

**ANALYSIS OF OWNERSHIP STATUS AND COMPETENCY TO OPERATE
COMMUNICATION DEVICES BY EXTENSION PERSONNEL IN KOGI
STATE, NIGERIA**

BY

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Abstract

Communication devices have been suggested to have great potentials in improving the quality of extension service delivery in the country. However, research efforts in this direction are relatively scanty in the study area. Hence, ownership and competency to operate communication devices by extension personnel in Kogi state was investigated. The study specifically sought to: investigate the ownership status of communication devices used by extension personnel in disseminating useful agricultural information in the area, assess the respondents' competency to operate communication devices, and describe the constraints faced by respondents in the use of communication devices. Multistage sampling procedure was used to select a total of 80 respondents from 4 ADP zones in the State. Data were collected with the aid of interview schedule and analyzed using descriptive (frequency counts, means, percentages and standard deviation) and inferential (Ordinary least square regression analysis) statistics at $p = 0.05$. Results show that 80.1% extension personnel had tertiary educational qualification, were mostly male (72.5%), married (73.8%) with a mean age and monthly income of 45 ± 7.9 years and $N63,644.0 \pm 32,615.2$, respectively and had 16 ± 8.2 years of work experience. Communication devices such as cellular phones, camera devices and internet modems were owned by 83.8%, 52.5% and 51.3% of the respondents, respectively. Respondents' operating capacities were relatively higher for those devices owned by them. Slightly above half (55%) of the respondents were categorized to have a high level of competency to operate the said devices. Lack of government support for extension activities ($\bar{x} = 2.68$), high cost of communication device ($\bar{x} = 2.48$), poor electrical power supply ($\bar{x} = 2.45$) and high cost of repair and maintenance of communication equipment ($\bar{x} = 2.36$) were identified as barriers to use of communication devices in the area. Only age ($\bar{x} = 45.79$, $p =$

0.02) had significant and negative influence on competency to operate the communication devices by respondents. The study among other things recommends the need for the government to subsidise the cost of the devices for extension personnel as well as to organise training for them on their usage and application in extension service delivery.

Keywords: ICT equipment ownership, Competency to operate, Communication devices, Extension personnel

1. Introduction

The main purpose of agricultural extension is to disseminate useful information obtained from the researchers to the end users (farmers in particular). The aim is primarily to persuade farmers to adopt modern farming practices which will eventually lead to increase in their production with the view to improving their standard of living. According to Abumere and Soyibo cited in (Fawole and Olajide, 2012), the need for information in any meaningful development effort, especially in building a nation's wealth, cannot be overemphasized. No wonder, Myer (2005) states that information is a necessary resource with which problems are solved. Various forms of communication devices (Cellular phones, camera, computer, Global Positioning System (GPS) device, internet facilities, public address system, projector and others); have been developed to fast track the free flow of information about emerging issues and possible solutions to problems of mankind across the globe. In the context of agricultural development, communication technologies have played and still playing a big role particularly in developing countries. *They have become an attractive option in extension service delivery due to inadequate personnel* (Fawole and Olajide, 2012). Also, communication technologies have helped in connecting both the developed and developing nations resulting in transfer of important agricultural and other related information among nations (Rao, 2007).

The campaign for quality extension service delivery has continue to gather momentum owing to the realization that most farmers in developing nations are predominately smallholder farmers living in rural communities which seem to be cut-off from the happening across the globe. Inadequate access to useful information by key players along the value chain contributes to huge losses in agricultural sector particularly in Sub-Sahara Africa. The need to connect the farmers, most especially the peasant farmers living in remote areas with the researchers across the world actually necessitated the birth of agricultural extension practices over the years. The extension system has not been able to deliver on its full mandates to the society due to so many bottlenecks including inadequate number of extension personnel as against the increasing number of farmers, lack of technical

capacity of extension officers to adapt to modern devices, lack of goodwill to drive the extension sub-unit in agricultural sector, poor staff motivation and so on.

