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Use of Social Media Tools among Agricultural Students in Tertiary Institutions in Nigeria: An Insight from the Federal University of Technology, Owerri, Imo State, Nigeria

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ABSTRACT

The study investigated the use of social media tools among agricultural students in the Federal University of Technology, Owerri, Imo State, Nigeria. Specifically, the study ascertained the students' use of social media, their frequency of use of social media tools, identified the social media devices they used, identified the type of social media they used, ascertained their purposes of using social media, identified their perceived benefits of use of social media and identified the barriers to their use of social media. A sample of 105 final year students was used for the study. Data were collected using structured questionnaire and were analyzed using descriptive and inferential statistical tools. Result showed that the students were dominantly female (55.7%), mainly youths ($\bar{X}$ = 24 years) and engaged in many economic activities but majorly trading (36.1%) and farming (16.4%). The results also showed that the majority (92.8%) of the students used social media with most (51.5%) using them daily. It was further revealed that smart phones (80.6%) and laptops (55.0%) were the dominant internet-enabled devices they used. The commonly used social media tools among the students were Facebook (88.4%), WhatsApp (74.7%) and Twitter (67.4%) and the major reasons for using social media included uploading pictures (83.7%), finding news and events on agriculture (77.2%) and connecting with friends and relatives (76.1%). The benefits derived from using social media were facilitation of research and learning (78.9%) and encouragement of virtual meeting and learning among colleagues (75.6%). The barriers to the use of social media were high cost of devices (66.7%) and limited income (64.4%). The Chi-square test showed that the sex of the students was significantly associated with their use of social media $X^2(4, N = 96) = 63.310$, $p = 0.022$. It was recommended that the cost of the devices should be subsidized.

Key words: Social media use, Agricultural students, Tertiary institutions, agricultural communication

Introduction

The agricultural sector has been an important sector in the Nigerian economy in the past decades and is still a major sector in spite of the oil boom. Basically, it provides employment opportunities for the teeming population, eradicates poverty and contributes to the growth of the economy. Okolo (2004) described agricultural sector 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. Emeka (2007) reported that the sector contributes between 30 – 42% of the gross domestic product and employs about 65% of the labour force in Nigeria.

However, the Nigerian agricultural sector is recently characterized by inefficiencies. Odetola and Etunmu (2013) reported that the sector continues to rely on primitive methods to sustain a growing population without efforts to add value and this has reflected negatively on the productivity of the sector, its contribution to economic growth as well as its ability to perform its traditional roles of food production among others. For example, the nation was self-sufficient in food production and exports of major crops accounted for over 70% of the total exports in 1960. Due to fall in local

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production among other things, importation of food began to increase. In 2012 alone, importation of wheat was valued at $1billion (Nzeka, 2013). Largely, due to significant fall in the output of export crops like cocoa, palm oil, rubber and groundnut, the share of agricultural products in total exports decreased to less than 2% in the 1990s (Odetola & Etumnu, 2013).

The fall in the contribution of the Nigerian agricultural sector could be blamed on the poor attention given to the sector recently. Shenggen *et al*. (2009) reported that the sub-Saharan African (SSA) region has the lowest government spending on agriculture compared to other regions in the world. They observed further that only eight countries – Burkina Faso, Ethiopia, Mali, Malawi, Ghana, Niger, Senegal and Zimbabwe – in Africa have met the 10% budgetary allocation to agriculture. Madukwe (2008) observed that extension service in Nigeria has been characterized by lack of a robust policy framework, dearth of field extension staff and poor funding in recent times.

Repositioning the collapsing Nigerian agricultural sector therefore requires the application of viable innovations especially in the dissemination of available agricultural technologies. Social media technologies allow individuals and communities to create and share user-generated content (Kietzmann *et al*., 2011). According to Bhattacharjee and Saravan (2016) communication has become more and more dynamic and more virtual than physical. Internet penetration rates are estimated at 15.6% throughout the African continent and continue to grow (Internet World Stats, 2012). Social media such as YouTube, Facebook, Google Docs and Twitter can be used to create, access and share information or skills within social and geographic communities. Access to internet-capable cell phones enables people to employ social media tools to connect with others who share their interests, experiences, and circumstances (Owiny *et al*., 2014). According to Castells *et al*. (2007) access to cell phones in sub-Saharan Africa has increased dramatically over the past decade. This is because they afford users portability, personal control and flexibility. There are about 30 mobile phones per 100 people in SSA, and 60% of the population has mobile phone coverage (World Bank, 2009) compared to fewer than three landlines per 100 people (Aker & Mbiti, 2010).

