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Assessment of agricultural development stakeholders' use of social media for information sharing in Oyo State, Nigeria

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Abstract - The potentials of social media for sharing information among agricultural development stakeholders have not been fully harnessed. This study assessed agricultural development actors' use of social media in Oyo State, Nigeria. Data were collected from 255 respondents (farmers, researchers, and extension agents) using a multi-stage sampling procedure with the aid of a structured interview schedule and questionnaire. Frequency counts, percentages, PPMC, and ANOVA were used in the analysis of the data collected. The findings revealed that the majority (92.9%) of the respondents are male and married (96.1%), with a mean years of education of 15, and the mean age of the respondents was 46.1 years. The most available and accessible social media tools to the stakeholders were Facebook (100%), WhatsApp (100%), yahoo (98.8%), google Plus (98.4%), YouTube (96.1%), Instagram (95.7%), twitter (93.7%), messenger (90.6%), snapchat (17.3%), skype (13.7%), and LinkedIn (6.7%), while the most frequently used social media among the respondents were WhatsApp (WMS = 2.98), Facebook (WMS = 2.95), and Messenger (WMS = 2.64). The result of Pearson product-moment correlation (PPMC) revealed that years spent in school ($r = 0.194$, $p \leq 0.05$), income per annum ($r = 0.182$, $p \leq 0.05$), knowledge of social media use ($r = 0.274$, $p \leq 0.05$), and farm size ($r = -0.132$, $p \leq 0.05$) were significantly related to the extent of social media usage among the development stakeholders in the study area. The study concluded that the extent of social media usage is still low among the stakeholders. It was recommended that the capacity of the stakeholders be built by both the government and NGOs on technical knowledge and skills on social media applications for effective information sharing.
Keywords: Agricultural Development Stakeholders, Information, Use, Social Media.

INTRODUCTION

Agriculture has historically been the cornerstone of Nigeria's economy, providing livelihoods for over 70% of the population, especially in rural areas (Gwarzo and Kamal, 2023). This sector contributes significantly to food security, employment, raw materials for the industries and foreign exchange earnings through exports of cash crops such as cocoa, palm oil, and groundnuts (Adejo and Opeyemi., 2019).

Despite the contribution to the economy, Nigeria's agricultural sector faces many challenges which impact on its productivity. These include poor land tenure system, low level of irrigation farming, climate change and land degradation. Others are low technology, high production cost and poor distribution of inputs, limited financing, inadequate extension personnel, poor dissemination of new innovation in agriculture, high post-harvest losses and poor access to markets and information (FAO, 2024). Despite the concerted efforts to modernize agriculture and implement technology-driven solutions aimed at enhancing productivity and sustainability, as pointed out by Gwarzo and Kamal (2023), Information and communication technology (ICT) continues to play a critical role. ICT is essential for facilitating effective networking and the timely delivery of critical information among key agricultural stakeholders in Nigeria. This is evident from the work of Nenna (2016), which underscores the importance of ICT in bridging communication gaps and promoting collaborative efforts within the agricultural sector. By leveraging ICT, stakeholders can access vital information, share best practices, and make informed decisions, ultimately contributing to the overall development and sustainability of agriculture in Nigeria. Social media, as part of the integral ICT, is becoming increasingly necessary among agricultural stakeholders as it enhances interaction, networking, and agricultural information delivery (Ayinde et al., 2020). The use of social media for disseminating agricultural information has the potential to bridge the gap created by the deficit in extension agents-farmer's ratio. Social media uniquely offers direct access to information and empowers users to maximize the data they gather (Van and Poell, 2013) and (Olaniyi et al. 2020). Social media facilitates real-time communication, providing farmers and other stakeholders with the opportunity to exchange ideas, disseminate new agricultural practices, and overcome geographical barriers to information dissemination (Akwiwu and Patrick, 2019). Social media platforms, such as Facebook, WhatsApp, Twitter, and Telegram, have emerged as valuable tools for enhancing communication and knowledge sharing among agricultural stakeholders such as farmers, extension personnel and researchers.

