

# Perceived Benefits of Social Media usage among Agricultural Extension Workers in Kwara State, Nigeria

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*Nigerian Journal of Agricultural Extension, Vol. 21, Number 4, December 2020*

## ABSTRACT

*This study assessed the perceived benefits of social media usage among agricultural extension workers in Kwara State, Nigeria. Structured questionnaire was used to obtain data from 120 field extension workers of Kwara Agricultural Development Project (KWADP) which were selected through multistage random sampling procedure. Descriptive statistics such as frequency, percentages, mean and mean ranking were used to analysis the data. Findings revealed that the majority (77.5%) of the respondents were male with a mean age of 35.05 years. Majorities (82.5%) were married and 43.3% were BSc holders, having a mean of 7.13 years of work experience. Facebook (90.8%), WhatsApp (86.7%) and 2go (55.8) were prominently used, while Twitter (46.7%), GooglePlus (44.2%), Blackberry Messenger (40%) and Wikis (15.05%) were least used by the respondents. The perceived benefits of social media included wide spread of agricultural information, source of current agricultural information, quick dissemination of agricultural information, increased social interaction, easier access and usage of agricultural information, reduction in travel time to ADP zonal headquarters, opportunity for feedback, reduction in paperwork, personal entertainment, cost effective, professional networking and gaining profiles within the public space. It was recommended, among others, that agricultural extension workers should be encouraged to open multiple social media accounts to enhance their works and enjoy other numerous benefits of different social media platforms.*

**Key words:** Social media, KWADP, perceived benefits, extension workers, Kwara State

## INTRODUCTION

Agriculture is a main driver of Nigerian economy as it provides sources of livelihoods for majority of its populace. It employs about 70 % of the population (Jamie, Collins, David & Mamadou, 2017; CIA, 2012). It also forms a means of food security and nutritional balance for households engaged in farming and a source of income for people in agriculture and agro-allied businesses (Ogbalubi & Wokocha, 2013). In the development of agriculture, extension services have been recognized as an indispensable tool in actualizing poverty reduction and increase farm productivity. Rivera and Sulaiman (2010) submitted that agricultural extension is a better instrument or engine for promotion of innovation, the dissemination of knowledge and the facilitation of development.

Agricultural extension has been defined as a system that focuses on increasing production and yields through training of farmers on proven production technology and community participation (Christoplos, 2010). Davis *et al.* (2010) also viewed agricultural extension as the

services that support people engaged in agricultural production to help themselves, to solve their problems by themselves and enable them to obtain knowledge, information, skills and technologies to improve their livelihoods and wellbeing. Swanson and Rajalahti (2010) reported that agricultural extension as a system that is essential and central to innovation systems and that focuses on facilitating interaction and learning, rather than solely on facilitating linkage of inputs to the farmers. Agricultural extension becomes “facilitating learning” instead of “teaching” (Lodenstein & Mur, 2010). Under agricultural extension as a learning paradigm, extension workers must learn from the farmers being served, as well as listen and link to research and extension priorities (Swanson & Rajalahti, 2010). Agricultural extension therefore facilitates learning and interaction between the researchers, farmers and other key actors in the agricultural innovation system. Communication and information dissemination enhances the learning and interaction between these actors in the innovation system.

Information and communication technologies (ICTs) can deliver agricultural extension information with greater ease and more rapid and higher accuracy (Goyal, 2011, Karthikeyan, 2012; World Bank, 2016). These technologies are reviving agricultural extension and advisory services around the world (World Bank, 2016). Seger (2011) submitted that widespread Internet access and availability have led to the development of new media of communication, collectively termed "social media," these new communication tools have opened up many possibilities for extension professionals.

Social media are online environments opened for the purposes of mass collaboration, where all invited participants can create, post, rate, enhance, discover, consume, and share content without a direct intermediary (Bradley & McDonald, 2011), while Okoro and Nwafor (2013) view the social media as an interactive web-based platforms that offer citizens opportunities and place to associate, share views, experiences, opinions, contacts, knowledge, expertise, as well as other things like job and career tips. The basic philosophy of social media is the democratization of information, communication and knowledge management (Saravanan *et al.*, 2015). Social media by its nature is open and available to all with internet accessibility (Miah, Hasan, & Gammack, 2017).