Bhattacharjee and Saravan (2016) reported social media are perceived to be very useful among extensionists, product marketers, agripreneurs, researchers, students and women farmers and they used them to find out news and events, exchange knowledge, connect with friends and relatives, share information and exchange knowledge. Kuppuswamy and Shankar (2010) reported that social networking sites grab attention of students and directs it towards non-educational and inappropriate actions including useless chatting whereas on the other hand, Licardi *et al*. (2009) argued that they connect students with one another for sharing their daily learning experiences and conversation on several topics. A study by Alwagait *et al.* (2014) reported that the majority (60%) of the students surveyed in Saudi Arabia admitted that the use of social media did not affect their academic performance. However, a study by Asharive (2015) reported that social media use had positive effects on students in the University of Lagos, Nigeria while also distracting them from academic activities.

While the importance of social media in communication has been realized, more studies need to be conducted on its use in tertiary institutions in Nigeria. It is against this backdrop that the study seeks to investigate the use of social media among agricultural students in the Federal University of Technology, Owerri, Imo State, Nigeria.

Objectives of the study

The broad objective of the study is to investigate the use of social media among agricultural students in the Federal University of Technology, Owerri, Imo State. Specific objectives include to:
1. Identify the type of social media used by the students;
2. Ascertain their various uses of social media; and
3. Identify constraints to their use of social media.

Hypothesis

The sex of the students is not significantly associated with their use of social media.

Methodology

Study area

The study was conducted at the Federal University of Technology, Owerri, Imo State. It is among the tertiary institutions in Imo State, Nigeria. Imo State is located in the southeastern part of Nigeria within longitude 6º50'E and 7º25'E and latitude 4º45'N and 7º15'N. The state has an area of around 5,100 Km^2 (https://en.wikipedia.org/wiki/imo.state). Imo State is bordered by Abia to the east and to the west, north and south by Abia, River Niger and Delta State, Anambra State and Rivers States respectively (Umunakwe, 2011). The state has a population of about 4.8 million people which varies from 230 – 1,400 people per kilometer (www.google.com.ng/search?dcr=0&source=hp&ei). The state has 27 local government areas which are categorized in three geographical zones. Imo State has five tertiary institutions namely Federal University of Technology Owerri (FUTO), Imo State University Owerri, Alvan Ikokwu Federal College of Education Owerri (AIFCE), Federal Polytechnic Nekede Owerri, Imo State Polytechnic Umuagwo and Federal College of Land Resources Technology.

FUTO was established in 1980 with Prof U.D. Gomwalk as the first Vice-Chancellor. It is located off Owerri-Port Harcourt road. It has eight schools namely School of Agriculture and Agricultural Technology (SAAT), School of Engineering and Engineering Technology (SEET), School of Physical Sciences (SOPS), School of Biological Sciences (SOBS) School of Management and Management Technology (SMAT), School of Health (SOHT) and School of Environmental Sciences (SOES). It is among the premier technological universities in the West African region (http://en.m.wikipedia.org).

All final year students in the School of Agriculture and Agricultural Technology in FUTO in 2016/2017 academic year constituted the population for the study. The first stage of the sampling was the purposive selection of all the final year students in the school in the 2016/2017 academic session. This was done to ensure that all the Departments were represented in the sample. Also, the focus on final year students was due to their number of years of experience and the volume of their works which outweigh other students'. The second stage was the selection of 15 final-year students from each of the Departments in the School using snowball sampling technique to give a total of 105 students.

