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MEDIA EXPOSURE, KNOWLEDGE AND ADOPTION OF AGRICULTURAL INNOVATIONS AMONG FARMERS IN SOUTH-SOUTH NIGERIA

Uwem Asuquo Akpan[1*], Daniel Calixtus Akarika, Ph.D[2] Bassey Effiong Eyoh, Ph.D[3]
*Correspondence: Uwem Asuquo Akpan

***Detailed author information and related declarations are provided in the final section of this article.*

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ABSTRACT

This study investigated the media exposure, knowledge and adoption of agricultural innovations among farmers in South-South Nigeria. Specifically, the objectives were to examine the extent of farmers' exposure to media messages on agricultural innovations in South-South Nigeria; assess the level of farmers' knowledge of agricultural innovations acquired through media exposure in South-South Nigeria; and determine the extent to which media exposure influences the adoption of agricultural innovations among farmers in South-South Nigeria.The study was anchored on Rogers' Diffusion of Innovation Theory and Davis' Technology Acceptance Model, both of which provided explanatory insights into how innovations spread and the factors that shape farmers' decisions to accept or reject them. The survey research design was adopted, with a population of 4,218,890 registered farmers across six South-South states, from which a sample size of 400 respondents was drawn using Taro Yamane's formula. Data were collected through a structured questionnaire and analysed using bar charts. Findings revealed that while a fair proportion of farmers were aware of innovations, awareness was largely at a moderate level; knowledge was similarly moderate, with many respondents lacking the depth required for effective application; and adoption remained low, constrained by infrastructural deficits, institutional gaps and socio-economic barriers. The study concluded that farmers in South-South Nigeria have moderate exposure to media messages on agricultural innovations, which translates into moderate knowledge and adoption levels. This pattern indicates that while media platforms effectively raise awareness, their impact on practical adoption remains limited by economic, institutional, and infrastructural constraints. It was recommended that extension agencies, agricultural media units, and development partners should expand and diversify media campaigns on agricultural innovations using radio, community broadcasts, and social

media platforms that farmers in South-South Nigeria can easily access. Strengthening such exposure will ensure that information reaches even remote communities in timely and comprehensible formats.

Keywords: Agricultural innovation; Farmers; Knowledge; Awareness; Adoption; South-South Nigeria

Introduction

Exposure to agricultural information through the media has long been recognised as a vital factor shaping how farmers acquire knowledge and embrace new technologies. In Nigeria, both government institutions and development partners have consistently introduced agricultural innovations such as improved seed varieties, climate-smart farming systems, water harvesting methods, mechanised tools, and mobile-based advisory platforms (Adeyemo, 2024; Onuoha &Umebali, 2021). These innovations are designed to improve productivity, enhance resilience, and promote food security. However, the challenge has often been how effectively these ideas reach the target beneficiaries. Many farmers, particularly in rural areas, rely on different sources for agricultural information such as extension agents, radio broadcasts, farmer associations, and non-governmental programmes, yet access remains uneven. Research has shown that while some farmers are exposed to information about new practices, others remain isolated from such channels (Ikehi, 2022). Poor infrastructure, low literacy levels, and weak communication systems have made information dissemination difficult in several parts of the country (Abdullahi, 2021; Onuoha &Umebali, 2021). Since awareness forms the foundation of adoption, limited exposure through the media and other communication sources often leads to poor uptake of improved technologies and, consequently, low productivity among farmers.

The decision of farmers to adopt agricultural innovations depends not only on their exposure to relevant information but also on how well they comprehend the purpose, benefits, and practical use of such innovations. Nigerian studies have shown that while awareness may exist, the depth of knowledge about how to apply the innovations often varies widely (Ikehi, 2022; Onuoha & Umebali, 2021). For instance, a farmer may know about improved maize varieties but may not be familiar with the specific planting methods, pest control procedures, or soil management practices required for optimum yield. Socio-economic characteristics such as educational level, farm size, income, gender, and farming experience strongly influence both knowledge and adoption decisions (Iheke & Nwaru, 2013; Onuoha &Umebali, 2021). Institutional factors such as access to credit, extension support, and reliable input markets also play a decisive role (Abdullahi, 2021; Adeyemo, 2024). Where institutional support and media exposure are inadequate, adoption is usually partial, leading to less impressive results. A farmer might, for example, use improved seeds but fail to adopt complementary fertiliser or pest management practices. Such

fragmented adoption weakens the expected impact of agricultural innovations and limits their contribution to rural development.

