

# Impact of Electronic Media on Rural Development in Nasarawa Eggon Local Government Area, Nasarawa State, Nigeria

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## ABSTRACT

Despite the growing relevance of electronic media in disseminating information and supporting development, many rural residents continue to experience persistent problems that hinder their effective use. These include frequent power outage, poor network connectivity, low digital literacy and unaffordability of electronic devices. This study investigates the impact of electronic media on rural development in Nassarawa Eggon Local Government Area, Nasarawa State, Nigeria. A total of 400 copies of questionnaire were administered to rural residents, with 398 returned and analyzed using simple percentages and frequencies. The findings underscore the significant role electronic media plays in advancing rural development in the study area. Traditional media platforms, particularly radio, remain the most widely utilized due to their affordability, simplicity, and accessibility, especially for rural residents. Electronic media has proven to be instrumental in several aspects of rural development. It has improved agricultural practices by providing timely and practical information, enhanced educational opportunities by delivering accessible learning content, and increased health awareness by disseminating critical health information. Furthermore, electronic media has strengthened community engagement by facilitating communication and participation in local development initiatives. Despite these achievements, the study also reveals significant challenges that hinder the full potential of electronic media in rural development. These include unreliable electricity supply, high costs of electronic devices, inadequate network coverage, and a lack of localized content tailored to the specific needs of rural populations. The findings indicate that collective media engagement (45.0%) and community radio stations (39.4%) are seen as the most effective ways for local leaders and communities to enhance electronic media access. The study recommends that policymakers and development practitioners prioritize investments in rural infrastructure, digital literacy programs, and content development to harness the potential of electronic media for rural development in the study area.

**Keywords:** Impact, Electronic Media, Rural, Development, Nasarawa Eggon.

## INTRODUCTION

The rise of electronic media has significantly influenced global development, serving as a catalyst for communication, education, and economic growth. With the growing reach of technology, electronic media has transformed how information is disseminated and accessed, impacting rural development in profound ways (World Bank, 2021). According to the International Telecommunication Union (ITU), by 2023, nearly 5.3 billion people, representing 66% of the global population, were using the internet, with electronic media playing a crucial role in bridging knowledge gaps. Television, radio, and internet-based platforms have contributed immensely to information dissemination, social mobilization, and technological advancement.

Globally, electronic media has facilitated rural development by empowering marginalized communities, enhance literacy rates, and foster socio-economic development. With the global digital transformation underway, its impact continues to shape rural development by providing access to educational resources, market information, and government services. For example, in India and Bangladesh, radio and television programs tailored to rural needs have led to increased awareness about government initiatives and agricultural advancements, resulting in improved productivity and economic growth (Sharma & Gupta, 2020).

In Sub-Saharan Africa, electronic media has made significant strides in promoting rural development, although challenges remain. Radio remains the dominant medium, with over 90% of rural households owning a radio, according to the African Media Barometer report. Radio and television programs focused on health, agriculture, and education have helped rural communities to access vital information. For example, agricultural extension programs disseminated through radio have improved crop yields by up to 20% in rural Tanzania. Similarly, the adoption of mobile-based platforms like M-Farm for agricultural extension services has resulted in a 25% increase in crop productivity among rural farmers, as reported by the Food and Agriculture Organization (FAO, 2022). Moreover, in Uganda, radio programs addressing maternal health issues contributed to a 30% reduction in maternal mortality rates in rural areas between 2017 and 2021 (WHO, 2019). Despite these advances, a digital divide persists, with only 28% of the Sub-Saharan population having access to the internet. The region still faces challenges including limited infrastructure, high data costs, and digital illiteracy, which hinder the widespread impact of electronic media on rural development.

In Nigeria, the role of electronic media in rural development has been increasingly recognized as a critical factor in improving socio-economic outcomes. With over 108 million internet users as of 2023, representing 49% of the population, electronic media is a key enabler of development in both urban and rural areas (Statista, 2024). Radio is the most accessible form of media in rural Nigeria, with 80% of rural households owning a radio set, as reported by the Nigerian Communications Commission (NCC). This medium has been instrumental in educating rural populations on health, agriculture, and governance. For example, the Nigerian National Broadcasting Commission (NBC) estimates that 75% of rural farmers rely on radio programs to receive updates on modern farming techniques, weather forecasts, and market prices. Such programs have led to a 20% increase in agricultural productivity in rural areas like Kano and Benue States. Additionally, electronic media platforms such as radio, television, and mobile internet have played a crucial role in public health campaigns. During the COVID-19 pandemic, electronic media contributed to a 40% increase in awareness about safety measures in rural Nigeria (UNICEF, 2020).

