DOI: https://dx.doi.org/10.4314/gjpas.v29i2.1

GLOBAL JOURNAL OF PURE AND APPLIED SCIENCES VOL. 29, 2023: 115-120
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MASS MEDIA PERCEPTION AND UTILIZATION FOR ACCESSING AGRICULTURAL INFORMATION AMONG FARMERS IN OGOJA AGRICULTURAL ZONE, CROSS RIVER STATE, NIGERIA

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(Received 9 August 2023; Revision Accepted 28 August 2023)

ABSTRACT

The study focused on mass media perception and utilization for accessing agricultural information among farmers in Ogoja agricultural zone, Cross River State, Nigeria. The study specifically identified agricultural information needs of the farmers, ascertained the mass media available in the area, determined the extent of utilization of mass media by farmers, and established the relationship between mass media perception and utilization by farmers in the area. The study was conducted in Ogoja agricultural zone, the population consisted of all the registered farmers in the area, and the 3 extension blocks used, namely Ogoja, Obudu and Yala were randomly selected. The sample comprised 200 randomly selected respondents. Data were collected using a structured questionnaire and analyzed using percentages, mean, standard deviation, ranking and chi square statistics. The results revealed that farmers needs information on herbicides/pesticides (ranked = 1st), transportation (ranked = 2nd) and credit facilities (ranked = 3rd) etc. The predominant mass media available were mobile phone (ranked = 1st), television (ranked 2nd) and radio (ranked = 3rd) were the most extensively utilized in the area. The study found a significant relationship between mass media perception and utilization by the farmers. A comprehensive internet network coverage in the area and ICT training were recommended among others, to enhance mass media utilization.

KEYWORDS: Agriculture; Information; Mass Media; Access; Utilization; Ogoja.

INTRODUCTION

The 21st century agriculture is information – driven, and farmers who were traditionally derogated as illiterate, superstitious and resistant to change are becoming increasingly sensitive to technological advancements, particularly in the area of communication. It is widely believed, and rightly so, that access to timely and valuable information is a pre-requisite to agricultural development. Information plays a vital role in keeping farmers abreast with the latest innovations in agriculture. the continuous global food crisis is putting unprecedented pressure on conventional farming systems and farmers to adapt to emerging technologies to increase productivity (Eremi, Eta, Eremi and Evey, 2023).

According to Eta, Idiku, Elemi and Eremi (2023) agriculture is a key sector that plays vital role in the growth of most economies in sub-Saharan Africa and as Idiku, Eremi, Ntui, Nwogu and Besong (2022) pointed, the rural economy is largely dependent on agricultural production, and the success of the sector is profoundly influenced by farmer's access to useful information. Previously, the main sources of information for the farmers were local news channels such as town cryer, relatives or family, rumor, informal gossips and unauthorative information speculated and upheld by members of a given community. In recent times however, the progress made in communication technology and globalization has made such information sources inadequate.
It has been observed that the traditional means of

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disseminating farm information to farmers and other rural people is no longer sustainable in the face of a rapidly expanding population, technological advancement and globalization. Bridging the rural-urban digital dichotomy is being considered a more reliable strategy for taking agricultural information and innovations to the door-step of farmers. In the words of Seema (2010), mass media is any mechanical or electronic device that multiples messages and takes it to a large number of people simultaneously. In other words, it is any technique or tool that allows or enables mass produced messages to be transmitted to large, anonymous and heterogeneous masses of receivers. One major concern for rural farmers is their inadequate of access to information and low concentration of agricultural information in mainstream media.

Mass media in agriculture has evolved from the more familiar radio and television to the sophisticated electronic channels, including wireless mobile phones, internet, social media, applications, and emails among others. All these media are very useful in disseminating valuable information to farmers to enhance productivity and improve their socio-economic well-being. Effective use of media in agriculture by all categories of farmers will address gender-based poverty which has become a global problem and will mitigate the deep-rooted income inequalities among farming communities (Eremi, Idiku, Aya and Ita, 2023).

According to Purushothaman, Karaskar, Reddy and Kanagasabapathi (2023) the success of agricultural development programmes in developing countries largely depends on the nature and extent of use of mass media in mobilization of people for development. Agricultural planners in developing countries have realized that the development of agriculture could be hastened with the effective use of mass media. For a successful implementation of an agricultural development programme, the level and extent of the usage of the mass media is paramount. The broadcast media, that is, radio and television are effective in disseminating knowledge and information to farmers.

