

USE OF SOCIAL MEDIA IN SOURCING AGRICULTURAL INFORMATION AMONG FARMERS IN OYO CENTRAL SENATORIAL DISTRICT, OYO STATE, NIGERIA

Ayandiji, A., Afolabi, C. O. and Olajojo G. O.

Department of Agricultural Economics and Extension, Bowen University, Iwo, Osun state.

Correspondence contact details: lapsol2k2@yahoo.com, 08077228752/09061916449.

ABSTRACT

Social media plays an important role in transmitting information to large number of audiences simultaneously. As agricultural system becomes more complex, farmers' access to reliable, timely and relevant information sources becomes more critical to their competitiveness. This study therefore examined the role of social media in dissemination of agricultural information among farmers in Oyo state. Multi-stage sampling procedure was used to select 120 respondents out of which only 111 questionnaires were retrieved. Primary data were collected on preferred tools, information sought, benefits and constraints. The analytical tools employed were descriptive statistics such as mean, charts, and frequency counts. The findings of the study revealed that the mean age of respondents and farm size of the respondents were 28years and 17.6 hectares. WhatsApp (68.5%) and Facebook (58.6%) were the most preferred tools for dissemination of agricultural information. Provision of solution to agricultural problems (278.4) and increased production quantity and quality (254.6) were identified by the respondents as the major contributions of social media tools in the dissemination of agricultural information while Inadequate / erratic power supply (245.6), slow internet connectivity (235.2) and high cost of data (234.3) were the most realized constraints. Alternate source of power supply and internet connectivity of all networks should be improved upon to enable them have access to continuous flow of agricultural information. Also, help line centre can assist farmers with prompt response to problems to reduce the high cost of purchasing data.

Keywords: Social media, dissemination, agricultural Information, senatorial district, sourcing

INTRODUCTION

Agricultural sector has been described as the most important sector of the Nigerian economy which holds a lot of potentials for the future economic development of the nation as it had done in the past (Victoria and Nnamdi, 2019). However, the Nigerian agricultural sector is recently characterized by inefficiencies. Repositioning the collapsing Nigerian agricultural sector therefore requires the application of viable innovations especially in the dissemination of available agricultural technologies (Izuchukwu, 2015).

In agricultural development, information is critical because it is a tool for communication between stakeholders and serves as a channel for assessing trends and shaping decisions (Darshan, Meena and Meena, 2017). Farming requires information and technical expertise hence the need for extension services however, due to various factors extension services are not readily available to all farmers. A consensus exists that extension services, if functioning effectively, improve agricultural productivity by providing farmers with information that helps them to optimize their use of limited resources (Muyanga and Jayne, 2006). The basic information needs of farmers are information on crops, production techniques, production equipment and agricultural inputs, market information and weather forecast among others (Milovanović, 2014).

The internet has not only been a source of information and social media platforms, but also a forum whereby users contribute to the information. According to Dennis and Merill (2006) new media offer massive storage and users can summon up much more detail and content all customized for them with the help of browsing software and

information storage and retrieval, easy accessibility and interactivity or instant feedback. The introduction of the internet and online services has introduced new methods of carrying out many activities which can be described as "e-computing" (Adeyemo, 2013). Social media tools include social networking sites (Facebook, LinkedIn *etc.*), video and photo sharing websites (YouTube, Pinterest, *etc.*), blogs and microblogs (Twitter, Instagram, *etc.*), video and podcasts (Skype, *etc.*), socially integrated mobile text messaging (Line, WhatsApp, Viber, *etc.*) and many more.

The introduction of social media has opened a platform that agricultural extension officer's, farmers, agricultural institutions and non-governmental institutions utilise to disseminate and exchange agricultural information. Access to internet-capable cell phones enables people to employ social media tools to connect with others who share their interests, experiences, and circumstances (Kipkurgat, Onyiego Chemwaina, 2016).

The agriculture sector in developing countries is becoming increasingly knowledge intensive and researchers at the global, regional, and national levels continue to generate new information but due to various factors, extension services are not readily available to all farmers. However, not all institutions have fully embraced social media as a tool for disseminating information or sharing research outputs. Also, relevance of using social media as an information source for professional application has been overlooked. This is primarily due to lack of experience and hesitation on the part of extension educators, which has resulted in a low acceptance of social media use in agricultural extension by administration, peers, and clients



(Newbury, Humphrey and Fuess, 2014). It is against this backdrop that this study assessed the use of social media in sourcing agricultural information among farmers in Oyo Central Senatorial district, Oyo State, Nigeria.