Media exposure has emerged as one of the most significant vehicles through which farmers receive agricultural information. Radio programmes, television broadcasts, agricultural columns in newspapers, social media platforms, and mobile-based applications are increasingly used to share information about new technologies and farming practices. Yet, the extent to which farmers in different regions, particularly in the South-South, access and apply the information remains uncertain. The South-South region is rich in agricultural potential, endowed with fertile soil, favourable climatic conditions, and abundant water resources. Nonetheless, infrastructural deficits, low extension coverage, and socio-cultural diversity continue to limit effective communication between innovation developers and end users. Existing studies have largely concentrated on other parts of Nigeria, leaving a gap regarding how media exposure contributes to farmers' knowledge and adoption behaviour in the South-South (Ikehi, 2022; Onuoha &Umebali, 2021).

This study focuses on the role of media exposure in shaping farmers' knowledge and adoption of agricultural innovations in South-South Nigeria. It seeks to examine how different forms of media such as traditional and modern channels inform, educate, and motivate farmers to embrace improved agricultural practices. The study also investigates the extent to which socio-economic and institutional factors influence how farmers access and utilise information from media sources.

Statement of the Problem

Despite sustained efforts by government agencies, research institutions, and development partners to introduce improved agricultural technologies and innovations, the level of awareness, knowledge, and adoption among farmers in South-South Nigeria remains discouragingly low. Studies shows that many farmers are exposed to agricultural innovations through various media channels, yet, quite a significant proportion of these farmers either possess limited knowledge of practical application of these innovations or fail to adopt them entirely due to poor access to credible information, weak extension services and support, and certain socio-economic constraints. In several rural communities in the region, exposure through the media has not actually translated into adequate comprehension or behavioural change. This, leading to partial or even non-adoption of innovations such as the use of improved seed varieties, mechanised tools, and post harvest innovations, Bio-technology and Genetically Modified Cops, Precision agric technologies, sustainable farming practices and even climate-smart practices. This communication gap has continued to undermine productivity, food security, health and nutrition and livelihood improvement across the South-South region of Nigeria. The absence of empirical data on how media exposure shapes farmers' knowledge and adoption of agricultural innovations in the South-South

region of Nigeria, creates a pressing need for systematic investigation on the extent of farmers' exposure to media messages on agricultural innovations in South-South Nigeria, so that communication strategies can be tailored to strengthen awareness, deepen knowledge, and promote effective utilisation of agricultural innovations among farmers in the region.

Research Objectives

The objectives of the study were to:

1. Examine the extent of farmers' exposure to media messages on agricultural innovations in South-South Nigeria.
2. Ascertain the predominant media channel which farmers are exposed to on agricultural innovations messages in South-South Nigeria.
3. Assess the level of farmers' knowledge of agricultural innovations acquired through media exposure in South-South Nigeria.
4. Determine the extent to which media exposure influences the adoption of agricultural innovations among farmers in South-South Nigeria.

Research Questions

The following research questions were raised:

1. What is the extent of farmers' exposure to media messages on agricultural innovations in South-South Nigeria?
2. What is the predominant media channel which farmers are exposed to on agricultural innovations messages in South-South Nigeria?
3. What is the level of farmers' knowledge of agricultural innovations obtained through media exposure in South-South Nigeria?
4. To what extent does media exposure influence the adoption of agricultural innovations among farmers in South-South Nigeria?

Literature Review

Understanding Agricultural Innovation

Agricultural innovation has evolved in Nigeria from simple improvements in inputs to more systemic transformations in how farms are managed, how knowledge is shared, and how markets are accessed. Early efforts in the 1970s and 1980s focused mainly on introducing improved seed varieties, fertilizer usage, and pest control, often delivered through government agricultural agencies and extension services.

