# Socioeconomic Determinants of the Use of Social Media among Agricultural Undergraduates in North-West Nigeria
https://dx.doi.org/10.4314/jae.v27i2.10

## Yakubu, Danlami Haruna
Department of Agricultural Extension and Rural Development, Usmanu Danfodiyo University, Sokoto, Nigeria
Email: danlami_y@yahoo.com
Phone Number: +2348069064617
Orcid ID: https://orcid.org/0000-0001-9063-9649

## Musa, Nasiru
Department of Agricultural Extension and Rural Development, Usmanu Danfodiyo University, Sokoto, Nigeria
Email: nm.danchafa2@gmail.com
Phone Number: +2349064474576

## Ali, Anas Ahmed
Department of Agricultural Extension and Rural Development, Usmanu Danfodiyo University, Sokoto, Nigeria
Email: aaaybouy@gmail.com
Phone Number: +2347016942388
Orcid ID: https://orcid.org/0009-0007-8758-7105

## Maidoki, Muhammad Lawal
Department of Agricultural Extension and Rural Development, Usmanu Danfodiyo University, Sokoto, Nigeria
Email: lawalmaidoki@gmail.com
Phone Number: +2348034337000

## Abstract

This study assessed the socioeconomic determinants of the use of social media among agriculture undergraduates in North-west Nigeria. Three States were purposively selected out of 7, and 250 students were randomly selected from the States. Data were collected with the aid of a questionnaire. Percentages, means and multiple linear regression models were used to analyze the data. Results of the data analysis reveal that 76.4% of the students' had a monthly income of ₦10,000-₦30,000; 55.2% spent 10-29 hours per week using the social media. Facebook ($\bar{x}$=3.18) and WhatsApp ($\bar{x}$=3.02) had the highest number of users. Age, marital status and monthly income were statistically significant ($P \leq 0.05$); while years of formal education and the access to internet were both significant. Age, marital status and years of formal education were the major determinants of social media usage among agricultural undergraduates. The Nigerian communication commission should enforce a downward review of data bundles and also push for a larger access to free Wi-Fi services.

**Introduction**

Social media is a type of electronic means of communication that has made interaction and the search for knowledge easier based on certain interests and involves computer-mediated tools that allow people to create, and share information, ideas, pictures and videos, in virtual communities and networks (Gok, 2019). Academic institutions all over the world are leveraging social networks which have transformed the landscape of our tertiary educational institutions. Social networks today are being used by teachers, lecturers and students as a communication tool; they have become important complementary channels for disseminating and discovering research (Owusu, Acheaw& Larson, 2018).

Nwokedi (2019) contends that the use of social media platforms improves students' learning opportunities, fosters collaborative studies and group discussion, allows for connection and communication outside the classroom with their instructors and fellow students, and enhances critical thinking. Today, students are exposed to social media platforms on a daily basis; they use desktop computers, laptops, tablets and mobile phones to actively engage in social media platforms for chatting, blogging, content sharing and online learning purposes (Apuke, 2017).

There are different types of social media that exist today; however, for the purpose of this study social media is captured within the use of the internet (Facebook, WhatsAppp, Linked-In, Google+); Microblogging (Twitter, Tumblr); Photo Sharing (Instagram, Snapchat, Pinterest); Video Sharing (YouTube, Facebook-live, Periscope, Vimeo). Others include Skype, Myspace as well as Yahoo Messenger for communication and sharing of ideas, photos and videos by users. Many pieces of research were conducted in some parts of Nigeria on the related topic, but only a little or none has been carried out in the North-Western part of the country, especially among agricultural undergraduates. Hence, this study was designed to assess the socioeconomic determinants of use of social media among agricultural undergraduates in North-West Nigeria.

The main objective of this study was to assess the socioeconomic determinants of use of social media among agricultural undergraduates in North-West Nigeria. The specific objectives were to determine:

i. the students' ownership of computer and smartphone;
ii. the level of use of social media sites;
iii. the applications used by the students;
iv. the purpose of social media usage by students; and
v. the constraints to use of social media among the students.

**Hypothesis**
The use of social media is not associated with socioeconomic factors of students.

**Methodology**
North-West Nigeria consists of Jigawa, Kaduna, Kano, Katsina,Kebbi, Sokoto and Zamfara States. It is located between latitude $9^010^1$N and $13^050^1$N and longitude $3^035^1$E and $9^000^1$E, with a land mass of 168,719 km$^2$. The zone has projected population of 48,942,307 million people [National Population Commission (NPC), 2016]. Its vegetation consists of Northern

Guinea and Sudan Savannah, with low annual rainfall of less than 1000mm and prolonged dry season (6-9 months).

