

## **Use of social media in agricultural information dissemination among members of cooperative societies in Awka South Local Government Area, Anambra State, Nigeria**

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### **Abstract**

Onyemekonwu, R. Ch., Meludu, N. Th. & Ewuzie, T. J. (2024). Use of social media in agricultural information dissemination among members of cooperative societies in Awka South Local Government Area, Anambra State, Nigeria. *Bulg. J. Agric. Sci.*, 30(4), 734–738

The use of social media in agricultural information dissemination among members of cooperative societies in Awka South Local Government Area (LGA), Anambra State, Nigeria was ascertained. Data collected through a two-stage sampling procedure and the use of questionnaires were analyzed using percentages, mean, and Pearson Product Moment Correlation. Results revealed that WhatsApp (33.0%) and Facebook (32.0%) were the social media mostly used by the farmers. Poor network (61.1%) was the leading challenge faced by the respondents. A significant relationship existed between the educational level of the farmers and the level of social media use by the farmers ( $r = .557$ ;  $p < 0.05$ ). It was concluded that social media was utilized by farmers in the study area; Facebook and WhatsApp were the social media highly used by the respondents on a daily basis. However, the use of social media among the respondents was constrained by factors such as poor network, complex social media navigation interface, and high cost of data subscription. Therefore, services/networks that promote the use of social media be improved and subscription data be made available to farmers at affordable prices so as to enhance the use of social media among the farmers.

*Keywords:* Networking; Social media; agricultural information dissemination; challenges; cooperative societies

### **Introduction**

Agriculture is fundamentally important to human existence, not only in terms of food production for human consumption but also as means of livelihood for the majority of Nigeria as it is the leading employer, employing above 36% of the labor force (Oyaniran, 2020). Approximately four out of five of Africa's poor (82 percent) live in rural areas where agriculture dominates as a means of livelihood (Christiaensen & Hill, 2019). The agricultural system in Ni-

geria is buoyant and receives quite phenomenal research and scientific attention stimulating growth and development. To sustain these, communication in all its form and sense is and remains an integral part as farmers need a mix of information resources for accurate and actionable agro-production activities to maximize farm productivity and increase farm earnings.

In the agricultural system, extension service delivery is very important. Agricultural extension according to Danso-Abbeam et al. (2018), remains the main means of convey-

ing improved information to rural farmers, assist them in solving production problems and helping them seriously participate in farming. It is a sector saddled with the responsibility to inform and teach the various stakeholders in the agricultural systems as well as serving as the link between innovators and the end users. The small number of farmers and lack of up-to-date information deprive farmers of information and resource pertaining to agricultural management (Kulyakwave et al., 2019). Most local extension staff relies on conventional methods of information delivery, training, and assistance to farmers while the application of modern and innovative technology is very limited (Kulyakwave et al., 2019).

In agricultural sector, social media is gaining popularity as professionals are using them to form networks and farmers are taken to them to talk to peers and consumers. Social media is one of the most recent forms of digital communication and on a global scale. The millennia's have made social media an inseparable part of their lives which connects them with the rest of the world. Social media have been found to be a tool for the fast dissemination of agricultural information among farmers (Adejor & Opeyemi, 2019). In a nutshell, social media are web-based tools of electronic communication that allow users to interact, create, share, retrieve, and exchange information and ideas in any form (text, pictures, and video) that can be discussed, archived, and used by anyone in virtual communities and networks. According to Babasanya et al. (2021), the development of social media as a means of communication, has proffered a solution to the enormous challenges confronting the extension system where few available extension personnel cannot effectively reach the numerous farmers scattered in various locations.

All 'big things' in agriculture – new technology or innovations, seminars and meetings, workshops and training, reports, publications – get tweeted or hash-tagged. Facebook, Twitter, YouTube, and blogs are the major platforms for agricultural information dissemination. The platforms are aimed at educating and informing farmers on agricultural-related matters through sharing of information links and news articles as well as making inquiries and obtaining feedback (Ifejika et al., 2019). Social media have been found to be useful among groups to reach colleagues, keep the group motivated, make members smarter, afford members learning opportunities, and provide a good source of information for members (Kareem et al., 2020). However, the status of cooperative societies in Awka South on the utilization of social media for the dissemination of agricultural information is unknown. Hence, the use of social media in agricultural information dissemination among farmer's cooperatives was examined with the objectives of identifying the type of social media

used by the farmers, the level of social media use, challenges faced by farmers in the use of social media and establish the relationship between socio-economic characteristics of the farmers and the level of social media use by the farmers.