Stanley (2013) believed that extension and knowledge transfer of agricultural practices may reach a wider audience by using social media tools. Social media can be gainfully used in agricultural extension (Saravanan *et al.*, 2015) and such advantages include cost effectiveness and potential to simultaneously reach large number of clients (Suchiradipta & Saravanan, 2016). However, the relevance of using social media as an information source for professional application has been overlooked (Cook, 2013). This is mainly due to inexperience and reluctance on the part of agricultural extension educators (Newbury, Humphreys, & Fuess, 2014; Cooper, Cox & Corbin, 2012). This has resulted in a low acceptance of social media use in agricultural extension by administrators, peers, and clientele (Gharis, Bardon & Evans, 2014). Contrary to popular perception, these tools can be effectively used for multimodal sharing of information (photos, texts and audiovisuals) in farm extension activities (Thakur & Chander, 2015).

The use of social media is significantly growing among agricultural researchers, peers,

colleagues, professionals and youths (including youth farmers) in Nigeria (Sokoya *et.al*, 2012). Aspects of social media that makes them an important and open tool in development communication are their easy access through mobile phones, mass-personal communication and mass-self communication, a larger set of weak ties to ensure delivery of innovative ideas, high degree of connectedness, and linkage ability and content sharing across multiple platforms (Hemsley & Mason, 2013).

However, Ifejika, Asadu, Enibe, Ifejika and Sule (2019) noted that Agricultural Development Projects (ADPs) in North-Central Nigeria, which Kwara State is inclusive, are dwelling mainly on old communication systems, totally excluding social media tools in their communication strategies with potential to reach the increasing numbers of farm families in the zone. There is a lot of information lying waste in research institutions, even those already packaged for dissemination in some cases do not get to end users because of inadequate service delivery systems and methods. The method of technology dissemination to extension workers in the Kwara State is mainly through face-to-face during the monthly technology review meeting (MTRM), where experts from research centres train subject matter specialists (SMSs) on latest technologies, and fortnight training (FNT), where extension agents (EAs) are trained by SMS. These have become inadequate to equip the agricultural extension workers with current research findings and improved agricultural technologies (Olaitan, Adesiji, Owojaiye & Adereti, 2017). This is because these meetings have become irregular due to paucity of funds to KWADP from government and it is becoming increasingly difficult to bring extension workers to the headquarters for training and meetings. More so, low budget provision to ADPs in Nigeria has become intense since the exit of World Bank funding to them (Kolawole, Isitor & Owolabi, 2016). The current ratio of extension agents to farmers is between 1: 5000 and 1: 10,000, with a total workforce of about public extension agents in Nigeria (Davis, Lion & Arokoyo, 2019). However, in Kwara State, the ratio of extension agent to farm families is 1: 2190 (Haruna & Abdullahi, 2013). Therefore, there is need to look for alternative, cheaper and cost-effective methods to disseminate technologies to extension

workers for onward transfer of such technologies to the end-users (farmers).

Studies have been conducted on the use of social media in extension services delivery but limited studies are available assessing the perceived benefits of social media usage among agricultural extension agents in the study area. This study was intended to fill this gap. The study assessed the perceived benefits of social media usage among extension workers in Kwara State, Nigeria. Specifically, it sought to ascertain the socioeconomic characteristics of the respondents, identify the types of social media tools used by the respondents and examine the benefits derived from social media usage in the study area.