Social media encompasses internet-based digital tools that facilitate the sharing and discussion of information among individuals. It includes user-generated content such as opinions, videos, audio,

and multimedia shared across digital networks (Adejo and Opeyemi, 2019). Through platforms like Facebook, Twitter, YouTube, Instagram, Google, WhatsApp, blogs, and LinkedIn, social media supports activities such as blogging, tagging, discussions, and networking. These platforms have proven to be effective tools for disseminating agricultural information among stakeholders, including farmers, extension agents, and researchers. They play a vital role in rapidly distributing information, enabling farming communities, particularly in rural areas of developing countries, to make informed decisions regarding their agricultural practices (Adejo and Opeyemi, 2019). In Nigeria, the adoption of social media among agricultural stakeholders is gradually increasing. Social media facilitates connection and interaction, allowing individuals to communicate with many people simultaneously, regardless of geographical boundaries. Users engage in various activities on social media, such as downloading or uploading photographs, videos, and sharing information electronically (Ayinde et al., 2020). It mitigates the challenges of long-distance communication, providing people the ability to interact at any time (Engler, 2019). Moreover, social media serves as an invaluable resource for academia (Adejo and Opeyemi, 2019). It has enhanced collaboration between researchers and other agricultural stakeholders, such as farmers and extension agents, facilitating the dissemination and retrieval of information. Researchers leveraging social media have been reported to achieve higher results (Ayinde et al., 2020). By keeping researchers informed of contemporary issues, social media equips them to address potential challenges effectively. Additionally, it fosters stronger linkages among stakeholders, enhancing the impact and reach of their work.

The believed to have the potential to change the face of agriculture in Nigeria and improve information gathering and sharing among agricultural development stakeholders, because agricultural researchers, extension agents and farmers needed to be abreast of latest and updated agricultural information through social media usage (Kareem et al., 2020). This is particularly important in a country like Nigeria, where farmers, extension agents, and researchers often face difficulties in accessing timely and relevant information (Olorunniyi et al., 2022). The failure of the various extension delivery approaches to effectively engineer significant and sustainable agricultural development in Nigeria has become a major concern to all agricultural stakeholders (Agwu et al., 2023). However, agricultural research institutes are being challenged to deliver research outputs that will improve agriculture in Nigeria. One obstacle to the realization of information delivery to farmers in particular, is that of an inadequate number of extension agents that lead to high extension-farmers' ratio. The ratio of extension agents to farmers is low which has a great effect on the dissemination of firsthand information to the end users (Alhassan et al 2022). Although, social media has demonstrated the potential to address this issue by enhancing connectivity and information dissemination. It has been noted that the adoption of social media remains low among the agricultural stakeholders due to low digital literacy, unreliable internet access, and dearth of knowledge to leverage social media tools effectively for agricultural information sharing purposes (Ramavhale et al., 2024). The recent literature search revealed limited empirical data on how major agricultural stakeholders use social media for agricultural information sharing and dissemination. Therefore, this study was intended to fill this gap by assessing the extent to which agricultural stakeholders use social media for agricultural information sharing in Oyo State. Specifically, the study described the socioeconomic characteristics of the respondents, identified the available social media platforms to the respondents, determined the frequency of social media usage for information dissemination and evaluated the extent of social media usage by the stakeholders in the study area.

METHODOLOGY

The study was carried out in Oyo State, Nigeria. The State falls within rainfall and Savannah agro-ecological zones of the country. It comprises of Thirty-three (33) Local Government Areas and four (4) agricultural zones. The State is located between Latitude 7º 3' and 9º 12' North of the equator and Longitudes 2º 47' and 4º 23' East of Greenwich meridian. The study area is bounded by Benin Republic in the West, while it is bounded in the North and East by Kwara and Osun State, and the south by Ogun state. The area covers a land mass of 27,000sq. Kilometers. For the selection of the agricultural development actors in Oyo State, respondents were drawn from agricultural extension institutions, research institutes and farmers respectively. There are four Agricultural zones in Oyo State Agricultural Development Programme namely Ibadan/ Ibarapa, Ogbomoso, Saki and Oyo agricultural zones. Also, there are four research institutes situated in Oyo state namely: International Institute for Tropical Agriculture (IITA), National Institute for Horticulture (NIHOT), Cocoa Research Institute of Nigeria (CRIN) and Forest Research Institute of Nigeria (FRIN). In addition, all registered farmers were included in this research work since farmers are important stakeholders and beneficiary of all agricultural information. The target population of the study comprised of all extension agents across the four (4) agricultural

