



## Challenges and Training Needs for Integrating Social Media into Agricultural Extension Services in Enugu State, Nigeria

<https://dx.doi.org/10.4314/jae.v27i2.9>

### Iwuchukwu, Julina Chinasa

Department of Agricultural Extension, University of Nigeria, Nsukka, Enugu State, Nigeria  
Email: [julina.iwuchukwu@unn.edu.ng](mailto:julina.iwuchukwu@unn.edu.ng)  
Phone no: +2348063276459  
Orcid ID: <https://orcid.org/0000-0002-2767-0253>

### Eke, Okechukwu George

Department of Agricultural Extension, University of Nigeria, Nsukka, Enugu State, Nigeria  
Email: [okechukwueke89@gmail.com](mailto:okechukwueke89@gmail.com)  
Phone: +2348064771404

### Arigbo, Precious Obinna

Corresponding author  
Department of Agricultural Extension, University of Nigeria, Nsukka, Enugu State, Nigeria  
Email: [precious.arigbo@unn.edu.ng](mailto:precious.arigbo@unn.edu.ng)  
Phone no: +2347038788969  
Orcid ID: <https://orcid.org/0000-0003-4868-8046>

### Chukwudum, Eucharia Ogochukwu

Department of Agricultural Education, Federal College of Education (T) Umuze Anambra State, Nigeria  
Email: [Chukwudumogo@gmail.com](mailto:Chukwudumogo@gmail.com)

### Igwe, Ngozi Justina

Department of Adult Education and Extra Moral Studies, University of Nigeria, Nsukka, Enugu State, Nigeria

**Submitted:** 31<sup>st</sup> October 2022

**First Request for Revision:** 16<sup>th</sup> November 2022

**Revisions:** 2<sup>nd</sup> January, 25<sup>th</sup> February 4<sup>th</sup> March 2023.

**Accepted:** 19 March 2023

**Published:** 2<sup>nd</sup> April 2023

**Cite as:** Iwuchukwu J. C, Eke, O. G, Arigbo, P. O .Chukwudum, E. O and Igwe, N .J (2023). Challenges and Training Needs for Integrating Social Media into Agricultural Extension Services in Enugu State, Nigeria. *Journal of Agricultural Extension Vol 27(2)* 88-96. <https://dx.doi.org/10.4314/jae.v27i2.9>

**Keywords:** Social media, training needs

**Conflict of interest:** The authors declare no potential conflict of interest.

**Acknowledgements:** The authors acknowledge the academic board of the Department of Agricultural Extension, University of Nigeria, Nsukka and the Agricultural Extension Society of Nigeria for hosting the seminar and conference that refined the study through their contributions. The Agricultural extension workers are also worthy of appreciation for their cooperation during the data collection exercise.

**Funding:** The study was self-funded

**Authors' contributions:**

IJC (25%): Supervision and content review.

EOG (20%): Conceptualization; data collection coding data analysis, original draft;

APO (25%): Content review writing - original draft; review & editing

CEO (15%): Data collection and coding

INJ (15%): Review & editing

## Abstract

*This research examined the challenges, and training needs for the integration of social media into extension in Enugu State, Nigeria. Ninety-seven agricultural extension workers were proportionately selected from six agricultural zones in Enugu State. Data were generated through a questionnaire and results were presented with percentages and mean scores. The major challenge to the use of social media was the lack of access to social media by some target audiences ( $\bar{x} = 1.55$ ) and the complexity of the devices (phone and media). Some areas of training needs of the extension workers were how to place advertisements using Youtube (89.5%), how to transform images on Instagram (89%), how to post a link on Twitter (83.6%) and how to update WhatsApp application (79.4%). The government and extension organization should provide internet and internet-enabled devices as part of tools for extension work and the use of social media should be incorporated as part of continuous professional development (CPD) for extension agents by extension organizations in Enugu State.*

## Introduction

Agricultural information is an indispensable ingredient required for the effective transfer of agricultural technologies (Donye, 2018). Access to reliable and timely agricultural information enhances the performance of farmers and other agricultural stakeholders (Ogessa & Sife, 2018). For sustainable agricultural development to take place, there is a need to share current, relevant, and timely information with the farmers' community (Partap and Manju 2021).