## METHODOLOGY

This study was conducted in Kwara State of Nigeria. Kwara State (8.9848° N, 4.5624° E) is in north central part of Nigeria, its capital is Ilorin, and the primary ethnic group of Kwara State is Yoruba, with significant Hausa, Nupe and Baruba minorities. Kwara State is bounded by Oyo, Osun, Ekiti, Niger and Kogi states. The population of the study consist all the extension agents in Kwara State, Nigeria. Multistage sampling technique was employed for the study. The first stage was the Purposive selection of all the field agricultural extension agents from Kwara Agricultural Development Project (KWADP). This is because KWADP has the largest number of field extension workers in the State and has at least one extension agent in a local government area of the state. KWADP has four Zones across the 16 local government areas in the state: Zone A with headquarter in Kaiama; Zone B, with headquarter in Patigi; Zone C, with headquarter in Shao; and Zone D with headquarter in Igbaja. The second stage involved the selection of all the zones of KWADP. While the third stage involved the random selection of thirty (30) respondents each from the four zones of KWADP, making a total sample of 120 respondents for the study from the available one hundred and sixty-two (162) extension agents in Kwara, as given by the KWADP Planning, Monitoring and Evaluation Department.

Primary data for this study was collected with the aid of structured questionnaire with both open and close ended questions; the questions were directed towards the socioeconomic characteristics of the extension workers, types of social media tools used and the perceived benefits of social media. The instrument was divided into

three sections, the first dwell on socioeconomic characteristic of the respondents; it elicited information on their age, gender, marital status, level of education, years of experience and salary per month. The second section dealt with types of social media used by the respondents and this is measured on two-point Likert type scale of Yes (2) or No (1). The third section dealt with perceived benefits of social media use and which was measured with a 5-point Likert type scale of Strongly Agree, SA (5), Agree, A (4), Undecided, UN (3), Strongly Disagree, SD (2) and Disagreed, D (1).

Data were analyzed using Statistical Package for Social Sciences (SPSS). Descriptive statistical tools such as frequency counts, percentages, mean, weighted mean score and mean rank were used to analyze the socioeconomic characteristics, types of social media used and perceived benefits derived from social media usage.

## RESULTS AND DISCUSSION

### Socioeconomic characteristics of respondents

The result in Table 1 shows that the majority of the extension workers (48.4%) were 31 – 40 years old, with a mean age of 35.05 years. The implication of this is that extension services in Kwara State is dominated by young and active population and the desire to use social media will likely be high among young people and this is supported by the findings of Umar *et al.* (2015) that majority of extension agents in Kaduna State, Nigeria were aged between 30-40 years. Furthermore, 77.5% of the respondents were male, implying that the extension workers in the study area were predominantly male. This might be the true reflection of what has been reported in literatures that extension service profession is male-dominated in Nigeria and elsewhere. This finding is in line with the study of Ezech (2013), that extension agents in southeast Nigeria were male-dominated. It is also similar to the findings of Oladele (2015) that the majority of extension officers in North West Province, South Africa were male.

Table 1 also reveals that 82.5% of the respondents were married; indicating that most of the extension workers have responsibilities in their respective houses. The result corroborates the findings of Okwukenye and Okoedo-okojie (2014) that all the extension agents that participated in Agricultural Loan and Inputs (ALIS) Programme in Delta State, Nigeria were married. The result also showed that 43.3% of the

sample have education up to the level of first degree (BSc), implying that the respondents will be likely more inclined to the use of social media because of their higher level of education and this is supported by the findings of Dimelu *et al.* (2014), where the majority of Fadama facilitators in Enugu State had BSc. This result is also similar to that of Ahmed and Isam (2015) in Gezira State, Sudan that majority of extension officers reported they have BSc. The results further showed that majority of the respondents (86.7%) have 1-10 years of extension experience and mean years of experience of 7.11 years. The implication of this is that more avenues like the social media is needed to complement the traditional media used in disseminating information or innovation to farmers because of short year of working experience of extension agents in the field of agricultural extension service delivery. More

than average of the respondents (53.3%) received between ₦31,000 and ₦50,000 per month, and a mean salary of ₦35,208. The low salary could be to the fact that many of the respondents were ad-hoc staff employed to complement the inadequate number of permanent government employees, therefore, the low salary package. This implies that most of the agricultural extension workers in the study area may not be able to afford to purchase personal computer, smart-phone and regular browsing data which will allow them have access to use of social media. This finding also tallies with that of Akpotosu, Annor-Frempong and Bosompem (2017) that established that the salary levels of agricultural extension agents (AEAs) in Eastern Region of Ghana are very low and that most of them may not able to afford personal computer, use internet and consequently a negative effect on internet competency.

