



## Effects of agro-dealers network on farmer's accessibility to information in Ekiti state, Nigeria

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### Abstract

Farmers' accessibility to adequate information is a critical segment for agricultural development and contributes to increased adoption of improved technologies, reduction of starvation and scarcity of food, which in turn impact agricultural productivity. This article assessed the effects of agro-dealer network on farmer's accessibility to information in Ekiti State, Nigeria. Multi-stage sampling procedure was used to source for 240 farmers in Ekiti State. Data were elicited using a well-structured questionnaire and Focus Group Discussion (FGD). Data were described through descriptive statistics. Majority (57.9%) of farmers were in the age group of 41-50 years and mean age of 46 years. Results also reveal that the respondents cover within 5km distance (54.0%), within 10km distance (33.0%), within 15km distance (8.0%) and within 20km distance (5.0%) to agro-dealers' shops. The farmers deemed agricultural input information given to them by agro-dealers as reliable (53.8%), very reliable (29.2%), unreliable (10.0%) and no opinion (7.1%). In conclusion, agro-dealers are closer to the farmers and during the course of selling agricultural inputs to farmers, information about newly improved seeds and crop protection products that gives high yield is usually disseminated across to them.

**Keywords:** Agro-dealers, network, agricultural input, farmers' accessibility, Information

### Introduction

Over the years, there has been increase in agricultural production in quite a number of West African countries as a result of improved utilization of high-yielding seed varieties and newly developed crop-protection products, coupled with good agricultural practices<sup>1</sup>. A study by Sekumade, Toluwase, Owoye and Sedowo<sup>2</sup> revealed that when farmers have access and make use of improved seed, fertilizer and other agro-inputs, there is more profit which in turn improves food security and agricultural productivity in Nigeria. Farmers' accessibility to adequate information is a critical segment for agricultural development, and contributes to increased adoption of improved technologies, reduction of starvation and scarcity of food which in turn impact agricultural productivity. Farmers source for information on how to get quality farm inputs from cooperative members, fellow farmer, extension agents, and agro-dealers for prime farm productivity.

Agro-dealers are farm input traders who have acquired skills to be certified vendor of agricultural inputs in the likes of improved seeds, crop protection products, equipment and information about the precautionary procedure of usage of these agro-inputs are disseminated to smallholder farmers<sup>3</sup>. Aside the role of distributing agricultural inputs to farmers by agro-dealers to ensure increase in agricultural production; they impart

knowledge to farmers. An organization based in Kenya, Alliance for a Green Revolution in Africa, AGRA, financed Nigeria Agro-Dealer Support (NADS) by training over 2,300 agro-dealers, conducting 240 field demonstration, certification of 1,200 agro-dealers with the Nigeria Agency for Food and Drug Administration Control (NAFDAC), transformation of four state-based agro-dealer trade associations into four regional associations covering 16 states<sup>4</sup>. Yet, the population growth has grown rapidly compared to disappointingly slow food production in Africa<sup>5</sup>.

However, smallholder farmers in Africa experience low productivity and sometimes susceptible to inflation such as change in food prices and unfavorable weather as a result of climate change. Africa's agriculture is dominated by smallholder farmers living in rural areas who are confronted with poor roads and market infrastructure. This entangles both the adequate distribution of agricultural inputs and other resources from urban to rural areas<sup>1</sup>. Similarly, these smallholder farmers still plant crops from former harvest which reduce their yield per hectare. Camillione, Duiker, Bruns, Onyibe and Omotayo<sup>6</sup> identified various agricultural extension programs implemented in Nigeria from colonial era to the present day to boast expansion in the economy of rural areas, ensure food security and trade relations; even so, the agricultural extension services in Nigeria is faced with inadequate funding

and low extension agent to farm families ratio. In the past years, the performances of extension agent availability to give farmers information have been rated low<sup>6-12</sup>.

Getting prompt information on improved technologies from research stations to the farmers hand remains a challenge due to a long distance where these research stations are located. A policy brief by International Food Policy Research Institute (IFPRI)<sup>13</sup> showed that 75 to 80% of the total cost incurred in the business logistics management of fertilizer production covers the transportation, financial and distribution which may equally affect its use among smallholder farmers in Nigeria. A review made by Mgbenka, Mbah and Ezeano<sup>14</sup> on small holder farming in Nigeria indicated that the effects of most agricultural innovations in Nigeria are rarely felt by smallholder farmers. This may be as a result of poor dissemination of related information on good agricultural practices to farmers. A systematic review<sup>14</sup> identified that insufficient understanding of suitable communication methods by extension agents, interpersonal barriers between extension agents and farmers, distortion in the method of planning programme and its execution, among others were barriers to disseminating agricultural information in Nigeria.

