

Categorisation of Agricultural Information Users' Among Young Arable Crop Farmers in Southwest Nigeria.

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Abstract

The study was designed to categorise agricultural information users' among young arable crop farmers in southwest Nigeria. Data were collected using interview schedule. Four hundred and fifty-five respondents were randomly selected for the study. Frequency counts, percentages and Duncan Multiple Range Test (DMRT) were used ~~in analyzing to analyse~~ the data collected. The result showed that most of the sampled young arable crop farmers were older youth and majority of them fell between low and average information users' categories. Selected personal characteristics of different categories of information users were also identified. The study concluded that categorisation of young farmers based on utilisation of agricultural information have implication for planning youth extension programme for young arable crop farmers in the study area.

Keywords: Agricultural Information, Youth, Arable crop Farmers, Categorisation, Nigeria.

Introduction

Using information a key issue in this present information age. The real challenge of our time is not producing information out but getting people to use the available information (Pezeshki-Rad and Zamani, 2005). The changing nature of agriculture has also affected agricultural information to be changing especially in its contents, the means by which it is disseminated and its marketability as a commodity (Banmeke and Ajayi, 2006).

Therefore, for effective utilisation of information in the agricultural sector, such information must be relevant, timely and accurate, up to date and effectively presented in order to satisfy the need of the beneficiary. Information has been identified as vital ingredient in adoption process. The way

Comment [Reviewer1]: Indicate percent

Comment [Reviewer2]: This is confusing!

Comment [Reviewer3]: Insert percent

Comment [Reviewer4]: Loose ended statement!

Comment [Reviewer5]: Be consistent in the choice of English type you are using-British or American?

Comment [Reviewer6]: Not clear. This conclusion is confusing.

Comment [Reviewer7]: Where are the categorization issues in this abstract?

Comment [Reviewer8]: Disjointed sentence

Comment [Reviewer9]: This sentence does not reflect adequate mastery of the information author(s) want to pass across!

35 an individual perceive information sources and attributes of innovation, in addition to available
36 resources determines overt action (Uche *et al.*, 2009).

Comment [Reviewer10]: Disjointed sentence. It appears author(s) wrote this manuscript in a hurry!

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37 Categorisation of young arable crop farmers based on utilisation of agricultural
38 information makes it easier and more meaningful to make description of that population than the
39 description of an individual young farmer. Since each category comprise farmers of similar
40 characteristics, such representation of young arable crop farming population is quite relevant in
41 addressing common needs for introducing localized rural change in their community. Also,
42 categorisation of young arable crop farmers in the rural areas will serve as a contact point for
43 extension agency as they could be used to reach other young farmers within their community in
44 order to disseminate new ideas and innovations on arable crops.

Comment [Reviewer11]: I am hearing this for the first time. What is the source of this information?

Comment [Reviewer12]: NOT CLEAR!

45 Rogers (1995) developed adopter categories and rural populations were categorised into five
46 based on when the farmers first began using any particular and widely accepted new practices.

Comment [Reviewer13]: NOT IN REFERENCE SECTION!

47 These are: innovators, early adopters, early majority, late majority and laggards. Each of these
48 adopter categories have their peculiar characteristics. Adewale (2000) in a study carried out
49 among rice farmers in Ogun state, Nigeria, categorised rice farmers into five based on level of
50 use of indigenous rice practices in rice production. Robertson *et al* (2005) carried out a study on
51 adoption of integrated pest management (IPM) practices by South Carolina Cotton Growers,
52 based on their responses; growers were placed into three categories of IPM adoption: low,
53 medium, and high adopters. Meanwhile, little or no effort has been tailored towards
54 categorisation of young arable crop farmers based on level of use of agricultural information. For
55 the purpose of this study, young farmer is considered to be young people cultivating arable
56 crops, within the age range of 18 and 35 years old. Farinde *et al.*, (1998) viewed rural youth as to
57 include male and female who own their existence and identity to the rural areas and whose

Comment [Reviewer14]: DISJOINTED!

Comment [Reviewer15]: What are these five categories?

Comment [Reviewer16]: I am not comfortable with the literary style of author(s). Most of the sentences are not connected and as such the flow of thought is broken, making a mess of the arguments author(s) is (are) putting across.

58 family life depends directly or indirectly on agriculture. He therefore identified four categories of
59 rural youth. These are: (i) In school male youth: (ii) In-school female youth
60 (iii) out-of school male youth, and (iv) out- of school female youth.