The failure of the agricultural extension organisations to meet up with the expectation seems to have huge economic impact in Africa (Nigeria inclusive), as it reduces the productivity of farmers and the possibility of winning the war against gross food insecurity and hunger rampaging the continent. For instance, Ogundari and Ojo (2007) cited in Adebo (2014) lament that despite various efforts geared towards agricultural development, it has been estimated that over 65% of Nigerians remained deeply rooted in hunger as the quantity and quality of food produced in the country still could not keep pace with the growing domestic demand for human foods and agricultural raw materials for industries. Fadairo *et al* (2015) equally emphasised on the high incidence of poverty among participants in agriculture, who are mostly rural based; perhaps, they described the farmers as having low level of education, low level of contact with the extension services, including poor advisory services. All these put together contribute greatly to the discouraging trend in agricultural sector.

Like every other states in the country, Kogi State since her creation in 1991 has been trying to increase her food production level to match the domestic demand. In doing so, the state Government has introduced several agricultural strategies over time trying to modernise their farming system. One of such strategy is extension service delivery system championed by Agricultural Development Programmes (ADPs) which was launched in the country in 1974 with the aim of improving food production and farm incomes for the rural households in the defined projects regions (Omonijo *et al*, 2014). The programme has extension component which involves reaching out to farmers on modern farming technologies through quality extension services.

The extension officers are one of the critical stakeholders in the production cycle especially in the dissemination of useful information to farmers and the populace. They discharge their duties using both manual and electronics means (the use of communization device such as cellular phone, computer devices, scanners, printers, internet service and others). The communication devices, if and when utilised may impact positively on human development. The effectiveness of the extension services depends largely on the capacity of front line extension agents of the organization because they have direct contact with end-users of any farming technology. Based on their importance as strong actors in transforming agriculture, Food and Agricultural Organisation (FAO), cited in Haruna and Abdullahi (2013) recommended that one extension agent should serve a maximum of one thousand (1000) farm families in developing countries.

Meanwhile, too much emphasis has been placed on increasing the number

of farmers in the country without due consideration to number of extension personnel to reach out to the farmers on modern farming technologies there by contributing to the worsening scenarios of the agricultural sector in recent time. No wonder, Omoregbe and Ajayi (2009) stressed the needs to regularly analyse the technical competence and job performance of extension personnel in the organisation. Communication devices have been suggested to have great potentials in improving the quality of extension service delivery in the country (Chhachhar, Qureshi, Khushk, Ahmed, 2014; and Umar *et al*, 2015). This means, inadequate knowledge on their applicability by public extension services providers may adversely limit the performance extension workers and affect the productivity of farmers. However, research efforts in this direction are relatively scanty in the study area. For instance, it is quite unclear whether extension personnel in Kogi are adequately exposed to modern communication devices or not. Besides, being exposed, empirical report concerning their ability to operate and deploy effectively the communication devices at their disposal remains relatively unknown.

It is based on this context that this study investigated the ownership status and competency to operate communication devices by extension personnel in Kogi state; with the view to providing baseline information that will enhance adequate policy formulation and implementation in this regard. Consequent upon the above, the specific objectives of this study were to:

- i. Investigate the ownership status of communication devices used by extension personnel in disseminating useful agricultural information in the area;
- ii. Assess the respondents' competency to operate the communication devices; and,
- iii. Describe the constraints faced by respondents in the use of communication devices.

2. **Materials and Methods**

The study was carried out in Kogi state Nigeria; popularly called the confluence state; created on 27th August, 1991. The state has a total land mass of 27'747 km² (National Bureau of Statistics, NBS, 2016). According to National Population Commission (NPC) statistics reported in NBS (2018), Kogi state has a population of about 4'473'490 in 2016, which could be currently estimated as 4'920'839 inhabitants using 2.5% population growth rate per annum; with agriculture being their major source of livelihoods. The state comprises three (3) senatorial districts, twenty-one (21) local government areas and shares border with ten other states; namely: Anambara, Enugu, Benue, Edo, Ondo, Ekiti, Kwara, Niger, Nassawara and including Federal Capital Territory (FCT) Abuja (Meludu and Onoja, 2018).