Without the establishment of more companies producing improved agricultural inputs with bearable cost of production which can be affordable by smallholder farmers and a well-developed agro-dealer, there will be decrease in agricultural production and small holder farmers in Nigeria will be incapable to meet up with the rising request for agricultural produce essential for use in the agro-food industry<sup>2</sup>. Farmers source for agricultural inputs from agro-dealers and ask for information about the products purchased from these agro-dealers<sup>3</sup>. Very few studies however, have looked at the effect of agro-dealers network on farmers' accessibility of information. Therefore, there is need to assess these agro-dealers on how reliable information given to smallholder farmers. The study aimed at analyzing the effect of agro-dealers network on farmers' accessibility to information in Ekiti State, Nigeria through investigating the sources of information on agricultural inputs to farmers, distance covered by farmers to agro-dealers shop and investigating the reliability of information given to farmers on agricultural inputs by agro-dealers.

## Methodology

The study area is Ekiti State, Nigeria. Ekiti State is surrounded by land with no coastline. Agriculture is the focal means of livelihood of Ekiti people and employs more than 75% of the populace through which they earn profit to cater for the wellbeing of their household. Farmers in the state grow both cowhand food crops<sup>15</sup>.

Multi-stage sampling procedure was applied to source respondents for the study. Firstly, this stage involves the random selection of zones I and II (Aramoko and Ikere) from the three

zones in the study area. Secondly, the random selection of two blocks from each of the zones-Ado, Igede, Emure and Ise Ekiti. The third stage involved the random selection of two cells from each of the blocks (Ago, Oke Osun, Aba Ebira, Ajebamidele, Eporo, Owode, Orun and Bolorunduro) and 30 contact farmers were selected from each cell. A total of 240 farmers were randomly selected for the study.

Data for this study were elicited through a well-structured questionnaire and Focus Group Discussion (FGD). Discussants used for farmers were purposively selected as those who have above 15 years of farm experience which was conducted during the monthly All Farmers Association of Nigeria (AFAN), Ekiti State Chapter. The discussion guide focused on the reliability of information given to farmers on agricultural inputs by agro-dealers. Data from the study were described using frequency counts, percentages and mean score.

## Results and discussion

**Socio-economic characteristics of farmers:** Majority (57.9%) of the farmers were in the age group of 41-50 years and mean age of  $46.0 \pm 11.8$  years (Table-1). This implies that majority of the farmers were in their active age. Therefore, they are energetic to undertake tedious tasks in farming activities which enhance greater productivity. It was also revealed that 37.9% of the respondents had high school/college education, 26.3% had basic education, 20.8% had higher education while 15.0% had informal education. This indicates that reasonable proportion of farmers had formal education in which they will be able to comprehend the information passed across to them to adopt new technologies. The mean years of farming experience ( $14.0 \pm 6.4$  years) of farmers suggests that most of the farmers have been practicing agriculture for a long time. Table-1 further shows that a larger proportion of the farmers had a mean farm size of  $1.0 \pm 0.57$  hectare. This implies that most of the farmers have small farm holdings. Larger percentages (52.1%) of the respondents belong to farmers association. Majority of the farmers (56.3%) in Ekiti were landowners, Findings from Olatohun, I. I.<sup>16</sup> indicated that most farmers in South-Western Nigeria acquired their farmland by inheritance implying that most of them must have been indigenes of the various communities within the study area.

**Information Sources on Agricultural inputs for Farmers:** Table-2 shows that 89.2% of the farmers from Ekiti State were informed from the Agro-dealers. This implies that majority of farmers get access to information from agro-dealers while selling agricultural inputs to farmers. FGD conducted during farmers monthly meeting reveals that agro-dealer give them up-to-date information on any improved varieties of crop or crop-protection products they can use on their farm for high yield. Also, 81.3% of the respondents got information on agricultural inputs from television/radio. Study from Adebayo, S.A.<sup>17</sup> revealed that majority of the farmers listened to programmes aired on television /radio about farming practices. The

percentage of respondents that got information on agricultural inputs from fellow farmers were 70.8% and workshops/seminars 65.0% which is high. This implies that high proportion of the farmers attend workshops/ seminar through which information were disseminated to them. Contrarily, the response was low on availability of extension agent/ADP, Internet, newspaper/magazine, research centers and billboards/poster as information sources. The study carried out by Olorunfemi, T. O. et al<sup>18</sup>

affirmed that there is still a wide range of initiatives that are not adequately disseminated to the rural farmers through extension agents. Wiggins, S. and Keats, S.<sup>5</sup> revealed that rural extension agents in Nigeria are poorly funded and often don't reach poor farmers with the necessary information on inputs and distribution channels for fertilizer are often faced with the problem of corruption.

