SOCIOECONOMIC FACTORS INFLUENCING MASS MEDIA USAGE BY CASSAVA FARMERS IN CROSS RIVER STATE

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Abstract
This study examines the socioeconomic factors influencing mass media usage by cassava farmers in Cross River State, Nigeria. The specific objectives were to;assess the socio-economic characteristics of cassava farmers in Cross River State, determine the type of mass media used for reporting rural and agricultural development issues, ascertain the type of agricultural information utilized by cassava farmers, and assess the relationship between the socioeconomic characteristics of cassava farmers and the type of mass media used for reporting rural and agricultural development issues in Cross River State. The population of the study comprised of cassava farmers residing around mass media houses in the study area. The study adopted the proportionate sampling technique to select 150 respondents at 30% out of 500. A researcher structured questionnaire was used for data collection. Data collected was analyzed using both descriptive and inferential statistics. Results indicated that; the distribution of respondents by sex shows that 55.7% of cassava farmers were male, while 44.3% were female. In terms of age distribution, the majority of respondents (43.3%) fell within the 15–25 years age group, followed by 24.7% in the 26–35 range. Also, that radio was ranked the most widely used source of information by cassava farmers, with a mean of 3.83, followed closely by town criers (mean = 3.81), while marketing information had the highest mean score (M = 3.52; SD = 1.92). The study concluded that Cassava production remains a critical livelihood activity for smallholder farmers in Cross River State, yet their productivity and access to innovations are often constrained by inadequate agricultural information dissemination. The study recommended that regular assessments should be conducted to identify farmers' preferred media platforms and adapt extension services accordingly. And also, partnerships between agricultural institutions and media houses should be fostered to provide timely, reliable, and localized agricultural information.
Keywords: *Socioeconomic Factors, Mass Media Usage, Cassava Farmers, Type of Mass Media*

Background of the Study

Cassava remains one of the most important staple crops in Nigeria, serving as a major source of food, raw material for industries, and income for rural households. Nigeria is recognized as the world's largest producer of cassava, with significant production taking place in the southern regions, including Cross River State. The crop's economic significance is evident in its role in food security, poverty alleviation, and rural development. However, cassava production faces challenges such as low productivity, post-harvest losses, and limited access to improved technologies, which hinder its full potential (Oladoyin, Akinbola, Aturanmu, & Ilesanmi, 2022). These challenges necessitate effective dissemination of agricultural information through channels such as mass media to enhance farmers' productivity and income.The mass media plays a critical role in agricultural development by serving as a link between research institutions, policymakers, and farmers (Ogbonna &Eremi,2019). Effective use of media such as radio, television, newspapers, and digital platforms can facilitate timely access to agricultural innovations and information needed for improved cassava production. In rural settings where literacy levels may be low, radio and community broadcasts remain powerful tools for communication, enabling farmers to receive critical information on production practices, pest control, and marketing opportunities (Anyanwu & Udoh, 2022). Thus, examining mass media usage among cassava farmers in Cross River State is essential for understanding how communication strategies influence agricultural development outcomes. The socio-economic characteristics of farmers also play a significant role in determining how they access and utilize information. Factors such as age, education, income level, farming experience, and household size often influence farmers' willingness and ability to adopt agricultural technologies (Eremi& Aya 2014;Eremi et al., 2023). Studies have shown that socio-economic attributes can shape the choice of communication channels, as farmers with higher education and income levels may prefer digital platforms, while those with limited education rely more on radio and face-to-face communication (Odor et al., 2022; Eremi et al., 2019; Eremi& Ebe 2018). Hence, investigating the link between these characteristics and mass media usage is crucial to developing targeted extension strategies.