zones in the State and all agricultural researchers in all research institutes under Agricultural Research Council of Nigeria (ARCN) in Oyo state. Nigeria and all registered farmers in Oyo State. Multistage sampling procedure was used in selection of farmers in the study area. First stage involved random selection of 50% of Agricultural zones out of four zones. The selected zones are Oyo Agricultural zone, and Ibadan/Ibarapa Agricultural zone and two (2) cells were randomly selected out of eight (8) cells from each zone respectively. Ona –Ara, Ibarapa East, Atiba and Afijio Local Government Area were selected. Third stage involved random selection of 30% of the entire cells from each block. Lastly, 30% of registered farmers were sampled to make a total of 74 farmers. Meanwhile, there are 48 extension personnel in Oyo state and 75% were randomly selected from all the four Agricultural zone of Oyo State to make a total of 36 Extension personnel, while there are five (5) research institute in Oyo sate they are NIHOT, CRIN, FRIN, IARandT and IITA and 60% research institute were randomly selected and they are NIHOT, CRIN and FRIN while 50% of the researcher were randomly selected which account to be 145 researchers, In all, a total of two hundred and fifty five (255) respondents were selected and form the sample size for the study. Primary data were collected using a well-structured interview schedule; the data collected for this study were subjected to both descriptive and inferential statistical tools. The dependent variable of the study was the extent of social media usage among Agricultural stakeholder, and this was measured on a 4-point rating scale of always = 3, sometimes =2, rarely = 1, and never = 0, while the inferential statistic tools; Pearson Product Moment Correlation (PPMC) and Analysis of Variance (ANOVA) was used to the test slated hypotheses by establishing the relationship and differences between the variables among the agricultural development stakeholders.

RESULTS AND DISCUSSION

Socioeconomic characteristics

Result in Table 1 revealed that 32.4% of the respondents were between the ages of 41 and 50 years, 29.7% were in the age range of 51-60 years of age, while 17.6% of the respondents were between the ages of 31 and 40,12.2% and 8.1% of the respondents were between the age range of 61-70and 21-30 years of age respectively with the mean age of the farmers was found to be 48.0 years. Meanwhile, the result of the analysis of the extension agent revealed that 47.2% were between the ages of 41-50 years of age, 17.2% were between 31-40 years of age, while 11.0% of the respondents were between the age range of 51-60 years of age with the mean age to be 43.3 years. The result on the age of researchers was revealed that 44.1% of the respondents were between the ages of 41 and 50 years, 35.2% were between 51 and 60 years, while 20.7% of the respondents were between the age range of 31-40 with the mean age of the researchers was found to be 47.0 years. The pooled result of the analysis revealed that 41.2% of the respondents were between the ages of 41 and 50 years, 30.2% were between 51 and 60, 22.4% of the respondents were between the age range of 51-60 years, while 3.5% and 2.7% of the respondents were between the age of 61-70 and 21-30 respectively. The mean age of the agricultural stakeholders was revealed to be 47 years. This implies that majority of agricultural stakeholders were young and still active and this may probably influence the extent of social media usage for sharing agricultural information. The sex of the farmers showed that majority (94.6%) of the respondents were male while only few 5.4% of the respondents were female, likewise the sex extension agent shows that majority (83.3%) of the respondents were male while 16.7% were female. Meanwhile the sex of the researchers revealed that majority (94.5%) of the respondents were male while 5.5% were female. The pooled result among the agricultural stakeholders shows that majority (92.9%) of the respondents were male while 9.1% were female. This result indicated that male was more dominant stakeholder in Agricultural production in the study area.

