



WILLINGNESS TO UTILIZE NEW MEDIA IN AGRICULTURAL EXTENSION SERVICE DELIVERY IN OGUN STATE, NIGERIA



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Received: August 15, 2021 Accepted: October 23, 2021

Abstract: Extension service delivery should be more pluralistic, relying on multiple channels of delivery as a result of the increasing dominance of new media applications which provide opportunities as an effective platform for extension service delivery, as well as the rise in involvement of youth in agriculture. Thus, the need to assess willingness of extension service providers to use new media. The study used purposive sampling to collect data on constraints to use of new media, perception towards new media, and willingness to use new media from 105 extension agents available during the data collection stage. The primary data collected were analyzed using frequency, percentage, mean and, Pearson product-moment correlation. The result shows that the mean value (1.49) reveals that non-availability of workspace for new media support and, respondents not conversant with the new media were the major constraints faced. More than half (54.3%) of the extension agents expressed positive perception towards new media, while most (58.1%) of the extension agents exhibited willingness to utilize New media for service delivery. There was significant a relationship between perception ($r = 0.362$) and the willingness to use New media. Thus, to sustain the willingness of extension agents, extension organizations should make available facilities and resources that will enhance the use of new media for service delivery which in turn would expand extension service coverage.

Keywords: Extension-agents, extension service, new media, utilize, willingness

Introduction

Agricultural extension services provide means for farmers to be kept abreast of innovative and appropriate ways of farming to enhance production and quality of life. Coverage is one of the many challenges faced in extension service delivery. The efficacy of the medium with which agricultural information and practices are transferred to farmers would likely determine the level of farmers' awareness and enhance decision to use or adopt agricultural practices. In Nigeria, the statewide agricultural development programmes (ADPs) are the main extension service delivery agencies, with few but not prominent private extension organizations and non-governmental organizations (NGOs).

The extension agents provide extension service delivery to the farmers through face-to-face, farm and, home visits. However, it is important to note that this model of extension service delivery is not cost-effective because most of the ADPs are under-funded. Extension agent: farmer ratio is very low, thereby limiting the coverage of the extension services.

New media provides an alternative and effective channel for service delivery. New media and communication technologies have lowered barriers to information spread, subtly shifting extension duties away from message delivery toward transforming scientific advances to make them more accessible to farmers (World Bank, 2017). Similarly, Morrone (2017) affirmed that new media applications in extension are rapidly growing in the field of extension which can enhance group interaction and strengthen participatory linkages. Extension service delivery should be more pluralistic, relying on multiple channels of delivery. With the rapid emergence of mobile applications, a new platform for extension programming on new media now provide opportunities for farmers to enhance sustainable agricultural practices among the farmers (Moonsammy and Renn-Moonsammy, 2020). Using new media like social media applications such as Facebook, Twitter, Instagram, YouTube, etc. allows for a pluralistic interface between stakeholders along the agriculture value chain (Garcia *et al.*, 2018).

Indeed, agricultural extension service delivery is experiencing technological penetration. The proposition behind ICT and new media-based agricultural programmes are that increasing access to information technology should enhance knowledge through an improvement of communication efficiency, leading to an improvement in public sector engagement and modernization of traditional practices to boost productivity (Adenle *et al.*, 2019).

The usage of new media, most especially social media applications in developed and developing countries has become a norm among many extension personnel to reach and remain relevant with their clientele (Rotz *et al.*, 2019). For instance, in Sri Lanka, extension agencies adopted ICT technology stewardship models using messenger platforms such as WhatsApp to promote knowledge sharing amongst farming communities (Jayathilake *et al.*, 2017).

Although, most of the extension clientele in Ogun state, Nigeria reside in the rural areas with little or less understanding of the intricacies of these new media, subsequently, there is an increase in participation of rural and urban youths due to unemployment and the government's efforts at various levels to reduce unemployment through agriculture. These youths are sophisticated and conversant with the new media. For instance, the Ogun state government initiated an agricultural programme for youths as beneficiaries. The initiative involves giving out a hectare of land per person to 52,000 young people to boost agricultural production in the state. Funding, input and other facilities, as well as extension services are also being provided. Similarly, in November 2020, the president of Nigeria flagged off National Young Farmers' Scheme as part of efforts to expand agriculture in Nigeria and also increase opportunities for youth participation.