With the growing reach of technology, electronic media has transformed how information is disseminated and accessed in even the most remote areas, impacting rural development in profound ways (World Bank, 2021). Despite these successes, challenges persist, particularly in the form of infrastructure deficits that hinder the seamless flow of information. In many rural areas in Nigeria, there are inadequate road networks, limited access to electricity, and unreliable communication infrastructure, which impede the full potential of electronic media. Also, poor internet penetration remains a significant issue in remote regions, where the digital divide is most evident. Many rural communities still lack access to high-speed internet, limiting their ability to benefit from modern communication technologies (African Development Bank, 2019). Nonetheless, electronic media remains a critical driver for rural development by providing platforms for education, healthcare, and economic empowerment in the region.

This study was prompted by the increasing recognition of the role of electronic media in driving rural development. However, despite the enthusiasm for these technological advancements in driving rural development and the availability of electronic media platforms in Nasarawa Eggon Local Government Area, rural development indicators such as agricultural productivity, education and healthcare access still remained low. Moreover, there is a lack of localized research examining how electronic media influence the overall development of rural communities within the area. Thus, this study seeks to investigate how electronic media is being used for rural development in the study area and to identify potential areas for improvement.

## **THEORETICAL FRAMEWORK**

This study is anchored on Uses and Gratification Theory. The Theory, originally proposed by Elihu Katz in 1959, is a communication theory that explores how individuals actively seek out media to satisfy specific needs and desires. Rather than viewing the audience as passive consumers of media, this theory emphasizes the agency of the audience in selecting media forms that serve distinct purposes in their lives. Key assumptions of the theory include the belief that audiences are goal-oriented and actively seek media to fulfill personal needs such as information, entertainment, social interaction, and escapism (Ogundele & Fakolade, 2017). It also assumes that individuals are conscious of their media consumption choices, making it a voluntary and purposeful activity.

Applying this theory to the impact of electronic media on rural development in Nasarawa Eggon Local Government Area, rural dwellers may use electronic media such as radio, television, or social media platforms to fulfill various needs, including staying informed about agricultural practices, health tips, or community development initiatives. These platforms provide them with vital information that could enhance their livelihood and promote rural development (Cristobel & Omozeghian, 2018). For instance, farmers in Nasarawa Eggon may listen to agricultural programs on the radio to learn modern farming techniques, or community members might use social media to raise awareness about local challenges and seek external support. Farmers might tune into radio programs to learn about new farming techniques or weather forecasts that could impact their crops.

One of the key assumptions of the theory is that people use media to fulfill particular needs. In the context of rural development in Nasarawa Eggon, the need for information on rural development initiatives, health care, education, and social welfare is paramount. Electronic media provides an easily accessible platform for residents to gather this information. By choosing specific media outlets that cater to their immediate needs, rural dwellers become active participants in their development process. For example, radio stations broadcasting in local dialects become essential tools for spreading vital information about health campaigns, agricultural best practices, and government programs designed to promote rural development.

Furthermore, the social interaction element of the theory also finds application in rural development. Through electronic media, rural communities can stay connected with broader societal trends and developments. For instance, access to television can expose rural populations to new ideas, innovations, and success stories from other communities, which they can adopt for their own development.

## **METHODOLOGY**

### **Study Area**

Nasarawa Eggon is one of the Local Government Areas (LGAs) in Nasarawa State, located in the North-central region of Nigeria and is known for its rural setting and agricultural-based economy. It is situated approximately 70 kilometers from Lafia, the capital of Nasarawa State. The LGA is located within the geographic coordinates of latitude  $8^{\circ}44'28.014''\text{N}$  and longitude  $8^{\circ}32'31.891''\text{E}$ , with a land area of  $1,208\text{km}^2$ . The National Bureau of Statistics (2022) and United Nations data (2021), estimated the population of the LGA to be 300,500 persons. Nasarawa Eggon is a key agricultural zone within Nasarawa State, contributing to the state's food production and economy. The local communities are heavily reliant on traditional methods of communication, but with the increasing reach of electronic media such as radio, television, and mobile phones, Nasarawa Eggon level of infrastructural development is relatively low, which highlights the potential role that electronic media can play in driving rural development. The area faces challenges related to access to essential services such as healthcare, education, and employment, making it a suitable case for exploring how electronic media, including radio, television, and mobile communication, can influence development. Nasarawa Eggon's reliance on agriculture and small-scale business activities makes it critical to assess how electronic media can provide information on modern farming techniques, market prices, and opportunities for economic growth.