61 International Labour Organisation (ILO) (2005) reported that over 510 million young
62 women and 540 million young men live in the world today according to United Nations
63 estimates. Although, the proportion of youth in the world is dwindling; by 2025, it is forecasted
64 to fall to 16 percent from 18 percent of the world's population. The majority of the young people
65 (85 percent) live in developing countries, with approximately 60 percent in Asia. By 2020, the
66 number living in developing countries will grow to about 88 percent. Based on this estimate ILO
67 suggested that the problems and aspiration of young people must be given due consideration in
68 the developmental agenda of all countries since they are clearly an important population group.
69 The need to consider the relevance of this important segment of rural population in arable crop
70 production in Nigeria is of paramount importance. It is against this background that this study
71 was designed to provide answer to the following research question?

72 1. What are the personal characteristics of young arable crop farmers to be
73 considered in categorizing the respondents into various agricultural information
74 users?.

75 METHODOLOGY

76 The study was carried out in Oyo and Osun states of southwest Nigeria. Multistage random
77 sampling technique was used in the selection of the respondents. From each selected states,

78 fifteen percent of the consistent local government areas were selected.
~~making five local~~

~~79 government areas selected~~ from each state, and ten local government areas altogether. In the

80 third stage, from the lists of villages provided by the two state Agricultural Development

Comment [Reviewer17]: Of what relevance is this to the problem of this study?

Comment [Reviewer18]: Your work is not on the problems and aspirations of young people; why this?

Comment [Reviewer19]: Is this the only research questions?

Comment [Reviewer20]: What do you mean here?

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Comment [Reviewer21]: Where is the second stage?

81 programmes (ADPs), five percent of the total villages in the selected Local Government Areas
82 from the states were randomly chosen (Table 1). For the last stage, there was no list of young
83 arable crop farmers in the selected two states to constitute a sampling frame from which an
84 individual could be selected. Therefore, at the village level the researcher and six other trained
85 enumerators developed sample frame by forming a list of those who are called young arable crop
86 farmers (rural youth) according to age criteria 18- 35 years in the two selected states. This
87 involved determining the total number of rural youth in each village and from this developed
88 sample frame, random selection of fifty percent of the total respondents was made as shown in
89 Table 1. The selected rural youth constitute the sample for study, a total sample of two hundred
90 and forty and two hundred and fifteen rural youth were selected from both Oyo and Osun states
91 respectively making a total of four hundred and fifty five respondents. Data were collected with
92 the aid of validated interviewed structured schedule. ~~Date-Data~~ analysis was carried out
93 using descriptive statistics such as mean, standard deviation, frequency and percentages while Duncan
94 multiple range test (DMRT) was used to show significant difference in the characteristics of the
95 different categories of agricultural information users-
96 The raw agricultural information utilisation scores was transformed to T – scores on a scale of 56
97 selected agricultural information items on selected arable crops. The maximum and minimum T
98 – scores were 33 and 69 points respectively. The distribution of the respondents' utilisation
99 scores shows that the mean, mode and median of the scores respectively were 50,52,51 with
100 standard deviation of 10, showing an almost normal distribution (Joe, 1992). Based on this
101 distribution, mean and standard deviation was used to categorise the respondents into three based
102 on individual utilisation scores of agricultural information.

103 **Table 1: Sampling Procedure of respondents from selected states and respective local**
104 **Government areas.**

Comment [Reviewer22]: This does not make sense. I expect you to write something like xxx villages were sampled (constituting xx per cent) using simple random sampling technique.....

Comment [Reviewer23]: I guess you need to tutor yourself on appropriate language use in scientific research writing. Your command of English Language is poor!

Comment [Reviewer24]: I AM SORRY! I CANNOT MAKE OUT ANY MENINGFUL THING FROM THIS SECTION.

Comment [Reviewer25]: WHAT DOES THIS MEAN?

Comment [Reviewer26]: Which process is this? NOT CLEAR

State	No of LGAs	Selected LGAs (15%)	Selected LGAs	No of villages in the selected LGAs	No of villages selected (5%)	No. of Rural youth selected (50%)
OYO	33	5	IREPO	241	12	53
			SURULERE	294	15	63
			IBARAPA EAST	248	12	32
			IBARAPA CENTRAL	321	16	43
			OGO-OLUWA	163	08	49
OSUN	30	5	BOLUWADURO	206	10	45
			OLAOLUWA	121	6	30
			ATAKUNMOSA WEST	213	11	41
			OROLU	225	11	58
			IREWOLE	281	14	41
TOTAL	63	10		2313	115	455

Comment [Reviewer27]: Use title case to write the name of all selected LGAs.

