

CHAPTER SEVENTEEN

Access to and Utilisation of Agricultural Extension Services Among Small-Scale Farmers in Asa Local Government Area, Kwara State, Nigeria: Challenges and Policy Implications

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Abstract

Small-scale farmers in Nigeria rely on agriculture for their livelihoods but face significant barriers in accessing effective extension services. This study examined these challenges using a mixed-methods approach involving qualitative and quantitative tools. Findings revealed that while extension services exist, they are underutilised. Radio, farmer cooperatives, and local networks were the primary information sources. Core services included advisory support and market information, while training programmes and workshops were least accessed. Key benefits noted were improved market access, productivity, and knowledge transfer. However, challenges such as inadequate funding, limited training, poor infrastructure, and restricted access to technology hindered effective utilisation. The study recommended increased funding, tailored training, infrastructural improvements, and stronger cooperatives. These strategies are essential for empowering small-scale farmers and promoting sustainable agricultural development in Nigeria.

Keywords: Agricultural Extension, Information Access, Small-scale farmers, Capacity building.

Introduction

The agricultural landscape of Nigeria is not only reliant on fertile soils but also shaped by a diverse community of farmers with varying needs and challenges (Ojo & Aliyu, 2022). Small-scale agriculture is vital for food security, employment, and the economic stability of the country (Adamu et al., 2021). It contributes to rural development, generates income, and plays a central role in household sustenance. Additionally, sustainable practices in

smallholder farming build resilience to climate variability and preserve cultural heritage (Adejuwon, 2020).

Despite its importance, small-scale farming is characterised by inadequate infrastructure, limited access to modern technology, and insufficient knowledge dissemination. These factors hinder productivity and competitiveness. Agricultural extension services are critical for bridging this gap, offering farmers relevant information, training, and technical support (Brown, 2021).

Given Nigeria's vast geographical and cultural diversity, a one-size-fits-all approach to extension service delivery is ineffective. Tailored services that reflect local realities and resource limitations are essential. Farmers face multiple barriers including poor road networks, limited funding, and constrained access to up-to-date agricultural practices (Johnson & Williams, 2019). In the era of digital agriculture and climate change, timely and inclusive extension services are more important than ever.

Agricultural extension acts as a bridge between innovation and practice, enabling the diffusion of sustainable techniques, access to markets, and adaptation to environmental change. However, the effectiveness of these services in Nigeria is often compromised by systemic issues such as underfunding, weak institutional support, and the absence of farmer-centred programming (Smith & Johnson, 2020).

This study explored these dynamics in Asa Local Government Area of Kwara State. The aim of the study was to provide a nuanced understanding of the extension services landscape, focusing on the experiences of small-scale farmers in a local government area of Nigeria. These farmers often operate within familial systems, relying on informal knowledge transfer and limited external support. Their resilience, though remarkable, is threatened by the changing demands of modern agriculture.

This study sought to identify not only the challenges but also practical and locally appropriate solutions. The study investigated the sources of agricultural information, the crops cultivated, available extension services, perceived benefits, and the key constraints affecting extension service access. By understanding these dimensions, the research contributed to policy discussions and intervention strategies for strengthening extension systems in rural Nigeria.

Literature Review

Historical Development of Agricultural Extension Services

The historical development of agricultural extension services reflects a trajectory shaped by evolving agrarian practices, national policy shifts, and global development paradigms. In Nigeria, extension services began to formalise during the mid-20th century under government-led initiatives aimed at increasing agricultural productivity and tackling food insecurity. These services initially focused on top-down knowledge transfer from research institutions to farmers (Kumar et al., 2021).

The Green Revolution era marked a turning point in agricultural extension by introducing high-yield varieties, chemical inputs, and mechanisation. However, this approach often marginalised small-scale farmers due to a lack of adaptation to local conditions (Brown & Taylor, 2022). In response, more participatory and decentralised models have emerged in recent years, emphasising farmer involvement, gender inclusiveness, and sustainability.

Agricultural Extension Services in Contemporary Practice

Modern agricultural extension systems aim to bridge the gap between research outputs and farming practices by offering farmers information, training, and tools for improved decision-making (Singh & Jain, 2020). These services are delivered through a variety of methods including on-farm demonstrations, workshops, mobile platforms, and community outreach programmes (Tilak et al., 2020).