According to Anyanwu and Udoh (2022), mass media is considered an important element needed to effectively transfer technologies to farmers. To promote innovation adoption, farmers must have access to information. The media deployed in disseminating agricultural information to farmers is as important as the information. Ndaghu and Taru (2011) maintained that effective communication of new research findings and technologies in agriculture to rural farmers remain a promising strategy for increasing agricultural productivity.

Despite the availability of important agricultural information and widespread media to disseminate this information and promote productivity, it has been observed that farm outputs and food supply are still grossly insufficient compared to demand, particularly among farmers in Cross River State (Eta, Eremi, Idiku and Eta, 2023). Cross River State, particularly Ogoja agricultural zone is predominantly an agrarian area, and despite being extensive farmers, food production and supply has not matched the rapid demand and farmers' standard of living and socio-economic well-being have hardly justified the energy and time expended in farming activities. The general narrative has centered around farmers' reliance on local information and poor of access to mainstream agricultural news to acquire modern information. There is equally a growing pressure on scientific stakeholders to determine farmers media status, perceptions and how these influence their general farming behaviour. It is against this background that this study was conceived.

Objectives of the study

The general objective of this study was to ascertain the mass media perception and utilization for accessing agricultural information among farmers in Ogoja agricultural zone, Cross River State, Nigeria. The specific objectives of the study were to;

i. identify the agricultural information needs of the respondents;
ii. ascertain the mass media available in the area;
iii. determine the extent of utilization of the various mass media for accessing agricultural information; and,
iv. investigate farmers' perception of mass media; and
v. establish the relationship between perception of mass media and utilization among the respondents.

METHODOLOGY

This study was conducted in Ogoja Agricultural Zone, Cross River State, Nigeria. The area lies between latitude $6^{o}39^{'}$ 30.24″ North of the equation and longitude $8^{o}47^{'}$ 57.23″ East of the Greenwich meridian. The area consists of five extension blocks, namely Ogoja, Obudu, Obanliku, Bekwarra and Yala. The area is a mixture of tropical rainforest and savannah, and lies approximately 45 meters above sea level, with rich sandy-loamy and clay soil. The population of the study comprised all the registered farmers in the area. The study adopted a multi-stage sampling procedure, stage one involved a simple random selection of 3 blocks (Ogoja, Obudu and Yala) from the five blocks in the area. Stage two involved a simple random selection of 3 cells from each of the 3 blocks selected which gave a total of 9 cells. In stage 3, a simple random sampling was used to select 15% of registered farmers in each cell, giving a total of 222 respondents. However, 200 farmers actively participated in the study, thus, a sample size of 200 was used. Data for the study were collected using a structured questionnaire, administered by the researchers. Data collected were analyzed using frequency counts, percentages, mean, ranking and chi square statistics. To identify the information needs of the farmers, the respondents were interviewed using a checklist to

provide the type of information they usually seek to improve their farming operations. A list of mass media was provided to the farmers and they were asked to provide names of the media they are using to access information, those that have mobile phones, radio and television etc demonstrated the use of these media, including the frequency of usage and they provided reasons for using or not using a particular media. The respondents were equally interviewed to express their views, opinions or perception (how they feel or see mass media) of mass media and their media perception influence their utilization of media. The views (perception) were categorized and all the respondents holding a particular perception were determined to establish the frequencies and percentages.

RESULTS AND DISCUSSION

Agricultural Information Needs of Respondents

Table 1: Distribution of farmers according to their agricultural Information Needs

S/N	Information type	Highly needed	Needed	Rarely needed	Not needed	Σfx	Mean □	Rank
1.	Labour information	58(232)	35(105)	89(178)	18(18)	533	2.67	12th
2.	Fertilizer information	79(316)	121(363)	0	0	679	3.39	6th
3.	Herbicides/pesticides	169(676)	16(48)	14(28)	1(1)	753	3.77	1st
4.	Planting technique	34(136)	66(198)	51(102)	49(49)	485	2.43	14th
5.	Transportation information	168(672)	14(42)	1(2)	17(17)	733	3.66	2nd
6.	Seed information	89(356)	81(243)	28(56)	2(2)	657	3.28	10th
7.	Harvesting technique/time	37(148)	5(15)	50(100)	108(108)	371	1.85	15th
8.	Market information	155(620)	2(6)	10(20)	33(33)	679	3.39	7th
9.	Price information	154(616)	16(48)	0	30(30	694	3.47	5th
10.	Credit information	170(680)	1(3)	0	29(29)	712	3.56	3rd
11.	Irrigation information	37(148)	28(81)	132(264)	4(4)	497	2.49	13th
12.	Weather information	61(244)	124(372)	5(10)	10(10)	636	3.48	4th
13.	Storage information	35(140)	138(414)	13(26)	14(14)	594	2.97	11st
14.	Climate information	90(360)	68(204)	30(60)	12(12)	636	3.18	9th
15.	Pest control information	87()	72(216)	27(54)	14(14)	632	3.16	10th

Source: Field Survey, 2022; □= 2.50; N=200; values in bracket are the Expected Frequencies.