### **Study Population and Sampling Technique**

This study adopts the survey design and the target population comprised male and female adults aged 18 years and above, who reside in the rural areas of Nasarawa Eggon. This group represented the community members directly impacted by electronic media and provided insights into how media platforms like radio, television, and social media influence various aspects of rural development, such as access to information, agriculture, health services, and education. Data was obtained through structured questionnaire.

Taro Yamane's (1967) formula for sample size determination was used to select 400 participants from an estimated population of 300,500 inhabitants in the LGA. A cluster random sampling technique was employed in the selection of a representative sample of residents from different communities in the LGA. This method is appropriate because the study population is divided into several clusters such as political wards, communities, and households. The use of cluster random sampling ensures diversity in socio-economic status, education

level, age, and gender among the respondents (Wimmer & Dominick, 2011). Initially, a simple random sampling (ballot) method was used to select a sample of four political wards from the 15 wards within the LGA. From each selected ward, two communities with 50 participants were selected in each for the study. Thereafter, in each community every third household or dwelling unit, and within each selected household, an adult aged 18 years or above was chosen to participate. The selected political wards and communities are shown in Table 1. Data entry and analysis was done with Microsoft Excel software through the use of frequency distribution and percentage.

Table 1: Sample Council Wards and Selected Communities

SN	Selected Council Wards in the LGA	Selected Communities
1	Mada Station	Lambuga and Sabon Gari
2	Kagbu	Kagbu-Wana and Kagbu-Gori
3	NasarawaEggon Central	Angwan Doka and Mada Station Road
4	Alogani	BakinAyini and Alogani Centre

Source: Field work 2024

### Validity and Reliability of the Research Instrument

To achieve high validity, the researcher consulted academic experts in mass communication and rural development to review and validate the research instruments. This review process focused on evaluating the clarity, grammar, vocabulary, and relevance of the items included in the instruments. Expert feedback guided adjustments, such as grammar corrections and modifications to item counts, to enhance the accuracy and effectiveness of the research tools. To assess the reliability of the research instrument, a pre-test approach was utilized. Initially, 30 copies of the questionnaire were distributed to a sample of respondents in Bakin Ayini community as a preliminary trial to evaluate the effectiveness of the instrument in addressing the study' objective. Following the initial administration, a re-test was conducted within a five-day interval to detect any inconsistencies in the responses. The reliability coefficient was calculated using the Guttman Scale formula, developed by Louis Guttman(1944), to quantify the instrument's reliability. The Guttman Scale formula was used to evaluate the extent to which different items within a scale are consistent with each other, ensuring that the research instrument provides dependable measurements. The, the reliability coefficient of the questionnaire is 0.9(90%), indicating a very high level of reliability.

## RESULTS AND DISCUSSION

### Profile of Study Participants

A total of 400 copies of the questionnaire were distributed by the researcher to the respondents in the study area. Out of this number, 398 copies were filled, returned and found usable, yielding 99.5% response rate, which the researcher considered significant for adequate data analysis. The profile of the study participants shown in Table 1, reveals that the age distributions is skewed towards older individuals, with the majority (34.9%) aged between 45-54 years. Male respondents form a significant majority (70.4%) compared to females (29.6%). This male dominated participation could reflect cultural or societal norms where men are more involved in decision-making and public activities. Enhancing female representation is critical to ensure inclusive rural development initiatives. Most of the participants (50.2%) had secondary education. The predominance of respondents with secondary and primary education highlights the need for simplified communication strategies in rural development programs. The low representation of tertiary-educated individuals as shown in the table may indicate limited access to higher education in the region. Farmers make up the largest occupational group (30.2%), followed by civil servants (25.1%) and traders (19.8%).The strong representation of farmers underscores the agricultural focus of the area. Thus, tailored interventions should prioritize agriculture while leveraging the influence of civil servants and traders for economic diversification.