Therefore, the need for extension service to consider and provide service to the youths as part of its target audience through the new media so as to sustain the youths' interest and participation in agriculture. Furthermore, usage of new media for extension service delivery is a behavioral intention under a person's volitional control which could likely be

influenced by the subjective norms or person’s perception. Given the aforesaid, it becomes imperative to assess extension agents’ willingness to use new media in service delivery.

The specific of objectives of this study are to:

1. identify constraints to the use of new media;
2. assess extension agents’ perception of new media usage; and
3. ascertain willingness to utilize new media in extension service delivery.

Hypothesis

H01: There is no significant relationship between respondents’ perception and willingness to use new media for service delivery.

Materials and Methods

The study was carried out in Ogun State Agricultural Development Programme (OGADEP); OGADEP was launched in February 1986 as one of the first statewide Agricultural Development Projects. Under OGADEP operation, the state is divided into four agricultural zones which are Abeokuta, Ikenne, Ilaro and Ijebu zones to enhance service delivery.

The population of this study consisted of extension agents in OGADEP. The sample frame which is the list of employees in the organization consists of 120 extension agents spread across the four agricultural zones as obtained from OGADEP. All the extension agents were proposed to be selected for this

study, however, only 105 extension agents were available during the data collection stage. Respondents indicated their willingness to use new media through ten statements. This was scored on a four-point rating scale of very likely (4), likely (3), indifferent (2), unlikely (1), and very unlikely (0). The mean score was used to categorise the level of willingness into high and low.

Results and Discussion

Constraints to the use of new media for service delivery

From Table 1, the mean score shows that non-availability of workplace internet and, farmers not conversant with new media (1.49) were the major constraints faced by the extension agents. In the same vein, the cost of data subscription (1.40), irregular power supply (1.39) also constrained the extension agents from using new media for service delivery. This implies that without institutional support through the provision of the internet, the extension agents may likely find it difficult to use new media for service delivery. Consequently, most of the contact farmers being conservatives (1.38) also constrained the extension agents from using new media for service delivery. This suggests that there is a need for extension agencies to extend their services to the youth involved in farming who are receptive. This corroborates the finding of Tladi-Sekgwama (2019) who affirm that extension service delivery may become ineffective without administrative support.

Table 1: Constraints to use of new media for extension service delivery (n = 105)

S/N	Constraints	Mean	Standard deviation
1	Lack of skills in the use of some of the new media platform	1.31	0.72
2	Poor network services	1.32	0.71
3	Irregular power supply to access more information	1.39	0.66
4	Some of the components of the new media are not accessible	1.28	0.71
5	Data subscription is expensive	1.40	0.70
6	Fear of getting addiction	0.88	0.77
7	Limited time to dedicate to the use of new media for dissemination of agricultural information	1.04	0.76
8	Too much irrelevant contents have overwhelmed the relevant ones on new media platforms	1.22	0.73
9	Non availability of workplace internet	1.49	0.75
10	The fear of new media accounts being hacked by unauthorized person	1.14	0.70
11	Some farmers are not conversant with the new media	1.49	0.65
12	Most of the farmers are conservative	1.38	0.64

Source: Field Survey, 2020

Table 2: Perception on the use of new media for extension service delivery (n = 105)

S/N	Perception statements	Mean	Standard deviation
1	New media can expose me to the modern aspect of the extension profession	4.40	0.93
2	New media cannot facilitate a quick response to the challenges on the field	3.64	1.16
3	New media enhance the relationship with the clientele on services rendered	4.05	1.02
4	New media not effective because only non-agricultural videos can be accessed	3.39	1.38
5	Addiction is inevitable	3.78	1.21
6	Sharing of contents on new media cannot lead to the expected outcome	3.69	1.29
7	New media can improve communication between the agents and clientele	4.17	0.96
8	Real message or meaning can be easily lost	3.44	1.41
9	If not properly utilised, it will lead to time-wasting	3.91	1.12
10	Radio is more effective than all new media	3.66	1.29
11	It is difficult to ascertain compliance to standard practices through new media	3.79	1.08

Source: Field Survey, 2020

Perception of the use of new media for service delivery

The mean scores in Table 2 reveal that extension agents perceived new media as a means to expose them to innovative ways of service delivery (4.40); respondents also perceived new media as a medium to improve communication between the agents and clientele (4.17), while some feel that new media would enhance the relationship with clientele on service rendered (4.05); contrariwise, some of the respondents perceived that using new media in service delivery could lead

to time-wasting if not properly utilized (3.91). This suggests that the respondents have varying dispositions to the use of new media for service delivery.