Comment [Reviewer28]: This is not 5%!

Comment [Reviewer29]: Ditto this too!

106

107 **Source: Oyo and Osun Village Listing Survey, 1999 and 2001 respectively.**

108

109 **RESULTS AND DISCUSSION**

Comment [Reviewer30]: This part should be reported in the past tense since data collection was in 2001.

110 The respondents were categorised into three based on the individual respondents' t scores. The

111 result of the analysis revealed that close to half (47.7%) of the respondents ~~were~~
~~intobelonged to the~~ low

112 information users (LIU) category. More than one-third (36.5%) of the respondents belonged to the

113 average information users (AIU) and about 16% of the sampled rural youth were categorized as

114 high information users (HIU) as shown in Table 2. The finding of this study implied that

115 majority of the respondents were between low and average information user's category. This

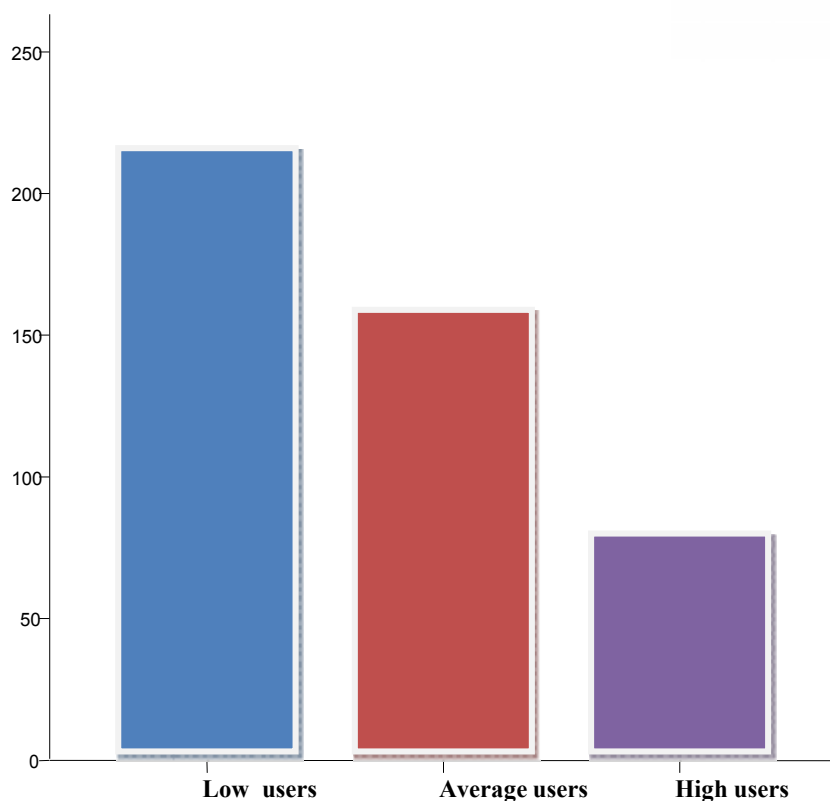
Comment [Reviewer31]: What are the yardstick for categorizing respondents into this group? What is the source or is it your own classification? More information is needed here

116 could probably be as a result of the acclaimed availability of agricultural information to them,
117 their access to it and probably the constraints encountered in utilising the available agricultural
118 information.

Comment [Reviewer32]: This implication is at variance with your findings.

Comment [Reviewer33]: ?????

119 The distribution of the respondents into three categories of information users was positively
120 skewed as more young farmers were either low or average information users (Fig.1)
121 The high information users category respondents (T score = 60– 69) could be termed to be
122 “innovators” who are ready to embrace new technology, although, they were few in number
123 when compared to other categories (low and average) information users.



Fig

Utilisation categories

ure 1 : Bar chart showing the number of respondents in different categories of agricultural information users.