Such innovations were largely "top-down", with little feedback from farmers about what local conditions actually required. Research by Onuoha, Onyekachi Chibueze (2023) in a comparative study of agro-innovation adoption among members and non-members of agricultural cooperatives showed that membership in cooperatives enhanced exposure to innovation, but also revealed that awareness alone was insufficient when innovations did not fit local ecological or economic realities. That work suggests that agricultural innovation in Nigeria cannot simply be about providing new tools or inputs; what counts is how innovations are adapted, communicated, and supported so that farmers see value, can afford them, and can integrate them into their routines.

Transitioning from early input-led innovations, Nigeria has seen growth in digital, mechanised and climate-smart practices in recent years. Farmers are increasingly exposed to mobile-based advisory tools, climate-resilient seed varieties, improved water conservation techniques, and mechanised equipment. Research into climate variability and adoption of sustainable agricultural practices indicates that farmers who adopt improved seeds, inorganic fertilisers and intercropping have significantly better productivity outcomes (e.g. Agriculture & Food Security study, 2023). That research shows that adoption is greater where farmers have access not only to the innovation itself but also to timely weather information, training, and input markets. Cases in southern Nigeria have involved pilot programmes offering smartphone-based decision support, which show promise for expanding innovation outreach but are limited by connectivity and literacy challenges. Learning from these programmes highlights that agricultural innovation now involves not only technical elements but also communication, human capacities and infrastructure.

Recent case studies bring into sharp relief what agricultural innovation looks like when the enabling environment functions well or fails. The Good Agricultural Practices (GAPs) programme by NAERLS in northern Nigeria recorded that although about 82 % of smallholder farmer participants were aware of GAPs, actual practice lagged because of the cost of inputs, weak technical know-how and lack of irrigation (Sennuga, Baines, Conway & Angba, 2020). That contrast between awareness and practice illustrates that innovation does not always translate into change unless barriers are addressed. Another example is the Soilless Farm Labs in Ogun State, which uses hydroponics and aquaponics systems, greenhouse production and artificial intelligence for precision irrigation. That enterprise also runs training programmes for youth and smallholders, which helped increase interest and partial adoption of soil-free production techniques (Agritech Digest, 2021). Those examples illustrate that agricultural innovation must be seen not as a single change but as a process that requires supporting elements such as capacity building, access to finance, infrastructure and favourable policy.

Analysing agricultural innovation in South-South Nigeria calls for attention to socio-cultural, economic and institutional specificities that shape whether innovations take root. The region's abundant rainfall, fertile soils and access to water bodies suggest great potential for innovation around irrigation, flood-resistant crops, and value chain enhancements in fisheries and oil-palm sectors. Constraints such as weak extension coverage, poor road networks, irregular electricity supply, limited credit, and low levels of formal education reduce capacity for adoption. Studies elsewhere in Nigeria show that education level, farm size, membership in cooperatives, and access to extension services significantly predict innovation adoption (Onuoha, 2023; Sennuga et al., 2020). South-South farmers will likely benefit from interventions that are locally tailored: for example, programmes that pair climate-smart seed varieties with local training sessions, or mobile advisory tools designed for low-bandwidth settings and delivered in local languages. That kind of approach gives agricultural innovation a chance to flourish rather than remain an external idea.

Media Exposure, Knowledge and Adoption of Agricultural Innovations among Farmers in South-South Nigeria: A Review

Media exposure remains one of the strongest forces shaping how farmers in South-South Nigeria become aware of agricultural innovations and how that awareness translates into practical use. Studies on innovation diffusion across Nigeria show that farmers often learn about new technologies through a mix of information sources such as radio broadcasts, television programmes, agricultural extension agents, farmer associations, and non-governmental organisations (Agwu, Dimelu&Madukwe, 2008; Onuoha &Umebali, 2021). The initial point of contact plays a decisive role in determining whether exposure leads to learning or ends as fleeting awareness. Findings across different parts of Nigeria reveal that when information is disseminated through one-way communication channels without demonstrations or follow-up interaction, farmers tend to know *of* innovations but not *about* them in any useful depth (Ikehi, 2022; Abdullahi, 2021). Instances abound where farmers hear a radio programme on improved cassava varieties but remain uncertain about planting methods or access to clean stems. More participatory communication approaches such as field demonstrations, farmers' field schools, and peer-to-peer learning, tend to deepen knowledge and stimulate confidence in trialling new technologies (Onuoha &Umebali, 2021). In South-South Nigeria, where ecological conditions and market realities vary sharply across communities, exposure through media must therefore go beyond awareness creation to include structured learning opportunities that help farmers connect new information to their local contexts.