Overall, using the mean score to categorise extension agents’ level of perception on use of new media for service delivery, the results in Table 3 show that more than half (54.3%) of the extension agents had a positive perception, while 45.7% had a negative perception towards the use of new media for service delivery. This indicates that respondents’ subjective norm

would likely influence their will to utilize new media for service delivery due to the benefits presented by the new media in service delivery. This is in concordance with Thomas *et al.* (2015) who affirmed that extension agents' perception of social media was favourable and if the

advantages can be maximized for disseminating agricultural information, farmers will have access to results of researchers needed to stimulate production.

Table 3: Level of perception on the use of new media for extension service delivery (n = 105)

Level of perception	Frequency	Percentage	Mean	Standard deviation
Negative (below mean)	48	45.7	41.91	6.55
Positive (mean and above)	57	54.3		

Source: Field Survey, 2020

Table 4: Willingness to use new media for extension service delivery (n = 105)

S/N	Statements	Mean	Standard deviation
1	I would be willing to use new media on my job to enable the accomplishment of task more quickly	3.49	0.72
2	I would use new media to provide extension services to enhance my performance on the job	3.18	0.91
3	I would not be willing to use new media in extension service delivery because of the preference for traditional media owing to its acceptability	2.38	1.33
4	I would be willing to use new media because learning the skill to operate it is easy	3.04	0.96
5	I Would be willing to use new media because it is easy to use in disseminating agricultural information	3.02	1.03
6	Using new media will make my interaction with clientele clear and understandable, so I would be willing to use	3.69	1.29
7	I would not be willing to use new media in extension service delivery because my clientele are not skilled at using it	2.83	1.26
8	I would be willing to use new media because it would increase my effectiveness on the job	3.14	1.08
9	I would be willing to use new media to enable me to reach out to young and educated farmers	3.34	0.90
10	Unverified information can be shared on new media, so I would not be willing to use new media	2.53	1.37

Source: Field Survey, 2020

Willingness to use new media for service delivery

Table 4 shows the distribution of respondents according to their willingness to use new media for service delivery. The mean scores reveal that most (3.69) of the extension agents are willing to use new media for service delivery because it will make interaction with the contact farmers clear and understandable; also, the respondents are willing to use new media because it will enable accomplishment of tasks more easily (3.49), while some respondents are willing to use new media for service delivery to enable them to reach out to the young and educated farmers (3.34). Contrarily, Table 4 reveals that some of the respondents expressed unwillingness to use new media for service delivery because of lack of skill among the clientele (2.83), due to barrage of unverified contents (2.53), and as a result of a preference for traditional means of service delivery (2.38). These findings imply that that extension agents have volitional control over the choice of service delivery which can be influenced by their perception, the type of contact farmers, and available institutional support.

Generally, for the level of willingness to utilize new media, results in Table 5 show that most (58.1%) of the respondents reported a high willingness to utilize new media for service delivery, while 41.9% reported a low willingness to use new media for service delivery. This could be attributed to the favourable perception, youthfulness, and level of education of the extension agents which make them receptive and ready to innovate. The implication of this is that the effectivity of the extension service performed through the use of new media will make improvements get to farmers faster and it has a way of reflecting in the transformation of agriculture. This is in line with the report of Norton and Alwang (2020) that the changes in mode of extension service delivery and content

reflect the fact that extension service is technologically evolving.

Table 5: Level of willingness to use new media for extension service delivery (n = 105)

Level of willingness	Frequency	%	Mean	Standard deviation
Low (below mean)	44	41.9	29.96	5.58
High (mean and above)	61	58.1		

Source: Field Survey, 2020

Table 6: Correlation analysis between respondents' perception and willingness to use new media for service delivery

Variable	r-value	p-value	Decision
Perception	0.362	0.000***	Significant

Significant at p<0.05

Hypothesis testing

The result in Table 6 shows there was a significant relationship between perception (r = 0.362, p<0.05) by the extension agents and their willingness to use new media for service delivery. This implies that extension agents' favourable perception will positively influence their volitional control to the use a new media for service delivery. This is supported by Sokoya *et al.* (2012) who averred that disposition to the use of social media can affect the use for whatever purpose it is intended.

Conclusion and Recommendation

Lack of institutional ICT support and the category of the clientele were the major constraints faced. There was favourable perception towards new media usage for service delivery. Consequently, the extension agents expressed a high willingness to use new media for service delivery. Hence, the study recommends that agricultural extension organizations should make available facilities and resources that will enhance the use of new media for service delivery which in turn would expand extension service coverage.

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