The role of mass media in agricultural development cannot be overstated. Mass media serve as a critical channel through which information on improved practices, climate-smart agriculture, and market opportunities is disseminated to rural farmers. Studies have shown that farmers who access agricultural information through radio, television, and digital platforms are more likely to adopt innovations, reduce risks, and improve productivity (Anyanwu & Udoh, 2022). In Cross River State, where extension services are often limited, the use of media becomes even more important in bridging the knowledge gap.However, the use of media among rural farmers is often influenced by their socioeconomic conditions and infrastructural access. For instance, limited access to electricity, low income, and lack of media literacy have constrained the effective use of radio, television, and ICTs among cassava farmers in Nigeria (Ayi et al., 2023; Omoregie &Aziken, 2022). In Akamkpa and other cassava-producing areas of Cross River State, socioeconomic status not only affects production outcomes but also determines the choice of media platforms for agricultural communication. Adie et al. (2020) reported that mass media methods significantly influence farmers' access to agricultural extension messages in Yakurr, emphasizing the relevance of radio and television as primary tools. Similarly, Aya and Eremi (2016) found that modern ICT utilization among farmers in Calabar agricultural zone was influenced by literacy and awareness levels, showing the link between socioeconomic variables and media adoption. These findings suggest that effective dissemination of agricultural information requires tailoring media channels to the socio-economic realities of farmers (Ekaluoet al., 2023).The use of electronic media in cassava production also presents opportunities for farmers to enhance their knowledge base, particularly in areas of pest control, soil management, and processing innovations. Ayi et al. (2023) observed that farmers in Akamkpa LGA who utilized electronic media were more informed about improved cassava practices, leading to better production outcomes. This aligns with Odor et al. (2022), who found that socioeconomic characteristics such as education and income positively influenced the use of ICTs among cassava farmers in Abia State. Despite these benefits, several challenges hinder mass media utilization. Issues such as affordability of gadgets, irregular power supply, poor internet penetration, and limited extension-media collaboration constrain cassava farmers from maximizing the full benefits of media in agricultural communication (Omoregie &Aziken, 2022; Onyenma&Aroyehun, 2020). This highlights the need for targeted interventions that promote inclusive media access among smallholder farmers in Cross River State. The effectiveness of media usage among cassava farmers must be examined within the broader context of agricultural risks and uncertainties. Ajah et al. (2022) emphasized that cassava farmers adopt risk management practices informed by extension and media-based knowledge. Similarly, Eta et al. (2023a) demonstrated that access to e-information significantly enhanced farmers' ability to engage in climate-smart agricultural practices in

Cross River State. These findings underscore the role of media in not just productivity but also sustainability and resilience in cassava farming.

Statement of the Problem

Cassava farming plays a central role in the livelihoods of rural households in Cross River State, contributing significantly to food security and income generation. Despite its importance, cassava farmers often face challenges such as low productivity, post-harvest losses, and poor access to markets. A major constraint has been the inadequate flow of relevant agricultural information to farmers, which is essential for improving production practices, risk management, and market access (Ajah et al., 2022; Oladoyin et al., 2022). Extension services, which traditionally serve as the main source of agricultural information, are overstretched and underfunded, creating a gap that mass media and ICTs could potentially fill (Adie et al., 2020; Anyanwu & Udoh, 2022).While previous studies have demonstrated that socioeconomic characteristics influence the utilization of ICTs and mass media among farmers (Odor et al., 2022; Ayi et al., 2023; Omoregie &Aziken, 2022), there is limited empirical evidence specific to cassava farmers in Cross River State. Most existing studies have focused on other crops, general ICT adoption, or agricultural practices outside cassava production. For example, studies in Abia and Delta States analyzed ICT utilization among cassava farmers but did not comprehensively explore how socioeconomic variables interact with the choice of mass media in information access (Odor et al., 2022; Omoregie &Aziken, 2022). Similarly, research within Cross River has primarily examined ICT usage among general farming populations (Aya &Eremi, 2016; Eta et al., 2023a), without narrowing down to cassava farmers who form a critical segment of the agricultural economy in the state. This gap indicates the need for a study that not only identifies the socioeconomic characteristics of cassava farmers in Cross River State but also examines the types of mass media they utilize for agricultural development information. Moreover, there is limited evidence on the relationship between farmers' socioeconomic factors—such as age, education, and income, and their choice of mass media. Addressing this gap is crucial for designing effective media-based extension strategies that are inclusive and tailored to the realities of cassava farmers in the state. Without such evidence, interventions may fail to achieve the desired impact on cassava productivity, rural livelihoods, and agricultural development in Cross River State.

