

GREENING THE SCREEN: THE ECONOMIC VIABILITY OF SUSTAINABLE PRACTICES IN NOLLYWOOD FILM AND TELEVISION PRODUCTION

Jawahir Imaam Isah, Binta Kasim Mohammed, Mendos Bala Dogo & Ayodele B. Joseph

Department of Mass Communication, Kaduna State University.

zahrajawahirimaam@gmail.com

dr.bkmohammed@gmail.com; mendos.dogo@kasu.edu.ng; josephs.ayodele@kasu.edu.ng

Abstract

The film and television industry faces mounting pressure to reduce its environmental footprint due to significant energy consumption, material waste, and carbon emissions. This study examines the economic viability and strategic importance of adopting sustainable practices in screen production. Grounded in the Triple Bottom Line (TBL) theory and the Resource-Based View (RBV), the research highlights how integrating environmental and social responsibility enhances organizational competitiveness. The study adopts the secondary research approach, reviewing academic literature, industry reports, and policy frameworks to analyze cost-benefit implications, operational challenges, and opportunities linked to sustainable film production. Evidence from global practices in Hollywood and Nollywood, indicates that green technologies—such as LED lighting, renewable energy systems, and virtual production—raise initial production costs by 5–15%. However, long-term advantages include reduced operational expenses, improved energy efficiency, and stronger brand reputation. Incentives such as tax rebates and sustainability certifications further promote adoption. Barriers remain, including cultural resistance, technological limitations, and policy inconsistencies, especially in emerging markets. The study concludes that sustainable production is economically feasible and environmentally essential when framed as a strategic investment. It significantly lowers carbon emissions and fosters stakeholder trust. Hence, the study recommends government expansion of tax incentives, mandatory green standards by industry bodies, increased investment in energy-efficient technologies, and capacity-building programs to cultivate sustainability culture across the global screen industry.

Keywords: Sustainable film production, Triple Bottom Line, Resource-Based View, green technology, media sustainability, carbon footprint reduction.

Introduction

The media industry, which is a leading cultural and economic activity, puts many pressures on the environment because of energy and resource consumption, and waste production as a result of its energy-intensive activities. The increasing issue of climate change has brought the prevailing climate awareness across the world, influencing key stakeholders to employ sustainable processes that have become known under the moniker of greening the screen (Brett, 2023). Such behaviors involve controlling carbon emissions, energy minimization, recycling and introducing virtual technologies that will be used instead of heavy on resources sets (Light-Based Studio, 2024). Protocols in the industry such as the Albert Sustainable Production Certification have been established in the quest to offer green standards and hence, promote green productions (Albert Sustainable Production Certification, n.d.). But even with these developments, the economic feasibility of such practices is still in question and this is also a major factor that makes a bigger adoption of such practices doubtful.

Among the major challenges is the perception that sustainability is an expensive way of increasing the price of production (Bordass & Leaman, 2021; Maxwell & Miller, 2022). Green solutions like LED lighting substitutes, renewable energy incorporation, and environmental-friendly materials usually entail expensive initial costs considered financially challenging by the producers (Corbett & Turco, 2006; Keilbach & Spoler, 2022). However, reports indicate that such cost can be defrayed by the energy use and resource smart savings in the long term (C-I Studios, 2024). Moreover, techno-economic evaluations demonstrate that sustainability in production is correlated with international developmental objectives and has further implications in the context of the operation of

the organization that aim not only at a decrease in costs (Askari & Parsa, 2024).

Economic viability is also influenced by the outside factors such as audience expectation and institutional incentive as well. Brands that implement green processes regularly achieve competitive edges in reputation and observing the environment regulations (Light-Based Studio, 2024). Tax rebates and eco-bonuses form another group of financial motivators that lower the cost hurdle and establish a system in compliance with which sustainability and profitability are maximized (Albert Sustainable Production Certification, n.d.; C-I Studios, 2024). Additionally, most early predictive models indicate that the incorporation of sustainability may provide long-term financial performance by favoring environmental-sensitive consumers and investors (Lash & Zhao, 2015).

