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Logit and tobit estimates of the effects of ICTs on international remittances to the Nigerian farmer

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ABSTRACT

This paper analyzed the relationship between ICTs and international remittances received by farmers in Nigeria using two approaches. With the aid of the logit model, it determined the probability that a Nigerian farmer with access to ICTs received remittance from abroad. Secondly, the tobit model was employed to analyze the effects of access to ICTs on the monetary values of international remittances received. Preceding these analyses were descriptive statistics of the farmers access to ICTs and volumes of international remittances received. Empirical data for the analyses were drawn from the Nigerian General Household Surveys conducted in 2010/2011. This survey was particularly relevant because it elicited information from Nigerian farming households including data regarding their access to ICTs and remittances. Among several findings, the analyses showed that 73.06% and 3.92% of the Nigerian Farming population had access to mobile phones and the internet respectively. Also, a Nigerian farmer who owned a mobile phone is approximately 1.5 times more likely to receive remittances from abroad than a farmer who had access to mobile phones but did not own one. It was recommended that public investments in remittance and ICTs linked rural infrastructures are apropos. Telecommunication companies and financial institutions need to create a platform to enable easy access to ICTs which in turn enables access to remittances in the rural areas.

Keywords: Communication, Farmers, Information, Remittances, Rural, Technologies

INTRODUCTION

For a few decades, Nigeria has been experiencing great outflow of people from rural and urban areas to locations abroad in search of "greener pasture" (Mberu and Pangou, 2010). Although this massive emigration has a negative impact on the workforce and labour need for agricultural activities, the pains are often short-lived as many of the migrants constantly send back money to their families and loved ones. If such money is sent by a cross-border migrant, then it is called international remittance. World Bank estimates suggest that Nigerian international migrants sent about $20.8 billion back home to the country in 2015. Based on the World Bank estimate,

Nigeria ranked as the first and sixth highest recipient of remittance in Africa and in the World respectively (World Bank, 2016). Although remittances are mainly spent on welfare, they have positive effects on the real GDP, labour market, population and fixed capital formation (Oduh and Urama, 2012; Ojapinwa, 2012). Huge remittance flows can be mainstreamed into growing sectors of the economy, particularly agriculture. In doing so, remittances can augment the dwindling revenue from Nigeria oil sector. A reasonably fare distribution of remittances is necessary for it to perform the development role effectively in agrarian settings. For example, fare distribution of remittances to reach the farming population is feasible given the availability of information and communication technologies (ICTs).

The role of information and communication in revamping agricultural economies cannot be overemphasized. Recent development in ICTs including data gathering, data processing and storage are of great importance in agricultural information dissemination to support rural people's economic activities. The Nigerian rural farmers themselves cannot underplay the relevance of ICTs in improving their productivity. Aside productivity, ICTs are now media by which the rural farmers secure direct welfare assistance through the proliferation of mobile phones and internet access. Rural people can access information on Welfare assistance from their relatives abroad and they also receive financial assistance in the form of international remittances via the mobile money and internet banking platforms (International Organization for Migration, 2005). International remittances to Nigeria farmers can be a great welfare relieve to rural farmers (IOM, 2005). Remittances have important and complex effects not only on the welfare of those who receive them, but also on those who invest on the remittances. Remittances spent on consumption generates increased investments on consumer goods and remittances invested springs up new employment and then increased productivity in the rural areas (Etowa, 2016).

With the proliferation of ICTs, formal remittances are likely to increase. The new ways by which ICTs bring remittance to farmers involves the use of mobile phones and internet services. The mobile phone technology money transfer otherwise known as mobile money is a new financial service that allows users to make various financial transactions using their mobile phone. It involves the use of the platform of a Mobile Telephone Network such as MTN, GLO, Etisalat; banks such as First Bank (FirstMonie), UBA (Afripay) and companies such as Pagatech, eTranzact, Monetise, etc to transfer money in the form of credit to farmer or family member after subscription to the operator. About 21 operators have been duly licensed by the Central Bank of Nigeria (CBN) in less than 2 years (CBN, 2016). Despite the Nigeria population of about 170 million people and mobile penetration of around 80%, over 70% of Nigerians were not aware of the existence or use mobile money in 2011 (CBN, 2016).