A multistage sampling procedure was employed for the study using purposive and convenience sampling techniques. The first stage involved the purposive selection of four Agricultural zones (ADPs zone) out of the six ADPs zones in the state

representing 67% of the study area. The ADP zones selected include: Zone A with Aiyetoro-Gbede as zonal headquarters, Zone B with Anyigba as zonal headquarters, Zone C with Koton-karfe as zonal headquarters and Zone D with Alloma as zonal headquarters. These zones were considered appropriate for the study in view of their peculiarities in terms of geographical spread, religion, ethnic and cultural diversity. In the second stage, convenience sampling technique was used to select 75% of all the extension personnel who were present at the fortnight meetings held at the headquarters in each of the selected ADPs zones; dated 8th October, 2019 for zone B and C; 9th October, 2019 for zone A and 10th October, 2019 for zone C; giving a total of 80 respondents for the study. Note that the above listed fortnight meeting's days were randomly selected for the study. The researchers decided to use this approach with the intention to cut cost trying to access the respondents because the extension personnel are living far away from one another and they are all expected to converge at their various zonal headquarters for the regularly fortnight meetings.

Only primary data were used for the study. Interview schedule was manually administered on all the respondents to elicit relevant information for the study. This was carried out with the help of trained research assistants where necessary. The scale developed for each variable in this study was validated by experts in the Department of Agricultural Economics and Extension, Kogi State University, Anyigba. The reliability analysis was also carried out using Split-half method and a Cronbach's Alpha coefficient of 0.78 was obtained; which implies that the test instrument was reliable. Data generated for the study were analysed using descriptive (frequency counts, means, percentages and standard deviation) and inferential (Ordinary least square regression) statistics, at $P = 0.05$. The two key dependent variables in the study were measured as follows:

A. Ownership status of communication devices

Ownership status of communication devices used by extension personnel was measured with provision of list of communication devices and ownership option of self-owned, government, NGOs, hired/borrowed, and not available were provided and scores of 5, 4, 3, 2 and 1 were assigned to each option, respectively.

B. Competency to operate the communication devices

To operationalise the competency to operate communication devices by the extension personnel in the area, a list of 10 communication devices were presented to the respondents; from which they indicated their level of competency to operate each of the devices on a 3-point rating scale with a response option of not-able, somewhat-able and highly-able. A score of 0, 1, and 2 were assigned accordingly; giving the maximum obtainable score of 20 and a minimum of 0. The weighted

mean score for each of these communication devices was obtained and used to rank the respondents on the basis of their ability to operate the devices. Also, competency to operate index (COI) was computed as respondents' scores for each of these devices were summed up and used to categorise them into two groups using the overall mean score as benchmark. The group include those having low competency to operate the devices (< mean) and those having high competency to operate devices (= mean). Note that the competency to operate index (COI) obtained was used for hypothesis testing. Data were analyzed using descriptive (frequency counts, means, percentages and standard deviation) and inferential (Ordinary least square regression analysis) statistics at $p = 0.05$.

3. Results and Discussions

3.1 Personal characteristics of the respondents

The result of the analysis presented in Table 1 reveals that 72.5% of the respondents were male and 27.5% were female. This implies that the extension personnel in the study area are predominantly male. This may be attributed to the gender disparity in recruitment processes as more men present themselves for employment than their female counterparts. The result is in concordance with the finding of Adedoyin *et al.*, (1999) who reported that male dominated the agricultural workforce in Nigeria. It also in line with the submission of Airemen (2005) cited in **Omoregbe and Ajayi (2009)** who observed that in the past, extension job was reserved for men believing that it was only men that were farmers and that men are needed to reach out to them. By implication, there is need to engage more female in extension services because they are in a better position of reaching out to women farmers.

The age distribution of respondents as shown in Table 1 reveals that bulk (85%) of the respondents were within the active age group of between 29 52 years as 12.5%, 25.0% and 47.5% were aged 29 36, 37 44 and 45 52 years respectively. The mean age of the respondents was 45 ± 7.9 years. This implies that majority of the respondents are in their youthful and active stage of life (as captured by their mean age); with high affinity to learn and adopt new ideas easily in discharging their duties as extension officers. This should naturally translate to improved efficiency of extension services in the area. The finding confirmed the report of Akinbile and Odebode (2002) cited in Fadairo *et al* (2015) who reported that the population within the age group of 16 55 constitutes the active work force in Nigeria. The finding is also similar to the submissions of Okeowo (2015) and Umar *et al.* (2015) on the age distribution of extension personnel in Lagos and Kaduna States, respectively.

As revealed in Table 1, the data generated on the marital status shows that majority of the respondents (73.8%) were married, 15.5% were single; while 2.5%

and 8.8% indicated they were divorced and widowed, respectively. This implies that there is a possibility of respondents having one or more dependants to take care of; that means certain percentage of their income will go to the families' livelihood thereby reducing the chance of acquiring personal communication devices.