Data for the study were obtained mainly from primary sources. This was done by the aid of close-ended questionnaire which was administered to each of the students selected. However, the instrument was validated using content validity by the project supervisor. Data were analyzed using descriptive statistical tools such as mean, frequency and bar charts. The hypothesis was tested using Chi-Square expressed as:

$$X^2 = \sum \frac{(Oi-Ei)2}{Ei}$$

where, E = the frequency of expected
O = the frequency of observed

Results and Discussion

Socioeconomic characteristics

Results on Table 1 show that the majority (55.7%) of the students was female while the remaining 43.3% was male; the majority (88.7%) of the students was between the ages of 20 and 30 years and a greater proportion (49.5%) of the students had personal savings as their source of income. The result further showed that a greater proportion (36.1%) had farming as their economic activity and a greater proportion (43.3%) of the students had a monthly income of less than ₦50, 000 with a mean monthly income of ₦14, 381.6.

The dominance of female students in the study area confirms the increasing acquisition of formal education by females in developing countries. This could be due to the influence of the various programmes aimed at promoting gender equality in developing countries. The female gender is currently being encouraged to enroll into schools as a way of promoting their contributions to

development. The result further reveals the dominance of young people at the undergraduate level. A survey conducted by Opera in its state of mobile web report revealed that 90% of Nigerian internet users were within the age range of 18 -27 years (Osang, 2012). Age could influence the adoption of innovations and younger people have been shown to be innovative (Agbamu, 2006). The result also shows that students undertook other economic activities perhaps to supplement whatever they received from parents/guidance. The economic hardship in the country might have necessitated the engagement of students in economic activities as a way of supplementing whatever they receive from parents of guidance. This however might interfere with the academic performance of students.

Table 1: Distribution of students according to socioeconomic characteristics

Socioeconomic characteristic	F	%	X
Sex			
Male	42	43.3	
Female	54	55.7	
Age (Years)			
< 20	8	8.2	
20 - 30	86	88.7	24.16
31 - 41	3	3.1	
Marital Status			
Single	22	22.7	
Married	75	77.3	
Monthly income (₦)			
< 50,000	42	43.3	
50,000 – 100,000	25	25.8	14, 381.6
101,000 – 150,000	19	19.6	
> 150,000	11	11.3	
Source of income			
Personal savings	48	49.5	
Parents	36	37.1	
Friends/relatives	4	4.1	
Benefactors	8	8.2	
Economic activities undertaken			
Farming	16	16.4	
Trading	35	36.1	
Artisanship	5	5.2	
Tailoring/sewing	2	2.0	
Hairdressing	5	5.2	
Pedicure/manicure	11	11.3	
Catering	10	10.3	
ICT-related business	8	8.2	

Source: Field Survey Data, 2017

Use of social media

Result in Figure 2 shows that the majority (92.8%) of the students used social media while the remaining 7.2% did not. The dominance of users could be attributed to the increasing realization of the roles of social media in communication. A study by Ezeah *et al*. (2013) reported that Nigerian students in tertiary institutions use social media.

Frequency of use of social media

Figure 3 reveals that the majority (51.5%) of the students used social media daily while the remaining 28.9% and 17.5% used social media once a week and 2 -5 times a week respectively. However, 2.1% could not tell their frequency of use of social media. This implies the attachment of the students to the social media platforms perhaps due to the various uses they put them to. Hallikainen (2015) observed that the use of social media has become a daily routine for many people especially among the younger generation.