Furthermore, majority (91.9%) of farmers were married, 6.8% were single while only few 1.4% of the respondents were widowed. This result indicated that majority of the respondents had family responsibility to shoulder and an implication that they are responsible. The result agrees with that of Jiriko et al (2020) in a paper on constraints to the use of social media in accessing agricultural information among crop farmers in Benue State where the majority of the crop farmers were married, while it was revealed that majority (97.2%) of the extension workers were married with only few 2.8% were widowed an indication that marriage institution is established in the study area and this might have a positive influence on the extension agents.

Moreover, the results of the researchers indicated that majority (97.9%) of the respondents were married while only few 0.7% were single, divorced and widowed an indication that the researchers were responsible individuals who respect the culture and tradition of the social institution. The pooled result among agricultural stakeholders shows that majority (96.1%) of agricultural stakeholders were married, 2.4% were single, 1.2% indicated that they were divorced while only few (0.4%) indicated that they were widowed. This implies that the respondents value the social institution in the study area through their adherence to marriage institution.

The educational level of the farmers revealed that more than half (51.4%) of the farmers

had primary education, 29.7% secondary education, 10.8% had tertiary education while the rest (8.1%) had no former education. This implies that majority of the respondents were literate though with low educational background. The result is in line with that that of Jiriko et al., (2020) and Uy et al (2024) where majority of the respondents were educated but low level while social media still be used since they can read and write and improved based on the knowledge level. Likewise, extension agent shows that 97.2% of the extension workers had tertiary education while only few 2.8% had secondary education. This implies that majority of the respondents were education an indication that they will make use of social media effectively. Furthermore, research shows that majority (99.3%) of the respondents had tertiary education while only few 0.7 had secondary education. This is an indication that majority of the respondents were educated a means to inform wider audiences about their research work. While the pooled result of all the stakeholders shows that about 73.0% of the respondents had tertiary education, 15.3% had primary education, 9.0% had secondary education while only few 2.4% had no former education. It could be deduced that the majority of the agricultural development stakeholders were educated as an indication that it may have great influence on the extent of social media usage. It is therefore expected that they were able to exploit all avenues including social media to bridge the gap between farmers, extension agents and the researchers. Table 1 also revealed that about (36.7%) of farmers had between 5-8 household size, 33.8% had between 9-12 household size, 21.4% and 8.1% had between 1-4% and 13-16 household size respectively with the mean to be 7 household size. For the extension majority (80.5%) of the respondents had between 5-8 household size, 16.7% had between 1-4 household size while only few 2.8% had between 9-12 household size respectively with the mean household size of the extension agent to be 6. Moreover, household size of the researcher shows that more than half (55.8%) of the researchers had between 5-8 household size, 32.4% had between 9-12 household size while 9.7% and 2.1% of the respondents had between 1-4 and above 12 household size, respondents had mean score to be 8 household size.

Table 1: Distribution of the Respondents According to Socioeconomic Characteristics

Variables	Farmers F (%)	Extension Agents F (%)	Researchers F (%)	Agricultural stakeholders (Pooled) F (%)
Age (Years)				
Less than 30	6 (8.1)	0(0)	0(0)	7 (2.7)
31-40	13 (17.6)	15 (41.7)	30 (20.7)	57 (22.4)
41-50	25 (32.4)	17 (47.2)	64 (44.1)	105 (41.2)
51-60	22 (29.7)	4 (11.0)	51 (35.2)	77 (30.2)
61 and above	9 (12.2)	0(0.0)	0(0.0)	9 (3.5)
Mean	**48.0**	**43.3**	**47.0**	**47.0**
Sex				
Male	70 (94.6)	30 (83.3)	137 (94.5)	237 (92.9)
Female	4 (5.4)	6 (16.7)	8 (5.5)	18 (9.1)
Marital status				
Single	5 (6.8)	0(0.0)	1 (0.7)	6 (2.4)
Married	68 (91.9)	35 (97.2)	142 (97.9)	245 (96.1)
Widowed	1 (1.4)	1 (2.8)	1 (0.7)	1 (0.4)
Divorced	0(0.0)	0(0.0)	1 (0.7)	2 (1.2)
Educational level				
No formal Education	6 (8.1)	0(0.0)	0(0.0)	6 (2.4)
Primary Education	38 (51.4)	0(0.0)	0(0.0)	39 (15.3)
Secondary Education	22 (29.7)	1 (2.8)	1 (0.7)	23 (9.0)
Tertiary Education	8 (10.8)	35 (97.2)	144 (99.3)	187 (73.3)
Household size				
1-4	16 (21.6)	6 (16.7)	14 (9.7)	36 (14.1)
5-8	27 (36.5)	29 (80.5)	81 (55.8)	137 (53.7)
9and Above	31 (41.9)	1 (2.8)	50 (34.5)	82 (32.2)
Mean	**7**	**6**	**8**	**7**