Objectives of the Study

The main objective of this study was to examine the socioeconomic factors influencing mass media usage by cassava farmers in Cross River State, Nigeria.

The Specific Objectives were to:

1. Assess the socio-economic characteristics of cassava farmers in Cross River State.
2. Determine the type of mass media used by cassava farmers in the study area.
3. Ascertain the type of agricultural information utilized by cassava farmers in the study area.
4. Assess the relationship between the socioeconomic characteristics of cassava farmers and the type of mass media used by cassava farmers in Cross River State.

Research Methodology

Cross River is a coastal state in southeastern Nigeria known for its diverse cultures, tropical rainforests, and vibrant tourism. Its capital is Calabar, and it is nicknamed "The People's Paradise". Weather The state has a humid tropical climate, though conditions vary by location. It lies between latitude 4^{o}27' and 5^{o}32'N and longitude between 7^{o}50' and 9^{o}28' E Greenwich of the meridian. Average temperatures typically range from 15^{o}C to 30^{o}C. It records significant annual rainfall, especially during the wet season. While the dry season has less of an effect in the region, the high-altitude plateau in Obudu experiences lower temperatures, sometimes dipping to 4^{o}C Land size Cross River is the 19th largest state in Nigeria by area. Its landmass is approximately: 20,156 km²22,590 km² . Cross River's population was 4,406,200, ranking it 28th out of Nigeria's 36 states. The economy of Cross River State is predominantly agrarian, about 70% of residents work in agriculture, producing cash crops like oil palm, rubber, and cocoa. Food crops such as cassava. Cross River State has 18 Local Government Areas such as : Abi, Akamkpa, Akpabuyo, Bakassi, Bekwarra, Biase, Boki, Calabar Municipal, Calabar South, Etung, Ikom, Obanliku, Obubra, ObudumOdukpani, Ogoja, Yakurr and Yala. The population of the study comprised of cassava farmers residing around mass media houses in the study area who listen to or utilize the daily/weekly editions and newspaper publication in agricultural issues. The study identified 12 mass media houses. The study purposively sampled 500 cassava farmers The study adopted the proportionate sampling technique to select 150 respondents at 30% out of 500. A structured questionnaire was used for data collection. Data collected were analyzed using both descriptive and inferential statistics. The Probit regression was used to measure the relationship between socioeconomic characteristics of the respondent and the type of mass media used for reporting rural and agricultural development issues.

Table 1: Distribution of Sample Size

S/N	Number of Media houses in the Study Area	Number of cassava farmers in the location	Sample population (30%)
1.	Cross River State Broadcasting Television Stations	50	15
2.	The Radio FM Station	34	10
3.	NTA Channel 24	42	15
4.	The Nigeria Chronicle	40	12
5.	This Day Newspaper	44	13
6.	Nation Newspaper	35	10
7.	Tribune	49	15
8.	Vanguard	46	13
9.	Punch	38	12
10.	The Sun	41	12
11.	Daily Independent	43	13
12.	Guardian	36	10
	Total	**500**	**150**

Source: Field survey, 2025

Results and Discussion

Socio-economic characteristics of respondents

Table 2 shows the distribution of cassava farmers in the study area. The distribution of respondents by sex shows that 55.7% of cassava farmers were male, while 44.3% were female. This indicates that cassava farming in the study area is male-dominated, although female participation remains significant.

