

EXPLORING THE INNOVATIVE ROLES OF TECHNOLOGY IN NIGERIAN ART MUSIC PRODUCTION SCENE

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Abstract

This study explores how digital technology is transforming Nigerian art music production. It highlights the shift from traditional methods to digitally enhanced practices, showing how access to sound engineering tools, online platforms, and streaming services is reshaping both creative processes and employment structures in the music industry. Aligned with the United Nations Sustainable Development Goal (SDG) 4 on Quality Education, this study addresses that gap by examining how digital tools are integrated with indigenous musical traditions, fostering new creative directions and reconfiguring production workflows. The research emphasizes the role of technology in preserving indigenous compositions while promoting digital literacy and skill development among artists. Despite global digitization, there is limited academic focus on how Nigerian art music practitioners are adapting to this evolving landscape. Anchored on Technological Determinism Theory, which posits that technology shapes culture and creativity, through digital ethnography and qualitative content analysis. With qualitative design this paper analyzes online spaces, where composers showcase their work. Findings reveals that technology significantly enhances artistic productivity, global reach and economic sustainability. In conclusion, Nigerian composers and producers are encouraged to strategically embrace digital innovations to improve production quality, preserve cultural heritage, and remain competitive in a rapidly digitizing world.

Keywords: creativity, digitization, education, innovation, music, technology

Introduction

Digitalization in the music industry has not only changed the concept of the music business but has fundamentally reshaped its entire value-added network. Digitalization has profoundly transformed the global music industry, redefining traditional roles and expanding the creative landscape of music production. In Nigeria, this transformation has created new pathways for art musicians, producers, and technologists, fostering innovative practices that integrate digital tools with indigenous artistic expressions. This study argues that digitalization not only revolutionizes production and distribution but also reshapes aesthetic values, audience engagement, and entrepreneurial possibilities in Nigerian art music. Globally, digital innovations are transforming

the industry through new entrepreneurial ventures, online visibility, and audience engagement (Hadida & Paris, 2014). These developments have opened new creative and commercial spaces for musicians and producers. In Nigeria, art music production once confined to academic or orchestral settings has expanded into hybrid forms that blend technology, creativity, and entrepreneurship. The emergence of digital audio workstations, online music platforms, and social media networks has empowered Nigerian composers and producers to explore innovative production methods. In today's digital era, change and innovation have become constants in the creative industry. For Nigerian art music to remain relevant in a globalized music ecosystem, it must embrace technological innovation as both a creative and economic strategy.

According to Omibiyi-Obidike (2001), Nigerian art music is rooted in the fusion of indigenous cultural expressions with Western classical techniques; however, the twenty-first century has witnessed a further evolution through technology. Just as investors in business settings assess risk and sustainability (Beretta & Bozzolan, 2004), music producers and stakeholders must understand the implications of adopting new technologies for long-term artistic and economic sustainability. Top managers in music institutions and studios must be positioned to assure investors, artists, and audiences that creative risks are well managed through structured technological innovation (El-Beshlawy & Ardroumli, 2021). The development of Nigerian art music, which blends indigenous musical idioms with Western compositional techniques, has witnessed significant transformation through technological innovation. From analog recording methods to digital workstations and online streaming platforms, technological change has reshaped how Nigerian composers, producers, and performers conceptualize, create, and distribute their works.

These innovations have contributed not only to artistic growth but also to economic development by attracting investment, enhancing cultural exchange, and creating new employment opportunities within the music industry. The Nigerian art music scene has evolved from traditional and academic compositions into a digitally enabled ecosystem where music production benefits from software innovations such as Digital Audio Workstations (DAWs), virtual instruments, and automated mixing tools. These technologies have democratized production, enabling composers and producers to experiment with sound textures, orchestration, and hybrid styles that reflect both cultural heritage and modern trends. The integration of technology into music production conceptually aligns with the United Nation Sustainable Development Goal (SDG) 9 Industry

innovation and infrastructure, and SDG Quality Education. These goals emphasizes fostering innovation, building resilience infrastructure, and promoting inclusive and equitable education through technological advancement.