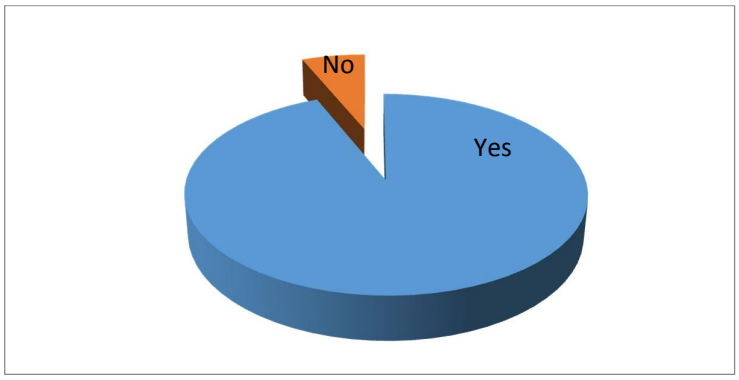

Fig. 1: Use of social media by the students

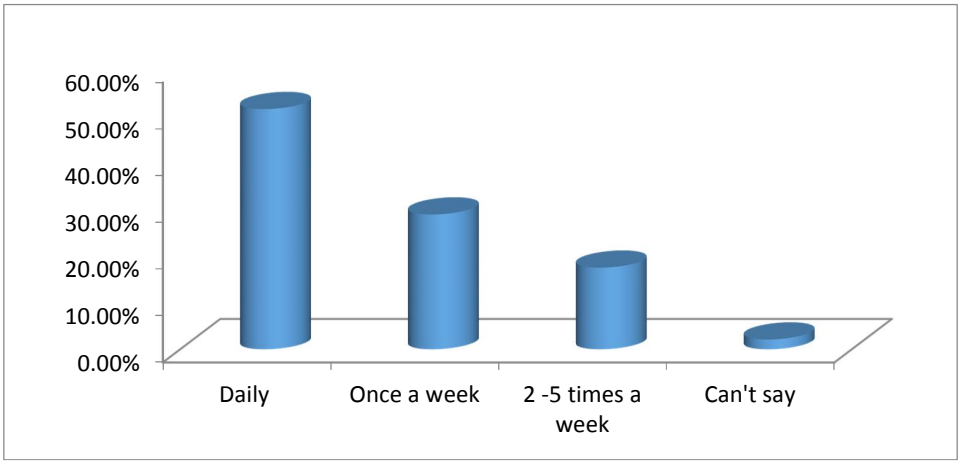

Fig. 2: Frequency of use of social media

Internet-enabled devices used by the students

Figure 3 reveals that a majority (80.6%) of the students used smart phones. Also, 55.9%, 30.1%, 27.7%, 25.8% and 7.5% of the students used laptops, apple iphone, tablets, desktops and palmtops respectively. This result showcases the ubiquity of smart phones among students followed by laptops. This could be attributed to the portability, adaptability and the relative cheapness of smart phones. Most smart phones can perform certain functions that laptops can despite their relative smallness and this raises the preference of smart phones. A report by (Pew Researcher Centre, 2016) revealed the increasing use of smart phones among millennials (people between 18 – 34 years). According to Tunmibi *et al*. (2015) Nigerians studied indicated relative advantage, ease of operation and compatibility with life style as their reasons for using smart phones. Agbamu (2006) reported relative advantage as among the factors influencing the adoption of a technology.

Type of social media used by students

Result in Table 2 shows that the students used many social media platforms, however, Facebook (88.4%), WhatsApp (74.7%), twitter (67.4%), You tube (58.9%), Google (56.8%) and Instagram (53.7%) were the major ones used. The use of many social media platforms provides the students with variety since they sometimes differ in their features and applicability. A study by Owusu-Acheaw and Larson (2015) confirms the popularity of Facebook and WhatsApp among tertiary institution students in Ghana. The study however revealed the unpopularity of Yahoo messenger, My Space and Skype among the same students.