Table 1: Background Characteristics of Respondents

		Frequency	Percentage
Sex	Male	280	70.4
	Female	118	29.6
	Total	398	100
Age	Under 25	42	10.6
	25-34	89	22.4
	35-44	119	29.9
	45-54	139	34.9
	61 and above	9	2.2
	Total	398	100
Level of education	No Formal Education	15	3.8
	Primary	133	33.4
	Secondary	200	50.2
	Tertiary	50	12.6
	Total	398	100
Occupation	Farming	120	30.2
	Trading	79	19.8
	Civil servants	100	25.1
	Students	60	15.1
	Others	39	9.8

### Electronic Media for obtaining Rural Development Information

According to Table 2, a significant majority (83.4%) of respondents have access to electronic media, while 16.6% lack access. The high access rate suggests potential for electronic media to influence rural development. However, barriers faced by the 16.6% without access must be addressed. Radio is most (33.2%) regularly used for rural development purposes, followed by television (21.4%) and social media platforms (18.8%). The internet (10.3%) and mobile phones (16.3%) are less frequently used. The preference for traditional media like radio reflects its affordability and accessibility in rural areas. Increased investment in internet and mobile technology could diversify media usage and enhance engagement.

Daily use of media is most common (31.4%), followed by monthly (27.1%) and weekly use (23.6%). Rare usage accounts for 17.8%. Consistent daily and monthly usage indicates active engagement with media for rural development. Rare usage may be linked to barriers such as poor network coverage or limited content relevance. Radio is considered the most useful medium (37.4%) for obtaining rural development information. This was followed by television (21.4%) and the internet (18.8%). Mobile phones (7.8%) and social media platforms (14.6%) are less preferred. The prominence of radio highlights its role as a reliable source of information in rural settings. Strategies to integrate newer platforms like social media could enhance the breadth of information dissemination. The participants reported that radio programs have helped farmers learn modern agricultural techniques. Many farmers now practice improved methods because they listen to agricultural extension programs on the radio. They also, reported that health information shared through electronic media has increased awareness about diseases like malaria and typhoid and that they now know how to prevent these illnesses, which was not the case before electronic media became common.

Table 2: Electronic Media for obtaining Rural Development Information

Variable	Characteristics	Frequency	Percentage
Access to Electronic Media	Yes	332	83.4
	No	66	16.6
Electronic Media Regularly used for Rural Development Purposes	Radio	132	33.2
	Television	85	21.4
	Internet	41	10.3
	Social Media Platform	75	18.8
	Mobile phone	65	16.3
Frequency of use media for rural development purposes	Daily	125	31.4
	Weekly	94	23.6
	Monthly	108	27.1
	Rarely	71	17.8
Most Useful Electronic Media for obtaining Rural Development Information.	Radio	149	37.4
	Television	85	21.4
	Mobile Phone	31	7.8
	Social Media Platform	58	14.6

### Benefit of the use of Electronic Media for Rural Development

Respondents were asked the content of information they accessed through electronic media to ascertain the benefits they derived from it for rural development (Table 3). Agricultural information (56.5%) and community development initiatives (53.7%) dominate, while health-related (42.2%) and educational content (45.5%) are less accessed. The focus on agriculture aligns with the occupational structure of respondents. Efforts to boost health and education-related content could address broader developmental challenges.

Table 3: Benefits of the Use of Electronic Media for Rural Development

Content	Agricultural information	225	56.5
	Educational programs	181	45.5
	Health related information	168	42.2
	Community development initiatives	214	53.7
Benefit	Agriculture	177	44.5

	Health	62	15.6
	Education	63	15.8
	Community Development	96	24.1

Table 3 also, presents the respondents' views on which sector has benefited the most from electronic media in rural development within their area. Majority (44.55) of the respondents believed that the agricultural sector has benefited the most from electronic media. This suggests that electronic media has played a significant role in disseminating agricultural information such as, weather forecasts, market prices, and modern farming techniques, helping farmers improve productivity and efficiency. The second most benefited sector, according to 24.1% of respondents, is community development. This indicates that electronic media has contributed to awareness campaigns, mobilization efforts, and initiatives aimed at improving rural infrastructure and social welfare. A total of 15.8% identified education as the sector that has gained the most from electronic media. This highlights the role of electronic media in providing access to educational content, online learning, and awareness on literacy programs, though it is not the most dominant sector benefiting from media usage. Only 15.8% of respondents believed that the health sector has been the greatest beneficiary. This suggests that while electronic media helps in health education, disease prevention, and awareness campaigns, its impact on rural healthcare may still be limited compared to agriculture and community development.