Along with these opportunities, there are challenges such as unequal access to green technology and cultural resistance to a change in the operation (UNEP, 2023; IPCC, 2022; OECD, 2024). Less-experienced individual producers do not usually have the necessary finances and technical resources to be able to apply sustainable measures effectively (Keilbach & Spoler, 2022). In addition, the lack of standardized measures that allow quantifying the cost-effectiveness makes it easier to justify the economic context of such practices (Light-Based Studio, 2024). The solution to such barriers would need to be systemic in the sense that it would incorporate technological innovation coupled with policy implementation, and economic modeling to show that green production is possible (Askari & Parsa, 2024). There upon, this study will look at the possibility of reconciling sustainability and profitability in the motion picture and television business and will inform producers, policymakers, and other stakeholders on the way forward towards environmentally conscientious production in the media

industry.

Objectives of the Study

1. To examine the economic viability of adopting sustainable practices in film and television production, focusing on cost-benefit implications and long-term financial sustainability.
2. To examine the challenges associated with implementing green production strategies within the film and television industry.

Concept of Sustainability in Film and TV Production

Greening the media is based on the idea that the environmental impact of the media operation can be reduced ensuring economic and creative sustainability. It has been stressed by that screen production historically consumed only massive amounts of energy, materials, and logistic to be able to leave a huge carbon imprint (Marks, 2020). It has been assumed that sustainable practices will contribute to the needs of these challenges with the help of energy-efficient technologies, renewable energy sources, and minimized waste related to set construction and transportation (Shriver-Rice & Vaughan, 2020). Sorensen and Noonan (2022) pointed out that the exploration of the need to integrate sustainability in screen industries should not only be experimental but rather meant to be effected by policy as part of the response to climate change and social demands.

Sustainability in this regard is also conceptualized based on the model of sustainable business models balancing economic, social and ecological agendas. Nosratabadi, Mosavi and Lakner (2019) shared the view that the media industry can embrace a circular economy principle to reduce wastage of resources by reusing its sets, costumes and prop. In the same vein, Serio et al. (2020) mentioned that green

production strategy is a survival business feature of creative enterprises, especially in a competitive market environment where the business user practices environmental responsibility is becoming a major concern of consumer behavior and investor decisions.

Still, there are industry-based initiatives that have influenced the term sustainable screen production by providing practical guidelines and certification schemes. Producers Guild of America has also formulated the Green Production Guide to offer best practices, tools, and carbon calculators to help the filmmaker in taking sustainable actions (Producers Guild of America, n.d.). It is an indication that the idea of sustainability can be implemented at the production level, and policy frameworks and technological advancements are implemented into everyday operations (Sorenson et al., 2022). Wroblewska (2021) underlined that this type of institutional framework is critical in standardizing sustainability activities across locations, particularly within the emerging markets where consciousness and support structure concerning green production are scanty.

Additionally, sustainability is a purpose beyond the processes of production; it concerns distribution and consumption patterns, especially so in the digital streaming age. Marks (2020) hypothesized that although digital distribution has disparate implications in regard to physical resources, it creates substantial energy requirements via data centers and contents distribution networks, hence necessitating sustainability in media life cycles at all levels. The sustainability issue also cuts across the issue of runaway production which can be defined as the practice of moving shoots to areas with tax breaks (Runaway production, n.d.). Thus, sustainability in motion picture and television production cannot only be equated with technological innovation but rather policy change, collaboration with stakeholders, and

systemic transformation to ensure that long-term environmental and economic sustainability are obtained (as repeated by Shriver-Rice and Vaughan, 2020).

Economic Implications of Sustainable Practices

Cost–Benefit Analysis

Academics have made several arguments in support of the idea that costs must be evaluated both in the short term and long term and returns weighed when the decision on using sustainability in media production is made. An estimate produced by Laura (2020) concerning the carbon footprint of streaming media revealed that streaming in high definition can produce up to 77kg of CO₂ per hour, which shows a significant amount of the environmental and economic cost that digital distribution has incorporated into it. Equally, Piotr, Jan, and Viviane (2020) advanced the argument that lifecycle analyses to comprise the behavior of users and devices selected, in that streaming at smart TV level can generate up to ten times CO₂ compared to streaming at smartphone level. These results show that operational energy consumption, delivery and content emissions, and device-based inefficiencies need to be internalized in a cost-benefit analysis.