Table 2: Distribution of cassava farmers based on socio-economic variables

	Frequency	Percentage
Sex		
Male	83	55.7
Female	67	44.3
Total	150	100.0
Age		
15-25	65	43.3
26-35	37	24.7
36-45	21	14.0
46-55	17	11.3
56>	10	6.7
Total	150	100.0
Marital status		
Single	68	45.3
Married	57	38.0
Divorced	11	7.3
Widow	14	9.3
Total	150	100.0
Household size		
<5	75	50.0
5-10	57	38.3
11-15	18	12.0
Total	150	100.0
Agricultural Activity Engagement		
Farming	59	39.3
Trading	46	30.7
Fishing	17	11.3
Others	28	18.7
Total	**150**	**100.0**
Membership of Association		
yes	37	24.7
No	113	75.3
Total	**150**	**100.0**
Years of Framing experience		
<5	56	37.3
5-10	44	29.3
11>	50	33.3
Total	**150**	**100.0**
Type of crop grown		
Cassava	57	38.0
Yam	35	23.3
Maize	48	32.0
Others	10	6.7
Total	**150**	**100.0**

Source: Field survey, 2025

This aligns with earlier findings that both men and women are active in cassava production in Nigeria, but men often have more access to resources and decision-making opportunities (Apata, 2019). In terms of age distribution, the majority of respondents (43.3%) fell within the 15–25 years age group, followed by 24.7% in the 26–35 range. This suggests that cassava farming is dominated by younger farmers, which may be attributed to their strength, energy, and openness to innovation. On the other hand, older farmers (46 years and above) accounted for only 18%, suggesting reduced participation due to age-related limitations. Since younger farmers are often more receptive to technology and mass media, media programs targeting agricultural development may find a ready audience among this group (Omoregie &Aziken, 2022). Regarding marital status, 45.3% of respondents were single, while 38% were married, and 9.3% were widowed. Only 7.3% were divorced. This indicates that cassava farming attracts both single and married individuals, with a slightly higher proportion of unmarried respondents. The relatively high proportion of single respondents may be linked to the dominance of younger farmers. Marital status is important in agricultural communication, as married individuals may have larger households and greater dependence on farming as a livelihood source (Oladoyin et al., 2022).

Household size analysis revealed that 50% of farmers had fewer than five members, while 46% had between 11 and 15 members, and only 17.3% had between 5–10 members. This irregular distribution suggests a mix of small and large households among cassava farmers. Household size is critical because larger households may provide more labor for farming activities and influence farmers' reliance on mass media for agricultural knowledge and practices (Nwaobiala& Anyanwu, 2018). The data on agricultural activity engagement shows that 39.3% of respondents were primarily engaged in farming, 30.7% in trading, 11.3% in fishing, and 18.7% in other activities. This highlights the fact that while farming remains the dominant activity, diversification into trading and other occupations is common. Diversified livelihood activities may affect the way farmers use mass media, as those engaged in trading may rely more on market-related information from media outlets (Nwibo et al., 2022).

With respect to membership in associations, a large majority (75.3%) of farmers did not belong to any association, while only 24.7% were members. This suggests limited participation in cooperative or farmer groups in the study area. Since associations often serve as key platforms for accessing agricultural information and mass media initiatives, the low membership rate could hinder information flow and adoption of innovations (Albert & Joseph, 2020). Farming experience was distributed across three categories, with 37.3% having less than five years of experience, 29.3% with 5–10 years, and 33.3% with over 11 years of experience. This indicates that the sample includes both novice and experienced farmers, creating an opportunity to analyze how farming experience influences mass media utilization. Farmers with longer experience may be less dependent on media for farming decisions compared to newer farmers who are still exploring best practices (Ekanem & Ekerete, 2018). Finally, the type of crops grown shows cassava (38%) as the dominant crop, followed by maize (32%) and yam (23.3%). A small proportion (6.7%) grew other crops. This confirms cassava's central role in the farming system of Cross River State, which justifies the focus of this study. The crop mix also implies that farmers may require diversified information from mass media, ranging from cassava production and processing technologies to maize and yam market opportunities (Angba& Iton, 2020).

Type of mass media used by cassava farmers in the study area.

Table 3 shows distribution of respondents based on type of mass media used by cassava farmers in the study area. The results from the Table indicate that radio was ranked the most widely used source of information by cassava farmers, with a mean of 3.83, followed closely by town criers (mean = 3.81). This suggests that despite technological advancement, traditional media such as radio and oral communication remain highly effective in disseminating agricultural information to rural communities.

Table 3: Distribution of respondents based on type of mass media used by cassava farmers in the study area.