This study examines how innovative digital technologies affect production, quality, creativity, and the spread of Nigerian art music. It investigates and provide an in-depth grasp of how technology innovation is influencing the creation, dissemination and perception of Nigerian art music. Its goals is to highlight the importance of digital tools in promoting artistic expression, improving production standards, while extending options for musicians and producers. Furthermore, the study aims to add to scholarly discourse by relating music production methods to more general concerns like the growth of the creative economy, digital literacy, and the purpose of quality education for sustainable development. Despite the increasing amount of research on studies that particularly concentrate on Nigerian music and digital technologies, there are still severely lacking studies that particularly concentrate on the relationship between cutting-edge technology and the Nigerian musicians and artistic. A large portion of the literature now in publication focuses on popular music genres (such as Afro beats). Art music and its production methods have received little attention. Nevertheless, there is not enough academic investigations of how new technologies like mobile production apps, home studios, additionally, professional standards and artistic identity, and quality assurance are impacted by digital distribution channels. Thus by offering a focus analysis, this study aims to close this gap of technological advancement in Nigerian art music creation, by providing information about both its advantages and disadvantages while advancing a more thorough and impartial knowledge of the music industry in Nigeria.

Everett Rogers' Diffusion of Innovation theory serves as the foundation for this paper, which explain how technology is adopted and Technological Determinism Theory, underlines its transformative impact. These theories offer a thorough comprehension of the inventive function that technology plays in Nigerian art music production. Although technology has greatly improved Nigerian music production, its use in art music, the industry continues to face a number of difficulties, including a high expense of modern equipment, digital audio workstations (DAWS), studio monitors, microphones and software are examples of contemporary music production equipment. These instruments are out of reach for many up-and-coming Nigerian art music producers and composers. Despite the availability of digital tools, there remains a gap in technical

knowledge due to inadequate technical skills and training. Many music practitioners frequently lack formal training in music technology, sound education, and digital production. These problems indicate highlight that technology is a valuable instrument for promoting Nigerian art music production, its full potential can only be achieved with increased infrastructure and investment. Better finance, improved training, and regulations that balance innovation with cultural preservation.

Methodologically, this study adopted a qualitative descriptive research design based solely on secondary data analysis. This provides a comprehensive and cost-effective means of examining the innovative role of technology in the Nigerian art music production scene. It enable the researcher to draw from a wide range of scholarly perspectives, offering a well-rounded understanding of the subject while identifying areas for further research.

Literature Review

Innovation and technology have become central to the transformation and advancement of Nigeria's art music production scene. The application of innovative technologies not only enhances creativity and efficiency in music production but also contributes to the broader economic and cultural development of the nation. According to Oikelome (2012), technology has redefined the way music is composed, recorded, and distributed in Nigeria, leading to a significant shift from analogue to digital production practices. This transformation reflects the global trend of digitalization but with a distinctly Nigerian flavor that integrates indigenous musical elements and cultural aesthetics into modern production techniques. Innovation in Nigerian art music production operates as both an opportunity and a challenge. As Okafor (2005: p.33) notes, "*art music in Nigeria has traditionally emphasized intellectual creativity, formal structures, and cultural education. The introduction of technology has expanded this scope, allowing composers to use digital notation software, virtual instruments, and automated mastering tools that improve both creativity and precision*".