Survey by Philips Consulting (2013) showed that 63% of Nigerians who earned more than ₦1 million monthly are aware of mobile money. Meanwhile, irrespective of the working class age, 59% of Nigerians were not aware of the mobile money platform (Amirehani, 2014). This lack of awareness could imply that majority of Nigerian farmers have never used the mobile money platform to receive remittance from abroad. In other developing countries in the region, mobile money operators are well known and recognized by farmers even in rural areas because most of them use their existing brand strength to win the trust of local

people which has greatly helped in the adoption of this medium of financial services. On the contrary, lack of network spread, unreliability of brand operator and paucity of other infrastructures such as constant electricity are the bane on the successful adoption of mobile money. Munyegera and Matsumoto (2014) enumerated the advantages derived by a farmer who uses mobile money platform. The advantage include: higher probability of receiving larger volumes of remittances than non-users, reduced remittance transaction cost, increased frequency of remittance receipts than non-users. Similarly, the internet money remittances that make use of computer, laptop and tablet are currently available in Nigeria. Internet remittances involve using online facilities to transfer money between banks from the sending country to the receiving country. It often requires that the transferor (migrant) and the recipient both have bank accounts.

In spite of its recent developments, the majority of the rural populations still do not have access to ICTs. Factors hindering their access and utilization of ICTs include: high illiteracy among farmers, little knowledge and training in the use of ICT, cost of acquisition and cost accessing it. Other institutional challenges enumerated by Ladokun *et al.* (2013) were: inability to integrate ICTs into business processes, high cost of ICT equipment, incomplete government regulations for e-commerce, legal and regulatory issues, weak ICT strategies, lack of research and development, excessive reliance on foreign technology, weaknesses in ICT implementation and a poor understanding of the dynamics of the knowledge economy.

Although it is a well-known fact that ICTs are scanty in Nigerian agrarian settings, this study aimed at determining the extent to which this assertion is true. Again, the paper analysed the effect of the already accessible level of ICTs on the financial inclusion of the Nigerian farming population via international remittances received. The paper draws from the contemporary theories on the Diasporas and the theory of transnationalism. Both theories explain the links between ICTs, migration and remittances. Contemporary theories on diasporas argue that new ICTs allowed various dispersed communities to reproduce themselves, reinforce group solidarity and sense of belonging (Georgiouet *et al*., 2007; Karimand Karim, 2003; Mallapragada, 2000; Parham, 2005 cited in Kozachenko, n.d). Also, theories on transnationalism are focused on the process of sustaining social relationships across national borders. The ICTs motivated bond between international migrants and his origin results in the changes of economic spheres among other changes. International remittances affect economies of host and sending country, including the economy of the migrant's origin family.

METHODOLOGY

Cross-sectional data were drawn from the General Household Survey Panel conducted in 2010/2011 (GHS) by the Nigerian Bureau of Statistics in conjunction with the World Bank. Amidst other important data, these groups of data contain information on remittances received, and access to ICTs by a cross-section of the farming populace in Nigeria. The GHS is a two-stage probability sample. In the first stage, the primary sampling units "enumeration areas (EAs)" were selected based on probability proportional to the size of the total EAs in each state and FCT giving a total of 500 EAs. In the second stage, households were selected randomly using the systematic selection of ten (10) households per EA giving a total of 5,000 households. The total of 4,851 households with a total of 22,990

respondents filled the questionnaires from which data were elicited on the analysis. However, a few of the respondents did not provide responses to few questions. This accounts for the decrease in total frequency observed in the descriptive analysis.

