

Full Length Research Paper

Determinants of social media usage in agriculture among youths in the Federal Capital Territory, Abuja

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ABSTRACT: Youth in Agriculture use social media to access information needed to improve their agricultural production. This study was carried out to assess the determinants of Social media usage in Agriculture among youths in the Federal Capital Territory, Abuja. The broad objective of this study is to assess the determinants of Social media usage in Agriculture among youths in the Federal Capital Territory, Abuja. Other specific objectives were to ascertain the areas where social media has helped in engaging youths in agriculture; find out the socio-economic factors that influences usage of social media for agricultural information. A sample of three hundred and sixty youths in agriculture was randomly selected through the multi-stage sampling techniques in the study area. The instruments used for data collection were questionnaire and focus group discussion. The theories of Utility and Rational served as theoretical framework for the study. The data was analyzed using descriptive statistics and logit regression model. Data were analyzed using Statistical Packages for Social Science (SPSS). The null hypotheses that

guided this study is socio- economic factors do not significantly influence the usage of social media by youth in agriculture in the study area. Results of the logit regression analysis carried out to establish the social-economic factors that significantly influence the usage of social media by youth in agriculture showed that the independent variables studied accounted for a coefficient of multiple determination of 0.510 (51.0%). Out of all the socio-economic factors that influenced usage of social media in agriculture only age (0.994), education (0.642), farm experience (-0.158), income (.000) and sex (1.768) were found to significantly influence the usage of social media in agriculture. Findings revealed that most of the respondents (30.0%) indicated that social media has helped to engage youths in agriculture through extension services. These findings recommended the need of the useful of these variables in the usage of social media in agriculture.

Keywords: Social media, youth, engagement, agriculture

INTRODUCTION

Agriculture is the engine of growth for most developing countries like Nigeria and agricultural development is one of the most effective ways to alleviate hunger and poverty in a country (Amungwa and Baye, 2014). Agriculture has remained one of the top and widely profitable business sectors not only in Nigeria but in the world at large (Adelanke, 2019). It provides employment opportunities for the teeming population, eradicates poverty and contributes to the growth of the economy (Agwu et al., 2014). In spite of the agricultural sector's vibrancy in

providing income-generating opportunities for rural youth, agriculture is still left to the elderly or uneducated youths (Okiror and Otabong, 2015). This has led to decline in agricultural output and the overall contribution of the sector to the economy and affected Nigeria's perception of the place and role of agriculture in national development considerably over time (Adigun et al., 2017). As a result, achieving a balance between food and population growth is a serious challenge in Nigeria today (Anaeto et al. 2015).

The youths however, need to be involved in agriculture in order to ensure continuity in occupation (Agumagu et al., 2017). Youth participation in agriculture is definitely the only means to increase agricultural production and reduce unemployment rate in Nigeria (Adekoya, 2019). The youths have great potentials to drive forward the sector and also preserve it for posterity. They have the physical strength, mental alertness and innovations to embark on large scale agricultural activities (Jacob et al., 2017). However, the role of the youth as the next generation for the sustainability of the agricultural sector is very important (Susilowati, 2014). This calls for securing the interest and participation of youth in agriculture (Paisley, 2013). Exposure of youths to modern technologies that give them access to information from around the world is changing the perceived needs of young people, and this must be recognized especially by leaders, thus harnessing the opportunities and challenges thereof (Naamwintome and Bagson, 2013). Hence the evolution of internet-based communication tools known collectively as “social media” has provided a viable solution to this challenge. Social media are a contemporary channel of digital communication that is composed of various evolving tools for discussion, interaction and sharing of information among people (Aliyu and Afrad, 2017). The main purpose of social media is sharing information, creating awareness and opportunities in agriculture. Social media can effectively empower the youths with information in agriculture and education that are capable of spurring them into agricultural or agro-based activities (Fabinu, 2014). Social media can be used to help better agriculture’s image across a broad audience and allow for sharing of information and experiences between young people and young farmers (Young Professionals’ Platform for Agricultural Research for Development (YPARD, 2017).