The Emergence of Nigerian Art Music Production

The emergence of Nigeria's art music production scene represents a significant milestone in the nation's cultural and technological evolution. Prior to the establishment of recording studios within

Nigeria, most musical recordings were produced outside the country, particularly in London between 1911 and 1922. This period marked the formative stage of Nigeria's recorded music history, where early indigenous compositions encountered Western recording technology. Efurhievwe M (2020;p.3)

Notable Nigerian musicians such as Revered J.J Ransome- Kuti and Shotayo Adeyemi had their works recorded in London, thereby serving as cultural ambassadors who bridged traditional African musical expressions with modern production techniques. The evolution of Nigeria's art music production is deeply rooted in the historical emergence of recording technology and its gradual domestication within the country. Moreover, digital recording studios and online collaboration platforms have expanded access for young Nigerian composers and producers, fostering inclusivity and professional networking across borders. Such developments demonstrate how innovation has redefined the processes of music creation and dissemination in contemporary Nigeria.

Forms and Functions of Innovation in Music Production

Innovation in Nigerian art music production can be classified into several forms:

1. **Product Innovation:** The introduction of new musical software, sound libraries, and recording equipment that enhance artistic expression and production quality.
2. **Process Innovation:** The modernization of studio workflows through digital editing, mastering automation, and virtual sound modeling that improve efficiency and reduce production costs.
3. **Service Innovation:** The growth of online music distribution, streaming services, and virtual performance platforms that increase visibility and accessibility of Nigerian art music. These innovations, whether incremental improvements or radical transformations, have contributed to the sustainability and competitiveness of the music production scene.

Socioeconomic and Cultural Implications

Innovation has not only impacted the artistic aspect of Nigerian art music but also its economic and cultural dimensions. By integrating advanced technologies, Nigerian music producers now attract collaborations with international artists and investors. This has stimulated local

entrepreneurship and enhanced Nigeria's cultural export. Additionally, digitalization promotes the preservation of indigenous sounds through high-quality recording and archiving systems, ensuring that the nation's musical heritage remains relevant in the digital age. (Olusola J 2023, p. 146) Innovative technology plays a transformative role in shaping the Nigerian art music production scene. It has enhanced creativity, improved production quality, and opened global pathways for Nigerian composers and producers. However, to sustain this growth, stakeholders including government, educational institutions, and private investors must support digital innovation through training, infrastructure, and policy frameworks. The future of Nigerian art music lies in its ability to blend artistic ingenuity with technological innovation to achieve cultural preservation and global relevance.

Every Nigerian art music production firm that seeks to thrive in today's competitive environment must develop new ideas and adopt innovative technologies to remain relevant. Innovation, as a process of creating new or improved ways of producing and delivering artistic content, has become central to the success of the Nigerian art music industry. The emergence of digital recording systems, online streaming services, and computer-based composition tools has transformed the creative and operational dynamics of music production. Emmanuel and Temitope (2022, p. 5) Over the past two decades, Nigerian art music production has undergone significant transformation due to the introduction of digital technologies.

Impact of Innovative Technology on Workforce and Production

The influence of innovative technology extends beyond creativity into the structure of employment within Nigeria's art music production ecosystem. While automation and digital tools have reduced the need for certain manual production roles, they have simultaneously created new opportunities for skilled professionals such as sound engineers, digital composers, and content managers. Moreover, technology has facilitated remote collaboration, allowing Nigerian composers to work with orchestras, choirs, and producers across continents without physical boundaries. This digital interconnection has enhanced professional visibility and provided Nigerian art musicians with access to international networks and funding opportunities.

The Nigerian government and private sector have also played key roles in supporting technological innovation within the creative industries. As observed by Omibiyi-Obidike (1995), investment in

technological infrastructure and music education is essential for sustaining artistic growth. In Nigeria, music technology programs, digital media centers, and recording studios have become incubators for creativity and entrepreneurship, promoting the development of local talents while strengthening the music industry's contribution to national economic growth. These institutions serve as platforms for the training and mentoring of young music producers, composers, and sound engineers, enabling them to compete globally.