To realize the objective of this research the following analytical procedures were employed. Firstly, the logistic regression model was used to determine the probability that a farmer with access to ICTs received remittances. Secondly, the Tobit model was used to determine the effect of access to ICTs on the volume of remittances received by the Nigerian farmers. Equation 1 is an expression of the logit model and equation 2 is an expression of the Tobit model.

$$Reml = \ln(\frac{P_i}{1-P_i}) = \beta_0 + \beta_1 SourceMobile + \beta_2 AccessPC + \beta_3 FreqIntUse + \beta_4 SourceInter + \beta_5 UseIntInfo + \beta_6 UseIntMails + \beta_7 UseIntSms + \beta_8 UseIntVoicing + \beta_9 UseIntBanking + \mu \quad (1)$$

$$Remt = \exp(\beta_0 + \beta_1 SourceMobile + \beta_2 AccessPC + \beta_3 FreqIntUse + \beta_4 SourceInter + \beta_5 UseIntInfo + \beta_6 UseIntMails + \beta_7 UseIntSms + \beta_8 UseIntVoicing + \beta_9 UseIntBanking) + \mu \quad (2)$$

Where:

$Reml = \ln(\frac{P_i}{1-P_i})$ = natural log of the odds ratio in favour of receiving remittances as against not receiving for the logit model; whereas in the tobit model

Remt is the volume of remittances received by the farmer in Naira over the last one year period and takes on values of zero for those who did not receive, and a range of positive values for those who received. Meanwhile, the remittance values of 0 to 1000 Naira was left censored.

SourceMobile = Source of mobile phone (1 = owned, 0 = not accessed)

AccessPC = Access to Personal Computers (1 = accessed, 0 = not accessed)

FreqIntUse = Rate of use of the Internet (1 = frequently, 0 = occasionally)

SourceInter = Source of the Internet (1 = owned, 0 = not owned)

UseIntInfo = Used the internet to obtain information (1 = yes, 0 = no)

UseIntMails = Used the Internet to send/ receive mails (1 = yes, 0 = no)

UseIntSms = Used the Internet to send/receive instant messages (1 = yes, 0 = no)

UseIntVoicing = Used the internet to make/receive voice calls (1 = yes, 0 = no)

UseIntbanking = Used the internet for online banking (1 = yes, 0 = no)

β_0 = Constant
$\beta_1, \ldots \ldots, \beta_9$= respective coefficients of the variables in the model
μ = Stochastic term
A priori, $\beta_1, \ldots\ldots, \beta_9 > 0$,

Decision rule: accept H_o if Prob(t statistics)>0.1, otherwise reject

RESULTS

Statistics of levels of access to ICTs by the respondents in 2010-2011 farming period

From the descriptive statistics, table 1, show that 73.06% of the Nigerian farmers had access to mobile phones in the year preceding the 2011 survey. Only 3.923% of the farming population had access to the internet, that is, only 726 of 18534 sampled farming populations had access to the internet. Ranking the levels of access by ownership of the ICTs, one may infer from the right hand side of table 1, i.e. access to ICTs was considerably low within the period. Although, 73.06% of the respondents had access to mobile phones, only 51.02 % owned mobile phones. 3.92% or 726 of the sampled respondents had access to the internet. Only 10.58% of those who have access to the internet owned the internet subscription.

Table 1: Frequency distribution of levels of Access to ICTs by the respondents

Categories of Access	Frequency	Percent	Source of Access	Frequency	Percent
Had access to Mobile Phones					
No	5022	26.94	Business Centre	570	4.22
Yes	13621	73.06	Workplace	4	0.03
Total	18643	100	Family members, friends and neighbours	6035	44.73
			Owned	6883	51.02
			Total	13492	100
Had access to personal computer					
No	17626	94.95	Business Centre	358	38.25
Yes	938	5.054	Workplace	41	4.38
Total	18564	100	Family members, friends and neighbours	329	35.15
			Owned	208	22.22
			Total	936	100
Had access to Internet?					
No	17808	96.08	Internet Café	573	79.69
Yes	726	3.92	Workplace	41	5.7
Total	18534	100	Family members, friends and neighbours	29	4.03
			Owned	76	10.58
			Total	719	100