A shift toward demand-driven and decentralised extension models has occurred globally, with Nigeria following suit through programmes like the Agricultural Transformation Agenda Support Programme (ATASP) and the National Agricultural Extension and Research Liaison Services (NAERLS). Nonetheless, the capacity of these systems remains constrained by poor funding, inadequate staffing, and limited reach to rural communities (Ogunleye & Alabi, 2021).

Access to Agricultural Information

Access to agricultural information is crucial for empowering farmers with the knowledge needed to optimise yields, improve resilience, and engage competitively in markets. In Nigeria, radio remains a dominant source of

information for smallholder farmers, followed by cooperatives and informal networks (Ogungbade, 2019). Increasingly, mobile technologies and digital platforms are being adopted for real-time dissemination of market prices, weather forecasts, and pest control updates (Okorie & Adegbite, 2022).

Access to quality information has been shown to improve agricultural productivity and income (Adepoju et al., 2023). However, barriers such as language differences, digital illiteracy, and infrastructure deficits continue to hinder information flow in remote areas.

Challenges Facing Small-Scale Farmers in Nigeria

Small-scale farmers encounter numerous structural and systemic challenges, including limited access to inputs, credit facilities, modern technologies, and markets (Smith et al., 2019). Climate variability further compounds these issues through erratic rainfall, rising temperatures, and increased pest incidence (Jones & Brown, 2021).

Moreover, the fragmentation of agricultural extension services among multiple actors—government, NGOs, and private firms—often leads to duplication and gaps in service delivery (Ibrahim & Yakubu, 2021). A lack of tailored training programmes, coupled with weak linkages between research and extension, undermines the effectiveness of these services.

To improve outcomes, studies suggest that a more coordinated, well-funded, and farmer-centred approach is essential. Leveraging community-based networks and digital platforms can enhance information reach, while ongoing capacity-building efforts are necessary to equip extension agents with up-to-date knowledge (Eze & Nwachukwu, 2020).

Methodology

The study was conducted in Asa Local Government Area of Kwara State, Nigeria. Asa is predominantly agrarian with a high population of smallholder farmers engaged in crop production. A mixed-methods research design was employed to ensure comprehensive data collection, combining qualitative insights with quantitative analysis for triangulation and validation.

A two-stage sampling technique was adopted. In the first stage, three communities—Laduba, Budo Agun, and Ago Oja—were purposively selected based on their farming intensity and accessibility. In the second stage, a

simple random sampling technique was used to select respondents from each community. A total of 120 respondents were selected, representing approximately 40% of the farming population across the selected communities.

Data were collected using a structured questionnaire comprising both closed- and open-ended questions. The instrument was validated through expert review and piloted in a neighbouring local government area to ensure clarity and reliability. The questionnaire captured demographic information, sources of agricultural information, access to extension services, perceived benefits, and constraints.

Data were analysed using both descriptive and inferential statistics. Descriptive statistics such as frequencies, means, and percentages summarised the respondents' characteristics and responses. Inferential statistics, including regression analysis, were employed to determine the relationships between variables and to identify key factors influencing access to extension services.

Results and Discussion

Table 1: Distribution of Respondents Based on the Sources of Information Utilized by the Respondents

S/N	SOURCE OF INFORMATION	Frequency	Percentage
1	Agricultural extension services.	66	55.0
2	Farmer association and cooperatives.	87	72.5
3	Radio / Television.	93	77.5
4	Social media.	58	48.3
5	Local farmer network.	81	67.5
6	Newspaper.	39	32.5

Source: Field survey, 2024

Sources of Information Utilised by Respondents

Findings in Table 1 indicate that radio and television (77.5%) were the most widely used sources of agricultural information. This reflects the widespread accessibility and affordability of mass media. Farmer associations and cooperatives (72.5%) were also important, underscoring the social dynamics

of group-based knowledge sharing. Local farmer networks (67.5%) and extension services (55.0%) served as complementary sources. Although social media (48.3%) and newspapers (32.5%) were the least utilised, their growing relevance among digitally literate farmers suggests potential for future expansion. This supported Ogungbade (2019), who noted similar trends in Kwara State.