Furthermore, the proliferation of Digital Audio Workstations (DAWs), synthesizers, and mobile recording technologies has democratized music production in Nigeria. Ajewole (2018) notes that producers and artists now have access to advanced software and equipment that allow them to compose, arrange, mix, and master music from virtually anywhere. This has fostered inclusivity and innovation, giving rise to a new generation of self-taught producers who merge traditional African rhythms with contemporary digital sounds. As a result, Nigerian art music has evolved into a hybrid form that celebrates both cultural identity and technological modernity. However, Oyesiku (2020) cautions that the rise of home studios and independent production poses challenges to maintaining professional standards. Many upcoming producers bypass the traditional roles of trained audio engineers, leading to inconsistencies in sound quality. Nonetheless, the benefits of technological advancement far outweigh its limitations. With appropriate government policies, funding mechanisms, and educational programs, technology can continue to drive innovation and ensure sustainable growth in Nigeria's music industry.

In alignment with the United Nations Sustainable Development Goal on Quality Education, integrating technology into music production promotes creativity, digital literacy, and professional competence. It empowers Nigerian artists to engage meaningfully with global trends while preserving their cultural authenticity. Thus, innovative technology remains a vital force in shaping the Nigerian art music production scene, enhancing artistic excellence, and contributing to socio-economic development. The integration of innovative technologies into the Nigerian art music production scene has created remarkable opportunities for creativity, efficiency, and global competitiveness. Just as technology enhances productivity and communication in other sectors, its application in music production has given Nigerian artists and producers a distinct competitive advantage in both local and international markets. Through the use of advanced digital tools,

producers are now able to deliver high-quality sound recordings, reduce production costs, and expand their reach to diverse audiences with greater ease and precision (Oikelome, 2012).

Technology has transformed the banking and service industries, it has revolutionized the Nigerian music landscape by redefining how music is created, promoted, and consumed. Modern recording technologies such as Digital Audio Workstations (DAWs), MIDI controllers, virtual instruments, and online distribution platforms have made music production more accessible, thereby fostering creativity among both professionals and emerging artists (Ajewole, 2018). This democratization of music creation has strengthened Nigeria's artistic identity while enabling producers to blend indigenous elements with global sound trends, ensuring that Nigerian art music continues to evolve dynamically. However, despite its numerous benefits, technological innovation in the music industry is not without challenges. As Oyesiku (2020) notes, the cost of acquiring and maintaining modern equipment, limited access to funding, and insufficient government support often hinder the full realization of technological potential in Nigeria's creative sector. Additionally, the shift towards home-based and internet-dependent production systems, though convenient, can sometimes undermine traditional studio collaboration and the interpersonal mentorship that characterized earlier music-making processes.

To sustain the growth and innovation witnessed in Nigeria's art music production scene, both government and private institutions must invest strategically in technological infrastructure, creative education, and funding mechanisms for research and digital skill development (Omibiyi-Obidike, 1995). By supporting innovation through grants, training programs, and partnerships, Nigeria can strengthen its music industry as a viable contributor to national development and cultural diplomacy.

The Global Shift: Digitalization and the Music Industry

Music was mostly used by the film, advertising, and electronic media sectors in the decades before the year 2000. But the digital age has spread to many different countries, Businesses that were previously unrelated to music now play crucial roles in terms of monetization and delivery. For instance, Apple's market domination in music downloads, in addition to websites like Amazon, Google, Instagram, Facebook, and Twitter, has revolutionized the creation, distribution and consumption of music (Wikström & DeFillippi, 2016). Additional, businesses now intentionally

employ music to advertise their goods, automobiles' services that incorporate streaming services. Airlines are now using digital playlists as a travel inducement. Nigeria's art music industry has been greatly impacted by these worldwide trends, bringing in a digital culture that encourages creative innovation.

The Digital Composer and Producer

Contemporary Nigerian art composers increasingly integrate technology into composition and production processes. Using software such as Logic Pro, Cubase, or FL Studio, they create, record, and edit music that blends Western classical idioms with African indigenous elements. This hybrid approach exemplifies innovation bridging the traditional and modern.