139 **Table 2: Distribution of Respondents According to Categories Information Users'**

	Low	Average	High
Borderline	$(\bar{X} - \text{ISD to } \bar{X})$	$(\bar{X} \text{ to } \bar{X} + \text{ISD})$	$(> \bar{X} + \bar{X} + \text{ISD})$
T – Score	40 – 49	50 – 59	- -
Frequency	217	167	60 – 69
Cumulative Frequency	217	384	71
Cumulative Percentage	47.7	84.4	455

Comment [Reviewer34]: Something is wrong here

140 Mean T score ($\bar{X}$) = 50 S. D. = 10

141

142 Data reported in Table 3 revealed the differences in the characteristics of different categories of
 143 information users. The result of Duncan Multiple Range Test for selected variables revealed that
 144 age, household size and perception of utilisation of the agricultural information of the
 145 respondents in average and high information user's categories were not statistically different but
 146 differs significantly from those in the low category of agricultural information users as shown in
 147 Table 3. Meanwhile, there is no statistical difference in farm size of low and average agricultural
 148 information users' categories but they differ significantly from those of high information users
 149 across the study area. Furthermore, from the same Table 3, there is no statistical difference in
 150 access to agricultural information on selected arable crops in those of low and high categories of
 151 information users but they differ significantly from access to information when compared with
 152 those respondents in the average information users' category. Finally, there were no significant
 153 differences in mean years of formal education, farming experience, socioeconomic status scores,

154 frequency of use of information sources and availability of information across the different users
155 of agricultural information in the study area.

156 From Table 3 it could be seen that the average and high information users were relatively
157 older in age, with high (favourable) perception of utilisation of agricultural information score,
158 large household size when compared with those in the low information user's categories. It was
159 also found out that the respondents in different categories (low, average and high) have the same
160 level of formal education, farming experiences, socio-economic status, frequency of use of
161 information sources and availability of information on selected arable crops. But those in the low
162 and average categories have larger farm size than those in the high information users' category
163 and those in low and high information users' categories have more access to information sources
164 than those in the average users' category. This finding revealed that the respondents in the
165 average information users' category have similar characteristics with those of high information
166 users' category when compared with the low information users' group. This finding has a great
167 implication for extension institutions when they were to disseminate information to this
168 important segment of rural population because these characteristics would assist the extension
169 agency to identify them and make them as a focus in promoting agricultural innovations. Also, it
170 could be inferred that age, household size, farm size and perception of utilisation of agricultural
171 information influences utilisation of agricultural information.

172 It could be seen that the various categories of information users among young farmers differs
173 significantly in characteristics such as age, farm size, household size and perception of
174 utilisation of agricultural information. While other independent variables (level of formal
175 education, farming experience, households size, socio economics status, frequency of use of
176 sources of information) for the three categories of information users does not predict the

Comment [Reviewer35]: Where is this shown in the

Comment [Reviewer36]: This does not mean they have similar education level, but it means education across the three categories was not statistically significant!

categories of information users they could be categorized into. From this finding, it could be inferred that young arable crop farmers can be validly and reliably categorised by their age, farm size, household size and perception of utilisation of agricultural information.

Comment [Reviewer37]: Your interpretation of the DMR test is inadequate

Table 3: Summary of Duncan Multiple Range Test showing differences in Respondents'

Characteristics of different categories of agricultural information users

Selected personal characteristics(Mean)	Categories of Information users		
	Low (N=217)	Average (N=167)	High (N=71)
Age (years)	28.22 ^b	30.57 ^a	30.79 ^a
Year of formal Education (years)	8.35 ^a	8.37 ^a	7.66 ^a
Farming Experience (years)	11.80 ^a	12.70 ^a	12.10 ^a
Household size	3.61 ^b	4.35 ^a	4.31 ^a
Farm size (ha)	2.50 ^a	2.04 ^a	1.14 ^b
Socioeconomic status score	153.83 ^a	157.41 ^a	154.99 ^a
Frequency of use of information sources	33.96 ^a	34.37 ^a	31.82 ^a
Accessibility to information	16.90 ^a	14.64 ^b	16.86 ^a
Perception of utilisation of agricultural information	35.54 ^b	39.87 ^a	40.27 ^a
Availability information	25.39 ^a	25.19 ^a	25.63 ^a

182

What does ^a and ^b means?

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Conclusion

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The study categorised rural youth based on their level of utilisation of agricultural information on selected arable crops into three high, low and average information users. The selection of representative contact farmers for rural youth extension programme can thus be carried out using the categories of information users in the study. This implies that extensionists could identify the high information user's categories among young farmers: these are who are older in age, and have the highest socio economics status, perception of utilisation of information and relatively small farm size mean scores. This identification of each category would enhance planning an appropriate programme for change for young arable crop farmers.

Comment [Reviewer38]: This categorisation is not foolproof!

Comment [Reviewer39]: You could have been able to make this generalisation if you have a cross tabulation to establish this relationship

192

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