Sources: Field survey, 2024.

While the pooled result revealed that (53.7%) of the respondents had between 5-8 household size, 28.7% had between 9-12% household size while 14.1% and 3.5% had between 1-4 and above 12 household size with the mean household size of the respondents to be 7 members.

Available social media platform for agricultural development stakeholders

Table 2 shows the distribution of respondents according to available social media platform available to farmers and it was revealed that all (100%) of the farmers claimed the availability of Facebook and WhatsApp respectively. Also 98.6% of farmers claimed availability of yahoo mail, Instagram and YouTube. Other social media available to farmers are twitter, google plus, messenger, LinkedIn, skype and snapchat. This implies that there are many social media platforms available to farmers which they use to interact, disseminate and retrieve information among colleagues and others stakeholder in agricultural. This finding agrees with the finding of Bhattacharjee and Raj (2016) who reported that the most available social media are Facebook and WhatsApp. The result of the availability of social media among the extension agent shows that all (100%) the extension agent revealed that the social media platform (Facebook, WhatsApp, yahoo mail, Instagram, YouTube, twitter, google plus, messenger, LinkedIn, skype and snapchat) is available for use. The result supported that of Akinyi 2021 where the aforementioned social media platforms were available. While the results of the researchers revealed that all (100%) the researchers claimed to have Facebook, WhatsApp yahoo mail and google plus respectively. Other social media available to researchers are messenger (98.7%), YouTube (93.8%), Instagram (93.1%), twitter (91.0%), snapchat (25.5%), skype (20.7%), and LinkedIn (9.0%). The research is in consonance with that of Ayinde et al, 2020 who point out that the most available and accessible social media are Facebook, WhatsApp and yahoo mail.

The pooled result for all agricultural development stakeholders revealed that all (100%) of the respondents claimed that Facebook and WhatsApp were followed by yahoo (98.8%) google plus (98.4%), had and YouTube (96.1%), Instagram (95.7%), Twitter (93.7%) and messenger (90.6%). Others are Snapchat, Skype and LinkedIn respectively. This implies that the majority of the respondents were aware of different available social media tools and this is expected to influence the extent of social media usage in the study area.

Table 2: Distribution of Respondents According to Available Social Media Platforms

Social Media Platform Available	Farmers F (%)	Extension Agents F (%)	Researchers F (%)	Pooled F (%)
Facebook	74 (100)	36 (100)	145 (100)	255 (100)
Twitter	71 (95.9)	36 (100)	132 (91.0)	239 (93.7)
WhatsApp	74 (100)	36 (100)	145 (100)	255 (100)
You tube	73 (98.6)	36 (100)	136 (93.8)	245 (96.1)
Google plus	70 (94.6)	36 (100)	145 (100)	251 (98.4)
LinkedIn	4 (5.4)	36 (100)	13 (9.0)	17 (6.7)
Skype	5 (6.8)	36 (100)	30 (20.7)	35 (13.7)
Messenger	52 (70.3)	36 (100)	143 (98.7)	231 (90.6)
Snapchat	7 (9.5)	36 (100)	37 (25.5)	44 (17.3)
Yahoo	73 (98.6)	36 (100)	145 (100)	252 (98.8)
Instagram	73 (98.6)	36 (100)	135 (93.1)	244 (95.7)