The objectives below guided the study:

1. to examine respondents preferred social media for information dissemination
2. to find out respondents' information needs sought from the internet with the use of social media
3. to ascertain the extent to which respondents derived benefits from the use of social media in utilising agricultural information
4. to examine respondents' perceived constraints in accessing agricultural information from social media

METHODOLOGY

This study was carried out in Oyo state. Multi-stage sampling procedure was employed to select respondents for the study. The first stage involved a random selection of 40% of the local government in Oyo Central senatorial district to give a total of four local governments, namely: Oyo East, Oyo West, Atiba and Afijio local Government respectively. The second stage involved a random sampling of two villages from each local government to give a total of eight villages. Thereafter, fifteen farmers with handsets were purposively selected from each selected villages to give a total of 120 respondents for the study. However, 111 questionnaires were retrieved and used for analysis of this study.

Data were obtained using interview schedule (on farmers' preferred social media, information sourced with the use of social media,

respondents' benefits derived and constraints faced to the use of social media in utilising agricultural information). To measure preferred social media, a list of 9 social media sources were provided to the farmers with dichotomous response option of "yes" and "no". "Yes" option was assigned 1 score, while "No" was assigned a score of 0. Likewise, a list of nine (9) agricultural information that can be sourced by farmers using social media were provided with response option of "preferred" and "and not preferred", with scores of 1 and 0 assigned respectively. Respondents were asked to state the extent to which they derive benefits from social media via the following options: to a large extent; to a lesser extent; not at all, with scores of 3, 2, 1 and 0 assigned respectively. Constraints to the use of social media to source agricultural information was measured by providing respondents with seven factors that could hinder respondents from accessing agricultural information on social media via the following options: to a large extent; to a lesser extent; not at all, with scores of 3, 2, 1 and 0 assigned respectively.

RESULTS AND DISCUSSION

Farmers preferred social media for information sourcing

The result in Table 1 shows that WhatsApp (68.5%) was ranked highest as the most preferred social media tool to access agricultural information, followed by Facebook (58.6%). As such, it can be deduced that WhatsApp was the most preferred social media platform among farmers in the study area. This result is in line with the findings of Chesoli, Mutiso and Wamalwa (2020) which states that WhatsApp offers an opportunity to share agricultural information on one platform among different cadres.

Table 1. Distribution of respondents according to their preferred channels for sourcing information

Channels	Preferred	Not Preferred	Rank
WhatsApp	61.3	38.7	1 st
Facebook	58.6	41.4	2 rd
YouTube	41.4	58.6	3 rd
Instagram	35.1	64.9	4 th
LinkedIn	33.3	66.7	5 th
Telegram	27.9	72.1	6 th
Hangout	24.3	76.6	7 th
Twitter	23.4	76.6	8 th

Agricultural information sourced by farmers on social media

Table 2 shows that 99.1% of farmers sourced agriculture information on variety of improved seeds, credit facility (97.2%), market trend, price and stock (90.0%), business and trade information (72.1%) as well as education and training information (67.6%). This implies that farmers seek for various information on agriculture

from time to time on social media and this shows that farmers are proactive. The result is in tandem with the findings of Babu, Glendenning, Okyere and Govindarajan, (2012) who reported that increases in the productivity of smallholder agriculture crucially depend on information related to production, processing and markets, identifying farmers' sources of information and search behavior becomes important.

Table 4 Distribution of respondents according to agricultural information sourced on social media

Information sourced	Percentage	Rank
Variety of improved seeds	99.1	1 st
Credit facilities, source, terms & conditions	97.2	2 nd
Market trend, price, and stock available	90.0	3 rd
Business and trade information	72.1	4 th
Educational & training information	67.6	5 th
Agrochemicals	64.9	6 th
Technological information	63.1	7 th
Weather condition and Environmental information	63.1	7 th
Government agricultural policies and plans	61.3	8 th

Benefits derived from the use of social media for sourcing information

Table 3 indicates that among other benefits derived from the use of social media for the information dissemination, farmers ranked provision of solution to agricultural problems first, with weighted mean score of 278.4, followed by increase production quantity and quality (254.6), clarifies doubts among farmers (245.8) and networking, recognition, and motivation in

agriculture (244.9) in that order. This implies that social media have proved to be immensely useful to farmers in seeking solutions to their day to day agricultural problems pertaining to both crop and livestock production. This is in support of the findings of Yousaf, Jha and Vittalamurthy (2017) which asserted that relevant solutions through WhatsApp helped farmers to reduce livestock and crop losses.