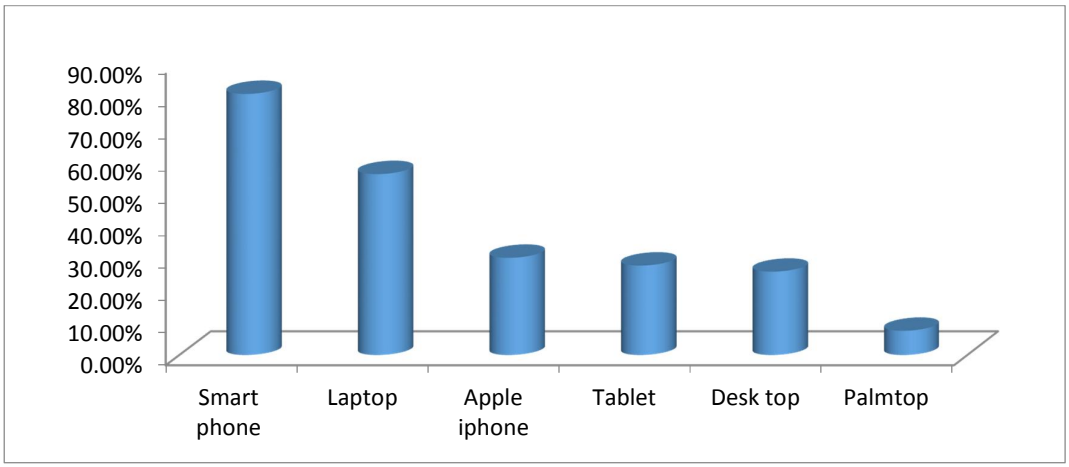

Fig. 3: Types of internet-enabled devices used by the students

Table 2: Distribution of students according to type of social media used

Type of social media used	F	%	Ranking
Facebook	84	88.4	1st
Whatsapp	71	74.7	2nd
Twitter	64	67.4	3rd
You tube	56	58.9	4th
Google	54	56.8	5th
Instagram	51	53.7	6th
Snapchat	44	46.3	7th
Yahoomail	44	46.3	8th
Skype	38	40.0	9th
Yahoo messenger	30	31.6	10th
Pinterest	22	23.2	11th
Wechat	21	22.1	12th
Academia.edu	19	20.0	13th
Imonetwork	18	18.9	14th
Researchgate	17	17.9	15th
Soundcloud	16	16.8	16th
Slideshare	15	15.8	17th
linkedIn	14	14.7	18th
Google hangout	14	14.7	19th
Wikis	13	13.7	20th
Tumbler	13	13.7	21th
Friendster	13	13.7	22nd
Yik yak	11	11.6	23rd
Wordpress	12	12.6	24th
Secondlife	9	9.5	25th
Reddict	9	9.5	26th
Vine	8	8.6	27th
Farmbook	6	6.3	28th
Orkut	6	6.3	29th
Propper	6	6.3	30th
Dig	5	5.3	31st
Dgroup	3	3.2	32nd

Source: Field Survey Data, 2017

Uses of social media

Result in Table 3 shows that the students used social media mainly for uploading pictures and information (83.7%), finding out news and events on agriculture (77.2%), connecting with friends and relatives (76.1%), advertizing jobs in agriculture (67.4%), research activities in agriculture (66.3%)

and online financial transaction (65.2%). Generally, the result reveals the dominance of social media use for entertainment among the students. A study by Owusu-Acheaw and Larson (2015) reported that tertiary institution students in Ghana used social media majorly for chatting however they agreed that social media positively affected their academic performance.

Table 3: Distribution of students according to the use of social media

Uses of social media	F	%	Ranking
Uploading pictures and information	77	83.7	1st
Finding out news and events on agriculture	71	77.2	2nd
Connecting with friends and relatives	70	76.1	3rd
Exchanging knowledge	64	69.6	4th
Advertising jobs in agriculture	62	67.4	5th
Sharing new events related to agriculture	56	60.9	6th
Buying and selling	59	64.1	7th
Online financial transactions	60	65.2	8th
Research activities in agriculture	61	66.3	9th
Seek out organizations and individuals with similar interests	58	63.0	10th
Listening to music	55	59.8	11th
Watching videos	54	58.7	12th
Skill acquisition	53	57.6	13th
Online teaching and learning	51	55.4	14th
Collaboration with colleagues	53	57.6	15th
Seek jobs	50	54.3	16th
Sports	48	52.2	17th
Storage of information	45	48.8	18th
Conservation (voice & video)	43	46.7	19th
For examination	12	13.0	20th
For organizing and mobilizing events	12	13.0	21st
Submission of assignments	11	12.0	22nd

Source: Field Survey Data, 2017

Perceived benefits of use of social media

Table 4 reveals that social media were perceived to play many roles by the students. However, the major ones included facilitation of research and learning (78.9%), encouragement of virtual meeting of colleagues (75.6%), promotion of sharing of ideas (73.3%), promotion of self-expression (73.3%), promotion of digital literacy (71.1%) and saving the cost of accessing information (68.9%). According to a report by Baruah (2012) social media played such roles as interactive medium, source of information, bridges communication gap, sharing of ideas and marketing tools in India. He further reported that social media are cost-effective tools for communication and consume less time.

