stations have made some progress, particularly in areas such as staff training and communication about the digital migration process, there remain significant gaps. In conclusion, while the transition to digital broadcasting is a necessary and beneficial process for the advancement of Nigeria's media sector, the findings underscore the need for more comprehensive strategies to address the identified challenges. Policymakers, media stakeholders, and regulatory bodies must collaborate to ensure that television stations, particularly in regions like Asaba, are adequately equipped to navigate the digital transition successfully. This includes securing funding, investing in infrastructure, providing continuous training for staff, and enhancing public awareness of the benefits of digital broadcasting. With these measures in place, television stations in Asaba and beyond can more effectively embrace the digital age and contribute to the broader development of the media industry in Nigeria.

References

Abioye, R. O., & Akinola, O. S. (2019). Digitalization of the Nigerian broadcasting industry: Prospects and challenges. *Journal of Humanities and Social Science Research, 2*(2), 1-11.

Alalibo, G. (2017). The challenges of digital broadcasting in Nigeria. *African Journal of Media Studies, 8*(3), 30-45.

Antons, J.-N., & Raake, A. (2018). Quality of experience assessment for broadcast media. *Journal of Media and Communication Studies, 5*(3), 45-60.

Arroyo-Alfaro, A., & Zukerfeld, M. (2020). The end of analog broadcast television in Mexico: A case study of the challenges and opportunities in digital switchover. *Telecommunications Policy, 44*(7), 101978. https://doi.org/10.1016/j.telpol.2020.101978

Bakare, B. I., & Akujobi, E. (2018). A critical review of digital terrestrial television broadcasting in Nigeria. *European Journal of Electrical and Computer Engineering, 2*(7), 50-62.

Benike, E. A. P. (2022). Migration from analogue to digital broadcasting: The disparity between government and private media stations in Delta State. *Abraka Humanities Review, 12*(1), 170-180.

Christian, H., & Reinhard, K. (2015). Impact of digitization on the revenue of German television broadcasters. *Media Economics Review, 28*(4), 105-120.

Dentsu. (2018). Advertisement expense of Japan in 2017. Retrieved from https://www.dentsu.co.jp/news/release/2018/0222-009476.html

Eze, O. U., Orekyeh, E. S. S., & Ezeanwu, R. C. (2017). An assessment of TV consumers' awareness of digital migration process in Enugu metropolis. *New Media and Mass Communication, 61*. https://www.iiste.org

Gary, H. (2013). *The digital revolution and the coming of the postmodern university*. Palgrave Macmillan.

Hilbert, M., & López, P. (2011). The world's technological capacity to store, communicate, and compute information. *Science, 332*(6025), 60-65. https://doi.org/10.1126/science.1200970

Ihechu, I. P., Iwabi, B. A., Megwas, N. U., & Anaba, N. N. (2023). Attitude of broadcast journalists towards digital broadcasting in Abia State, Nigeria. *The Nigerian Journal of Communication, 19*(1), 93–106.

Ibekwe, C., Ezike, F. U., & Obibuike, O. C. (2024). Challenges and prospects of full implementation of digitalization of broadcast stations in the Southeast, Nigeria. *Global Scientific Journal (GSJ), 12*(8). https://www.globalscientificjournal.com

Ju, H., & Shin, D.-H. (2020). Digital broadcasting in the Republic of Korea: A study of the development of new media services. *Asian Journal of Communication, 30*(4), 385 401.

Ka-Man, L., & Hui-Ju, T. (2020). The impact of digitization on the revenue of Taiwanese broadcasting companies. *Journal of Broadcasting & Electronic Media, 64*(3), 375 391.

Kendall, J. (2007). Earliest expression of theories of modernization and globalization. Retrieved on 23rd April, 2020, from www.cityvision.edu/wiki/node/15767

Mitomo, H. (Ed.). (2020). *Telecommunications policies of Japan* (Vol. 1). Springer.

Okpanachi, S. O. M. (2019). Radio development: The case of Radio Nigeria. Paper presented at the 2008 Commonwealth Broadcasting Association Conference, Nassau, Bahamas.

Odufuwa, B. O., & Oyero, O. (2017). Local content creation in the age of digitization: A study of Nigerian television stations. *Journal of African Media Studies, 9*(1), 111-125.

Ogbeide, G. O., & Ohiwerei, F. (2016). The impact of digital broadcasting on the Nigerian economy. *Journal of Nigerian Media and Society, 1*(1), 123-139.

Okonkwo, I. (2015). Digitalization and the future of Nigerian television broadcasting: A study of Asaba, Delta State. *Journal of Broadcasting and Electronic Media, 59*(2), 236-251.

Olalere, A., Adegbola, M., & Okwuokei, S. (2013). The challenges of digital broadcasting in Nigeria. *International Journal of Media and Communication Studies, 6*(1), 77-90.

Oslo, T. (2016). *The impact of digitization on the accessibility of broadcast media for people with disabilities*. University of Norway Press.

Robinson, M. (Ed.). (2004). *Ch Ocholi Ambers 21st century dictionary* (Rev. ed.). Oxford University Press.

RURA. (2008). *Managing the change from analog to terrestrial digital broadcast in Rwanda*. Prepared by Rwanda Utilities Rural Authority.

Shyam, S., & Andrew, G. (2017). The impact of digitization on the revenue streams of traditional media organizations in the United States. *Journal of Media Economics, 30*(2), 110-125.

Sogabe, M. (2013). Formation and development of the Japanese model in broadcast program regulations. In M. Sogabe & K. Akasaka (Eds.), *Principle and development of constitution reform last volume* (pp. 75-95). Shinzansha.

Suleiman, M. A. (2018). Effects of digitization on the quality of Nigerian television and the way forward. *International Journal of Communication and Media Studies, 2*(1), 20 32.

Suzuki, H., & Yamada, K. (2017). *Outline of broadcast system: Understanding the new broadcasting act*. Shojihomu.

Harvey G.O. Igben & Wisdom Onorukpo. (2024). Public perception of digital switchover of television broadcasting in Delta State. *International Journal of International Relations, Media and Mass Communication Studies, 10*(1), 6-22.