Table 1 shows the various information needs of farmers in the area. The results revealed that farmers need information on herbicides/pesticides (ranked =1st), transportation of farm produce (ranked = 2nd), credit information (ranked = 3rd), irrigation information (ranked = 4th) and weather information (ranked = 5th) among others. The result however, indicated that few farmers needed information on harvesting technique or time (ranked 15th) and planting techniques (ranked = 14th) etc. The implication of this result is that farmers have a wide range of agricultural information needs, and when adequately provided could enhance their productivity. The result is consistent with that of Offiong-Okoho (2021) and Milanovic (2014) who observed that farmers needs a variety of information to improve their farming operations. The study equally agrees with Idiku *et al.* (2022) that credit market and price and input information etc. are some of the vital information needed by farmers. Providing all the information needed by the farmers using appropriate mass media will enhance agricultural productivity.

Mass media types available and used in the study area.

Table 2: Distribution of respondents according to mass media available and utilized for agricultural information in the area

Variables	Frequency	Percentage (N=200)
Mobile phone	192	96
Radio	180	90
Television	178	89
Newspaper	110	55
Email	80	40
Posters	50	25
Handbills	42	21
Facebooks	61	31
Whatsapp/telegram	32	16
Internet/web	46	23
Video-conferencing	20	10

Source: Field Survey, 2022; *Multiple response.

Table 2 shows the types of mass media available in the area. The result revealed that various mass media were available in the study area, but the most common types were the mobile phone (96%), radio (90%), television (89%) and newspaper (55%). However, the least predominant media were video-conferencing (10%), whatsapp/telegram (16%) and handbills (21%). This result agrees with the findings Idiku, Eremi, Ntui, Nwogu and Besong (2022) that the main sources of information to farmers are mobile phones, radio and the television. The result equally corroborates that of Okwu and David (2011) who identified mobile phones, radio, television and newspapers as some of the frequently available and used extension channels of communication. The implication of this result is that although a large number of mass media exists for communication of agricultural information, a good number of them are not available and used in Ogoja agricultural zone, particularly by farmers. This could be because the use of some of these media (example, whatsapp/telegram and video-conferencing etc) involves additional cost such as purchase of data and airtime which many farmers do not have. There is also the challenge of network connectivity where some of the rural areas do not have network services and do not receive radio signals.

Extent of mass media utilization

Table 3: Mean distribution of mass media according to extent of utilization by farmers in the study area (N=200)

Variable (mass media)	□	SD	Ranking
Mobile phone	3.92	1.52	1st
Radio	3.89	1.85	2nd
Television	3.84	1.54	3rd
Newspaper	3.60	0.96	4th
Email	3.45	0.89	5th
Posters	2.63	0.72	6th
Handbills	2.52	0.77	7th
Facebooks	2.34	0.45	11th
Whatsapp/telegram	2.36	0.58	10th
Internet/web	2.50	0.64	8th
Video-conferencing	2.48	0.24	9th

Source: Field Survey, 2022; □ = ≥ 2.50

Table 3 shows the mean rating of mass media according to extent of utilization by farmers in the area. The result indicated that all the mass media identified recorded mean scores above the cut-off mean of 2.50, implying that they were all utilized by the farmers. However, three of the variables – facebook (ranked = 11th), whatsapp/telegram (ranked = 10th) and video-conferencing (ranked = 9th) had mean scores below 2.50 which suggests that these media were not utilized for accessing agricultural information by the farmers. Specifically, the mobile phone (ranked = 1st), radio (ranked = 2nd), television (ranked = 3rd) and newspaper (ranked = 4th) were the most frequently utilized mass media by the farmers. This result agrees with that of Aya and Eremi (2016) that the most common types of ICTs used by the rural farmers are the radio, hand phone, newspaper and to a low extent, the television. The result is also consistent with that of Nichola-Ere (2017) who identified the mobile phone, radio and television as some of the communication media accessed by the farmers.