The Sound Engineer and Technologist

Sound engineers and technologists in Nigeria are playing crucial roles in digital sound design and mixing. They experiment with indigenous sound samples, transforming traditional instruments like the *Udu*, *Ekwe*, and *Ogene* into digitized formats for modern orchestral and electronic compositions. This fusion enhances both cultural preservation and creative exploration.

The Multimedia Collaborator

Art music production has transcended audio boundaries. Nigerian producers now collaborate with filmmakers, dancers, and digital artists to produce multimedia performances and installations. Through these collaborations, art music becomes an interdisciplinary medium, fostering broader cultural and aesthetic engagement.

The Online Curator and Distributor

The growth of social media platforms and digital streaming services has created new roles for art musicians as digital curators. Nigerian producers now manage their own online portfolios through platforms such as YouTube, Audiomack, and Spotify, bypassing traditional record labels. This autonomy enhances global visibility and economic potential.

Managing Risk through Technological Innovation

Drawing parallels from corporate governance, where firms implement risk management systems to enhance sustainability (Maingot, Quon & Zeghal, 2013), Nigerian art music production houses can adopt similar frameworks to mitigate risks. These risks include copyright violations, data loss, creative redundancy, and over-dependence on imported software. A structured approach through training, policy development, and local innovation ensures that technological adoption is not only effective but also sustainable. Onyebuchi (2018) stresses the importance of education in digital literacy for music producers and performers, arguing that a well-informed creative workforce can better manage innovation-related risks while driving artistic excellence.

The Changing Nature of Music Production in Nigeria

Since the turn of the millennium, Nigerian art music has been redefined by the digitalization of sound and the integration of computer-aided composition. The “constant” in this modern landscape is change producers, composers, and performers must continuously innovate to remain competitive. As Ekong (2020: 45-58) observes, the dynamism of Nigeria’s art music scene lies in its capacity to reinvent itself through technological integration, ensuring that new generations of musicians can engage with both global trends and local traditions.

Innovation as a Unique Competitive Advantage:

By adopting digital recording systems, virtual orchestration tools, and artificial intelligence in composition, Nigerian art music producers gain distinctive creative and technical advantages. These innovations enhance sound quality, widen artistic possibilities, and foster international competitiveness.

Restoring and Expanding Creative Skills:

Technological innovations encourage Nigerian composers and producers to acquire new skills in music technology, sound design, and digital mastering. As Onyebuchi (2018) observes, digital literacy has become an indispensable skill in contemporary Nigerian music education and production.

Rewriting the Basis of the Industry:

The introduction of advanced music technologies has redefined how music is conceived, produced, and consumed. As Vidal (2012) notes, the structure of Nigeria's music industry is shifting from analogue to digital, from performance-centered to technology-driven. This change reshapes the very foundation of art music production. Digital tools enable complex layering of sounds, expanded orchestration, and refined tonal balance.

Automation and Efficiency:

Automation in recording, mixing, and mastering processes has significantly reduced production time and cost while improving consistency and sound quality. Nigerian producers now employ automated mastering platforms and AI-based mixing systems to achieve professional-level output even in small studios.

Continuous and Gradual Innovation:

Innovation in Nigerian art music is not a one-time event but a gradual process. As Ekong (2020) highlights, the digital transformation of Nigerian art music evolves through continuous experimentation, adaptation, and knowledge sharing among musicians, educators, and producers. In essence, innovation in the Nigerian art music production scene serves as both a creative and economic catalyst. It fosters originality, supports cultural preservation, and enhances global participation. The continuous fusion of musical artistry with cutting-edge technology ensures that Nigerian art music remains dynamic, competitive, and culturally resonant in the twenty-first century.