Sources: Field survey, 2024

Frequency of social media usage among agricultural development stakeholders

Table 3 shows the result on the extent of social media usage by the respondents, and it was revealed that Facebook (WMS=3.00, 2.97 and 2.92), WhatsApp (WMS=3.00, 2.99 and 2.95) and Messenger (WMS=1.32, 0.61 and 1.89) were the most used social media tools among the extension agents, researchers and farmers. Conversely, the least used social media tools among farmers, extension agents and researchers include Skype (WMS=1.32, 0.61 and 0.59); LinkedIn (WMS=1.28, 0.94 and 0.61) and Snapchat (WMS=1.03, 0.58 and 0.22) respectively. The pooled results also followed the same trend as WhatsApp was ranked 1st with weighted means score of (WMS) of 2.98, Facebook was ranked 2nd with WMS of 2.95 and messenger was ranked 3rd with WMS of 2.64. Other social media tools used include Instagram and YouTube and were ranked 4th with WMS of 2.33, google plus was ranked 6th with (WMS= 2.30), yahoo mail was ranked 7th (WMS= 2.29) twitter was ranked 8th (WMS= 2.09). The least used social media tools are LinkedIn (WMS= 0.86), Skype (WMS= 0.84), and Snapchat (WMS= 0.74). This implies that majority of the respondents make use of social media, but the most used social media are Facebook, WhatsApp and messenger, an indication that all this platform were used to retrieve, disseminate and build social networking among all agricultural stakeholders.

This result agrees with that of Jiriko et al., (2020) assertion that farmers make used social media to source agricultural information, especially, Facebook and WhatsApp.

Table 3: Distribution of respondents according to extent of social media usage

Social media tools	Farmers	Extension Agents	Researchers	Pooled	Ranking
	WMS	WMS	WMS	WMS	
Facebook	2.97	3.00	2.92	2.95	2nd
Twitter	1.73	2.00	2.30	2.09	8th
Whatsapp	2.95	3.00	2.99	2.98	1st
You tube	2.27	2.00	2.43	2.33	4th
Google plus	1.64	2.03	2.71	2.30	6th
LinkedIn	1.28	0.94	0.63	0.86	9th
Skype	1.32	0.61	0.59	0.80	10th
Messenger	2.62	1.89	2.83	2.64	3rd
Snapchat	0.22	0.58	1.08	0.74	11th
Yahoo	2.20	2.00	2.40	2.29	7th
Instagram	2.28	2.05	2.43	2.33	4th

Sources: Field survey, 2024 WMS indicates Weighted Mean Score

Categorisation based on the extent of social media usage by agricultural stakeholders

The result in table 4 reveals that more than half (51.4%) of farmers fell to low category users of social media, 29.7% fell into high category while (18.9%) make use of social media moderately. The level of use of social media by the majority of farmers was low with the percentage score of (51.4%).

Moreso, the result of the extension on the same table 4.6 shows that more than half (52.8%) fell into low category, 38.9% were moderately make use of social media while (8.3%) fell into high category of social media usage by the respondent. This implies that the level of social media usage by the extension agent was low with the percentage score to be (52.8%).

Furthermore, the output result of the researchers on table 4.6 revealed that about (49.0%) of the researchers fell into low category user of social media, 35.1% of the researchers make use of social media moderately while (15.9%) fell into high category. The level of use of social media by majority of the researchers was low with percentage score of (49.0%). This implies that the level of use of social media by the researchers in the study is low, an indication that more training/workshop needs to be done so as to let them know the benefit of social media usage.

The pooled data on the same table 4.6 revealed that about (43.9%) of the respondents were low users of social media, followed by (38.1%) of the respondents were moderately social media usage while the respondents that fell into high category of use of social media was (18.0%). Similar trend was recorded as the respondents on pooled data revealed that majority possessing low extent of social media usage with the percentage score of (43.9%).

This implies that generally, most agricultural stakeholders were low users of social media hence this can impair social interaction and information sharing ability. This finding is contrary to that of Obabire *et al.* (2014) who reported high social network among key stakeholders in agriculture. The low level of use of social media by agricultural stakeholders may probably be due to the inherent constraints to social media usage experienced.