Staying within the framework of the theory of sustainable business models, Saeid, Amir and Zoltan (2019) proposed the frameworks of building business models that consider the ecological and economical value. They claimed that principles of a circular economy, i.e., the reuse of sets, costumes, and materials, can drive waste down, and sort properties: cost savings and the reputation. Carlo, Giulia, Luca, and Valeria (2020) supported this point of view by once again stating that all companies adopting green production methods tend to improve their financial sustainability and competitiveness, especially those related to rapidly changing creative sectors. Their investigation

demonstrated that startups that used environmentally responsible means of production had better chances of survival and success because of cost-efficiency, and goodwill of stakeholders.

Incentive Structures and Funding

Policy structures and incentives are very important in helping to mitigate initial capital challenges to green production. According to Jesper and Caitriona (2022), when screen industries are supported through regulation and policy instruments, they react stronger to sustainability. It has been found that the presence of the tax rebates, grants, and bonus schemes that are directly pegged on the validated green practices are also uniquely successful at reducing net production costs to a remarkable extent and making adoption much easier.

According to Mary and Deborah (2020), institutional supports, which include sustainability certification and industry-led tools, such as carbon calculators, boost the producers with the ability to plan and budget environmental actions. Green Production Guide developed by the Producers Guild of America, on the one hand, provides efficient guidance and measurement facilities that make eco-investments more visible and scalable (Producers Guild of America, 2020). Also, Monika, (2021) highlighted the importance of structuring incentive programs to involve even the smaller producers in the growing markets, which being under-resourced otherwise, prevents involvement in sustainable standards. She thought that availability of affordable funding mechanisms and certification programs that can increase with scale are criteria that can induce equal sustainability adoption at different levels of production.

Barriers to Green Production

Cultural Resistance

Cultural resistance remains one of the greatest barriers to sustainability adoption in Nollywood because many filmmakers and production crews are deeply attached to traditional methods of film production that prioritize speed and low cost over environmental responsibility. For example, during movie productions in Lagos, Asaba, and Enugu, many producers still rely heavily on diesel and petrol generators throughout filming due to unstable electricity supply, while reusable set materials, costumes, and props are often discarded after production instead of being recycled for future use. Similarly, printed scripts are commonly distributed to actors and crew members even when digital alternatives such as WhatsApp or tablets could reduce paper waste. This resistance is further reinforced by the informal and temporary nature of Nollywood productions, where crews are assembled for short-term projects and dissolved immediately after filming, making it difficult to establish long-term sustainability practices or organizational environmental policies. In many outdoor shooting locations, waste such as plastic bottles, food packs, and nylon materials are sometimes abandoned after filming because environmental cleanup is not traditionally viewed as part of production responsibility. These realities show that sustainability challenges in Nollywood are not merely technical but are strongly connected to entrenched production culture, lack of environmental awareness, and resistance to changing familiar industry practices (Sustainability Directory, 2025; C I Studios, 2024; Studocu, 2024).

Technological Challenges

The technological barriers are complex, as they include not only access to higher green

solutions but also adverse effects of digital expansion that are neither planned nor desired. Although tools of virtual production such as LED volumes and real-time rendering are capable of reducing physical travel and material expenditure, mere adoption of virtual production systems requires a high level of technical expertise and training and most production teams do not possess significant expertise (Sustainability Directory, 2025). Again, in the same manner, the energy cost of high-performance computing and digital editing turns high performance and digital editing into a complex energy sink that creates a lot of electronic waste, particularly when one uses older or non-efficient infrastructure (Movie Makers News UK, 2024). Moreover, the latest trends, including the carbon-tracking programmes and the renewable energy infrastructure, are typically devoid of standardisation, whereas this factor enlarges the number of concerns about reliability, the magnitude, and the maintenance (Environmental Innovation Review, 2025).

Financial Concerns

The financial resources still present a barrier to sustainable adoption especially among independent and small-scale producers. The financial investments in environment-friendly resources, green energy infrastructure, or green freight planning are usually considered incapacitating, in the case of limited budgets and timeframe operations (Sustainability Directory, 2025). Buy-in is hard to obtain without any concrete data on cost savings and ROI even when cost savings and ROI are clear, in the long-term, and many decision-makers are used to focusing on short-term expediency rather than bequeathing to the future (C I Studios, 2024). Also, the poor coordination and scalability of the funding mechanisms or harmonization of incentives among criminations also contribute to the uncertainty of budgetary resources hindering the widespread attraction

to green production (Studocu, 2024).