Source: Authors analyses of GHS (2011)

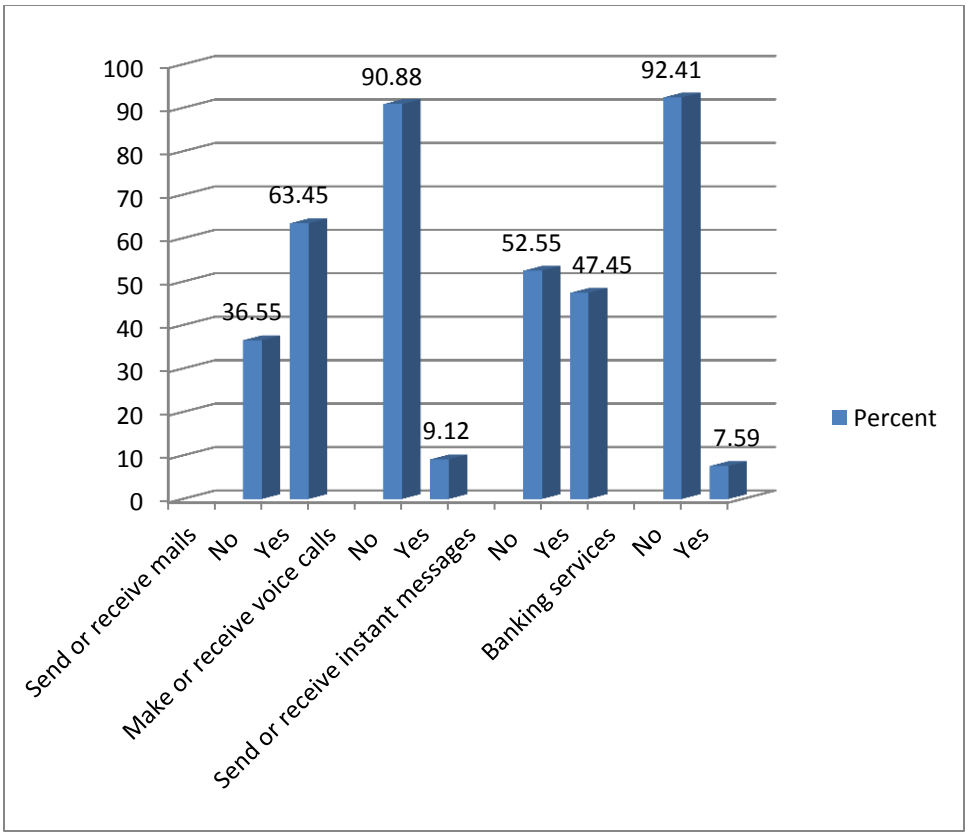

Fig. 1: Percent distribution of respondents with access to the internet according to their uses

Highlights of the specific uses of the internet show that there were extremely few users because as stated earlier only 3.92% (726 respondents) had access to the internet to warrant usage. Figure 1 shows that 63.45% of the 726 respondents who had access to the internet, used it to send or receive mails. It also shows that 9.12% of the 726 respondents who had access to internet used the internet to make or receive voice calls and 7.59% used internet banking services. That is, only a minute percentage of the farming population would access remittances by using the internet.

Remittances statistics of the respondents over 2010-2011 farming period

Exactly 18860 of the respondents provided information about their remittance status. Out of this number, 0.75% reported receipts of remittances either in kind or cash within the reference period.