As presented in Table 1, 53.8% of the respondents were Christians, while 46.2% practice Islam with no record of traditional believers. This implies that the two major religions in the state were fairly represented in the extension service delivery network in the state. This is not surprising as Kogi state is known to be a Christians-Moslems dominated area. This means that the various religious institutions can be effectively mobilized in disseminating relevant agricultural information in the area.

Another important demographic variable considered in this study was educational qualification of the respondents. Data shows that the respondents were highly educated as most of the respondents had post-secondary educational qualification. For instance, 6.3% had Master's degree, 73.8% had either University Degree (BSc) or Higher National Diploma (HND). Those with O'level certificate accounted for just 6.3% of the sampled population. These data suggest a good level of educational background among the respondents and if this wealth of knowledge is properly harnessed; it will add significant value to the agricultural extension organizations and farming population in the state. In the past, it is generally assumed in Nigeria that extension job is a low-status job fit only for job applicants possessing low academic qualifications (Ejembi *et al.*, 2006). Meanwhile, the result of this current study is a complete opposite of this view.

Table 1 further shows that majority (40%) of the respondents were Village Extension Agents (VEA), followed by Area Extension Officer (AEO, 21.3%). This implies that a larger population falls under the VEA in the study area. The finding upholds the submission of Umar *et al.* (2015) who report that VEA are the most common designations in extension service delivery system.

Table 1 also presents data on respondents' categorization based on years of job experience. The result shows that the respondents had appreciable years of work experience as 30.0%, 28.8%, 28.8% and 12.5% of the extension personnel had between 3-10years, 11-18years, 19-26years and 27-34years of work experience, respectively. The mean years of work experience was 16 ± 8.2 years. This implies that the respondents had reasonable work experience to carry out their duties effectively. The number of years spent on a job is probably an indication of a person's commitment to the chosen career (Ejembi *et al.*, 2006).

The data on income distribution of the respondents as presented in Table 1 indicates that majority (48.3%) of the respondents earned between N30,001-50,000 monthly. Only 20% of the sampled population earn N90,001 and above monthly. About 10% of the respondents even earn as low as N30,000 or less *per month*. The

mean income was N63,644±32,615.2 per month. The result suggests that the income earned on a monthly basis by the respondents is low when compared to their educational qualification, the nature of their work and the present economic realities in the country. There is need for additional allowances and other incentives that will enable them to acquire necessary extension facilities that will enhance effective service delivery.

Table 1: Distribution of respondents by personal characteristics (n = 80)

Variables	Frequency	Per cent	Mean ± SD
Age (Years)			
29 - 36	10	12.5	45.3±7.9
37 – 44	20	25.0	
45 - 52	38	47.5	
53 and above	12	15.0	
Gender			
Male	58	72.5	
Female	22	27.5	
Marital status			
Single	12	15.5	
Married	59	73.8	
Divorced	2	2.5	
Widowed	7	8.8	
Religion			
Christianity	43	53.8	
Islam	37	46.3	
Educational Qualification			
O' Level	5	6.3	
OND/ND	11	13.8	
HND	34	42.5	
B.Sc./B.A	25	31.3	
M.Sc./M.A	5	6.3	

Job title/designation			
ZEO	4	5.0	
Sub-ZEO	6	7.5	
AEO	17	21.3	
BES	5	6.3	
DAEO	4	5.0	
VEA	32	40.0	
SMS	12	15.0	
Work experience (Years)			
3 - 10	24	30.0	
11 – 18	23	28.8	16.1±8.2
19 - 26	23	28.8	
27 - 34	10	12.5	
Monthly income (₦)			
30,000	8	10.0	
30,001 – 50,000	25	43.8	
50,001 – 70,000	10	12.5	63,644±32,615.2
70,001 – 90,000	11	13.8	
90,001	16	20.0	

Source: Field survey, 2019

3.2 Ownership status of communication devices used by respondents

The ownership status of communication devices used by extension personnel in disseminating useful agricultural information in the area was further investigated to ascertain who provided the gadgets. The results are as presented in table 2, revealing that more than half of the respondents owned a private cellular phone (83.8%), camera device (52.5%), and internet modems (51.3%). However, most of them complained about non availability of some vital devices that could have also help in discharging their duties effectively; they include: GPS device (78.8%), multimedia projector (66.3%), and scanning device (61.3%).