Once exposure has created awareness, the degree to which farmers internalise and apply what they learn depends largely on the quality of knowledge transfer and institutional support available to them. Studies across Nigeria indicate that awareness alone seldom guarantees effective use; repeated engagement and

participatory learning are the key ingredients for building practical knowledge (Iheke&Nwaru, 2013; Ogunniyi, Olagunju & Ogundipe, 2016). Programmes that include local demonstrations, hands-on training, and vernacular-language broadcasts have been found to strengthen farmers' grasp of improved methods and increase their willingness to change. The Babban Gona model in northern Nigeria demonstrates that integrated systems, combining training, credit access, and marketing supportcan turn awareness into confident adoption (Ogunniyi et al., 2016). Conversely, government interventions that distribute improved seed without sustained extension contact often lead to short-lived results because farmers lack the technical knowledge to manage inputs effectively (Adeyemo, 2024; Sennuga et al., 2020). For the South-South region, where literacy levels and infrastructural facilities differ across communities, consistent, media-driven agricultural education that blends information with practice is essential. Training that reflects local soil, water, and climate realities, and which actively involves women and youth, helps bridge the gap between hearing about innovations and applying them successfully.

The transition from knowledge to actual adoption of agricultural innovations has been identified as the most challenging phase in the communication process. Empirical evidence across Nigeria shows that farmers' adoption decisions are rarely straightforward; they weigh cost, risk, labour needs, and market prospects before accepting a new practice (Iheke&Nwaru, 2013; Abdullahi, 2021). Many agricultural technologies fail to gain traction not because farmers doubt their benefits but because credit, input supply, and market access remain weak. For example, awareness of improved cassava and rice varieties has often not translated into full adoption in regions where seed systems are disorganised or where input costs exceed expected profits (Onuoha &Umebali, 2021; Adeyemo, 2024). Institutional structures such as cooperatives, value chain linkages, and group-based financing have proven effective in mitigating these constraints. The Imota Rice Mill project in Lagos illustrates how connecting producers to reliable processing and marketing outlets can motivate sustained adoption through reduced risk and guaranteed sales (Ogunniyi et al., 2016). In South-South Nigeria, where oil palm, fisheries, and wetland farming dominate, peculiar issues such as communal land tenure, flooding, and market fluctuations must be considered in designing adoption strategies. Policies that integrate media campaigns with access to finance, inputs, and market support are vital for encouraging consistent adoption among farmers in the region.

The review of existing literature makes it evident that a significant research gap persists regarding how media exposure shapes farmers' knowledge and adoption of agricultural innovations in South-South Nigeria. While studies from other regions offer useful lessons, they cannot adequately reflect the distinct agro-ecological, cultural, and socio-economic realities of the South-South (Agwu et al., 2008; Sennuga et al., 2020). Variables such as education, gender, farm size, and cooperative membership have been widely

studied elsewhere (Ikehi, 2022; Onuoha &Umebali, 2021), yet factors like seasonal flooding, fisheries-based livelihoods, and the influence of the oil economy on agricultural labour markets require context-specific investigation. Programmes that combine sustained media exposure with farmer training, microcredit access, and assured markets have shown the highest rates of successful adoption. A focused study that measures farmers' exposure to agricultural messages, evaluates the depth of knowledge gained, and assesses how such exposure influences adoption in South-South Nigeria is therefore essential. Such evidence will enable policymakers, agricultural communicators, and development agencies to design media-based interventions that truly empower farmers, improve productivity, and enhance the sustainability of rural livelihoods across the region.