Table 3 Distribution of respondents according to benefits derived from the use of social media

Benefits	To a large extent	To a lesser extent	Rarely	Not at all	Weighted score	Rank
Provides answers to agricultural problems.	78.4	21.6	0.0	0.0	278.4	1 st
Helps to increase production quantity and quality	81.8	0.0	9.2	9.0	254.6	2 nd
clarifies doubts among farmers	67.6	13.5	16.0	2.9	245.8	3 rd
It helps in networking, recognition, and motivation in agriculture.	81.1	0.8	0.0	18.1	244.9	4 th
Easy to receive and seek information.	73.9	0.0	0.0	26.1	221.7	5 th
Opportunity of continuous learning and connected to scientific information.	54.1	9.0	36.9	0.0	217.2	6 th
Diverse information received in multiple forms (texts, pictures, photos etc.)	63.1	0.0	9.2	9.0	202.2	7 th

Respondents' constraints against the use of social media

Table 4 shows that irrelevant posts, inadequate or erratic power supply, lack of credit to purchase data regularly and poor internet connectivity were ranked as the most important challenges that farmers faced in fully benefitting from social media sources with weighted mean

scores of 245.6, 235.2, 234.3 and 169.2 respectively. This means that farmers would have benefited more but for the above listed factors that constrained them. A study by Dini *et al.* (2016) reported poor internet connection, limited capability, security issues, unsupportive regulation and distraction of focus as constraints to the use of social media in Indonesia.

**Table 4 Distribution of respondents according to constraints against effective utilisation of social media**

Constraints	To a large extent	To a lesser extent	Rarely	Not at all	Weighted score	Rank
Inadequate/ erratic power supply.	81.8	0.0	0.2	18.0	245.6	1st
Slow internet connectivity	78.4	0.0	0.0	21.6	235.2	2 nd
High cost of data	72.1	0.0	0.2	18.0	234.3	3 rd
Irrelevant posts	18.9	48.6	15.3	17.1	169.2	4 th
Difficulty in understanding and proper utilisation of information	22.5	22.5	11.7	43.2	107.1	5 th
Illiteracy	9.9	38.7	0.0	51.40	124.2	6 th
Problems of phone storage	8.1	0.0	61.3	30.6	85.6	7 th

CONCLUSIONS AND RECOMMENDATIONS

Despite the challenges faced by farmers in the study area, the benefits derived shows that the role of social media cannot be overemphasized, and information sourced through the social media are crucial to the farmers needs which could enhance their productivity.

Alternate source of power supply and internet connectivity of all networks should be improved upon to enable them have access to continuous flow of agricultural information. Also, help line centre can assist farmers with prompt response to problems to reduce the high cost of purchasing data.

REFERENCES

- Adeyemo, A. B. (2013). A e-farming framework for sustainable agricultural development in Nigeria. *Journal of Internet and Information System*, 3 (1), 1- 9.
- Babu, S., Glendenning, C., Okyere, K. and Govindarajan, S. (2012). *Farmers' Information Needs and Search Behaviour. Case Study in Tamil Nadu India*, International Food Policy Research Institute (IFPRI).
- Chesoli, R. N., Mutiso, J. M. and Wamalwa, M. (2020). Monitoring with social media: Experiences from “integrating” WhatsApp in the M&E system under sweet potato value chain. *Open Agriculture* 2020; 5: 395–403
- Darshan, N. P., Meena, B. S. and Meena, H. R. 2017. Influence of Socio-economic Characteristics of Farmers on their Use of social media in Haryana, India. *International Journal of Current Microbiology and Applied Sciences*, Vol 6 (10) pp. 14-18.
- Dini, A. A., Wahid, F. and Saebo, O. (2016). Affordances and constraints of social media use in e-participation: perspectives from Indonesian politicians. PACIS Proceedings, Paper 341. Retrieved online from <http://aisel.laisnet.org/pacis2016/341>.
- Izuchukwu, O. (2015). Analysis of the Contribution of Agricultural Sector on the Nigerian Economic Development Oji-Okoro Izuchukwu *. *World Review of Business Research*, 1(January 2011), 191–200.
- Kipkurgat, T., Onyiego, M., and Chemwaina, S. (2016). Impact of social media on Agricultural Extension in Kenya: a Case of Kesses District. *International Journal of Agricultural Extension and Rural Development Studies*, 3(1), 30–36. www.eajournals.org
- Mbugua, D. K., Matofari, J. and Ngigi, M. (2010). *Information access and preference for delivery pathways by peri-urban and rural smallholder dairy farmers in Central Kenya*. Second RUFORUM Biennial Meeting 20 - 24 September 2010, Entebbe, Uganda Research Application Summary
- Milovanović, S. (2014). *The role and potential of information technology*. 2014(61), 471–485.
- Muyanga, M. & Jayne, T.S. (2006). Agricultural Extension in Kenya: Practice Policy and Lessons. Practice and Policy Lessons. *Tegemeo Institute of Agriculture and Policy Development, Egerton University*.
- Newbury, E., Humphreys, L. and Fuess, L. (2014). Over the Hurdles: Barriers to social media use in extension offices, *J Ext.* 2014; 52(5). (Article 5FEA1)
- Victoria K. and Nnamdi S. O. (2019). The role of agricultural sector performance on economic growth in Nigeria.
- Yousaf, S., Jha, M., and Vittalumurthy, S. (2017). For farmers in India's villages, WhatsApp is often literally a lifesaver, *Factor Daily*, Bangalore