Table 2: Distribution of respondents by ownership status of communication devices used in disseminating agricultural information

Communication devices (n=80)	Self-owned	Govt.	NGOs	Hired/Borrowed	Not Available
Computer device	38 (47.5)	13 (16.3)	-	2 (2.5)	27 (33.8)
Printing device	13 (16.3)	14 (17.5)	2 (2.5)	11 (13.8)	40 (50)
Scanning device	8 (10)	12 (15)	2 (2.5)	9 (11.3)	49 (61.3)
Cellular phone	67 (83.8)	3 (3.8)	-	3 (3.8)	7 (8.8)
Camera device	42 (52.5)	4 (5)	2 (2.5)	8 (10)	24 (30)
Voice recording device	19 (23.8)	9 (11.3)	4 (5)	9 (11.3)	39 (48.9)
Public address system	4 (5)	28 (35)	3 (3.8)	8 (10)	37 (46.3)
multimedia projector	5 (6.3)	12 (15)	6 (7.5)	4 (5)	53 (66.3)
Internet modem	41 (51.3)	6 (7.5)	2 (2.5)	5 (6.3)	26 (32.5)
GPS device	3 (3.8)	12 (15)	-	2 (2.5)	63 (78.8)

Source: Field survey, 2019

3.3 Competency to operate communication devices by extension personnel in the area

Table 3a presents the report of respondents' responses based on their ability to operate communication devices used in disseminating agricultural information in the area. The weighted mean score reveals that operating capacity of the respondents was relatively higher for cellular phone ($x = 1.69$), internet modems ($x = 1.29$), and camera device ($x = 1.14$). Meanwhile, poor ability was recorded for GPS device ($x = 0.48$), scanning device ($x = 0.50$) and multimedia projector ($x = 0.53$). This revelation further suggests that the respondents' operating capacities were relatively higher for those devices owned by them.

Table 3a: Distribution of respondents by ability to operate communication devices used in disseminating agricultural information

Communication devices (n=80)	Not able	Somewhat able	Highly able	Mean (\bar{x})	Std. Dev	Rank
Computer device	25 (31.3)	43 (53.8)	12 (15.0)	0.84	0.67	6 th
Printing device	36 (45.0)	41 (51.3)	03 (3.8)	0.59	0.57	7 th
Scanning device	45 (56.3)	30 (37.5)	05 (6.3)	0.50	0.62	8 th
Cellular phone	06(7.5)	13 (16.3)	61 (76.3)	1.69	0.61	1 st
Camera device	23 (28.8)	23 (28.8)	34 (42.5)	1.14	0.84	3 rd
Voice recording device	26 (32.5)	32 (40.0)	22 (27.5)	0.95	0.78	5 th
Public address system	(23 (28.8)	34 (42.5)	23 (28.8)	1.00	0.76	4 th
multimedia projector	48 (60.0)	22 (27.5)	10 (12.5)	0.53	0.71	9 th
Internet modem	13 (16.3)	31 (38.8)	36 (45.0)	1.29	0.73	2 nd
GP S device	50 (62.5)	22 (27.5)	08 (10.0)	0.48	0.68	10 th

Source: Field survey, 2019

A summary of respondents' level of competency to operate communication devices is presented in table 3b. The respondents were categorised into two groups of those having low and high level of competency to operate the communication devices using their overall competency mean score as the benchmark. The table reveals the maximum competency score as 17, and the minimum as 0, while the overall mean was 9 ± 3.7 . The respondents with scores of 8.9 and below were therefore categorized as low while those with scores of 9 and above were categorized as high. Therefore, the study reveals that slightly above half (55%) of the respondents were categorized to have a high level of competency to operate the devices. This means that appreciable number respondents representing 45% of the sampled populations are still lagging behind in the operation and application of the devices. Hence, this category of individuals requires adequate training on these devices with the view to improving the efficacy of extension service delivery in the area.