North-West Nigeria was targeted for this study. The multistage sampling procedure was used to obtain the study sample. In the first stage, 3 out of 7 States were purposively selected because they have more established universities offering agricultural related courses. The second stage was the selection of 4(50%) out of 8 universities purposively for they are well established and offer agricultural courses; they include Ahmadu Bello University (ABU), Bayero University Kano (BUK), Kano State University of Technology (KUST) and Usmanu Danfodiyo University, Sokoto (UDUS). The third stage was the selection of 250 (38%) out of 666 500 level students using simple random sampling.
Questionnaire was used to collect the data. Percentages, means and multiple linear regression model were used for analysis.

## Results and Discussion

### Ownership of computer and smartphone

A majority (76.4%) of the students had computers (Table 1). This implies that having a personal computer provide a condition for the majority of the students to have access to social media. This is in line with the finding of Lim and Richard (2020) that the first aim of students with a personal computer relating to internet and use of social media is to search homework, seek entertaining content and share content.

**Table 1: Ownership of computer and smartphone**

| Ownership of computer | Percentage |
|---|---|
| Own a computer | 76.4 |
| Own no computer | 23.6 |
| **Ownership of smartphone** | |
| Had smartphone | 95.2 |
| Had no smartphone | 2.8 |

**Source: Field survey, 2019**

A majority (95.2%) of the respondents owned a smartphone (Table 1). Owning a smartphone gives easy and direct access to social media and shows that majority of the students owned a smartphone which gave them a stand by access to use social media, share, upload and download information. This is in line with the finding of Kwahk and Park (2020) that 97% of the respondents had smartphone.

### Level of use of social media

Level of use is the time spent on social media. More than half (55.2%) of the respondents spent within 10-29 hours per week using social media (Table 2). This implies that the majority of the respondents spend just enough time to benefit from use of social media. This corroborates the finding of Scott, Sorokti and Merrell (2020) that showed 65.20% of the respondents used social media on daily basis.

**Table 2: Level of use of social media**

| Level of use (in hours/week) | Percentage |
|---|---|
| None | 2.0 |
| Less than 10 | 20.0 |
| 10-29 | 55.2 |
| 30-49 | 12.4 |
| 50 and above | 7.6 |

**Source: Field survey, 2019**

**Social Media Applications Used**
Among the various social media platforms used by the respondents, Facebook had the highest users ($\bar{x}$=3.18), followed by WhatsApp ($\bar{x}$=3.02) (Table 3).This implies that Facebook and WhatsApp are the most frequently used social media applications by the students. Finding of Apuke (2017) also revealed that Facebook and WhatsApp were the most used social media applications by the students.

**Table 3: Social media applications used**

| Variable | Mean |
|---|---|
| Facebook | 3.18 |
| WhatsApp | 3.02 |
| Twitter | 1.57 |
| WeChat | 1.40 |
| Snapchat | 1.25 |
| Classmates | 1.23 |
| Pinterest | 1.20 |
| Tumblr | 1.20 |
| YouTube | 1.19 |
| Instagram | 1.13 |
| Imo | 1.03 |
| Baidutieba | 1.01 |
| Friendster | 1.01 |
| Viber | 1.01 |
| LinkedIn | 1.00 |
| Skype | 1.00 |
| Telegram | 1.00 |

**Source: Field survey, 2019**

**Socioeconomic Determinants of the Use of Social Media**
Age had a negative coefficient (-3.954: $P \leq 0.05$) and significantly influenced the use of social media. Marital status had positive coefficient (7.882: $P \leq 0.05$) and significantly influenced the use of social media. Years of formal education had a positive coefficient (9.835: $P \leq 0.05$) and significantly influenced the use of social media. Monthly income had a negative coefficient (-6.994: $P \leq 0.05$) and significantly influenced the use of social media. Ownership of smartphone had positive coefficient (9.050: $P \leq 0.05$) and significantly influenced the use of social media. Access to internet had a positive coefficient (6.137: $P \leq 0.05$) and significantly influenced the use of social media (Table 4).

**Table 4: Socioeconomic determinants of use of social media**

| Variables | Coefficient | Standard error | T-value |
|---|---|---|---|
| (Constant) | 7.760 | 12.354 | 0.628 |
| Age | -3.954 | 2.198 | -1.799* |
| Marital status | 7.882 | 4.406 | 1.789* |
| Years of formal education | 9.835 | 3.205 | 3.069* |
| Monthly income | -6.994 | 4.079 | -1.715* |
| Household size | -4.224 | 4.108 | -1.028 |
| Computer literacy | 2.342 | 1.535 | 1.526 |
| Ownership of computer | -2.764 | 2.708 | 1.541 |
| Ownership of smartphone | 9.050 | 5.075 | 1.783* |
| Access to internet | 6.137 | 1.818 | 3.376* |
| $R^2$- value | 0.167 | | |
| Adjusted $R^2$ | 0.136 | | |
| F-value | 5.357 | | |

**\*P≤0.05**

The positive and negative coefficients indicate positive and negative influence respectively. This implies that the use of social media was influenced by socioeconomic factors; hence, the null hypothesis that stated that the use of social media is not determined by socioeconomic factors is rejected. This finding is in line with that of Subair *et al*. (2017) that students` use of social media was influenced by their personal characteristics. Idu *et al.* (2021) also found age, education, household size and income as determinants of social media usage in agriculture among youths in the Federal Capital Territory, Abuja, Nigeria.