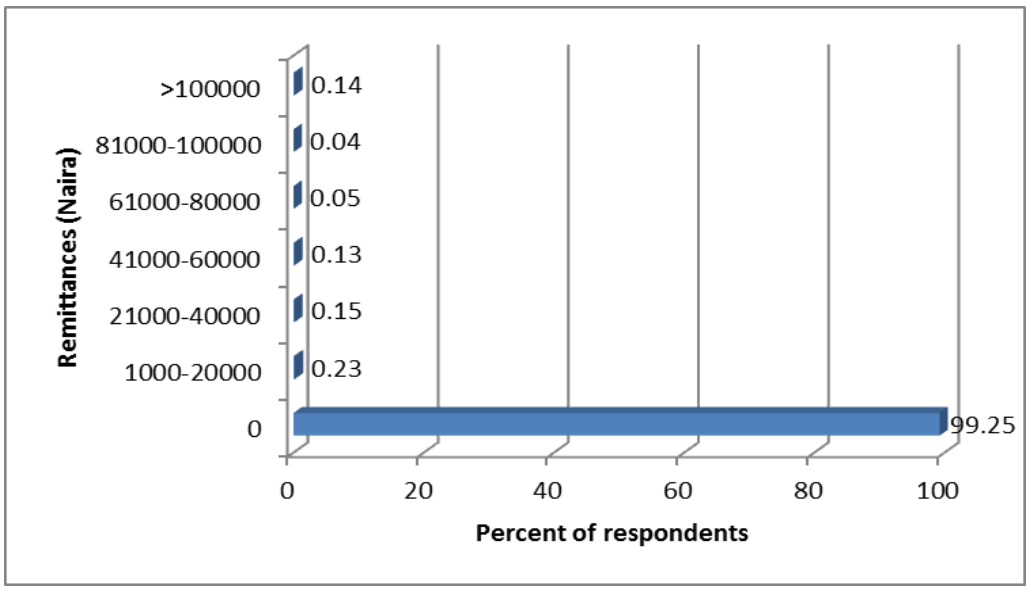

Figure 2: Percent distribution of respondents by volume of remittance received
Source: Authors analysis from GHS(2011)

Further analyses from Figure 2 show that approximately 0.23% of the respondents received remittances in the range ₦ 1000 to ₦20, 000 within the period. About 0.15% of the farmers received ₦21, 000 to ₦ 40,000 as remittances within the 2010 - 2011 farming period. Also, 0.13% received ₦41, 000 to ₦60, 000. Approximately 0.14% of the surveyed farmers received ₦100, 000 or more. These statistics reiterate the question of this research. Do the huge annual remittances to Nigeria reach the country's agrarian sector known for the dearth of funds to upscale the sector performance? To what extent can ICTs bring the spiraling remittances within the reach of the Nigerian farming population? The next section provides some response to the effects of ICTs.

Effects of Access to ICTs on the Probability that a Farmer Received Remittance

Tables 3 and 4, depict the results of logistic regression of the access to ICTs variables on remittances. Although the pseudo R square values were low, the models were adjudged suitable based on their maximum likelihood estimates. According to Wooldrige (2013) pseudo R square values for goodness of fit are often less important than trying to obtain convincing estimates of the *ceteris paribus* effects of the independent variables. To avoid the problem of multicollinearity, Stata used for the analyses provides a platform to drop collinear variables. Relative to other combinations, a set of 9 independent variables measuring access to ICTs described in tables 3 and 4 maximized the log-likelihood estimates in the logistic model. Also the models were selected because they had the highest number of significant variables, the highest and significant Chi-square statistics. The significance of the Chi-square statistics in the model implied that the access to ICT variables (nine of them) jointly have significant effects on remittance receipts by the farmers.