Theoretical Framework

Triple Bottom Line Theory

The Triple Bottom Line (TBL) Theory, propounded by John Elkington (1994) is one of the foundational theories to analyze the economic sustainability of sustainable film and television production. TBL states that it is very important that an organization's success should not be based purely on financial performance; it should also be considered in terms of social and environmental aspects, also known as three Ps, i.e. the People, Planet and Profit (Elkington, 1994). Based on this theory, producing green should encompass production that creates not only monetary returns but also parts of the environment responsibility as well as social accountability. For example, utilization of renewables in productions on film sets or the reduction of wastes also complies with the planet dimension whereas maintaining safe and healthy working environment of the crew members complies with the people dimension. Meanwhile, the profit component of this taxonomy has been satisfied by remaining profitable due to low cost sustainable practices. This combination highlights the fact that sustainable film-making is not about a compromise between ecology and economics but rather about a strategic fit between the environmental ethics and business prosperity. TBL also creates a balanced criterion that assesses the short term expenditures versus the long term gains of the producers in a financial and a reputational perspective. Within the Nigerian film industry, producers are increasingly confronted with the challenge of maintaining

profitability while also reducing environmental degradation caused by excessive energy consumption, fuel generator usage, transportation logistics and material waste during production processes. Consequently, the adoption of energy-efficient technologies, digital production system, and waste reduction production in Nollywood aligns with the TBL principle of balancing "Profit, Planet, and People."

Methodology

The study adopts a systematic literature review approach, drawing on previously published scholarly works, industry reports, policy documents, sustainability certifications, and case studies relating to sustainable practices in film and media production. The review followed a structured procedure involving a search strategy, inclusion and exclusion criteria, and thematic analysis to ensure a comprehensive and systematic examination of relevant literature. As part of the search strategy, electronic databases, including Scopus and Semantic Scholar, were systematically searched using relevant keywords and phrases such as "green media industry," "sustainable film production," "green technology," and "media sustainability." These search terms were combined in different ways to identify literature relevant to the study objectives. The inclusion criteria focused on articles and documents that examined sustainable film production, green technology, or media sustainability, while also engaging with relevant theoretical frameworks such as the Triple Bottom Line (TBL) and the Resource-Based View (RBV). Only peer-reviewed journal articles, books, policy documents, sustainability certifications, and relevant case studies published in English were considered for inclusion. Conversely, exclusion criteria were applied to omit studies that addressed sustainability without specific reference to

green technology, publications unavailable in English, and opinion-based articles lacking theoretical grounding. The selected materials were analyzed thematically, with findings organized in line with the study's two research objectives.

By synthesizing information from credible academic sources, sustainability certifications, and case studies, the study provides a comprehensive understanding of the economic implications, barriers, and strategic frameworks associated with green production practices in the film and media industry. This approach ensures that the research is grounded in evidence-based insights while incorporating diverse perspectives to effectively address the study objectives.

Findings and Discussion

Current State of Sustainable Practices in Screen Production: Case Studies: Hollywood, UK, Australia, and Nigeria.

Hollywood (US):

The findings reported recent research on sustainability in the global screen industry shows that although environmental awareness has increased significantly, the carbon footprint of film production remains substantial. According to the British Academy of Film and Television Arts (BAFTA) Albert report (2023), production travel and transportation alone account for the largest share of emissions in film and television production, often exceeding 50–60% of total production-related carbon output. Similarly, the Green Production Guide (2024) reports that while virtual production technologies and digital workflows reduce physical set construction and location travel, they simultaneously increase electricity consumption due to high-performance computing, rendering, and data storage demands. In addition, research by

Freeman et al. (2022) in the Journal of Cleaner Production highlights that sustainability initiatives such as carbon tracking systems, eco-audits, and green set design have improved efficiency and reduced waste in some productions, but their adoption remains uneven across the industry due to cost and technical capacity constraints. Overall, these findings indicate that although the film industry has made measurable progress in integrating sustainability practices, particularly in Hollywood and major streaming productions, significant environmental challenges persist, especially in energy consumption and production logistics. According to the information provided by Marks (2020), it is also possible to state that virtual production and digital workflow have contributed to minimizing the waste of materials and use of transportation emissions but energy use in streaming and post-production is also far too high. According to a report by Shriver-Rice and Vaughan (2020), around 55 percent of the productions in Hollywood now engage in the carbon offset programs, whereas eco-friendly designs of sets result in an average of 10 percent savings on production expenses. Such results show the gradual encroachment of sustainability approaches into the mainstream U.S. film production whereas issues still prevail in shrinking total energy footprints.