Challenges to the Adoption of Agricultural Innovations

There are several challenges to the adoption of agricultural innovations in Nigeria, particularly in South-South Nigeria. They include:

Infrastructural and Resource Constraints

One of the greatest barriers to agricultural innovation adoption in Nigeria is the weakness of infrastructural and resource support systems. Rural roads in many parts of the South-South remain poor, often rendered impassable during the rainy season, which makes it difficult for extension officers, input suppliers and even farmers themselves to move efficiently. Nwanade, Nwanade, Udefi and Ajayi (2017) reported that inadequate rural transport and unreliable electricity hindered extension agents from reaching farmers consistently, thereby limiting opportunities for innovation transfer. Similarly, Awhareno and Nndai (2017) observed that the lack of broadband facilities and unstable power supply reduced the ability of extension agents to use ICT tools for farmer training in the Niger Delta communities. Even when farmers are aware of improved seeds or conservation practices, the absence of irrigation facilities, storage infrastructure or simple mechanised tools limits their ability to adopt such practices (Olumba, Garrod & Areal, 2025). The financial dimension further compounds the problem as poor infrastructure increases the cost of inputs, while weak credit support restricts farmers from purchasing innovations even when they desire to do so (Sennuga, Angba& Fadiji, 2020). These realities reveal that infrastructural and financial resource limitations jointly create a ceiling on the rate of agricultural innovation adoption.

Cultural and Social Barriers

Cultural traditions and social norms also determine how innovations are received in rural farming systems. Farmers often rely heavily on indigenous knowledge and peer influence in deciding whether to embrace new practices. Ikehi (2022), in a study in Enugu State, noted that farmers resisted adopting new pest-management practices when these contradicted traditional crop rotation techniques. Gender norms

further restrict access. In Ondo State, women farmers reported difficulty in participating in climate-smart practices because they were excluded from household decision-making about inputs and technology adoption. Social pressures to conform to community norms mean that even when farmers are aware of innovations, they may avoid adoption if opinion leaders within the community do not endorse such changes. Illiteracy worsens the challenge as many farmers cannot access training materials or instructions when presented in formal language, which limits the effective communication of innovations (Nwanade et al., 2017; Sennuga et al., 2020). These cultural and social dynamics show that technical awareness does not automatically translate into acceptance unless local beliefs, gender roles and communication modes are taken into account.

Policy and Institutional Gaps

The absence of coherent policies and weak institutional support has also been identified as a challenge to agricultural innovation adoption. Frequent changes in agricultural policies create uncertainty, discouraging farmers and private actors from committing to new practices. The Federal Ministry of Agriculture (2022), in its National Agricultural Technology and Innovation Policy, admitted that policy instability and weak stakeholder engagement have limited progress in agricultural development. Taofeeq et al. (2023) observed that extension workers in Southwest Nigeria reported poor coordination between research institutes and field services, alongside inadequate budgetary allocations, as major obstacles to innovation dissemination. Credit facilities are often structured in ways that exclude smallholder farmers, while subsidy programmes are inconsistently implemented, making them unreliable. Weak institutional oversight also means that counterfeit seeds and substandard fertilisers circulate in markets, eroding farmers' trust in innovation systems. Without a stable and supportive policy framework, innovations introduced to farmers are less likely to be adopted consistently.

Interconnection of the Challenges

These three sets of challenges rarely operate in isolation; instead, they reinforce one another in ways that deepen resistance to innovation. For example, infrastructural deficits such as poor roads not only raise input prices but also hinder the implementation of government subsidy programmes designed to encourage adoption. Cultural barriers, including gender norms, can exclude women from extension activities, even when those activities are well supported institutionally. Evidence from Kaduna State showed that although farmers gained awareness through training, adoption remained poor because input costs were high and risk perceptions strong (Sennuga, Angba& Fadiji, 2020). In South-South Nigeria, where weak infrastructure coincides with strong traditional practices and less extension presence, these challenges are even more pronounced. The implication is that agricultural innovation adoption requires

simultaneous attention to infrastructure, culture and policy if meaningful and sustainable results are to be achieved.