Table 3: Logistic Regression Result on Effects of Access to ICTs on the Probability of Remittance Receipt

Variable label	Variable Definition	Coefficient
SourceMobile	source of mobile phone (1=owned or 0 otherwise)	0.381*
		(0.112)
AccessPC	Access to Personal Computers (1=access or 0 =no access)	19737.40
		(26557.48)
FreqIntUse	frequency of internet use (1=Regularly or 0 =occasionally)	-0.059
		(0.716)
SourceInter	source of internet subscription (1=owned or 0= not owned)	0.318
		(1.294)
UseIntInfo	Used the internet to get information(1= yes, 0=No)	0.852
		(0.894)
UseIntMails	used the internet to send or receive mails(1=yes, 0=No)	-0.342
		(0.902)
UseIntSms	used the internet to send or receive instant messages(1=yes, 0=No)	-4.665*
		(1.351)
UseIntVoicing	used the internet to make or receive voice calls (1=yes, 0=No)	3.751*
		(1.605)
UseIntBanking	used the internet for online banking (1=yes, 0=No)	0.338
		(1.161)
	Constant	-5.286*
		(0.167)
	Chi Square Statistics	43.57*
	Pseudo R^2	0.0248

*Significant at 99% confidence interval, **Significant at 95% confidence interval, ***Significant at 90% confidence interval. Values in parenthesis are standard errors

Source: Authors analyses from GHS (2011)

Taking the antilogarithms of the coefficients of the significant variables gives appropriate interpretation of the logistic regression model. The antilog of the coefficient 0.381 of *SourceMobile* is 1.4637 implying that a farmer who owned a mobile phone is approximately 1.5 times or 150% more likely to receive remittances than a farmer who had access to mobile phones but do not own one. Similarly, the antilog of coefficient 3.751 of *UseIntVoicing* is 42.5636 showing that among farmers with access to the internet; those who used it to make or receive voice calls are approximately 42.6 times more likely to receive remittances than those who use the internet in alternative way.

Results on Tobit Regression Model

Based on similar criteria as in the logit model, the appropriate tobit model was chosen and its results presented in table 4.

Table 4: Result of Tobit Model on Effects of Access to ICTs on Volumes of Remittances Received

Variable label	Variable Definition	Coefficient
SourceMobile	source of mobile phone (1= owned or 0 otherwise)	22441.740*
		(7529.902)
AccessPC	Access to Personal Computers (1= access or 0 = no access)	19737.40
		(26557.48)
FreqIntUse	frequency of internet use (1= Regularly or 0 = occasionally)	-5650.772
		(49088.54)
SourceInter	source of internet subscription (1= owned or 0= not owned)	56343.55
		(83313.49)
UseIntInfo	Used the internet to get information(1= yes, 0=No)	41869.27
		(66096.17)
UseIntMails	used the internet to send or receive mails(1= yes, 0 = No)	-14923.78
		(59973.27)
UseIntSms	used the internet to send or receive instant messages(1= yes, 0=No)	-220929.3*
		(82281.090)
UseIntVoicing	used the internet to make or receive voice calls (1= yes, 0=No)	185070.40***
		(105612.70)
UseIntBanking	used the internet for online banking (1= yes, 0 = No)	-10842.62
		(88059.14)
	Constant	-464729*
		(43860.58)
	Chi-Square Statistics	32.37*
	Pseudo R^2	0.008

*Significant at 99% confidence interval, **Significant at 95% confidence interval, ***Significant at 90% confidence interval. Values in parenthesis are standard errors

Source: Authors analyses from GHS (2011)

The tobit regression result shows that source of mobile phones (*SourceMobile*), source of internet subscription (the use of the internet to make or receive voice calls (*UseIntVoicing*) were significant at 1% and 10% respectively. The results implied that owning mobile phones and using the internet to make or receive voice calls have positive effects on the volumes of remittances received. Although use of the internet to send or receive instant messages (*UseIntSms*) was significant at 5%, its coefficient did not meet the *a priori* expectation.