**Table 1: Socio economic characteristics of extension workers in Kwara State (n=120)**

| Variables                  | Frequency | Percentage | Mean    |
|----------------------------|-----------|------------|---------|
| <b>Age</b>                 |           |            |         |
| 21-30                      | 40        | 33.3       | 35.05   |
| 31-40                      | 58        | 48.4       |         |
| 41-50                      | 16        | 13.3       |         |
| ≥ 51                       | 6         | 5.0        |         |
| <b>Gender</b>              |           |            |         |
| Male                       | 93        | 77.5       |         |
| Female                     | 27        | 22.5       |         |
| <b>Marital status</b>      |           |            |         |
| Single                     | 20        | 16.7       |         |
| Married                    | 99        | 82.5       |         |
| Divorced                   | 1         | 0.8        |         |
| <b>Level of Education</b>  |           |            |         |
| OND                        | 31        | 25.8       |         |
| HND                        | 29        | 24.2       |         |
| B.Sc.                      | 52        | 43.3       |         |
| M.Sc.                      | 8         | 6.7        |         |
| <b>Years of Experience</b> |           |            |         |
| 1-10                       | 104       | 86.7       | 7.13    |
| 11-20                      | 9         | 7.5        |         |
| ≥21                        | 7         | 5.8        |         |
| <b>Salary per Month</b>    |           |            |         |
| ₦8,000 - ₦30,000           | 44        | 36.7       | ₦35,208 |
| ₦31,000 - ₦50,000          | 64        | 53.3       |         |
| ₦51,000 - ₦70,000          | 5         | 4.2        |         |
| ₦71,000 and above          | 7         | 5.8        |         |

Source: Field survey, 2018

#### **Types of social media tools used by the respondents in the study area**

The result in Table 2 shows that the respondents prominently used Facebook (90.8%), WhatsApp (86.7%), 2go (55.8), Twitter (46.7%), Google

plus (44.2%), while Blackberry Messenger and Wikipedia have 40% are least prominently used. This is in line with Seger (2011) who listed Facebook, Twitter, Google plus and others as some of the tools that could be adopted by

extension service to complement face to face dissemination of innovation. The findings corroborate that of Thakur and Chander (2018b) that Facebook, WhatsApp and YouTube can be used to share diverse farming based information

in India. Iwuchukwu, Eke and Nwobodo (2019) also reported that Facebook and WhatsApp were social media resources used by extension personnel in Enugu State, Nigeria for communicating agricultural information.

**Table 2: Distribution of the types of social media tools Used**

| Social media         | Frequency | Percentage |
|----------------------|-----------|------------|
| Face book            | 109       | 90.8       |
| WhatsApp             | 104       | 86.7       |
| 2go                  | 67        | 55.8       |
| Twitter              | 56        | 46.7       |
| Google Plus          | 53        | 44.2       |
| Blackberry messenger | 48        | 40.0       |
| You Tube             | 38        | 31.7       |
| Wikis                | 18        | 15.0       |
| LinkedIn             | 13        | 10.8       |

*\*Multiple responses*

*Source: Fieldsurvey, 2018*

### **Perceived Benefits of social media usage**

The result in Table 3 shows that majority of the respondents have a positive view about all the listed benefits: wide spread of agricultural information, source of current agricultural information, quick dissemination of agricultural information, increases social interaction, easier access and usage of agricultural information, reduces travel time to ADP zonal headquarters, opportunity for feedback, reduces paperwork, personal entertainment, cost effectiveness, professional networking and gaining profile within the public, that can be derived from social media. This finding corroborates that of Thakur and Chander (2018a) that perceived benefits in utilizing social media in agriculture include seeking answers to problems, easy to receive and seek information, through discussions doubts get clarified, opportunity of continuous learning, diverse information received in multiple forms, helps in networking, recognition and motivation in agriculture. This finding is also in line with previous works on social media, which established that social media provide cost effective ways of communication, engender social interactions, community involvement and a