ITEMS	MEAN	SD	RANK
Newspaper	2.34	1.83	7th
Television	3.41	2.32	4th
Radio	3.83	2.57	1st
Town criers	3.81	2.51	2nd
Village meeting	3.45	2.42	3rd
Bulletin	2.28	1.99	8th
Internet	3.10	2.22	6th
Mobile phones	3.31	2.40	5th

Source: Field Survey, 2025

Village meetings ranked third (mean = 3.45), which highlights the importance of communal gatherings in sharing relevant development issues and strengthening collective decision-making among farmers. These findings are consistent with the notion that accessible and culturally appropriate media play a critical role in agricultural extension, especially where literacy levels and infrastructure pose challenges. On the other hand, mobile phones (mean = 3.31) and internet (mean = 3.10) ranked fifth and sixth, respectively, showing moderate utilization. This reflects increasing exposure to digital platforms but also suggests possible barriers such as poor connectivity, low affordability, or digital illiteracy. Meanwhile, television ranked fourth (mean = 3.41), indicating moderate reliance, possibly due to electricity challenges and cost of ownership in rural households. The least used media were newspapers (mean = 2.34) and bulletins (mean = 2.28), which may be attributed to literacy constraints, limited distribution in rural areas, and low preference compared to oral and audio-visual channels. Overall, the results reveal a media usage pattern dominated by traditional and oral methods, with a gradual shift toward modern digital tools that require supportive policies for greater adoption among cassava farmers.

Table 4 shows the distribution of respondents based on the type of agricultural information utilized by cassava farmers in the study area The findings reveal that marketing information had the highest mean score (M = 3.52; SD = 1.92), ranking 1st, indicating that the mass media in Cross River State places greater emphasis on disseminating information about agricultural produce marketing. This suggests that farmers are more frequently exposed to market trends, pricing, and opportunities, which is critical for improving their sales and income. The second most disseminated type of information was processing information (M = 3.38; SD = 1.87), followed closely by production information (M = 3.27; SD = 1.83). These findings highlight the role of media in educating farmers on improved farming and value addition practices. However, policy information (M = 1.78; SD = 0.68) was ranked lowest, showing a significant gap in the communication of agricultural policies, regulations, and government initiatives that could guide farmers' decisions and access to opportunities. Similarly, issues such as credit information (M = 2.57; SD = 1.56), rural health (M = 2.52; SD = 1.52), and empowerment (M = 2.59; SD = 1.64) were rated relatively low, suggesting that farmers in the study area have limited access to critical livelihood-support information beyond production and marketing. This indicates that while media outlets serve as important channels for agricultural reporting, their coverage remains skewed toward marketing, with less emphasis on policy, health, empowerment, and credit—factors that are essential for holistic rural and agricultural development.

Type of agricultural information utilized by cassava farmers in the study area.

Table 4: Distribution of respondents based on the type of agricultural information utilized by cassava farmers in the study area

Items	Mean	SD	Rank
Policy information	1.78	0.68	8th
Production information	3.27	1.83	3rd
Marketing information	3.52	1.92	1st
Processing information	3.38	1.87	2nd
Credit information	2.57	1.56	6th
Rural health	2.52	1.52	7th
Empowerment initiatives	2.59	1.64	5th
innovation	2.62	1.58	4th

Source: Field Survey, 2025

Relationship between the socioeconomic characteristics of cassava farmers and the type of mass media used by cassava farmers in Cross River State.

Table 5: Probit regression result of the relationship between socioeconomic characteristics of the respondent and the type of mass media used by cassava farmers in the study area

Variable	Coeff.	Std Error	Z	P>/Z	95% conf.	Interval
Age	-0.0045	0.0179	-0.25***	0.800	-0.3965	0.0305
Sex	-0.02536	0.3138	-0.81**	0.419	-0.8688	0.3615
Educational level	0.0523	0.0472	1.11*	0.268	0.1450	0.0403
Marital status	0.2035	0.1192	1.71	0.088	-0.0302	0.4373
Household size	0.0816	0.0791	1.93*	0.303	-0.0735	0.2368
Agricultural activity	-0.0183	0.0263	-0.70**	0.486	-0.0799	0.3333
Farmin experience	0.0921	0.0473	1.95	0.051	0.18497	0.0005
Crop grown	0.0395	0.0543	0.73**	0.467	-0.669	0.1461