Types of Crops Cultivated

Table 2. Distribution of Respondents Based on the types of Crops Cultivated

TYPES OF CROPS CULTIVATED	Frequency	Percentage
Cassava	101	84.2
Maize	113	94.2
Potatoes	64	53.3
Rice	31	25.8
Beans (cowpea)	74	61.7
Yam	100	83.3
Vegetables	105	87.5
Plantain	57	47.5
Soya beans	43	35.8
Guinea corn	52	43.3

Source: Field survey, 2024

Table 2 reveals that maize (94.2%) was the most commonly cultivated crop, followed by vegetables (87.5%), cassava (84.2%), and yam (83.3%). These crops are staples in the region and contribute significantly to food security and household income. Beans (61.7%), potatoes (53.3%), and plantain (47.5%) were also fairly common. Crops like soybean, guinea corn, and rice were grown by less than half of the respondents. This pattern suggests a preference for crops with short gestation periods and high local demand, aligning with the findings of Abdulaleem et al. (2019).

Access to Agricultural Extension Services

Table 3. Distribution of Respondents Based on Use of Agricultural Extension Services

AGRICULTURAL EXTENSION SERVICES AVAILABLE	MOSTLY USED	OCCASIONAL LY USED	RARELY USED	NOT USED	Mean	Rank
Farmer Cooperatives.	32 (26.7)	33 (27.5)	31 (25.8)	24 (20.0)	2.61	1 st
Advisory services.	20 (17.5)	26 (21.7)	53 (44.2)	21 (16.7)	2.60	2 nd
Market and value chain information.	23 (19.2)	39 (32.5)	37 (30.8)	21 (17.5)	2.53	3 rd
Farm visits and Demonstrations.	20 (16.7)	37 (30.8)	14 (11.7)	49 (40.8)	2.23	4 th
Non-Governmental Organizations.	19 (15.8)	29 (24.2)	15 (12.5)	57 (47.5)	2.08	5 th
Awareness campaign.	13 (10.8)	31 (25.8)	22 (18.3)	54 (45.0)	2.02	6 th
Agricultural agencies.	7(5.8)	29 (24.2)	31 (25.8)	52 (43.3)	1.95	7 th
Financial supports.	12 (10.0)	24 (20.0)	11 (9.2)	73 (60.8)	1.79	8 th
Training programs.	15 (12.5)	18 (15.0)	14 (11.7)	73 (60.8)	1.79	8 th
Workshop.	7 (5.8)	14 (11.7)	22 (18.3)	77 (64.2)	1.59	10 th

Source: Field survey, 2024

As presented in Table 3, farmer cooperatives (mean = 2.61) and advisory services (mean = 2.60) were the most frequently accessed forms of extension

support. These were followed by market and value chain information (2.53). Services such as farm visits, NGO support, and awareness campaigns were used less frequently, while training programmes and workshops were the least accessed (mean = 1.79 and 1.59 respectively). This indicates a gap in capacity-building initiatives, possibly due to poor outreach, resource constraints, or lack of farmer awareness. Enhancing training delivery could significantly improve knowledge uptake and innovation adoption.

Table 4: Distribution of Respondents Based on the Benefit of Agricultural Extension services

BENEFITS	SA	A	UD	D	SD	Mean	Rank
Access to market information and opportunities	38 (31.7)	28 (23.3)	2 (1.7)	26 (21.7)	26 (21.7)	3.22	1 st
Access to farm demonstration and training programs.	39 (32.5)	32 (26.7)	0(0)	13(10.8)	36(30.0)	3.21	2 nd
Enhance productivity and profitability	34 (28.3)	25 (20.8)	7 (5.8)	35 (29.2)	19 (15.8)	3.16	3 rd
Provide valuable knowledge and guidance	34 (28.3)	29 (24.2)	2 (1.7)	31 (25.8)	24 (20.0)	3.15	4 th
Improve communication and understanding	16 (13.3)	30 (25.0)	9 (7.5)	45 (37.5)	20 (16.7)	2.81	5 th
Adoption of new technologies and practices.	29 (24.2)	28 (23.3)	3 (2.5)	8 (6.7)	52 (43.3)	2.78	6 th
Proper infrastructure such as good roads and	12 (10)	35 (29.2)	8 (6.7)	43 (35.8)	22 (18.3)	2.76	7 th

communication
network

Access to financial resources and government support programs.	20 (16.7)	29 (24.2)	2 (1.7)	7 (5.8)	62 (51.7)	2.48	8 th
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Source: Field survey, 2024

Table 4 highlights that farmers recognised access to market information (mean = 3.22) and training programmes (mean = 3.21) as the most beneficial aspects of extension services. Enhanced productivity (3.16), knowledge guidance (3.15), and communication improvement (2.81) also scored moderately. However, benefits related to technology adoption (2.78), infrastructure (2.76), and financial access (2.48) were rated lower, revealing structural limitations in service delivery. The findings support earlier claims by Adepoju et al. (2023) that farmers benefit most when extension services are aligned with market and training support.