Using social media for youth engagement can help organizations reach young people where they can be found online through search engines, communicate with young people in familiar settings and make ideas and opportunities accessible to other youth (Guanah *et al.*, 2017). This will enhance the introduction of modern extension and agricultural technologies and will increase extension coverage. The use of social media provides reliable markets and modern production information on existing livestock and crops thereby providing better access to profitable markets (Irungu *et al.*, 2015). Therefore, the focus of this study is to assess the usage of social media in engaging youths in agricultural development in the Federal Capital Territory and how this can bring about development in the agriculture sector.

Objective of the study

The broad objective of this study is to assess the determinants of social media usage in agriculture among youths in the Federal Capital Territory, Abuja.

Specifically, this study is designed to:

- (i) Ascertain the areas where social media has helped in engaging youths in agriculture.
- (ii) Find out the socio-economic factors that influences usage of social media for agricultural information.

METHODOLOGY

Study area

The study was carried out in the Federal Capital Territory (FCT), Nigeria. The Federal Capital Territory was formed in 1976 and it is bordered by the states, Niger to the Northwest, Kaduna to the Northeast, Nassarawa to the East and South, and Kogi to the Southwest. The territory is currently made up of six area councils, namely Abuja municipal, Abaji, Bwari, Gwagwalada, Kuje and Kwali (Odunsi, 2018). It is within the middle belt region of the country. It has an estimated population of 3,277,740 (World Population Review, 2020). Abuja lies between latitude 9.072264 and longitude 7.491302 and also covers an area of 7,315km (Latlog, 2018). The varying indigenous language of FCT-Abuja include Gupe-Abawa, Ganagana, Grade, Gbagyi, Nupe, Gwandar, Asha, Gbagyi, Gbari, Igbara, Gwandara, Kami and Hausa. Nevertheless, English is the official language of the city and other major Nigeria language like Hausa, Yoruba, Igbo, Edo and Ibibio are also spoken due to availability of the tribe there (Daniel, 2020). The region is underlain by crystalline rocks consisting of granites and gneisses. The vegetation is mainly savanna with limited forest areas. Agriculture accounts for substantial part of the FCT economy. The major crops produced include yams, millet, corn (maize), sorghum, and beans. Mineral resources include clay, tin, feldspar, gold, iron ore, lead, marble, and talc (Encyclopedia Britannica, 2020). The FCT has rich soil for agriculture and enjoys a climate that is neither too hot nor too cold all year round (Project Championz, 2016).

Study population

The target population of the study comprised youths in agriculture who were between 18 and 35 years old. The Federal Capital Territory has six (6) Agricultural Development Project (ADP) administrative zones, namely Abaji, Abuja Municipal, Bwari, Kwali, Gwagwalada and Kuje. The study was basically conducted in four (4) out of the six ADP zones of the FCT based on the agrarian nature of the area.

Instrument and techniques for data collection/ measurement of variable

Data were collected through the use of questionnaire, which was administered to the youth in agriculture by the

researcher and well-trained enumerators (Staff of FCTADP) who live among the youth and understand the locality and their languages. This enabled the researcher to get the required information needed for the study. Also, Focused Group Discussions (FGD) was held to validate the data collected from the respondents.

Areas where social media has helped in engaging youths in agriculture

This was ascertained by asking the respondents to indicate on the option provided. To find out Socio-economic factors influencing the usage of social media for accessing agricultural information, logit regression analysis was used. This was determined by subjecting the respondents to indicate their usage of social media in agriculture through their socio-economic characteristics.

RESULTS AND DISCUSSION

Engagement of youth in agriculture

Table 1 revealed that most of the respondents (30.0%) indicated that social media helped to engage young farmers in agriculture through extension services. This implies that social media can play an important role in bridging the gap between youths in agriculture through extension. This is because social media plays a key role in disseminating information to and from both sides for enhanced agricultural production (Guanah *et al.*, 2017). This implies that social media is a good avenue for knowledge acquisition on agriculture among farmers in FCT Abuja. The implication is that extension services can be made available using social media and this will enhance the rate of networking among various groups of youths and increase the rate of information flow. This result is in line with Jijina and Raju (2016) that the most important factor for using social media in agricultural extension is engaging the rural youths continuously in agriculture. In response to the question in your opinion, what are the areas where social media has helped in engaging the youth in agriculture? A focused group member said:

“Social media is the only option to connect us with agriculture through extension service. Extension service is very important in agriculture and we need them for information delivering. We are aware that numbers of extension agents had drastically reduced. Still government is not doing anything about it. So from my own opinion I think social media usage in agriculture is a welcome idea that will not only disseminate agricultural information but will connect us back to agriculture. The same was reiterated in a focus group discussion. “Yes, social media will help to engage us in agriculture through

extension because the two fit each.” (Inferred from a Focus Group Discussion).