United Kingdom:

New practices of sustainability in the UK have now been institutionalized mainly through the Albert Certification Program that is BAFTA's initiative introduced in 2011. Sorenson & Noonan (2022) report level of diversion of waste exceeding 75 percent of the production by following Albert standards, and significant cost-saving is accomplished by reuse and recycling programs. According to Keilbach and Spoler (2022), another aspect of sensitivity to sustainability in the UK is the shift of the industry in sustainability as a

voluntary mechanism to a mandatory industry standard due to broadcaster compliance policy and government incentives. This is an indication that a mature sustainability culture is present with green production that is not only environmental but economic-driven.

Australia:

As Wroblewska (2021) observes, Australia has done very well in integrating sustainability into the screen reality with considerable progress to achieve this goal being adoption in the practices of the Screen Australia guidelines and funding requirements. According to a case study of the ABC drama *Fires*, a set of measurable successes can be noted, such as the production has avoided using 8,275 single-use plastic bottles, composted 798 kg of organic waste, and recycled several materials (Shriver-Rice and Vaughan, 2020). Such initiatives which are monitored through carbon calculators, such as *Albert*, indicate that such measures are affected and will help drive sustainability as a performance metric of Australia productions.

Nigeria:

Sustainable practices have not yet matured in Nigeria. Iorapuu (2023) emphasized that document film festivals, in this case, the iREP Documentary Film Festival, act as cultural spaces of environmental culture promotion, thus, an event supporting discussions on sustainability. Equally, Nwachukwu (2022) describes that experimental filmmakers are now turning more to the low-energy digital technologies as well as community-based production models to accommodate sustainability development agendas. Nevertheless, the research has shown that info-structural deficiencies and financial constraint remain a barrier to broad usage of green practice in the Nigerian film industry.

Nollywood (Nigeria):

Sustainable production practices in Nollywood are still at an emerging stage, largely shaped by infrastructural limitations, financial constraints, and uneven awareness across production stakeholders. In practical terms, most Nollywood productions continue to rely on diesel generators for power supply, printed scripts for cast coordination, and disposable set materials that are rarely recycled due to the fast-paced and low-budget nature of production. However, there are emerging pockets of sustainability consciousness within the industry. For instance, events such as the iREP Documentary Film Festival have become important cultural platforms where environmental storytelling and sustainability awareness are promoted, encouraging dialogue among filmmakers and audiences on responsible production practices (Iorapuu, 2023). In addition, some independent and experimental filmmakers are gradually adopting low-energy digital workflows, mobile-based production techniques, and community-driven filming approaches that reduce logistical and energy demands (Nwachukwu, 2022). Despite these developments, the broader industry remains constrained by weak infrastructure, limited access to green production technologies, and insufficient funding for sustainable filmmaking practices, which makes widespread adoption of environmentally responsible production methods difficult to achieve in practice.

Economic Viability (Short-Term vs. Long-Term Cost Implications)

Industry data indicates that, in the short term, green production activities like employing dedicated sustainability coordinators, investing in energy-efficient fixtures, or

ecofriendly material sourcing can augment line items spending by 5-15 percent or so of the total spending on production (WifiTalents, 2025). The statistics that the Sustainable Production Alliance and the Producers Guild of America gathered reveal that the early costs of switching to LED lighting or the use of reusable parts of the set can be increased in the short-term (Time, 2024). But according to research results, such costs begin to decline significantly during the lifetime of the production-attributable to waste of materials, avoiding fuel power generators and one-time procurement (Ecoprod, 2025).

Not to mention, statistics based on the French Ecoprod research point to the fact that the adoption of its Label approach resulted in a 41-percent decrease in greenhouse gas emission without raising the overall budgets due to the candidacy of its efficiency and planning advantages (Ecoprod, 2025).

On the contrary, long term financial consequences of green practices are likely favorable. Industry wide statistics show that an average of 10 percent of the total costs are cut down in sustainable productions due to the cost containments in energy consumption, waste disposal and other logistics (WifiTalents, 2025). According to database analysis done by Shi et al (consistent with the Ecoprod), the use of modular design, virtual production and recyclable sets material results in sustained cost savings. Moreover, the cost of travel by up to 30 percent stand to benefit as a result of virtual production set ups in LED volumes, which will be converted to production savings (Sohonet, 2024).