## Methodology

This study was carried out in Awka South Local Government Area (LGA) of Anambra State, Southeast, Nigeria. The LGA is in Anambra Central Senatorial Zone, lying between latitudes 6°10'N 7°04'E and longitudes 6.167°N 7 067°E of the area with meridian of Anambra State and houses the state capital with farming being the major occupation of the inhabitants. The LGA has a population of 189 654 with the 2006 census figure and projected to be 270 300 in 2022 (National Population Commission, 2022). Investigation from Anambra State Agricultural Development Programme in 2021 revealed that Awka south has 141 registered farmers' cooperative societies with a total membership strength of 2 902 and a membership strength of 184 per cooperative society. Two-stage sampling procedure was used in selection of the small holder farmers registered with the cooperative. In the first stage, a purposive selection was done of which out of the 141 farmers' cooperative societies, one society each was randomly selected from the 9 communities based on the fact that the major occupation of the inhabitants of the selected nine communities is farming. The second stage was a random selection of 14 farmers from each of the 9 selected cooperative societies in the first stage to get a total of 126 respondents determined using the Taro Yamane. The questionnaire was used for data collection. Data collected were analyzed using frequency, mean, and percentage while Pearson Product-Moment Correlation was used to test the hypothesis.

### Model specification

*Sex:* The respondents' sex was measured using dummy variables (1 for male and 0 for female)

*Age:* This was done at an interval level; thus, the respondents were asked to indicate their actual age in the year.

*Marital status:* The respondents were asked to indicate their marital status as single, married, divorced, separated, or widowed.

*Education status:* The respondents were asked to indicate their level of education, which was in the following categories, formal education, primary education, secondary education, and tertiary education.

*Type of social media used by respondents:* This objective was achieved by asking the respondents to identify the type of social media used by selecting from the available options—namely Facebook, Twitter, Instagram, WhatsApp, YouTube,

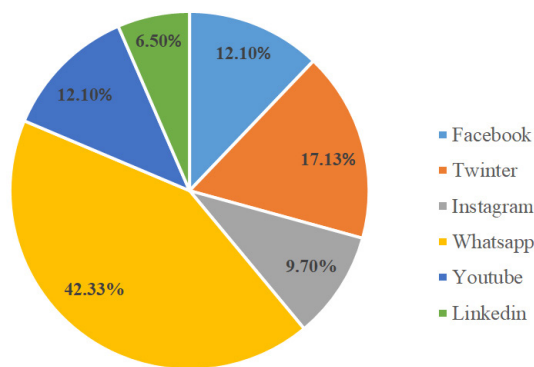
and LinkedIn. This was achieved using frequency and percentage.

*Level of use of social media:* This objective was achieved by asking the respondents to identify their level of social media use on a Likert-type scale of (4) monthly, (3) weekly, (2) daily, and (1) hourly.

*Challenges faced by respondents in the use of social media:* This objective was achieved by asking the respondents to identify the challenges faced by farmers in the use of social media on a Likert-type scale of 1-5, where 1 = Very Great Extent, 2 = Great Extent, 3 = Moderate Extent, 4 = Small Extent and 5 = No Extent.

## Result and Discussion

Figure 1 shows that (42.3%) of the respondents use WhatsApp as their main social media platform to obtain agricultural information. The finding suggests that the respondents patronize various social media platforms in seeking agricultural information. This finding supports that of Kughur et al. (2020) that WhatsApp is the most used social media platform for agricultural information by cereal crop farmers in Benue and Nasarawa States, Nigeria. However, these results were not in tandem with Kanjiana (2021) who reported



**Fig. 1. Distribution of type of social media used to obtain agricultural information (n = 126)**

**Table 1. Level of use of social media by the farmers (n = 126)**

S/n	Social medium	Hr	%	D	%	Wk	%	Mn	%
1	Facebook	2	1.6	119	94.4	5	4.0		
2	Twitter			86	68.3	32	25.4	8	6.3
3	Instagram	4	3.2	36	28.6	68	54.0	18	14.3
4	WhatsApp	22	17.5	104	82.5				
5	YouTube	5	4.0	23	18.3			98	77.8
6	LinkedIn					16	29.6	38	70.4

Key: Hr (Hourly), D (Daily), Wk (Weekly), Mn (Monthly) % (Percentage)

that line messages, Facebook and YouTube were the major social media adopted by farmers in Thailand for dissemination of agricultural information.