Innovation, though often associated with invention, goes beyond the creation of new ideas. While invention refers to the generation of creative concepts, innovation involves translating those ideas into functional products, services, or processes that meet human and market needs (Adair, 2010). In Nigerian art music production, innovation manifests through the creative application of technology to expand artistic possibilities, enhance sound quality, and redefine musical experiences. In recent years, technological innovation has transformed the Nigerian music production landscape, blending traditional art music with digital tools such as MIDI sequencing, virtual instruments, and computer-based recording systems. Nigerian scholars such as Ojukwu

(2018) and Adeogun (2020) emphasize that this fusion between indigenous art music and digital technology has redefined compositional practices, enabling artists and producers to manipulate sound in more complex and expressive ways.

Although innovation is not yet fully established as a formal academic discipline like engineering or accounting, it is increasingly being recognized as a vital competency that can be developed through education and practice (Matthews & Brueggemann, 2015). In the Nigerian art music scene, institutions like the University of Lagos and the University of Nigeria, Nsukka, have begun integrating digital music technology into their curricula, thereby equipping students with both creative and technical skills relevant to the evolving music industry (Okafor, 2019: 10). However, it is worth noting that not all innovative ideas within the music industry translate into commercial or artistic success. As Schilling (2013) observed, only a small fraction of creative ideas evolves into viable products or sustainable innovations. This reality resonates in Nigeria, where despite the abundance of talented producers and composers, challenges such as limited access to high-end technology, insufficient funding, and piracy continue to hinder the full realization of creative innovations (Omojola, 2013, p. 13). (Omibiyi-Obidike, 2018, p. 20).

Nonetheless, technological innovation continues to drive growth in Nigeria's music sector by creating new revenue streams, improving production standards, and broadening global access to Nigerian art music. According to Olorunyomi (2021), the adoption of digital platforms such as YouTube, Spotify, and Audiomack has enabled Nigerian composers to reach global audiences, fostering both cultural exchange and economic empowerment. Ultimately, the innovative roles of technology in Nigerian art music production underscore the symbiotic relationship between creativity, culture, and digital advancement. As producers and scholars continue to explore these intersections, the nation's art music scene is gradually positioning itself as a model of cultural innovation in the digital age.

The emergence of modern technology has revolutionized the Nigerian art music production landscape, fostering innovation, precision, and accessibility in the creative process. Technology, described by Onwuegbuna (2017) as the scientific application of knowledge for productive ends, has transformed music-making in Nigeria from a largely manual and acoustic endeavour into a more digitalized and technologically driven art form. Contemporary Nigerian music producers

now employ various digital tools and software for recording, arranging, editing, mixing, and mastering sound, making the entire process more efficient and artistically engaging.

According to Euba (1989, p. 59) and Omibiyi-Obidike (1995), Nigerian art music rooted in traditional idioms yet influenced by Western compositional techniques has always adapted to changing cultural and technological environments. The advent of digital technology in the 1980s and its subsequent adoption in Nigeria marked a turning point in the way music is produced, distributed, and consumed. Scholars such as Oikelome (2012) and Omojola (2006) affirm that the integration of digital recording devices and compute-based systems has enhanced sound fidelity, simplified production processes, and enabled Nigerian producers to merge indigenous musical aesthetics with global sound technologies. This has given rise to a distinctive Nigerian sonic identity that is both modern and rooted in tradition. Digital innovation has democratized music production in Nigeria, providing opportunities for both established and emerging artists to produce high-quality works without depending solely on major recording studios. As Ajewole (2018, p. 45-58) notes, the use of Digital Audio Workstations (DAWs), virtual instruments, and mobile studio applications has made music production more inclusive, leading to an explosion of creativity and entrepreneurship within the industry. This technological revolution has also boosted commercialization and international recognition of Nigerian art music and popular genres alike, making Nigeria a major player in the global music economy.

Nevertheless, the rapid growth of technology in the sector presents challenges. As Oyesiku (2020) observes, the rise of home-based studios and self-taught production practices has sometimes undermined professional standards, raising concerns about sound quality and the preservation of musical integrity. Many artists now bypass professional producers and engineers, resulting in inconsistent production outcomes. Despite these issues, the advantages of technological innovation remain overwhelming, providing a platform for experimentation, collaboration, and educational development.