Impact on Profitability and Competitiveness

The scientific evidence shows that sustainable manufacturing is able to increase the level of profitability and competitiveness. The case of The Amazing Spider Man 2 (Online Forbes case profile, 2022), reports

that the profit after-action has resulted in saving up to \$400,000 from recycling measures, the application of bioplastics, and the donations program, showing that sustainability can be financially quantifiable by profiting (Forbes, 2022). Meanwhile industry analysts have projected that the worldwide film industry has the potential to avoid the spending of more than 150 million dollars per year by going greener in to a larger extent and both the studios and the local economies in general stand to gain (Gitnux, 2025).

As well, eco-minded branding and stakeholder demands are playing an important role in the competitiveness of the market. According to Gitnux data, 60 percent of the filmmakers feel that sustainable practice is necessary to achieve their long term growth whereas more than 80 percent of the production firms have claimed that their reputation, and that of the audience, has increased after the implementation of sustainability (Gitnux, 2025). The results of the research indicate that green certifications (e.g., Albert, LEED, Green Seal) give the studio edge in the bid for the projects or funding (Time, 2024; SPA/Producers Guild initiatives).

Lastly, academic studies confirm the notion that companies practicing sustainability in their basic business model are more resistant in monetary terms. An analysis of the Italian startups reveals that the relative chance of viability of green enterprises was 2 times higher than that in a non-green counterpart even with other factors (Serio et al., 2020). It highlights the strategic appeal of sustainability, namely, its true cost efficiency, as well as its potential to promote its long term viability and credibility within any competitive creative market.

Environmental and Social Impact

Carbon Footprint Reduction

Statistics provided by Marks (2020) say that the entertainment industry is one of the largest causes of greenhouse gas emissions, and traditional filmmaking results in generating thousands of tons of CO₂ per project as a result of the light- and set-construction, and the traveling. Nonetheless, this effect is greatly alleviated by green production practices. As an illustration, the Albert Certification Program in the UK claims that productions meeting its sustainability threshold recorded an average 40 percent cut in the number of carbon emissions in comparison with traditional practices (Sorenson and Noonan, 2022). Likewise, information on the Ecoprod initiative reveals that the demodulation of the renewable energy source and the use of reusable set materials can lower the emissions by 41 percent, and the effect will not pinch the production budgets (Serio et al., 2020). Case studies conducted in Australia indicate that productions that use carbon calculators and green logistics have realized quantitative improvements in consumption of single-use plastics and on-set energy (Wron Market, 2021). These results point to the conclusion that carbon management measures including digital workflows, LED lighting and sustainable transport can significantly reduce screen industry ecological footprint without compromising efficiency of screen industry.

Brand Reputation Benefits

There has also been a research result that indicates that embrace of such sustainable practices increases the brand equity and audience relish of a production company. Sorensen and Noonan (2022) refer to the positive relationship with such masters of the world as broadcasters and investors that environmentally responsible studios enjoy as green certifications become almost a prerequisite to receive financing or international co-production partner. In a similar vein, Gitnux (2025) notes that more than 80 percent of the production companies

incorporating sustainability initiatives notice an improvement in their perception among the masses as viewers compared productions that reflect environmental friendliness with social responsibility of the respective corporations and innovation on their part. Sustainability branding in Hollywood, as in other competitive markets, is also used as a differentiator, which allows attracting environmentally aligned talent and sponsors (Shriver-Rice & Vaughan, 2020).

Challenges

High Upfront Costs

The cost of sustainability of technology and processes used as one of the most expressed barriers impairing the use of sustainable production in film and TV productions. Corbett and Turco (2006) point out that producers assume that green initiative, including the lighting system to use LED, the usage of solar-powered generators, and the acquisition of renewable sources, is costly, and that discourages the mass adaptation. As Marks (2020) says one more time, these technologies lower the long-term operational costs, but they are highly expensive and remain an impediment to the small and independent production companies. This temporary financial stress is especially troubling in the areas where production budgets are already low, which means that the industry cannot become greener using greener methods.