Table 4: Main Factor that Influence Decision to use Electronic Media for Rural Development

Availability of electricity	100	25.1
Affordability of devices	88	22.1
Network coverage	70	21.9
Literacy level	87	21.9
Trust in the media platform	20	5.0
Accessibility of relevant content	33	8.3
Total	398	100

Table 4 reveal that availability of electricity (25.1%) and affordability (22.1%) are key factors influencing media use for rural development, alongside network coverage (17.6%) and literacy level (21.9%). Addressing these factors, particularly electricity and affordability, can significantly enhance media usage for rural development. Participants narrated that radio is affordable and radio programs encourage people to participate in women's empowerment initiatives. Many women in their communities have started small businesses because they heard about available loans and grants on the radio.

**Impact of Electronic Media on Agriculture, Health, Education and Community Engagement and Participation in Development Initiatives.**

A total 51.8% of the respondents reported significant improvements in agricultural practices due to media use, 39.9% indicated that there is somewhat improvement due to media use while 8.3% said there was no improvement (Table 5). This finding underscores the transformative potential of media in agriculture. Further efforts should enhance content quality and relevance.

Table 5: Impact of Electronic Media in Rural Development

Variable	Impact	Frequency	Percentage
Agricultural practices	Greatly improved	206	51.8
	Somewhat Improved	159	39.9
	No Improvement	33	8.3
Health	Increased awareness of diseases	125	31.4
	Improved health practices	81	20.4
	Access to health services information	68	17.1
	No noticeable impact	124	31.2
Education	Very effective	216	54.3
	Somewhat effective	156	39.2
	Not Effective	26	6.5
Community in development initiatives	Yes, very much	214	53.8
	To some extent	163	41.0
	Not at all	21	5.3

The ways electronic media improved access to health-related information in respondents communities shows that 31.4% indicated that media has increased awareness of diseases, 20.4% reported that it has improved health practices, 17.1% said that it has improved their access to health services information while 31.2% objected that there is no noticeable impact. Enhancing health-related content could bridge gaps in awareness and practices. The effectiveness of electronic media in providing educational opportunities in their communities is viewed as very effective (54.3%) or somewhat effective (39.2%) in providing educational opportunities. Leveraging media to improve rural education can reduce literacy gaps and enhance overall development.

More than half(53.8%) stated that electronic media influenced community engagement and participation "very much." This suggests that a significant portion of the community finds electronic media highly effective in driving involvement in development activities while 41.0% indicated that electronic media influenced engagement "to some extent." This shows that while media plays a role, its impact varies among individuals, with some experiencing only partial influence. Only 5.3% of the population does not perceive electronic media as an effective tool for in development initiatives; suggesting that other factors may also play a role in community participation. This highlights the need for diversified communication strategies to reach all segments of the population effectively. The findings indicate that electronic media plays a crucial role in promoting community engagement and participation in development initiatives. The majority (94.7%) recognize its influence to varying degrees, with over half of the respondents (53.8%) believing it has a strong impact.

Suggested improvements for enhancing the use of electronic media for rural development are presented in Table 6. Affordable access and improved network coverage are the top suggestions. Local leaders' roles include promoting group media activities (45%) and establishing community radio stations (39.4%) as shown in Table 6. Educational and agricultural institutions should focus on creating content (59.3%). The private sector's role is seen in affordable data plans (45%) and expanding localized content (55%). Collaboration

among stakeholders, including government, private sector, and local communities, is crucial to optimize media use for rural development.

The finding indicates that rural communities struggle with poor network connectivity, and localized content would make electronic media more relevant to their needs. The results also suggest that respondents recognize both affordability and accessibility as key factors in optimizing electronic media for rural development. While affordable data plans (45.0%) would make electronic media more financially accessible, expanding coverage and offering localized content (55.0%) would ensure that rural communities have the necessary infrastructure and relevant information.