DISCUSSION

That 73.06% of the Nigerian farmer had access to mobile phones in the year preceding the 2010/2011 survey, is a development in the right direction, and portends a good prospect for mobile phones as channel for passing on development assistance to the farming population. In contrast, the result shows that only 3.92% of the farming population had access to the internet. The preceding result portrays the lack-lustre performance of rural telecommunication infrastructure in Nigeria, amidst other problems associated with internet access, enumerated in the introductory section. It can be inferred that

not all of the 73.06% of the farming population who had access to mobile phones had unlimited access. Some of them had sources of access such as: call centre, friends, relatives and/or a neighbour's phone characterized by restricted access. Exactly 51.02% of the population who actually owned mobile phones could have had relatively unlimited access to it within the period. Perhaps mobile phones with 73.06% access and 51.02% ownership would be the type of ICT by which remittances could have been better accessed by the Nigerian farming populace. Results of the models in later part of these discussions may clear this doubt. Only 0.75% of the surveyed farmers reported receipts of remittances from abroad. It is ironic that macroeconomic statistics puts international remittances to Nigeria at over US$10 billion in 2010-2011 and US$20.8 billion in 2015.

Table 3 depicts the logistic regression result of the access to ICTs variables on remittance. Relative to other combinations, a set of 9 independent variables, measuring access to ICTs described in Table 3 had the best fit in the model. Best fits were adjudged by the model with highest number of significant variables, highest Chi-square statistics and the significance of the Chi-square statistics. The significance of the Chi-square statistics in the model implied that the access to ICT variables (nine of them) jointly have significant effects on remittance receipts. Following from the logistic regression result, a farmer who owned a mobile phone is approximately 1.5 times more likely to receive remittances than a farmer who had access to mobile phones but did not own one. Farmers who used the internet to make or receive voice calls are approximately 42.6 times more likely to receive remittances than those who use the internet in alternative ways. This finding is in part, supported by the claim of Aker and Mbiti (2010). According to Aker and Mbiti (2010), mobile money systems have effectively expanded the breadth and reach of money transfer systems for the rural poor—as well as providing a gateway for formal financial services. The result is further corroborated by the fact that nearly every client of a microfinance institution in the rural area owns a mobile phone. Thus, there is huge growth potential for remittances throughout the rural area through the mobile money transfer (Brown, 2010). The logistic regression results show that source of mobile phones (owned versus borrowed, etc) (*SourceMobile*) and use of the internet to make or receive voice calls (*UseIntVoicing*) significantly increased the probability that a Nigerian farmer received remittances.

Results of the tobit model validates the logistic regression estimates showing that a farmer who owned a mobile phone and a farmer who used the internet for voice calls received larger volumes of international remittances than a farmer who does not own a mobile phone and a farmer who does not use the internet for voice calls, respectively. Multiplying the coefficients of *SourceMobile* (22441.74) and *UseIntVoicing* (185070.40) by their appropriate adjustment factors will yield estimates comparable with those of OLS estimate (Wooldridge, 2013). Such estimate will enable correct interpretation of the extent of the effects of these ICTs variables on volumes of remittances received. However, calculation of adjustment factor is unnecessary as we found that the logit model is rather suitable for explaining the relationship. Nevertheless, the tobit model separates the marginal effects of access to ICTs of those who reported remittances from the overall effects of those who reported receipts and those who do not. Thus, the logit and tobit models were used for two reasons. First, the estimates of the logit model provided a platform to evaluate appropriateness of the

tobit model. Second, the logit estimates enabled statistically, comparison with tobit estimates to assess if accessing ICTs has stronger impact on the probability that remittances are received than on the volume of remittances received.

Following Wooldridge's (2013) illustration, this comparison can be made by dividing the Tobit coefficient (22441.74) of the significant variable *(SourceMobile*) for example, by the model's sigma coefficient (179047.4, omitted in Table 4) giving approximately 0.125. The coefficient (0.381) of *SourceMobile* on logit model is less than this estimate (0.125) from the tobit model. Thus, ownership of mobile phone had a greater effect on the probability that remittances were received (inferred from logit model) than on the volume of remittances received (inferred from tobit model). However, the difference between the logit estimate and the tobit factor is 0.256 (over 67% difference) which is huge making the tobit model somewhat inappropriate. Thus, the logit model is more appropriate in explaining the relationship.