The Non-Provision of Policy Support to Certain Areas

Sørensen and Noonan (2022) argue that regulatory systems associated with sustainable media production are not universal, and this becomes a source of slowing down the standardization of media across the globe. Whereas in developed economies such as the UK and Australia, systems such as Albert are well established for certification of green products, in many

developing markets, there are no structured policies or monetary incentives to work towards green production, Nigeria being one of them. It remains unclear to what extent such a lack of institutional support translates to a lack of uniformity in adoption, let alone that the sustainability is more bootstrapped to individual action than to systemic requirements (Keilbach & Spoler, 2022). The absence of government-driven initiatives also promotes inequalities between big studios that have access to resources and distributors and small independent filmmakers who could not meet the sustainability thresholds

Incentive Programs (Tax Rebates, Grants)

Although incentive programs in the areas where it has been adopted has shown to be effective even in the areas where the policy gaps prevailed still present's film significant challenge. Gitnux (2025) comes to the conclusion that eco-bonuses, tax rebates, and sustainability-linked grants in jurisdictions are seen to be associated with more green certification achievements in productions; however, access to such incentives remains uneven across jurisdiction. As an illustration, some states of the United States and European nations offer economical offsetting when sustainability requirements are met, and this further propped up the industry to comply with environmental standards by alleviating the cost constraints that have to be faced at the outset (Shriver-Rice & Vaughan, 2020). Consequently, production companies operating in areas without these incentives continue to face financial burdens in adopting environmental sustainable practices restricting long-term effectiveness.

Technological Change (LED Lighting, Virtual Sets)

Technological transition also constitutes a major challenge in achieving sustainable film and television production. As it was demonstrated in a study by Marks (2020), new technologies creating energy-reducing

improvements, like LED lighting systems and virtual production technologies, are beneficial enough to cut on energy consumption and carbon emissions beyond recognition. The LED lighting can reduce electricity consumption alone by up to 70 percent versus incandescent fixtures, and the use of virtual sets serves to minimize physical sets building and location travel involving high costs and emissions. Although innovations such as LED lighting systems and virtual production technologies have the capacity to reduce energy consumption and carbon emission, the high cost of acquiring and maintaining which remains a barrier, particularly for a low-budget production and developing film industry. Moreover, Shriver-Rice and Vaughan (2020) believe that they may change the competitive edge of technologies to become the norm in the industry, which will allow sustainable production practices to become more of a mainstream in the world. Therefore, the unequal access to technological resources continues to widen the sustainability gap between well-funded productions and smaller production film industries.

Conclusion

This study concludes that sustainability in film and television production can no longer be just secondary factors and must become key processes of bringing the creative industry in line with international climate and sustainability objectives. Results indicate that initial adoption has a high upfront cost and geographical policy mismatch but the future financial and operational efficiency and positive environmental impacts far outweigh these barriers. Experience in Hollywood and Nollywood shows that a systemic approach to incorporation of sustainability which includes application of energy efficient technologies, waste reduction methods, carbon tracking can not only result in significant cost savings, decreasing carbon footprints and improved brand image.

In addition to this, the research confirms that economic feasibility is feasible with the view that sustainability can be treated as a strategic investment, but not a cost. This can be overcome by use of technological inventions like, LED lights and virtual sets which along with incentive programs like tax rebates and grants, offer viable avenues to surmount the initial cost barriers. Also, the reputation benefits of eco-certification and environmentally responsible branding will make businesses and brands more competitive and trusted by their stakeholders and make sustainability an ethical and business necessity.

The difference is, however, still noticeable in the new and coming markets like that in Nigeria, where infrastructure is lacking as well as regulatory frameworks and financial constraints are slowing down the implementation of green practice extensively. These gaps will need stricter policy measures, partnerships with industry, and knowledge platforms to facilitate the production of goods to support the sustainable production environment worldwide.

Recommendations

1. Governments should provide targeted subsidies and tax incentives to improve the economic viability of adopting sustainable film production technologies in emerging industries such as Nollywood producers.
2. Countries with emerging film industries, such as Nigeria, should implement clear regulatory frameworks mandating sustainability standards similar to the UK's Albert Certification.
3. Film regulatory bodies should develop context-specific sustainability frameworks that reflect differing industry capacities rather

than applying universal green production standards.

4. Producers should assess the cost–benefit implications of green technologies before adoption to ensure long-term financial sustainability in film and television production.
5. Film stakeholders should gradually integrate low-cost sustainable practices (e.g., energy efficiency and digital workflows) to take advantage of emerging opportunities in green production.

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