Table 4: Distribution of students according to perceived benefits of use of social media

Benefits of use of social media	F	%	Ranking
Facilitates research and learning	71	78.9	1st
Encourages virtual meeting of colleagues	68	75.6	2nd
Promotes sharing of ideas	66	73.3	3rd
Promotes self-expression	88	73.3	4th
Promotes digital literacy	64	71.1	5ht
Saves cost of accessing information	63	70.0	6th
Facilitates dissemination of information	62	68.9	7th
Strengthen interpersonal relationship	60	68.9	8th
Promotes exchange of knowledge	60	66.7	9th
Promotes creativity	60	66.7	10th
Helps in personal development	57	63.3	11th
Promotes collaboration	52	57.8	12th
Makes collaboration easier and faster	47	52.2	13th

Source: Field Survey Data, 2017

Constraints to the use of social media

Result in Figure 5 showed that high cost devices (66.7%), limited income (64.4%), high cost of data (63.2%), poor internet connectivity (58.6%) and internet addiction (54.8%) were the major

constraints to the use of social media by the students. The constantly fluctuating value of Naira in the international market has virtually raised the price of all imported goods especially electronics. 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.

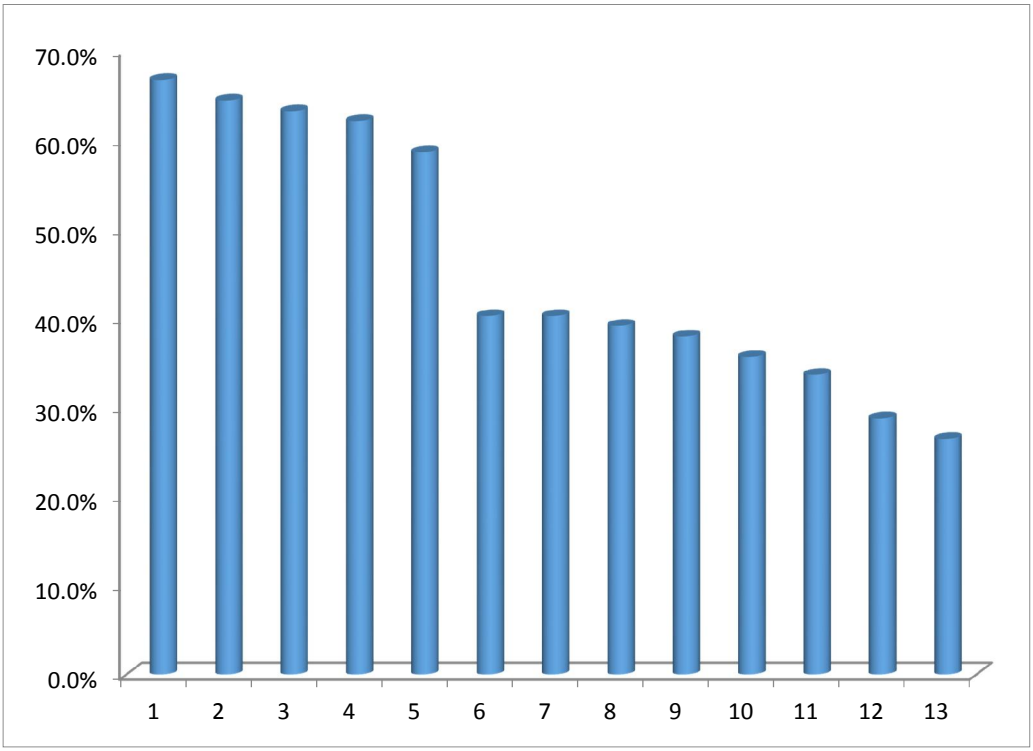

Fig. 5: Constraints to use of social media

Legend: 1= high cost of devices, 2 = Limited income, 3 = High cost of data, 4 = Poor internet connectivity, 5 = Internet addiction, inadequate digital skill, 6 = poor government policies, 7 = lack of privacy, 8 = time consuming, 9 = Distraction, 10 = Exposure to indecent sites, 11 = Cyber bullying, 12 = Audiences are not always the right match, 13 = Unstable power supply.

Association between sex of the students and use of social media tools

Result in Table 2 shows that the sex of the students was significantly associated with their use of social media $X^2(4, N = 96) = 63.310$, $p = 0.022$.

Table 4: Chi-square result showing association between sex of the students and their use of social media

	Value	df	Assyp. Sig (2 -sided)
Pearson Chi-square	63.310[a]	4	0.000
Likelihood Ratio	11.433	4	0.022
No. of valid cases	96		

Source: Field Survey Data, 2017.

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