Factors influencing usage of social media in agriculture by the youth

Logit regression result model produced the ratios that were used to test the hypothesis and further explained the influence each socio-economic characteristic had on social media usage. From the Logit regression on (Table 2), the R^2 was 0.510 (51.0%) which shows that the combined effect of the independent variables explained 51% of items relating to usage of social media. The remaining 49% were caused by other factors not included in the model. This confirms that usage of social media by youth farmers was significantly influenced by their socio-economic factors. By implication, for youth farmers to successfully use social media for accessing agricultural information, their socio-economic characteristics will play a great role in the utilization of social media. The factors considered are Age, sex, education, farming experience, income, marital status, occupation, and membership of association, extension visit, farm size and household size. Furthermore, from the results obtained from the multiple regression analysis, the following interpretations can be deduced. The analysis showed that the following socio-economic factors age, education, farm experience, farmer's income and gender of the respondents are significant at 1 % percentage level of probability. Therefore, the null hypothesis is rejected for them. This implies that there is a significant relationship between them and the social media usage among the respondents in FCT, Nigeria. For other socioeconomic factors namely marital status, occupation, membership of association, extension visits, farm size and house hold are not significant. Therefore, the null hypothesis is accepted for them. This also implies that there is no significant relationship between them and the social media usage among the respondents.

Age of the respondents

Age was positive and statistically significant at 1%. The positive relationship between age and usage of social media shows that a unit increase in age will lead to about 0.094 probability increase in the usage of social media. This means that the drive for the use of social media tools could be higher with increasing age. This implies that an increase in the age of the youth even when they grow beyond a certain age (35 years) their tendency to use social media may not decline. This result agrees with Jiriko and Jiriko (2015) that age had positive relationship with ability to use ICT utilization. This implies that with age the youth are expected to acquire more capital to enable them use ICT. This result disagrees with the

Table 1: Areas social media helped to engage young farmers in agriculture

Areas of Engagement	Frequency	Percentage
Conducting Farmer to Farmer Training	33	18.33
Extension Services	54	30.00
Conducting Vocational Training	19	10.56
Entrepreneurship Education Programs	26	14.44
Agric Seminars	28	15.56
Consumer Engagements	20	11.11

Source: Computed from field data, 2019

Table 2: Factors Influencing Usage of social media for agricultural information.

Variables	Beta Coefficient Value (B)	Standard Error	Wald	P-Value
Marital Status	-0.039	0.304	0.017	0.897
Age	0.094	0.038	6.220	0.013***
Education	0.642	0.164	15.410	0.000***
Occupation	0.051	0.115	0.196	0.658
Farming Experience	-0.158	0.032	24.083	0.000***
Membership of Association	0.317	0.313	1.031	0.310
Extension Visit	-0.030	0.028	1.157	0.282
Farm Size	-0.189	0.167	1.287	0.257
Household Size	-0.064	0.059	1.179	0.278
Income	0.000	0.000	27.871	0.000***
Gender	1.768	0.369	22.921	0.000***
Constant	-4.641	0.971	22.857	0.000

Pseudo R-Square=0.510, Log likelihood = 325.340a, ***significant at 1% Level of probability.
Source: Computed from field data, 2019.

finding of Khan *et al.* (2016) who found out that age had a highly negative relation with internet usage thus increasing age represented falling average daily usage. On the other hand, the result disagrees with Katunyo *et al.* (2018), that found age having an inverse relationship to the extent of use of ICT tools, implying that younger farmers are more receptive to new ideas and innovations compared to older ones.