Table 6: Improvements that Enhance the Use of Electronic Media for Rural Development

Needed Improvement	Frequency	Percentage
Better network coverage	104	26.1
Affordable access to media	174	43.7
Improved local content	69	17.3
Increased government support for media programs	51	12.8
Encourage group media activities	179	45.0
Create more educational and agricultural content	236	59.3
Provide affordable data plans	179	45.0
Expanding coverage by creating localized media content	219	55.0

**Role of Government and Community Leaders in Improving Access to and Use of Electronic Media for Rural Development.**

Table 7 presents respondents' views on the role government can play in promoting the use of electronic media for rural development. Majority (44.5%) believed that the government should subsidize media devices such as radios, televisions, mobile phones, and internet-enabled gadgets. This suggests that affordability is a major barrier to electronic media access in rural areas, and reducing costs could significantly enhance media usage. The second most suggested role, according to 24.1% of respondents, is improving internet and network infrastructure in rural areas. This implies that poor connectivity is a major limitation, and better infrastructure would enable easier access to online resources and communication platforms. A total of 15.8% respondents indicated that the government should focus on creating media content tailored to rural communities. This highlights the need for localized programming that addresses rural-specific challenges, such as agricultural training, health awareness, and education. Improving electricity supply was reported by 15.6% of respondents as the most crucial government role. This suggests that while power supply remains a concern, it is not perceived as the most significant barrier compared to the affordability of devices and internet connectivity.

Table 7: Role of Government and Community Leaders in Improving Access to and Use of Electronic Media for Rural Development

Variable	Role	Frequency	Percentage
Government	Subsidize media devices	177	44.5
	Improve electricity supply	62	15.6
	Provide rural-focused media content	63	15.8

	Enhance internet and network infrastructure	96	24.1
Community Leaders	Encourage group media activities	179	45.0
	Set up community radio stations	157	39.4
	Organize media literacy programs	62	15.6

According to Table 7, local or community leaders can improve access to and use of electronic media for rural development. Encouraging group media activities by local and community leaders was reported by 45% of the respondents. This suggests that initiatives such as community screenings, group radio listening, and shared internet access can help people, especially those with limited resources, benefit from electronic media. A significant portion (39.5%) supports the establishment of community radio stations. This highlights the importance of localized broadcasting in delivering relevant information to rural populations, particularly in areas with limited access to mainstream media. A smaller group (15.6%) believed that media literacy programs should be organized to educate people on how to effectively use electronic media. This indicates that while media access is important, understanding how to use it effectively for information, education, and development purposes is also crucial.

## DISCUSSION OF FINDINGS

The study on the impacts of electronic media on rural development in Nasarawa Eggon Local Government Area, Nasarawa State reveal that radio is the most regularly used medium (33.2%) for obtaining rural development information, followed by television (21.4%) and social media platforms (18.8%). This demonstrates a continued reliance on traditional media, particularly radio, due to its affordability and accessibility, consistent with observations by Okafor (2022), who noted that radio remains a dominant source of information in rural areas due to its low cost and reach. According to the National Broadcasting Commission (NBC), radio reaches over 80% of Nigeria's rural population due to its affordability and widespread availability (NBC, 2023). Ogunlade(2021) argued that radio is particularly effective in rural areas because it transcends literacy barriers and provides timely information on agriculture, health, and local news.He observed that radio programs such as farm broadcast services, help farmers to access crucial information on weather patterns and crop management, which are vital for improving agricultural productivity. The relatively lower use of internet-based platforms and mobile phones indicates gaps in digital infrastructure and literacy, as highlighted by Arokoyo (2012), who emphasized the challenges of adopting digital media in rural settings due to infrastructural limitations.

Key factors influencing the use of electronic media include the availability of electricity, affordability of devices, network coverage and literacy levels. These findings are consistent with the work of Okafor (2022), who identified infrastructure, cost, and literacy as critical barriers to media adoption in rural communities. Similarly, the study by Okorie and Johnson (2022) underscores the significance of socio-economic factors in shaping access to information through electronic media. The affordability of mobile phones, which are more accessible than traditional media devices, has slightly improved this situation, as mobile technology becomes increasingly affordable and widespread (Uche, 2022). Anya (2022) also, argued that traditional values and beliefs can influence the acceptance of electronic media in rural communities. Some rural areas may exhibit resistance to technological changes due to cultural norms or skepticism about the benefits of new media. Understanding and addressing these socio-cultural factors is essential for promoting the acceptance and use of electronic media (Chukwuma, 2021). Also, Adeyemi and Bello (2020), suggests that increased access to electronic media can strengthen civic engagement and enhance development outcomes.