Table 5: Distribution of Respondents Based on the Constraints in Accessing Agricultural Extension Services

CONSTRAINTS	SA	A	UD	D	SD	Mean	Rank
Inadequate funding and resources.	92 (76.7)	20 (16.7)	1 (0.8)	5 (4.2)	2 (1.7)	4.63	1 st
Lack of training and education.	84 (70.0)	21 (17.5)	2 (1.7)	8 (6.7)	5 (4.2)	4.43	2 nd
Limited access to technology and information resources.	71 (59.2)	34 (28.3)	2 (1.7)	11 (9.2)	2 (1.7)	4.34	3 rd
Inadequate capacity building programs.	47 (39.2)	51 (42.5)	10 (8.3)	11 (9.2)	1 (0.8)	4.10	4 th

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Poor infrastructure and transportation difficulties.	31 (25.8)	73 (60.8)	5 (4.2)	7 (5.8)	4 (3.3)	4.00	5 th
Lack of awareness about available agricultural extension services.	36 (30.0)	59 (49.2)	7 (5.8)	16 (13.3)	2 (1.7)	3.92	6 th
Lack of access to market information and linkages.	39 (32.5)	44 (36.7)	9 (7.5)	20 (16.7)	8 (6.7)	3.72	7 th
Language and cultural barriers	21 (17.5)	65 (54.2)	10 (8.3)	17 (14.2)	7 (5.8)	3.63	8 th
Government policies and regulations.	34 (28.3)	27 (22.5)	8 (6.7)	7 (5.8)	44 (36.7)	3.00	9 th

Source: Field survey, 2024

Table 5 shows that inadequate funding (mean = 4.63), lack of training (4.43), and limited access to technology (4.34) were the most critical constraints. Capacity-building gaps (4.10), poor infrastructure (4.00), and lack of awareness (3.92) were also significant. Challenges such as market access, language barriers, and government policy were considered less severe. These results echo Eze and Nwachukwu (2020), who argued for more coordinated investments in training, digital tools, and transport infrastructure to expand reach and impact of extension services.

Conclusion

This study has shown that although agricultural extension services were available in Asa Local Government Area of Kwara State, their utilisation among small-scale farmers remained limited. Farmers predominantly relied on radio, farmer cooperatives, and local networks to obtain agricultural information, while modern tools such as training workshops and digital platforms were under-utilised. The most cultivated crops included maize, vegetables, cassava, and yam staples that reflect the nutritional and economic preferences of the region.

While farmers acknowledged several benefits from extension services, including improved market access and productivity, the study also uncovered considerable constraints. Inadequate funding, limited access to training, poor infrastructure, and insufficient technology remain significant challenges.

The findings underlined the need for robust policy frameworks and sustainable investment in extension services. Bridging the information and capacity gaps would require greater collaboration between government agencies, NGOs, and community-based organisations. Strengthening these systems is crucial for fostering innovation, improving agricultural productivity, and enhancing the livelihoods of small-scale farmers.

Recommendations

1. **Increase Government and Stakeholder Funding:** Improved financial support is critical for enhancing the quality and reach of extension services.
2. **Expand Training and Capacity Building:** Organise regular training sessions tailored to the specific needs of smallholder farmers.
3. **Leverage Cooperative Networks:** Strengthen farmer associations as platforms for information dissemination and resource pooling.
4. **Integrate Digital Tools:** Encourage the use of mobile-based and media-based information systems to expand access to agricultural advice and market data.
5. **Improve Infrastructure:** Investment in rural road networks and communication systems will facilitate easier access to extension services.
6. **Enhance Awareness and Outreach:** Intensify sensitisation efforts to inform farmers of the available extension resources and their benefits

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