Education of the respondents

Education was positive and statistically significant at 1%. The positive relationship between education and usage of social media shows that a unit increase in education will lead to about 0.642 probability increase in the usage of social media. It is not surprising because majority of the respondents had tertiary education; they were therefore literates and could utilize social media ability. This means that the drive for the use of social media tools could be higher with increasing education. This implies that the higher the level of education attained, the higher the adoption of technology. The more educated farmers are the more likely it is that they have knowledge about usage of social media tools to acquire and disseminate agricultural information. This is true as educated people

are more exposed to knowledge. This result agrees with the finding of Jiriko and Jiriko, (2015) which revealed that education has positive relationship with ability to use ICT in the Study Socio-Economic Factors Affecting ICT Utilization by Youths in Fish Farming in Kaduna State. Further, this result also agrees with the study of Awhareno (2016) who found out that education was significant with the usage of ICT. The result agrees with the findings of Akinpelu *et al.* (2013) who reported that educational qualification influenced ICT utilization.

Farming experience of the respondents

Farm experience was negative and significant at 1%. The negative relationship between years of experience and usage of social media depicts that a unit increase in year of experience will lead to about -0.158 probability decrease in the usage of social media. The result has some negative implications for increased agricultural productivity because youths do not need to spend more years in farming before they can use social media. This suggests that experienced farmers make use of social media for agricultural information less often as compared to those with less farming experience. This result disagrees with Awhareno, (2016) who reported that

working experience had a significant positive relationship with the use of cyber-extension facilities.

Income of the respondents

Income was significant at 1% and had a positive relationship with the usage of social media. The positive relationship between income and usage of social media depicts that a unit increase in income will lead to about 0.001 probability increase in the usage of social media. By implication, it means that the more income the respondents earn, the higher the tendency for them to participate in the usage of social media. This implies that adoption of technology increases with enhanced increase in income. It is expected to be positive because it is the main drive for which most farmers go into farming or other economic activities hence a naira increase in income will result to an increase in the usage of social media. This according to Syiem and Raj (2015) is because individuals with a higher level of income are likely to have a higher purchasing power for social media tools. This result agrees with Awhareno (2016) who found out that income had significant relationship with the use of cyber-extension facilities. Fadiji, (2000) found out that income is positively significant factor influencing ICT usage. In response to the question "what are the social-economic factors that influences the usages of social media, findings were realized from the focus group that:

Gender of the respondents

Coefficient of gender was positive and significant at 1% probability. This shows a direct relationship between gender and the usage of social media. This means that units increase in male respondents will result to an increase in the usage of social media. This means that males have better usage of social media than their female counterparts. This could be attributed to the fact that land ownership is low among women as they mostly depend on land owned by family/spouses (Musangi, 2017). Women lag behind on information access due to lack of asset ownership (FAO, 2011). Women are constrained in access and ownership of resources including capital and land than Men (Njuki and Sanginga, 2013). This result agrees with the finding of Kuria (2014) who found out that male respondents (68.8%), registered the most as compared to their female counterparts (31.2%) in the study carried out on use of social media as a source of agricultural information by small holder farmers in kiambu county. The finding also agrees with Bhalchandra and Deshmukh (2017) who found out that major respondents in a Study on Role of Social Media in Agriculture Marketing and its Scope were from the male gender more than the female respondents. Focus Group Discussions were in agreement with the above findings.

Group members pointed out that money is involved to buy social media tools and data. Secondly, they need to be educated enough to enable them use these tools very well. Moreover, if they are adequately motivated and rewarded by the Nigerian government, many youths might be attracted to agriculture and this could, in the long run, accelerate agricultural production in the study area.

Conclusion

The use of social media in agriculture increased opportunities motivated and increased the capacity of the youth to engage in profitable agriculture targeting niche markets. The outcome of this shows that :(a), Most of the respondents (30.0%) indicated that social media has helped to engage youths in agriculture through extension services. and (b), Age, education farm experience, income and gender of the respondents significantly influence the usage of social media in agriculture in the study area. Therefore, these variables should be able to lead themselves into policy formulation/advice to increase social media usage by youths in Agriculture in the study area. They therefore highly influence the usage of social media. In this regard, there is need to link social media to agriculture.

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