In alignment with the United Nations Sustainable Development Goal on Quality Education, technological advancement in Nigerian art music production enhances skill acquisition and digital literacy among young musicians and producers. It has become an indispensable tool for creative expression, research, and industry growth. As such, technology continues to redefine the Nigerian

art music scene bridging tradition and modernity, and positioning the nation as a dynamic contributor to global music innovation.

Challenges Facing Art Music Digitalization in Nigeria

Despite these advancements, several challenges persist. Limited access to high-quality recording equipment, inadequate technical training, and the high cost of software licensing hinders many Nigerian art music producers from fully utilizing available technologies. Furthermore, unstable power supply and poor internet infrastructure affect consistent productivity. To address these challenges, continuous investment in digital literacy, infrastructure development, and industry collaboration is necessary.

The pervasive adoption of digital technologies has revolutionized how Nigerian composers and producers create and distribute their works. Platforms such as Spotify, Boomplay, and Audiomack have democratized access to audiences, while social media tools like YouTube and Instagram serve as promotional and educational spaces for art musicians. In this regard, innovation becomes a tool for both artistic and economic survival. As Euba (2009) emphasizes, innovation in Nigerian music is not simply about modernity but about reinterpreting tradition within new frameworks of sound and expression. The use of Artificial Intelligence (AI) in composition, cloud-based recording systems, and automated sound engineering are examples of how technology fosters efficiency and global relevance.

Prospects for the Future

The future of art music production in Nigeria depends on institutional partnerships, investment in music technology, and creative research. Universities offering music programs should integrate digital production courses, while private studios can serve as innovation hubs. Furthermore, promoting Nigeria's digital art music on international platforms could enhance cultural diplomacy and creative export.

Theoretical framework

Diffusion of Innovation Theory (Everett Rogers, 1962)

This study adopts the Diffusion of Innovation Theory (Everett Rogers, 1962) The Diffusion of Innovation (DOI) Theory explains how innovations, ideas, practices, or technologies spread through specific populations or social systems over time. According to Rogers (1962), adoption happens through five key stages: Knowledge awareness of the innovation, Persuasion forming an attitude toward it, Decision choosing to adopt or reject it, Implementation putting it to use, Confirmation validating the results of adoption. He also identified categories of adopters: innovators, early adopters, early majority, late majority, and laggards. This theory explains how Nigerian art musicians and producers discover, accept, and integrate innovative technologies such as digital audio workstations (DAWs), MIDI controllers, AI-based mastering, and online distribution platforms into their production process.

Technological Determinism Theory Marshall McLuhan (1964)

Technological Determinism Theory Marshall McLuhan (1964), posits that technology is a primary driver of social and cultural change. The theory suggests that technological development is the primary force shaping human society, culture, and behavior. McLuhan's idea that "the medium is the message" emphasizes that the form of a medium influences how we perceive and engage with the world not just its content. This framework helps explain how technology has redefined Nigerian art music influencing not only production methods but also artistic creativity, sound quality, performance, and audience engagement. For instance: The introduction of digital recording changed the aesthetics of traditional art compositions. Music editing software and auto-tuning introduced new sonic identities. Streaming and social media have transformed audience interaction and global visibility. Thus, Nigerian art music is not just being "produced" differently; it is being conceptualized and experienced differently because of technological mediation, that technology is not neutral, it actively shapes creative practices and the evolution of Nigerian art music. It positions digital innovation as a cultural force influencing rhythm, instrumentation, and performance aesthetics.

Nigerian scholars like Okafor (2015: 8) and Omibiyi-Obidike (2018:87) support this view, noting that technology has revolutionized music creation in Nigeria by merging indigenous soundscapes with modern production tools, thereby redefining the nation's musical identity

This study highlights the shift from traditional methods to digitally enhanced practices, showing how access to sound engineering tools, online platforms, and streaming services are reshaping both creative processes and employment structures in the music industry. It also examines how digital tools are being integrated with indigenous musical traditions, fostering new creative directions and reconfiguring production workflows. The research emphasizes the role of technology in preserving indigenous compositions while promoting digital literacy and skill development among artists.