Table 3b: Categorisation of respondents by competency to operate communication devices

Competency level (n = 80)	Frequency	Percent (%)	Mean (\bar{x})	Std Deviation
Low (0 - 8.9)	36	45.0	9.0	3.7
High (9 - 17)	44	55.0		
Total	80	100		

Source: Field survey, 2019

34 Constraints to usage of communication devices

Table 4 demonstrates the various constraints that impede the usage of communication devices among respondents in the area. In order of severity, the study rated lack of government support for extension activities ($\bar{x} = 2.68$) as serious constraint, just like high cost of communication device ($\bar{x} = 2.48$), epileptic electric power supply ($\bar{x} = 2.45$), high cost of repair and maintenance ($\bar{x} = 2.36$), poor access to devices ($\bar{x} = 2.26$), and fluctuating mobile network services ($\bar{x} = 2.21$). Umar *et al* (2015) also reported that poor electricity supply was the major constraint faced by extension personnel in the use of communication devices in the area.

Table 4: Distribution of respondents by constraints faced in the use of communication devices in disseminating agricultural information in the study area

Constraints (n = 80)	Not a constraint	Mildly a constraint	Seriously a constraint	Mean (\bar{x})	Std. Deviation	Rank
Epileptic electrical power supply	14 (17.5)	16 (20.0)	50 (62.5)	2.45	0.78	3 rd
Fluctuating mobile network	08 (10.0)	47 (58.8)	25 (31.3)	2.21	0.61	6 th
Cost of communication device	12 (15.0)	18 (22.5)	50 (62.5)	2.48	0.75	2 nd
Cost of repair and maintenance	10 (12.5)	31 (38.8)	39 (48.8)	2.36	0.70	4 th
Poor access to devices	13 (16.3)	33 (41.3)	34 (42.5)	2.26	0.73	5 th
Limited operational skills	18 (22.5)	29 (36.3)	33 (41.3)	2.19	0.78	7 th
Lack of government support	00(0.0)	26 (32.5)	54 (67.5)	2.68	0.47	1 st
Diversion of devices by officials and extension agents	42 (52.5)	21 (26.3)	17 (21.3)	1.69	0.81	8 th

Source: Field survey, 2019

3.5 Socio-cultural factors influencing the level of respondents' competency to operate communication devices

Table 5 below presents the various socio-cultural factors influencing the competency to operate communication devices among respondents in the area. According to the regression report, all the explanatory variables tested were jointly responsible for about 58% variation in the respondents' ability to operate the devices in the area. However, only age ($\hat{\alpha} = -0.36, p = 0.02$) had significant and negative influence their abilities. This implies that the young extension personnel may stand better chances of knowing how to operate the devices as compared to the older generation. This may be connected to the higher level of technicality involved in the operation and application of these devices. The result further reveals that marital status, education, designation and respondents' income were not significant but have positive influence on the respondents' ability to operate the communication devices.

Table 5: Socio-cultural factors influencing the level of respondents' competency to operate communication devices

Socio-cultural variables	Coefficient ($\hat{\alpha}$)	t-value	p-value	Decision
(Constant)		3.63	0.01	S
AGE	-0.36	-2.29	0.02*	S
MARITAL_STATUS	0.11	0.90	0.37	NS
EDUCATION	0.17	1.36	0.18	NS
DESIGNATION	0.17	1.11	0.27	NS
INCOME	0.16	1.22	0.23	NS

Adjusted square (R^2) = 0.58, S.E = 3.60, $\hat{\alpha}_{0.05}$, *p = 0.05, S = Significant
NS = Not significant.

Source: Field survey, 2019.

Conclusion and recommendations

Based on the outcomes from this study, it becomes imperative to conclude that the extension workers in the state are relatively young, well educated and experienced enough to carry out their duties effectively if necessary facilities are made available. The ownership status of the devices used in discharging their duties was quite not encouraging even though their level of competency to operate the devices was relatively high. It is however worthy of note that the inadequacy of government support for extension activities, high cost of communication device, epileptic electric power supply, cost of repair and maintenance constitute the major setback to the usage and application of modern communication devices in extension services delivery. It is therefore recommended that:

- Training programmes should be organized for the for extension workers in the area on the usage and application of modern communication devices in extension service delivery.
- Kogi State Ministry of Agriculture should adequately equip KGADP with modern extension delivery facilities to improve performance.
- The state government should subsidize the cost of communication devices for extension personnel in the state as these would encourage them to perform better on the field thereby improving the livelihoods of farm families.
- Availability of basic infrastructural facilities in rural areas should be enhanced by governments, NGOs and other service providers so as to enable proper utilization of communication devices especially for extension service delivery.

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