Technological and other agricultural information can only be beneficial if properly disseminated to the intended end users. To accomplish this requires the use of different channels of information dissemination. There are multiplicities of channels of information dissemination in agriculture. The traditional approach of disseminating agricultural information through in-person extension contacts has experienced several shortcomings in many developing countries like Nigeria (Ogessa & Sife, 2018). This calls for the use of other communication channels such as social media.

Social media is a form of electronic communication (such as websites for social networking and micro-blogging) through which users create online communities to share information, ideas, personal messages, and other content (such as videos). It is the most recent and emerging form of digital communication. Ever since the introduction of social media, communication has become more virtual than physical, it has transformed the way people communicate through content generation, interaction, engagement, sharing and networking (Ifejika et al., 2019).

The use and popularity of social media have grown as a result of the rapid changes in technology. Organisations are increasingly using social media as a new way to reach customers more effectively and to spread the news of their activities more rapidly (Ayinde, et al., 2020). Given the above, social media is a veritable tool for extension delivery bearing in mind that the primary element of extension is communication; it will help in engaging with clients online, helping the rural community gain a voice, making development bottom-up, and engaging with all the actors in agricultural innovation systems on the same platform.

There are multiplicities of social media tools available. This ranges from Facebook, WhatsApp, We chat, QQ, Twitter, Pinterest, Blogs, YouTube, Instagram, Wikis, Facebook messenger, Snap chat etc (Thakur & Chander, 2018). Among these social media platforms, Youtube, Facebook, Twitter Instagram and WhatsApp have been used more frequently in agriculture for different purposes (Verma & Yogesh, 2021; Mamgain, 2020, Thakur & Chander, 2018).

Recent studies show that social media platforms are playing significantly different roles in agriculture ranging from information sources to marketing and extension delivery in different parts of the world. For example, Gurdeep Singh et al. (2021) observed that the majority of the extension agents use social media platforms like YouTube WhatsApp and Facebook as sources of agricultural information. Further, Idu et al. (2021) indicated that social media had helped to engage youths in agriculture through extension services. Also, the study by Inegbedion, et al. (2021) on the use of social media in the marketing of agricultural products and farmers' turnover in South-South Nigeria observed that social media enhances the efficiency and turnover of farmers and they concluded that social media channels (WhatsApp and Instagram) significantly influenced cost reduction and hence, efficiency in

marketing. Ghosh et al (2021) found that social media has been used to disseminate agricultural information by extension agents

There are a lot of advantages to using social media in agricultural extension, some of the advantages as outlined by Mamgain, (2020) include, being cost-effective, simultaneously reaching large numbers of clients, location and client-specific, problem-oriented user-generated content and discussion among the community members. Others are easy to access from mobile phones, increase in internet presence of extension organizations and their clients' reach, the democratization of information by making it accessible to all, bringing all stakeholders into a single platform, and measuring the reach and success of extension work by tracking the number of visitors, friends and followers. Given these advantages, social media should be integrated into extension work. However, it will be pertinent to ascertain the integration of these media tools into agricultural extension, hence the questions: what challenges are encountered in using social media and what are the areas of training needs on the use of social media to communicate agricultural information? The quest to find the answers to these questions formed the basis of this study.

## **Methodology**

The study was carried out in Enugu State, Nigeria (latitude: 9° 04' 39.90" N and longitude: 8° 40' 38.84" E). All agricultural extension personnel of the Enugu State Agricultural Development Programme (ENADEP) constituted the population for the study. This involves the Zonal Managers (ZM), Zonal Extension Officer (ZEO), Subject Matter Specialists (SMS), Block Extension Supervisors (BES), Block Extension Agents (BEA), and Extension Agents (EA) in the zones.

The number of extension personnel in the six agricultural zones is 114. A proportionate sampling technique was used to select about 85% of the extension personnel in the state drawn from each of the zones. This gave a sample size of ninety-seven (97) respondents for the study. Data for the study were collected through the use of a questionnaire. Specifically, data were collected on the challenges encountered and the areas of training needs. To ascertain the challenges encountered in using social media a three-point Likert-type scale of to a great extent (GE), to a little extent (LE) and no extent (NE) with nominal values "2, 1 and 0" assigned to them respectively. The mean was 1 which served as a decision point such that variables with mean scores greater than or equal to 1 were regarded as information that is being communicated through social media or a major challenge. On the area of training needs, the respondents were asked to indicate the areas where they need training according to each social media platform from the list of possible areas of training. Data generated for the study were presented in percentages and mean scores.