These results implied that as ICTs in form of mobile phones or internet enabled voice calls become accessible to the farmers they translate from being non-recipient to recipients of international remittances. The preceding assertion is especially so if the farmers have unlimited access as a result of actually owning these ICTs at the comfort of their homes as against borrowing from other sources. Again, ICTs that enable voice call is relevant because it abhors language barrier among other constraints associated with the internet electronic mailing systems.

Furthermore, because the mobile phones provide the emerging mobile money platforms which are known to be secure, convenient and instant, make it feasible as avenues for remittances. Again the mobile platform is medium for remittances to the poor because it is available in 85% of markets where less than 20% of the population has access to formal financial services (Mesropyan, 2016). With the growth of the mobile money services, the global volume of cross-border remittances increased by 51.8% in 2015 (GSMA, 2016). Alsdorf (2003) affirmed that international telecommunications (inclusive of mobile and internet calls) allows families (including the poor and middle class) to contact family members living abroad and arrange funds transfers.

Analyses from transaction-level remittance data of 3294 migrants between 2004 and 2009 in France from a mobile money transfer service to recipients located in Sub-Sahara Africa and three other regions demonstrates that mobile technology fosters migrant remittances (David, Dana & Abel, 2013). As international calls became easier and much cheaper in Haiti, international remittances grew to 52.7% of the country's GDP in 2014 (Manifone, 2017). An econometric analysis of World Bank development indicators in five African countries including Nigeria indicated that when the countries' data were aggregated, as mobile cell phone subscriptions per 100 people increased by one, remittances increased by $70 million (Nesmith, 2015).

Because of the emerging surcharge taxes on international calls by some national governments cost of remittances is expected to increase. Nevertheless, such surcharge will induce senders and recipients of international remittances to use the VoIP (the internet calling platforms) which is often much cheaper and free of surcharges. Although VoIP only began in 1997 it grew to 38% of international voice traffic in 2014 (Seixas, 2015) and is therefore a potentially cheap remittance enabler. Moreover, the

World Bank found that for every 10 percentage-point increase in the number of high-speed internet connections in developing countries, there was an increase of 1.3 percentage points in economic growth (Dutta, Geiger and Lanvin, 2015). This trend is likely to continue as mobile internet connections globally rose from around 200 million in 2008 to 2.2 billion by 2013 (Dutta, e*t al*., 2015).

CONCLUSION

Only 3.92% of Nigerian farming population had access to the internet, an important form of remittance enabling ICTs, a relatively large number of them (73.06%) had access to mobile phones. Exactly 51.02% of the population owned mobile phones and therefore had unlimited access to it within the reference period (2010-2011 farming season). Farmers who owned mobile phones and used the internet for voice calls were more likely to receive remittances than those who did not have access to ICTs.

Accessible (cheaper) voice communication enabling ICTs, particularly, mobile phones are a stronger mechanism for remittance transfers to Nigerian agrarian sector. The internet is also a reliable remittance medium given its voice calls platforms. The fact that emails, SMS, e-banking, etc., were not significant determinants of remittance transfers to the rural areas of Nigeria, may not only be linked to the low literacy levels of the farming population. The inadequacy of the internet enabling infrastructure within the rural settings was a bigger challenge.

There is a dire need for the present government to formulate and implement policies to develop ICTs in the rural areas thereby enabling the Nigerian farmers to have access to oversee remittances. The Government can bring about policies that provide incentives to ICT companies which provide relevant services to rural communities. Public investments in remittance and ICTs linked rural infrastructures are a desideratum. Telecommunication companies and financial institutions need to create a collaborative platform to enable easy access to ICTs which in turn enables access to remittances in the rural areas.

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