Methodology

The study adopts a qualitative descriptive research design based solely on secondary data analysis, carefully selected to provide credible, relevant, and contemporary insights into the intersection of technology and Nigerian art music production.

Method of Data analysis

A major source of data for this study is content derived from digital platforms where composers and producers actively share their work and production processes.

YouTube channels featuring music productions, tutorials, and studio sessions.

Social media platforms such as Instagram, TikTok, and Facebook, where artists showcase studio setups, workflows, and creative outputs.

Digital Archives and Streaming Content: The study utilizes materials from digital archives and streaming platforms, including:

Recorded music (audio and video formats)

Documented live and studio performances

Curated playlists and digital music libraries

Artist-Generated Content and Statements were also gathered from materials produced by artists themselves including:

Interviews and commentaries shared online

Artist statement and production notes.

Data Collection Procedure

Relevant materials were identified through systematic searches using key terms such as technology in music production, digital audio in Nigeria, Nigerian art music and music technology innovation. Priority was given to recent and credible scholarly works, the selected document were carefully reviewed and pertinent information was extracted, organized, and categorized according the study objectives.

Method of Data Analysis

The study employs thematic content analysis to analyze the collected data this involves:

- 1) Identifying recurring themes related to technology, innovation, and music production
- 2) Grouping similar ideas into categories such as tools, impact, challenges, and opportunities
- 3) Interpreting patterns and relationship across different scholarly view points

Findings

- 1) The emergence of digital hybridity in music production

The study found out that Nigerian composers and producers actively integrate traditional musical elements with digital technologies, resulting in hybridized sound forms

- 2) Increased sonic experimentation

Evidence from tutorials, studio sessions, and shared production workflows indicates a high level of experimentation among Nigerian producers. Digital tools enable manipulation of

pitch, timbre, tempo and effects, allowing artists to explore unconventional sounds and innovative compositional styles.

3) Accessibility and democratization of production tools

Observation across social media platforms reveals that many producers operate from home studios equipped with relatively affordable digital tools.

4) Informal leaning and sharing

YouTube tutorials, online forums, and social media interactions serve as major avenues for skill acquisition and professional development. Most producers share step-by-step guides, production tips, and behind the scene content, fostering a collaborative learning environment.

However, the findings indicate that digital platforms have become central to the evolution of Nigeria art music is production. They not only facilitate creativity and innovation but also reshape how knowledge is acquired, how music is produced and how it is consumed.

Recommendations

Given the results and issues found, the following are suggested to improve the efficient incorporation of technology in Nigerian art music

- 1) Nigerian music training facilities and music training centers should integrate music technology courses in their curriculum. Practical instruction in digital audio, production, and the use of modern production equipment, and sound engineering must be prioritized
- 2) The public and private sector should work together to invest in the creation of infrastructure for music technology, such as well-equipped digital studios, centers for creativity and innovation.
- 3) To address challenges of diminishing quality, efforts should be made to build and implement best practices and professionals standards in music creation.

Conclusion

The exploration of innovative roles in technology within the Nigerian art music production scene reveals that creativity, risk management, and sustainability are deeply interconnected. Technological innovation not only enhances artistic quality but also serves as a foundation for economic growth, visibility, and global participation. However, to maximize these benefits, Nigeria must invest in digital infrastructure, capacity building, and local research to ensure that technological tools are adapted to the nation's cultural context.

As technology continues to evolve, Nigerian musicians and producers must adapt by embracing digital literacy, creative experimentation, and collaboration. When properly harnessed, technology will not only enhance artistic quality but also position Nigerian art music as a competitive force in the global creative economy.

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