Mass media perception by the respondents

Table 4: Distribution of the respondents according to their general perception of mass media

	Variable	Agree (%)	Disagree (%)
•	Mass media is too difficult to utilize	40	60
•	Using whatsapp involves money for data	100	0
•	Newspaper stories are not usually true stories	80	20
•	The media is about politics and politicians	70	30
•	Agricultural news are hardly covered by media	85	15
•	Journalists prefer to cover political events	92	8
•	Buying and owing a phone is costly	55	45
•	I do not have time to waste on facebook	68	32
•	Whatsapp chatting is about romance and love stories and not agriculture	69	31
•	I can get all information from my friends “yahoo, yahoo” activities	74	26
•	Social media is a distraction and meant for lazy people	67	33
•	The media use only English language which I do not understand	58	42
•	I can not read the newspapers	31	69
•	Posters and handbills are only used by political parties for campaigns and churches	75	25

Source: Field Survey, 2022.

Result on Table 4 show the perception of farmers about mass media. The result revealed that farmers have mixed perceptions about mass media, but 100% of the farmers agreed that using whatsapp requires money for data, 92% feels journalists are only interested in political stories coverage, while 85% of the farmers maintained that agricultural news are rarely covered by the media. However, 80% of the farmers do not feel all agricultural information can be gotten from friends, while 68% feel they can read the newspaper. These findings are in agreement with Ajah, Ofem, Effa and Ubabuku (2022) and Eta *et al.* (2023). These findings have wide ranging implications for mass media utilization which equally influence agricultural information dissemination. Majority of farmers have negative perception of mass media and this reduces their media usage. A reduction in media utilization affects agricultural information dissemination because most farmers do not use mass media to access information.

Relationship between perception of mass media and utilization among farmers

Ho: There is no significant relationship between mass media perception and utilization.

Table 5: Summary of chi square analysis of the relationship between of mass media perception and utilization

Variables	O	E	O-E	$(O - E)^2$	$(O - E)^2/E$
Strongly agree	56	65.92	-9.92	98.4064	1.493
Agree	72	62.08	9.92	98.4064	1.585
Disagree	47	37.08	9.92	98.4064	2.654
Strongly disagree	25	34.92	-9.92	98.4064	2.818
Total	**200**				**$X^2 = 8.55$**

P=0.05; degree of freedom = 1; critical $x^2 = 3.84$; calculated $x^2 = 8.55$*

Table 5 shows the summary of chi square analysis of the relationship between mass media perception and utilization by the farmers. The result revealed that the calculated x^2 value of 8.55 is greater than the critical value of 3.84 at 0.05 probability level and 1 degree of freedom. Since the calculated value is greater than the critical value, it means the result is statistically significant, hence the null hypothesis is rejected. This means farmers’ perception of mass media has a significant relationship with their utilization of mass media, indicating that how a farmer sees a media is very important in influencing his/her attitude towards the use of that particular media. This finding is in line with Eta, Idiku, Elemi and Eremi (2023) that farmers’ decision to utilize or reject any ICT is a function of their perception of the ICT. The result is equally in line with Purushothaman *et al.* (2003) and Offiong-Okoho (2021).

CONCLUSION AND RECOMMENDATIONS

The mass media is very important in the dissemination of agricultural information to farmers. Media coverage in Ogoja agricultural zone is low because most farmers have not been sensitized or educated on how to utilize certain media tools for useful information. Digital penetration in rural areas is largely hampered by low network coverage, despite farmers having need for a wide range of agricultural information, including herbicides/pesticides, credit, market and irrigation among others. Farmers utilized mobile phones, radio, television and to a lesser extent, social media for agricultural information.

Farmers generally have poor perception of mass media which affect their utilization of the media for agricultural information. The perceptions of mass media by the farmers affect their media utilization.

The study therefore, made the following recommendations;

i. Agricultural extension services should be strengthened in the area so as to provide the necessary media support to the farmers.

ii. Enlightenment campaign on mass media utilization should be carried out in the area to help farmers adjust their perception of mass media so as to enhance utilization.

iii. Special agricultural programmes should be conducted on radio to provide farmers with all necessary information to improve their productivity.

iv. A special repositioning of mobile phone contacts and email of farmers in the area should be created in the extension unit of ADP so that latest agricultural news and information can be disseminated directly to the farmers.

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