quick and responsive network for people involved in agriculture to gather and exchange information (Neill *et al.*, 2011; Stanley, 2013; Mains *et al.*, 2013). The finding is further supported by the result of Chigozie-Okwum, Chinaka and Ugboaja (2016) that efficient and prompt feedback (98%), easy and quick communication (95%), collaboration irrespective of geographical location (90%), reaching out to global audience (85%), creation of discussion group and virtual communities among global and local colleagues (78%), creation of knowledge pool in real time (60%), and provision of interactive and multimedia content support (56%) as potentials of social media technology in Agricultural extension service delivery in Nigeria. Iwuchukwu *et al.* (2019) also in a similar study conducted in Enugu State, Nigeria reported that benefits of social media in agriculture to include reduction of cost of communicating information in agriculture, increased access to useful agricultural information, bridging the high farmer-extension ratio and reduction of drudgery in extension work and agriculture in general, among others.

**Table 3: Perceived Benefits derived from social media usage**

| Perceived Benefits of Social media                  | S A | A  | UN | SD | DA | WMS  | MR |
|-----------------------------------------------------|-----|----|----|----|----|------|----|
| Widespread of agricultural information              | 85  | 35 | 0  | 0  | 0  | 4.71 | 1  |
| Source of current agricultural information          | 85  | 33 | 2  | 0  | 0  | 4.70 | 2  |
| Quick dissemination of agricultural information     | 83  | 35 | 2  | 0  | 0  | 4.68 | 3  |
| Increases social interaction among peers            | 83  | 34 | 2  | 1  | 0  | 4.65 | 4  |
| Easier access and usage of Agricultural information | 80  | 39 | 0  | 0  | 1  | 4.64 | 5  |
| Reduces travel time to ADP Zonal headquarter        | 80  | 36 | 2  | 2  | 0  | 4.62 | 6  |
| Opportunity for feedback                            | 78  | 36 | 5  | 1  | 0  | 4.60 | 7  |
| Reduces paper work                                  | 77  | 40 | 1  | 1  | 1  | 4.59 | 8  |
| Personal entertainment                              | 75  | 41 | 2  | 1  | 1  | 4.57 | 9  |
| Cost effective                                      | 65  | 47 | 6  | 2  | 0  | 4.46 | 10 |
| Professional networking                             | 44  | 5  | 17 | 3  | 0  | 4.18 | 11 |
| Gaining profile within the public                   | 39  | 61 | 17 | 3  | 0  | 4.13 | 12 |

Source: Field survey, 2018

\*S/A = Strongly Agree Scored 5 points \* A = Agreed Scored 4 Points \*Undecided 3 points\*S/D = Strongly Disagree Scored 2 point\*D/A = Disagree Scored 1 point\*Weighted Mean Score = WMS, Mean Rank = MR

## CONCLUSION AND RECOMMENDATIONS

Social media have shown to have many benefits to agricultural extension delivery such as widespread of agricultural information, source of current agricultural information, quick dissemination of agricultural information, increases in social interaction, easier access and usage of agricultural information and reduces travel time to ADP zonal headquarters to receive information MTRM and FNT meetings, among others. Therefore, there exists a positive perception of social media and the inherent advantages (benefits) it covers.

Based on these findings, the following recommendations are made:

1. Agricultural extension workers should be encouraged to open multiple social media accounts to enhance agricultural information dissemination and also enjoy other numerous benefits provided by different social media platforms.
2. Extension workers should take advantage of various benefits of social media such as cost effectiveness, source of current agricultural information, opportunity for feedback, wide spread of agricultural

information etc. and disseminate agricultural innovation to their clientele to improve their knowledge level and adoption rate of technologies.

3. Extension agents should be encouraged to reach their clientele though the use of social media platforms

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