### *Level of social media use by the farmers*

As presented in Table 1, the majority (94.4%) of Facebook users in the study area use the platform on a daily basis. The Majority (68.3%) of Twitter users, use the platform daily. The majority (54.0%) of Instagram users, were found to use the site on a weekly basis while the majority (82.5%) of WhatsApp users use the platform on a daily basis. The majority (77.8%) of YouTube users were on the other hand found to use the platform on a monthly basis, (18.3%) on a daily basis while 70% of LinkedIn users use the platform on a monthly basis.

As such, it can be deduced that WhatsApp is the most common social media platform among farmers in the study area, and a majority of the media daily. Also, it can be deduced that overall, social media users in the study area use various platforms on a daily to monthly basis. This finding is in line with (Adejo & Opeyemi, 2019; Kughur et al., 2020) that the farmers often use of the social media platforms indicating that they are well exposed to social media. The result is further in agreement with Kareem et al. (2020) who found that WhatsApp and Facebook were the leading social media platform regularly utilized by researchers in Ibadan metropolis for the dissemination of agricultural information.

### *Challenges faced by farmers on social media use*

Table 2 indicates that the majority (61.1%) of farmers in the study area to a very great extent, face the challenge of the poor network while accessing the social media, and 45.4% rated the extent of complex social media navigation interface to be very great. The majority (57.1%) of the respondents rated to a very great extent are affected by the high cost of internet data subscription. This suggests that the respondents are faced with several constraints limiting their use of social media in the dissemination of agricultural information. This result is in consonance with Darshan & Meena (2017) who reported inadequate services (network coverage and speed)

**Table 2. Challenges faced by farmers on social media use (n = 126)**

S/n	Challenges	VG, %	GE, %	ME, %	SE, %	NE, %
1	Poor network	61.1	38.9			
3	Complex social media navigation interface	45.4	31.7	14.3	25.4	
4	High cost of Internet data subscription	57.1	38.1	4.8		
5	Can't afford social media-supported devices	16.7	49.2	22.2		11.9

Key: VGE (Very Great Extent), ME (Moderate Extent), SE (Small Extent) NE (No Extent).

as major constraints faced by farmers in the use of social media among farmers in Karnal District of Haryana, India. The result is further in agreement with Kughur et al. (2020) who identified the cost of assessing social media as a factor influencing the use of social media among farmers in the dissemination of agricultural information in Benue and Nasarawa States, Nigeria.

The result of the Pearson Product-Moment Correlation Coefficient as presented in Table 3 showed a significant relationship between socio-economic characteristics and level of social media use by the farmers with  $r = .557$ , percentage (%) = 31.0,  $N = 126$ , and  $p$ -value = .000. This indicated that there is a positive and significant relationship between educational level ( $r = .458$ ,  $p < 0.05$ ) and level of social media use by the farmers. This result is in agreement with Adejo & Opeyemi (2019) who reported a significant relationship between education and the usage of social media among youth farmers in Ogorin Mangogo Local Government Area of Kogi State, Nigeria. A similar result was reported by Kanjina (2021), who found a relationship between some socioeconomic characteristics and the use of social media by farmers in Thailand.

**Table 3. Pearson Product-Moment Correlation between socio-economic characteristics and Level of social media used by the farmers**

Variable	Level of social media use score		
	r-value	p-value	Decision
Age	.082	.102	Not significant
Sex	.143	.168	Not significant
Marital status	.055	.152	Not significant
Educational level	.458**	.000	Significant

\*\*Significant at  $p < 0.05$ ;  $r^2 = 0.310247$ ; % = 31.0

## Conclusion and Recommendations

Based on the findings of the study it was concluded that social media was utilized by farmers in the study area; Facebook and WhatsApp were the social media highly used by the respondents on a daily basis. However, the use of

social media among the respondents was constrained by factors such as poor network, complex social media navigation interface, and high cost of data subscription. Therefore, services/networks that promote the use of social media be improved and subscription data be made available to farmers at affordable prices so as to enhance the use of social media among the farmers.

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*Received: July, 05, 2023; Approved: September, 12, 2023; Published: August, 2024*