**Table-1:** Socioeconomic Characteristics of Farmers.

| Characteristics     |                               | Frequency | Percentage (%) | Mean (SD*)      |
|---------------------|-------------------------------|-----------|----------------|-----------------|
| Age                 | ≤ 30                          | 27        | 11.3           | 46years (11.81) |
|                     | 31-40                         | 26        | 10.8           |                 |
|                     | 41-50                         | 139       | 57.9           |                 |
|                     | 51 and above                  | 48        | 20.0           |                 |
| Level of education  | Informal education            | 36        | 15.0           |                 |
|                     | Basic education               | 63        | 26.3           |                 |
|                     | High school/college education | 91        | 37.9           |                 |
|                     | Higher education              | 50        | 20.8           |                 |
| Years of experience | 1-15                          | 139       | 57.9           | 14years (6.46)  |
|                     | 16-30                         | 61        | 25.4           |                 |
|                     | 31 and above                  | 40        | 16.7           |                 |
| Farm size           | ≤ 5                           | 206       | 85.8           | 1hectare (0.57) |
|                     | 6-10                          | 21        | 8.8            |                 |
|                     | 11-15                         | 10        | 4.2            |                 |
|                     | 16 and above                  | 3         | 1.3            |                 |
| Farmers association | No                            | 115       | 47.9           |                 |
|                     | Yes                           | 125       | 52.1           |                 |
| Access to land      | Lease                         | 59        | 24.6           |                 |
|                     | Ownership                     | 135       | 56.3           |                 |
|                     | Rent                          | 37        | 15.4           |                 |
|                     | Gift                          | 9         | 3.8            |                 |

**Table-1:** Distribution of Farmers by Information Sources on Agricultural inputs.

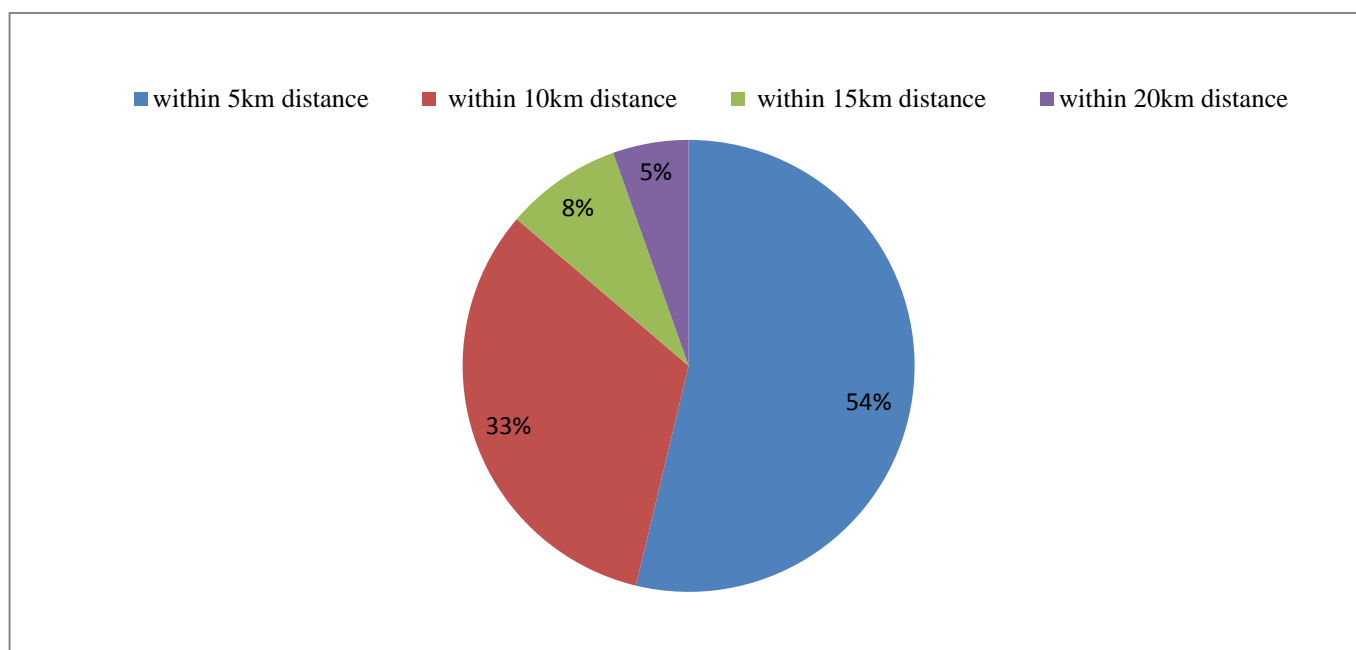
| Information source on agricultural inputs* | Frequency | Percentage (%) |
|--|-----------|----------------|
| Agro-dealers                               | 214       | 89.2           |
| Television/Radio                           | 195       | 81.3           |
| Fellow farmers                             | 170       | 70.8           |
| Workshops/seminars                         | 156       | 65.0           |
| Extension Agent/ADP                        | 109       | 45.4           |
| Internet                                   | 43        | 17.9           |
| Newspaper/ magazine                        | 33        | 13.8           |
| Research centres                           | 21        | 8.8            |
| Billboards/posters                         | 9         | 3.8            |