Theoretical Framework

This study drew its theoretical strength from the *Diffusion of Innovation Theory* (DOI) and the *Technology Acceptance Model* (TAM), both of which offer useful explanations for how farmers in South-South Nigeria become exposed to, learn about, and adopt agricultural innovations. The *Diffusion of Innovation Theory*, propounded by Everett M. Rogers in 1962 and revised in later editions (1995 and 2003), explains how an innovation spreads within a social system through communication channels over time. Rogers (1962, 2003) identifies five major attributes that determine the rate of adoption: relative advantage, compatibility, complexity, trialability, and observability. Within the context of this study, the theory implies that innovations such as improved seed varieties, climate-smart practices, and mechanised equipment must not only be available but must also be perceived by farmers as superior to existing practices (relative advantage), consistent with their local conditions and cultural practices (compatibility), simple enough to apply (low complexity), easy to test on a small scale (trialability), and capable of producing visible results (observability). These attributes collectively determine how quickly innovations spread across farming communities. However, certain limitations appear when applying the theory to South-South Nigeria. The model assumes that information flows freely and social networks are cohesive, whereas many farming communities in this region are isolated, have limited access to media and extension services, and operate within diverse socio-cultural settings that constrain communication flow. Resource limitations also make trialability difficult, while low literacy levels and weak institutional support heighten the perceived difficulty of innovations even when they are simple. Despite these contextual challenges, the theory remains highly relevant to this study, as it provides a framework for examining how media exposure influences awareness, how different farmer groups adopt innovations at varying rates, and how communication gaps hinder diffusion. Empirical evidence from Nigeria aligns with Rogers' prediction that weak infrastructure and poor communication networks flatten the adoption curve and delay the spread of beneficial technologies (Ikehi, 2022; Onuoha &Umebali, 2021).

The *Technology Acceptance Model* (TAM), developed by Davis (1989) within information systems research, offers a complementary perspective on the cognitive processes influencing technology use. TAM proposes that two main beliefs—perceived usefulness and perceived ease of use—determine whether an individual will accept and apply a new technology. In the present study, this means that farmers in South-South Nigeria are more likely to adopt agricultural innovations if they believe those innovations will improve their yields, reduce labour, increase income, or enhance production efficiency (usefulness), and if they consider such innovations easy to operate without excessive technical or

financial burden (ease of use). The strength of TAM lies in its focus on how personal perceptions shape adoption behaviour. Nonetheless, its major limitation within this context is its limited attention to the broader social and institutional realities that influence smallholder farmers. The model does not sufficiently capture how cultural norms, gender roles, cooperative influence, credit access, or extension support affect adoption decisions. Equally, it underplays the role of external constraints such as cost, risk, and resource scarcity, all of which are common barriers in South-South Nigeria. Despite these limitations, TAM remains a valuable theoretical guide for this study, as it enables the assessment of how farmers' beliefs, attitudes, and exposure to media information translate into behavioural intentions and actual adoption of agricultural innovations. Together, the Diffusion of Innovation Theory and the Technology Acceptance Model offer complementary lenses for analysing the communication, perceptual, and behavioural processes that shape how farmers in South-South Nigeria engage with modern agricultural technologies.

Methodology

The study adopted a survey research design because it enabled the researchers to generate data from a large population within a relatively short period. The population of the study comprised farmers across the six states in South-South Nigeria, namely Akwa Ibom (710,590 farmers), Rivers (835,700 farmers), Cross River (689,470 farmers), Bayelsa (412,360 farmers), Edo (772,450 farmers) and Delta (798,320 farmers), giving a total population of 4,218,890 registered farmers as reported by the Federal Ministry of Agriculture and Rural Development (2023). From this population, a sample size of 400 farmers was determined using Taro Yamane's formula at a 5 per cent margin of error. The multi-stage sampling procedure was employed: first, two agricultural zones were purposively selected from each state; second, two local government areas were randomly chosen from each zone; finally, farmers were proportionately selected from the sampling frame to ensure fair representation across the states. The research instrument was a structured questionnaire which elicited responses among farmers on the research questions raised.

Data Analysis

Research Question 1:
What is the extent of farmers' exposure to media messages on agricultural innovations in South-South Nigeria?

Level of Media Exposure	Frequency	Percentage (%)
Low Exposure	96	24
Moderate Exposure	184	46
High Exposure	120	30

Total	**400**	**100**

The result shows that most farmers recorded moderate exposure to media messages on agricultural innovations. This finding implies that while awareness campaigns are fairly effective, greater reach and consistency across media platforms are needed to improve dissemination of agricultural information among rural farmers.

Research Question 2

What is the predominant media channel which farmers are exposed to on agricultural innovations messages in South-South Nigeria?