## **Results and Discussion**

### **Challenges to the Use of Social Media**

Table 1 shows that the major challenges of the extension personnel in using social media to communicate agricultural information were the lack of access to social media by some target audiences (individuals and groups) ( $\bar{x}$  =1.55). The majority of the target audience of extension work lives in rural areas where access to social media is constrained by several factors. Some of them do not have social media-

enabled devices, while some who may have such devices lack the technical knowledge to operate these devices, these discourage extension personnel from using social media because contents or messages disseminated through this medium will not get to the target audience, hence it will be an effort in futility. The complexity of the devices (phone and media) ( $\bar{x}=1.49$ ) was another challenge. Most of the target audience and the extension personnel see phones as complex gadgets that are difficult to operate; to them anything other than receiving calls is complex. They see subscription to mobile data, turning on of mobile, creating and remembering user name and password and texting via social media platform as a complex issue exclusively made for the younger generation as such they shy away from using these platforms.

Further high subscription charges by network providers ( $\bar{x}=1.42$ ) was identified as another challenge. The charges of internet subscription are high, buying call credit and at the same time paying for mobile subscription is seen as exorbitant by some extension personnel. Moreover, incentives and rebate are not given to these agents, as a result; it becomes difficult to use social media since it cannot be assessed without internet connectivity and subscriptions. Others challenges identified were lack of awareness on a cheaply available network ( $\bar{x}=1.41$ ), lack of/poor technical know-how in handling social media/communication gadgets ( $\bar{x}=1.38$ ), inability to own communication gadget/s (smartphone, computer etc) ( $\bar{x}=1.37$ ), lack of knowledge of best social media to use ( $\bar{x}=1.37$ ), lack of money to subscribe to social media ( $\bar{x}=1.37$ ), lack of and/or instability of electricity ( $\bar{x}=1.36$ ), lack of awareness on the usefulness of social media ( $\bar{x}=1.33$ ) and unavailability/fluctuation of internet network ( $\bar{x}=1.19$ ).

The extension agents have to manoeuvre a lot of challenges to use social media. Overcoming one creates another. For example, an extension agent may have a smartphone but lack the technical knowledge of using the social media applications in it; or may not have the recourses to subscribe to an internet facility or be constrained by poor internet reception. To use social media effectively, all these challenges must be subdued.

Previous studies on challenges of the use of social media in agriculture and by extension professionals like Olorunniyi et al. (2022) identified Network availability and financial constraints as some of the challenges. Also, Partap & Manju (2021) identified poor internet connectivity and network in rural areas, finance and high internet/data charges as a major challenge. Similarly, Anjuma et al. (2021) reported the lack of knowledge and poor internet speed as challenges to using social media. All of the above harmonizes with the findings of this study.

**Table 1: Challenges in the use of social media**

<b>Challenges</b>	<b>Mean</b>	<b>STD</b>
Some targeted individuals and groups do not have access to social media	1.55	0.629
The complexity of the device (phone and media)	1.49	1.259
High charges by network providers	1.42	0.610
Lack of awareness of cheaply available network	1.41	0.641
Lack/poor technical know-how in handling social media/communication gadget	1.38	0.603
Inability to own communication gadgets (such as smartphones, and computers)	1.37	0.666
Lack of knowledge of the best social media to use	1.37	0.712
Lack of money to subscribe to social media	1.37	0.666
Lack and instability of electricity in some rural areas	1.36	0.680
Lack of awareness of the usefulness of social media	1.33	0.641
Unavailability and fluctuation of network/internet	1.19	0.635
Exposure of private information	0.90	0.635
Fraudulent acts of some of the users	0.80	0.640
Language barriers and poor interpretation of language used in communication	0.76	0.573
Theft/Insecurity of owning a Smartphone in the community	0.76	0.474
Lack of chance/time to subscribe and use social media	0.75	0.541
Religious/cultural barriers in subscribing to social media	0.48	0.752
Poor government regulations on the use of social media	0.38	0.620

### **Training needs on the use of different social media resources**

The training needs of the respondents were assessed based on the availability and popularly used social media platforms in the area. These include Face book, Twitter, YouTube, WhatsApp and Instagram.