**Purpose of Social Media Use**
Result in Table 5 shows that obtaining useful information for academic activities was ranked first among the purposes of social media usage by the respondents with a mean score of 2.73. This implies that obtaining useful information for academic activities such assignments, lecture notes, and projects is the main purpose of social media usage among the students. Findings of Nwokedi et al. (2019) also revealed that more than half of the students used social media for academic purposes. Moreover, the students used social media to keep in touch with friends and family ($\overline{X}$=2.70), for entertainment and fun ($\overline{X}$=2.40) and for national and international news updates ($\overline{X}$=2.30) among others.

**Table 5: Purpose of social media usage**

| Variables | Mean | Rank |
|---|---|---|
| Obtain useful information for academic activities | 2.73 | 1st |
| Keep in touch with friends and family | 2.70 | 2nd |
| Entertainment and fun | 2.40 | 3rd |
| National and international news updates | 2.30 | 4th |
| Express academic opinions freely | 2.20 | 5th |
| Share research findings with other researchers | 2.20 | 6th |
| Learn basic creative art from online experts | 2.10 | 8th |
| Make new friends | 2.10 | 7th |
| Share pictures and videos with friends and family | 2.04 | 9th |
| Business and advertisements | 2.03 | 10th |
| Create online blogs and vlogs | 1.50 | 11th |

**Source: Field survey, 2019**

## Constraints to the Use of Social Media

The results reveal that the high cost of data bundles was ranked first among the constraints to the use of social media with a mean score of 3.02. It was followed by a poor network from a service provider ($\overline{X}$=2.92), high cost of smartphones and computers ($\overline{X}$=2.90) and inadequate power supply ($\overline{X}$=2.80) (Table 6). This indicates that the high cost of data bundles, smartphones and computers are the most significant constraints to the use of social media among agricultural undergraduate students in the North-west zone, Nigeria. This finding corroborates that of Owusu-Acheaw and Larson (2018) that poor network from service providers and cost of data bundles as constraints to utilization of social media.

**Table 6: Constraints to the use of social media**

| Constraint | Mean |
|---|---|
| Inadequate power supply | 2.80 |
| Inadequate functional ICT centres | 2.45 |
| Inadequate knowledge of how to access the internet | 1.80 |
| High cost of data bundles | 3.02 |
| Unreliable and inaccurate information | 2.20 |
| High cost of smartphones and computers | 2.90 |
| Low-income level | 2.76 |
| Poor network from service providers | 2.92 |
| Payment of restricted content | 2.24 |
| Difficulty in accessing the kind of information needed for academic purposes | 2.46 |

**Source: Field survey, 2019**

## Conclusion and Recommendations

Age, marital status and years of formal education were the major determinants of social media usage among agricultural undergraduates in North-West Nigeria. The students used mainly Facebook and WhatsApp to obtain useful

information for academic activities and keep in touch with friends and family. They were however constrained by high cost of data bundles, poor network from service providers and high cost of smartphones and computers.

As a way of reducing the cost of data bundles, the Nigerian communications commission should enforce a downward review of data bundles and also push for larger access to free Wi-Fi services. Service providers should work more on improving the network coverage for internet access at any point in time. There should be an improvement in power supply by the electricity distribution companies.

## References

Gok, T. (2019). The effects of social networking sites on students` studying and habits. *International Journal of Research in Education and Science* (IJRES), *2*(1), 85- 93.

Idu, E. E., Ajah A., Alabi. T., and J. N. Nnaji (2021). Determinants of social media usage in agriculture among youths in the Federal Capital Territory, Abuja, Direct Research Journal of Agriculture and Food Science, DOI: https://doi.org/10.26765/DRJAFS49278624, 9: 36-41.

Kwahk, K.Y. and Park, D.H. (2020). The effects of network sharing on knowledge sharing activities and job performance in enterprise social media environments. *Journal of Computers in Human Behavior, 25* (8): 826–839.??

Lim, J., and Richardson, J. C. (2020). Exploring the effects of students` social networking experience on social presence and perceptions of using SNSs for educational purposes. *Journal of Internet and Higher Education, 29* (4) 69–78.

Nwokedi, V.C. (2019). Use of social networking sites amongst undergraduates: A case study of department of theatre and film arts, faculty of arts, university of Jos, Jos, Nigeria. *Research Journal of Library and Information Science, 3*(1): 21-31.

Odunola, A. A. (2018). Awareness and usage of social networking sites by students of library and information science: The case of Federal Polytechnic, Offa, Nigeria. *Information and Knowledge Management, 5*(12): 116-126.??

Owusu-Acheaw, M. and Larson, A.G (2018). Use of social media and its impact on academic performance of tertiary institution students: A study of students of Koforidua Polytechnic, Ghana. *Journal of Education and Practice 6* (6): 94-101.??