Media Channels	Frequency	Percentage (%)
Radio	70	18
Television	20	5
Social Media	150	37
Print Media	10	2
Traditional/Interpersonal	120	30
Others	30	8
Total	**400**	**100**

The findings from the above analysis indicate that farmers possessed predominant information from the digital media channels especially from the various social media platforms sequel to their exposure and knowledge of agricultural innovations. This suggests that while social media messages raise awareness and exposure on agricultural innovations in South-South region of Nigeria, many farmers may still lack exposure on agricultural innovations and deep understanding of practical applications, highlighting the need for follow-up training and community-based demonstrations that inform traditional/Interpersonal mode of fostering adoption and practice of agricultural innovations.

Research Question 3

What is the level of farmers' knowledge of agricultural innovations obtained through media exposure in South-South Nigeria?

Level of Knowledge	Frequency	Percentage (%)
Low Knowledge	108	27
Moderate Knowledge	185	46
High Knowledge	107	27
Total	**400**	**100**

The findings indicate that farmers possessed moderate knowledge of agricultural innovations despite media exposure. This suggests that while media messages raise awareness, many farmers may still lack deep understanding of practical applications, highlighting the need for follow-up training and community-based demonstrations.

Research Question 4:

To what extent does media exposure influence the adoption of agricultural innovations among farmers in South-South Nigeria?

Level of Adoption	Frequency	Percentage (%)
Low Adoption	147	37
Moderate Adoption	160	40
High Adoption	93	23
Total	**400**	**100**

The data reveal that most farmers reported moderate adoption of agricultural innovations. This implies that although media exposure contributes to awareness and knowledge, factors such as cost, access to inputs, and institutional barriers limit the full adoption of innovative practices among farmers in South-South Nigeria.

Discussion of Findings

The first research question assessed the extent of farmers' exposure to media messages on agricultural innovations in South-South Nigeria. Findings revealed that most farmers recorded moderate exposure to media content on agricultural innovations. This outcome implies that while media campaigns reach a fair proportion of rural farmers, exposure is not yet deep or sustained enough to transform awareness into behavioural change. The Diffusion of Innovation Theory explains that exposure marks the starting point in the adoption process, as awareness precedes interest, evaluation, and eventual acceptance (Rogers, 2003). In many rural areas, exposure remains limited due to weak infrastructure, inconsistent power supply, and low literacy levels, which hinder consistent engagement with radio, television, and digital content. Agwu, Dimelu and Madukwe (2008) earlier observed that farmers in remote communities depend largely on radio and interpersonal communication for agricultural information, yet exposure remains episodic and often without follow-up. Similarly, Ikehi (2022) noted that such one-way communication produces shallow awareness, which limits progression to practical adoption. These findings imply that strengthening media reach through local dialect programming, community radio, and interactive extension broadcasts could significantly enhance farmers' awareness and involvement in innovation dissemination.

The second research question focused on the predominant media channel which farmers are exposed to on agricultural innovations messages in South-South Nigeria. The findings from the above analysis therefore indicate that farmers possessed predominant information from the digital media channels especially from the various social media platforms sequel to their exposure and knowledge of agricultural innovations. Though, the analysis shows that farmers in South-South region of Nigeria gain exposure on agricultural innovations via traditional/interpersonal based media which also have a minimal impact on their practical application of knowledge of agricultural innovations. This suggests that while social media messages raise awareness and exposure on agricultural innovations in South-South region of Nigeria, many farmers may still lack exposure, adoption and practical knowledge on agricultural innovations highlighting the need for collaboration or relevant media forms and channels and follow-up training and community-based demonstrations that inform adoption and practice of agricultural innovations among farmers in South-South region of Nigeria. Therefore, media exposure remains one of the strongest forces shaping how farmers in South-South Nigeria become aware of agricultural innovations and how that awareness translates into practical use. Studies on innovation diffusion across Nigeria show that farmers often learn about new technologies through a mix of information sources such as radio broadcasts, television programmes, agricultural extension agents, farmer associations, and non-governmental organisations (Agwu, Dimelu&Madukwe, 2008; Onuoha &Umebali, 2021).