#### **Facebook**

Results in Table 2 reveals that the specific areas the respondents needed training on Facebook were the creation of groups on Facebook (74.2%), placing an advertisement (71.1%), uploading pictures and videos (69.2%), posting messages (64.2%), searching for friends (59.2%) and sending and receiving messages (57.1%). Thus most of the respondents needed training on virtually everything about the use of Facebook which indicates that they are not proficient in the use of the

platform for communication. An active Facebook user is not just an individual that has created an account with Facebook. Such individual needs to be able to use the features these platforms provide. Thus, the fact the majority of the respondents need training on virtually all of these features of Facebook is enough reason why the use of Facebook as means of communication might have remained alien to them.

## **Twitter**

The result in Table 2 shows that the majority (83.6%) of the respondents needed training on how to post a link on Twitter, 82.4% on how to make a tweet your favourite and 77.8% on how to post a tweet. Also, 71.1% needed training on how to search for new friends, 69.2% on opening an account, 60.1% on how to follow a friend, 59.2% on how to stop following a friend, while about 50% needed training on sending and reading direct messages on Twitter. Twitter as a social media platform enables users to receive a steady stream of content that can include opinions, links to articles and resources that normally they may not have come across by themselves. For extension personnel to effectively use Twitter as a means of communication, he/she needs to know how to use some basic features such as twitting, posting a link and creating an account. The fact the majority of the respondents indicated that they need training on these basic features is a shred of clear evidence that they are not able to use this platform effectively to disseminate agricultural information.

**Table 2: Training needs of extension personnel on the use of social media**

Variables	Percentages (n=97)
Facebook	
Creation of group	74.2
Placing advertisement	71.1
Uploading pictures and videos	69.2
Posting messages	64.2
Searching for friends	59.2
Sending and receiving messages	57.1
Opening an account	43.0
Adding new friends	39.9
Twitter	
Post link	83.6
Make a tweet about your favourite	82.4
Post Tweet	77.8
Search for new friends	71.1
Open an account	69.2
Follow a friend	60.1
Unfollow a friend	59.2
Send and read direct messages	49.9
Youtube	
Placing advertisement	89.5
Open an account	89.5
Downloading videos	86.7
Post video messages	75.6
Receive video messages	72.2
Searching for videos	67.4
How to view videos	49.9
WhatsApp	
Update WhatsApp application	79.4
Creating group	75.6
Make video calls	73.2
Delete groups	64.2
Post pictures and videos	44.3
Receive and send messages	34.0
Instagram	
Transform image	89.2
Post an application	86.7
Create an account	82.4
Capture and share images	70.1
Find friends	59.4
Follow friends	52.6

**Youtube**

Entries in Table 2 reveal that the majority (89.5%) of the respondents needed training on how to place advertisements using YouTube, 89.5% needed training on how to open an account and 86.7% needed training on how to download videos, Moreover, 75.6% needed training on how to post video messages, 72.2% needed training on receiving video messages, 67.4% on searching for videos while 49.9% on

how to view videos on YouTube. The unique features YouTube has in uploading videos on agricultural activities necessitate the need to train extension personnel generally on its usage with more emphasis on these identified areas of training needs. The implication of this is that the majority of the respondents have not fully integrated the use of YouTube in extension delivery. For an extension agent to use YouTube in extension delivery at least he/she needs to be able to use the basic features of YouTube channels like creating an account and uploading and downloading videos. However, the fact that the majority of the respondents still indicate that they need training in these areas is evidence that they have not integrated this social media platform into extension work.

### **WhatsApp**

Further, Table 2 shows that the Majority (79.4%) of the respondents needed training on updating WhatsApp applications, creating WhatsApp groups (75.6%), and making video calls (73.2%). They also needed training on how to delete WhatsApp groups (64.2%). WhatsApp has many features which extension workers can favourably employ in communicating vast information in agriculture such as current updates in the agricultural sector; latest government policies, schemes and subsidies; weather forecast; the market value of agricultural produce; latest farm machines and technologies related to agriculture etc. However, these features of WhatsApp require basic training to use them to communicate information in agriculture just as the extension workers had indicated in this study. The implication of the result is that extension personnel in Enugu state need assistance to be able to use WhatsApp platform effectively, when these trainings are provided extension personnel will be able to use this media tool.