The study identified positive impacts of electronic media on education, agriculture, health, and community engagement. Over half (51.8%) of respondents reported that electronic media has greatly improved agricultural practices, aligning with the findings of Oladejo, Ajiboye and Akande (2020), who observed that media facilitates the dissemination of agricultural innovations while Cheng and Jang (2019) view electronic media as communication platforms that use electronic technologies to disseminate information, including television, radio, the internet, and social media. Furthermore, more than half(54.3%) of respondents found electronic media very effective in providing educational opportunities, corroborating the observations of Okonkwo, Obi

and Chukwu(2019), who highlighted the role of media in enhancing literacy and education in rural areas. Akinola (2021) demonstrates that television educational programs enhance learning experiences by delivering visual and auditory stimuli that are effective in rural settings. For instance, the "Educational Radio Programs" initiative by the Nigerian Educational Research and Development Council (NERDC) has effectively utilized radio to promote adult literacy in rural communities (NERDC, 2022). This program illustrates how electronic media can overcome geographical barriers, making education more accessible to remote areas.

Similarly, Adeyemi (2020) argued that electronic media has played a crucial role in advancing agricultural practices in rural Nigeria. Agricultural programs on radio and television provide farmers with information on modern farming techniques, pest control, and weather forecasts. The Agricultural Development Program (ADP) broadcasts, as noted by Adeyemi (2020), have been instrumental in updating farmers on best practices and innovations. In a similar vein, Olaniyan (2021) argues that digital platforms, such as agricultural apps and online forums, facilitate knowledge exchange among farmers. These platforms enable farmers to access real-time information on crop management and market prices, which enhances their productivity and income. For example, the "Farmerline" app, widely used in Nigeria, provides agricultural advice and market information to farmers in remote areas (Farmerline, 2022).

In the health sector, 31.4% respondents indicated that electronic media increased awareness of diseases and improved health practices (20.4%). These findings are supported by Akinbode and Ajayi(2021), who emphasized the role of media in promoting health awareness. Additionally, 53.8% of respondents acknowledged that electronic media significantly enhanced community engagement, consistent with Akinola (2022), who noted that media fosters participation in development initiatives. However, gaps remain, as 31.2% reported no noticeable impact on health-related information, suggesting the need for targeted interventions in this sector.

Respondents suggested strategies to optimize the use of electronic media, including improving network coverage, making access more affordable, and enhancing the availability of local content. These recommendations are echoed by Ilesanmi and Okeke (2023), who advocated for infrastructure investments and localized programming to improve media penetration in rural areas. Furthermore, 44.5% of respondents emphasized the need for government subsidies on media devices, a recommendation supported by Adesina (2021), who stressed the role of public policies in facilitating access to technology. Similarly, the private sector's role in providing affordable data plans and localized content was highlighted by Adeyemi, Oladele and John (2021), emphasizing the role of government initiatives in advancing rural development. According to Oladejo *et al.* (2020), mobile phones can facilitate access to agricultural extension services by providing farmers with timely information on weather patterns, crop management, and pest control. They argued that mobile applications like e-agriculture platforms can bridge the information gap between agricultural experts and rural farmers. In a similar vein, the Food and Agriculture Organization (FAO, 2022) observed that mobile technology can support agricultural productivity through real-time market information and price forecasts, helping farmers make informed decisions.

The findings in this study suggest that electronic media plays a pivotal role in rural development by facilitating information dissemination, promoting education, improving agricultural practices, and enhancing health awareness. This aligns with the broader conclusions of Ahmed and Bello (2023), who recognized media as a transformative tool for rural economic development. However, challenges such as affordability, limited network coverage, and inadequate local content persist. Addressing these barriers through targeted strategies, as recommended by Ajiboye(2020), could significantly improve the adoption and impact of electronic media in rural communities.

## CONCLUSION

This study highlights the transformative potential of electronic media as a tool for sustainable rural development in the study area. Traditional media platforms, particularly radio, remain the most widely utilized due to their affordability, simplicity, and accessibility, especially for rural residents. However, realizing this potential requires collaborative efforts from all stakeholders—governments, private sectors, and local communities to address existing challenges and create an enabling environment for the effective utilization of electronic media. By overcoming these barriers, electronic media can become a cornerstone for empowering

rural communities, enhancing their livelihoods, and fostering inclusive development. The study recommended empowering local leaders to champion group media activities, such as communal listening to radio programs and viewing of educational broadcasts. Also, to support the establishment of community radio stations and media hubs to ensure inclusivity and widespread access.

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