\*Multiple responses

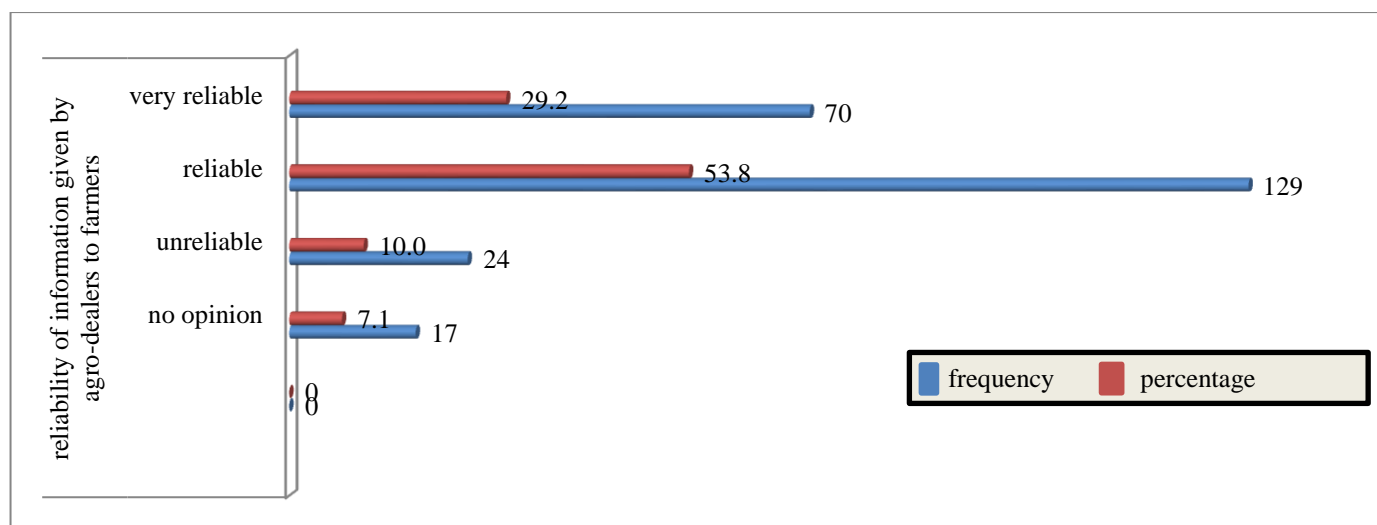
**Distance covered by farmers to agro-dealers shop:** Figure-1 illustrates the agro-dealers shop distance to farmers. Findings reveal that 54.0% of farmers covered within 5km distance to agro-dealers shop, 33.0% of the farmers covered within 10km distance to agro-dealers shop, 8.0% of the farmers covered within 15km distance to agro-dealers shop while 5.0% of the farmers covered within 20km distance to agro-dealers shop. The result implies that a larger proportion of agro-dealers are closer to the farmers who are ultimate user of agricultural inputs sold by agro-dealers. Although, Focus Group Discussion with the farmers in the study area revealed that majority of these agro-dealers are concentrated in the urban centres (Ado-Ekiti, the State capital) but there are still some agro-dealers within their rural environment that sells agricultural inputs to them. During

this course, information about newly improved seeds and crop protection products that give high yield is usually disseminated to them.

**Reliability of information given to farmers on agricultural inputs by agro-dealers:** Figure-2 illustrates the reliability of information given to farmers on agricultural inputs by agro-dealers. Findings reveal that the farmers deemed agricultural input information given to them by agro-dealers as reliable (53.8%), very reliable (29.2%), unreliable (10.0%) and no opinion (7.1%). Information on agricultural inputs used by farmers is very critical for agricultural development, farmers contact agro-dealers who are readily available to them.



**Figure-1:** Distribution of farmers by distance to agro-dealers shop.



**Figure-2:** Distribution of farmers by reliability of information received from agro-dealers.

## Conclusion

Farmers sourced for information on how to get quality farm inputs from cooperative members, fellow farmer, extension agents, and agro-dealers for prime farm productivity. However, when farmers contact agro-dealers for purchase of agricultural inputs, they give farmers up-to-date information on any improved varieties of crop or crop-protection products they can use on their farm for high yield. Majority of these agro-dealers are concentrated in the urban centres (Ado-Ekiti, the State capital) but there are still some agro-dealers within their rural environment that sells agricultural inputs to them. Therefore, agro-dealers network need expansion in rural area to increase agricultural productivity.

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