The third research question examined the level of farmers' knowledge of agricultural innovations obtained through media exposure. Findings indicated that most farmers demonstrated moderate knowledge, showing that while exposure exists, comprehension and retention of technical information remain limited. This finding reinforces Rogers' (2003) position that knowledge development demands sustained contact, participatory learning, and opportunity for experimentation. The Technology Acceptance Model (Davis, 1989) also provides a relevant perspective, suggesting that farmers' level of knowledge shapes their perception of usefulness and ease of use of agricultural innovations. Onuoha and Umebali (2021) similarly observed that farmers often heard about improved seed varieties through the media but lacked sufficient detail on recommended practices, while Adeyemo (2024) linked shallow knowledge to poor extension follow-up. The implication of this study's finding is that while the media remain a vital entry point for awareness, complementary mechanisms such as farmer field schools and community demonstrations are required to deepen knowledge, encourage learning by doing, and bridge the gap between exposure and practical mastery.

The fourth research question investigated the extent to which media exposure influences the adoption of agricultural innovations among farmers in South-South Nigeria. The findings revealed that most farmers exhibited moderate adoption levels despite considerable media exposure. This suggests that awareness and knowledge alone are insufficient to guarantee behavioural change when economic and institutional constraints persist. Rogers (2003) maintained that adoption depends not only on information diffusion but also on farmers' perception of relative advantage, compatibility, and trialability. Iheke and Nwaru (2013) reported that smallholders often refrain from adopting innovations because of cost implications and lack of access to inputs, while Abdullahi (2021) found that poor credit systems and infrastructural challenges hinder adoption even where awareness is high. This aligns with the Technology Acceptance Model (Davis, 1989), which posits that perceived usefulness and ease of use determine actual utilisation. The result of this study, therefore, mirrors Sennuga et al. (2020), who found that adoption rates in Nigeria remain modest when enabling structures such as finance and market access are weak. The implication is clear: while the media serve as effective channels for stimulating awareness and shaping attitudes, adoption of agricultural innovations in the South-South will remain modest unless media interventions are supported by institutional mechanisms that address cost, risk, and access barriers.

Conclusion

The study established that farmers in South-South Nigeria have moderate exposure to media messages on agricultural innovations, which translates into moderate knowledge and adoption levels. This pattern indicates that while media platforms effectively raise awareness, their impact on practical adoption remains limited by economic, institutional, and infrastructural constraints. Strengthening the synergy between media campaigns, extension services, and community-based training will therefore enhance farmers' technical competence and confidence to adopt innovations sustainably.

Recommendations

1. Extension agencies, agricultural media units, and development partners should expand and diversify media campaigns on agricultural innovations using radio, community broadcasts, and social media platforms that farmers in South-South Nigeria can easily access. Strengthening such exposure will ensure that information reaches even remote communities in timely and comprehensible formats.

2. With the knowledge that media exposure remains one of the strongest forces shaping how farmers in South-South Nigeria become aware of agricultural innovations and how that awareness translates into practical use, therefore, in the attempt to bridge the knowledge gap and curb lack of exposure on agricultural innovations among farmers in South-South region of Nigeria, there is need for

collaboration and convergence of relevant media channels like the social media, radio, TV, Newspapers, traditional/interpersonal mode etc and follow-up training and community-based demonstrations that inform exposure, adoption and practice of agricultural innovations among farmers in South-South region of Nigeria.

3. Government and non-governmental organisations should complement media exposure with structured training, farmers' field schools, and demonstration plots to improve farmers' knowledge of innovations. Continuous engagement and practical learning sessions will enable farmers to interpret and apply information gained from the media more effectively.

4. Policymakers should create enabling conditions that translate knowledge into adoption by providing affordable credit, quality inputs, and institutional support. Integrating these with sustained media awareness will motivate farmers to embrace innovations fully and sustain their use for improved productivity and livelihoods.

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Author details

Uwem Asuquo Akpan[1*]

Department of Mass Communication, Heritage Polytechnic, Eket, Akwa Ibom State, Nigeria.

Daniel Calixtus Akarika, Ph.D[2]

Department of Mass Communication, Akwa Ibom State University, Obio Akpa Campus, Akwa Ibom State, Nigeria.

Bassey Effiong Eyoh, Ph.D[3]

Department of Mass Communication, Akwa Ibom State University, Obio Akpa Campus, Akwa Ibom State, Nigeria.

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