### **Instagram**

About 89% of the respondents needed training on how to transform images on Instagram, 86.7% needed training on posting an application, and 82.7% on creating an account. About 70% of them also needed training on capturing and sharing images, 59.4% on finding friends, and 52.9% needed training on how to follow friends on Instagram.

The implication of all the results is that extension personnel in the study area need basic training to acquire skills that will enable them to use different social media tools for different purposes in agriculture.

### **Conclusion and Recommendations**

Challenges of integrating social media into extension service in Enugu state includes; poor technical knowledge, inability to own a smartphone as well as high charges on internet subscriptions and poor internet connectivity. If these challenges are cared for, extension agents will be able to use social media in communicating agricultural information. The government and extension organization should provide internet and internet-enabled devices as part of tools for extension work and the use of social media should be incorporated as part of continuous professional development (CPD) for extension agents by the extension organizations in Nigeria.



## References

- Abuta, C. M.; Agumagu, A. C.; Adesope, O. M (2021) Social Media Used by Arable Crop Farmers for Communicating Climate Change Adaptation Strategies in Imo State, *Nigeria Journal of Agricultural Extension*,25 (1):73-82
- Anjuma, S.; Deepika, K and Ranjeet, K . C (2021) Use of Social Media for Marketing of Agricultural Products Among Agricultural Producers in Lakhimpur District in Assam: A Study. *Journal of Agricultural Extension Management*,22 (2): 91-99
- Ayinde, A. F. O.; Fapojuwo, O. E.; Soetan, A. A.; Suleiman, M. O and Adeyinka, A. O. (2020) Effects of Social Media on Researchers' Attitude to Work at the International Institute of Tropical Agriculture, Oyo State, *Nigeria Journal of Agricultural Extension*, 24 (2):12-22
- Donye, A. O. (2018) Assessment of Mass Media Performance in Agricultural Information Dissemination to Rural Farmers in Girei Local Government Area of Adamawa State, Nigeria. *International Journal of Agricultural Extension and Rural Development* 6(5):639-647
- Ghosh, M. K. Hasan, S. S. Maria, U. Akon, S. Ali, H. Al Noman, A. (2021) Social Media in Agricultural Extension Services: Farmers and Extension Agents Perspective. *European Journal of Humanities and Social Sciences* 1 (5):36-43
- Gurdeep S, Pritpal S, Tiwari, Dr, and Kulwant S (2021). Role of social media in enhancing agricultural growth. *Indian Journal of Extension Education*, 57(2), 69-72
- Idu, E. E., Ajah, A., Alabi., T., and Nnaji, J. N. (2021). Determinants of social media usage in agriculture among youths in the Federal Capital Territory. *Direct Research Journal of Agriculture and Food Science*, 9, 36-41
- Ifejika P. I., Asadu A.N., Enibe D. O., Ifejika L. I. and Sule A. M (2019) Analysis of social media mainstreaming in E-extension by agricultural development programmes in NorthCentral Zone, *Nigeria Journal of Agricultural Extension and Rural Development* 11(4):78-84
- Inegbedion, H., Inegbedion, E., Asaleye, A., Obadiaru, E., & Asamu, F. (2021). Use of social media in the marketing of agricultural products and farmers' turnover in South-South Nigeria. *F1000Research*, 9, 1220
- Mamgain, A, Joshi, U, Chauhan J (2020) Impact of Social Media in Enhancing Agriculture Extension. *agriculture & food E-Newsletter*
- Ogessa C. M and Sife A. S (2018) Types and Sources of Agricultural Information Published in Newspapers. *Huria Journal* 25(1):171-181
- Olorunniyi A. A, Ezinne E. M., Osiboye O. O., Sennuga S. O and Barnabas T. M (2022) Effect of Social Media in Enhancing Agricultural Extension Services among Farmers in Gwagwalada Area Council, Abuja, Nigeria *Journal of Research in Science and Technology*, 3 (4):24-32
- Partap B and Manju (2021) Use of Social Media in Agricultural Outreach Activities: A Study at CCS Haryana Agricultural University, *Hisar Journal of Agricultural Extension Management* 22(2):101-115
- Verma, M and Sharma, Y (2021) Importance of Social Media in Agricultural Outreach Activities *Journal of Agricultural Extension Management* 22(2):79-83