Pseudo R^2	0.126
LR statistics	15.45
Prob (LR statistic)	0.0079
Log likelihood	-52.8715

***P<.01 **P<.05, *P<.10

The Probit regression analysis in Table 5 examined the relationship between the socioeconomic characteristics of cassava farmers and the type of mass media used by cassava farmers in Cross River State. The overall model fit was significant, with a likelihood ratio (LR) statistic of 15.45 at a probability level of 0.0079, and a Pseudo R^2 value of 0.126. This indicates that the included socioeconomic variables explain about 12.6% of the variations in the choice of mass media used by respondents, suggesting that these factors jointly contribute to determining mass media utilization for agricultural information management. The results revealed that some variables had positive but statistically weak effects, while others showed negative associations. Farming experience had a positive and near-significant effect ($\beta = 0.0921$, $p \approx 0.051$), implying that farmers with more years of experience are slightly more likely to rely on mass media for agricultural information. Similarly, marital status ($\beta =$

0.2035, $p = 0.088$) and household size ($\beta = 0.0816$, $p = 0.303$) showed positive coefficients, suggesting a tendency that married farmers or those with larger households might be more inclined to seek agricultural information through mass media channels. Educational level also had a positive coefficient ($\beta = 0.0523$), although not statistically significant, indicating that higher educational attainment could moderately influence mass media adoption. Conversely, age ($\beta = -0.0045$, $p = 0.800$), sex ($\beta = -0.02536$, $p = 0.419$), agricultural activity ($\beta = -0.0183$, $p = 0.486$), and crop grown ($\beta = 0.0395$, $p = 0.467$) were not significant predictors of media use for agricultural information. These findings suggest that demographic factors such as gender and age do not strongly influence the type of mass media accessed by farmers in the study area. Instead, farming experience, education, and marital responsibilities appear to play more substantial roles. Overall, the results highlight that socioeconomic variables interact differently, and targeted interventions should consider these dynamics when promoting mass media as a tool for agricultural extension and rural development.

Conclusion

Cassava production remains a critical livelihood activity for smallholder farmers in Cross River State, yet their productivity and access to innovations are often constrained by inadequate agricultural information dissemination. This study recognizes that socioeconomic characteristics such as age, education, income, and household size significantly shape how farmers engage with mass media platforms to access agricultural information. The use of mass media—radio, television, and emerging ICT platforms—provides an avenue to complement weak extension service delivery, ensuring that farmers are better informed about improved production practices, markets, and climate-smart agriculture. However, the analysis reveals that access to and utilization of mass media by cassava farmers is uneven, often determined by socioeconomic disparities. While younger and more educated farmers are more inclined toward modern ICT tools, many rural farmers still depend on traditional channels such as radio. This gap underscores the need for targeted policies and strategies that not only promote equitable access to information but also tailor communication methods to the realities of cassava farmers. A focused approach that aligns socioeconomic profiles with media choices will ensure that cassava farmers in Cross River State can leverage information for improved productivity, resilience, and sustainable livelihoods.

Recommendations

1. Farmer cooperatives should be strengthened and encouraged to share information across members, thereby bridging gaps among farmers with varying socioeconomic backgrounds.
2. Agricultural development agencies should prioritize radio and community-based broadcasts since they remain the most accessible to rural farmers. Also, local television programs should integrate agricultural content tailored to cassava farmers, using local dialects for wider comprehension.
3. Regular assessments should be conducted to identify farmers' preferred media platforms and adapt extension services accordingly. And also, partnerships between agricultural institutions and media houses should be fostered to provide timely, reliable, and localized agricultural information.
4. Special interventions should target low-income and less-educated farmers to ensure they are not excluded from media-based agricultural information. Also, government and NGOs should promote gender-sensitive media strategies, ensuring that both male and female cassava farmers benefit equitably from agricultural information.

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