Table 4: Categorization of respondents according to extent of social media usage by Agricultural Stakeholders

Category	n=74 Farmers		n =36 Extension Agents		n =145 Researchers		n =225 Pooled	
	Range of score		Range of score		Range of score		Range of score	
Low	≤21.4	38(51.4)	≤20.1	19(52.8)	≤23.3	71(49.0)	≤22.3	112(43.9)
Moderate	21.4-25.5	14(18.9)	20.1-22.4	14(38.9)	23.3-27.1	51(35.1)	22.3-26.2	97(38.1)
High	>25.5	22(29.7)	>22.4	3(8.3)	>27.1	23(15.9)	>26.2	46(18.0)
Mean	21.4		20.1		23.3		22.3	
Std. Dev.	4.11		2.32		3.82		3.92	

Figure in parentheses are percentage,
Std. Dev- Standard Deviation
Source: Author computation from field survey data 2024

Test of hypotheses

The result of Pearson product moment correlation in Table 5 revealed that there existed positive and significant relationships between years spent in school (r= 0.194, p≤ 0.01), Income per annum (r = 0.182, p ≤ 0.01), knowledge level (r = 0.274, p ≤ 0.01), farm size (r = -0.132, p ≤ 0.05) and extent of social media usage. All the significant variables exhibited positive and significant relationships with the extent of social media usage except farm size with negative coefficient. This implies that the more years spent in school the higher the extent of social media usage among the agricultural stakeholders as this will have a great influence on the knowledge level of social media usage by the respondents, while an increased in the annual income of the respondents will all the agricultural stakeholder to be able to afford social media facilities that will boost their usage level of social media and subscription rate problem will be solved while the higher in knowledge level of the respondents will increase the extent of social media usage among the agricultural stakeholders. The result above implies that all the above-mentioned variables have decisive influence on the extent of social media usage among agricultural stakeholders.

Table 5: Summary of Pearson Product Moment Correlation (PPMC) establishing relationship between the selected socio-economic characteristics of the respondents and level of social media usage among Agricultural Stakeholders

Socio-economic characteristics	Correlation coefficient (r)	p-value	Decision
Age	0.093	0.138	Not significant
Years spent in school	0.194	0.002**	Significant
Household size	0.094	0.134	Not significant
Income per annum	0.182	0.003**	Significant
Years of stakeholder experiences	-0.045	0.475	Not significant
Farm size	-0.132	0.035*	Significant
Years of using social media	0.041	0.513	Not significant
Knowledge level	0.274	0.000**	Significant

Source: Field survey, 2024
** Correlation is significant at the 0.01 level
*Correlation is significant at the 0.05 level

There is no significant difference in the levels of usage of social media among agricultural stakeholders. The analysis of variance (ANOVA) in table 6 revealed that there is significant difference (F=13.206, P<0.05) in the extent of social media usage among the agricultural stakeholders in the study area. This may be as a result of differences in access, knowledge of use exposure to social media and importance to work as stakeholders in the study area.

Table 6: Summary of analysis of variance ANOVA showing differences in the extent of social media usage among agricultural stakeholders in Oyo State.

Sources of variation	Degree of freedom (df)	Sum of Square	Sum of mean square	F	p-value	Remarks
Between selected Agricultural stakeholders	2	369.253	184.626	13.206	0.000	Significant
Within selected Agricultural stakeholders	252	3523.077	13.980			
Total	254	3892.329				

Source: Field survey, 2024

CONCLUSION AND RECOMMENDATIONS

The study assessed the use of social media by agricultural development stakeholders for agricultural information sharing in Oyo State, Nigeria. It was concluded that the most accessible social media platforms for these stakeholders for information sharing are Facebook, WhatsApp, and yahoo mail. Also, the most frequently utilised platforms are WhatsApp, Facebook, and messenger. There existed a significant difference in the extent of social media usage among the agricultural stakeholders in the study area. Despite these findings, the overall extent of social media usage remains low among the stakeholders. Based on these conclusions, it is recommended that both the government and non-governmental organizations (NGOs) invest in building the technical knowledge and skills of stakeholders regarding social media applications. This capacity-building initiative is essential for enhancing effective information

sharing among the stakeholders in the agricultural sector.

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