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ANALYSIS OF THE OPINION OF SECONDARY SCHOOL STUDENTS ON CHOICE OF AGRICULTURE AS A PROFESSIONAL CAREER COURSE IN ZAMFARA STATE, NIGERIA

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ABSTRACT

This study analysed the opinion of secondary students toward choosing agriculture as a professional career in Zamfara State, Nigeria. A multi-stage sampling technique was employed to arrive at the sample size of 373 college students for the study. Primary data were collected through administration of structured questionnaire. Descriptive and inferential statistics were used to analyse the data. Findings of the study reveal the average age of 17.46 years for the students, majority (90%) of whom were male within an average family size of 10 people. The study also indicates that 32.82% of the students reported drudgery associated with farming as a factor distracting their interest in choosing agriculture as a career course. Other factors include lack of job opportunities (12.08%) and agriculture teachers' personality (30.71%). The findings further reveal teaching methods (92%), agricultural teaching aids (44.07%) and use of modern agricultural operation facilities (27.65%) as the major means of attracting college students in choosing agriculture as career course. Multiple regression analysis result indicates a significant influence ($P<0.05$) between the socio-economic characteristics of the students and their attitude towards choosing agriculture as a professional career course. The study concludes that the choice of agriculture by the students is being influenced by drudgery associated with farming, teachers' personality and parents' economic status and hence recommends the need for motivational incentives that could attract them more towards choosing agriculture as a career course.

Keywords: Analysis; attracting and arousing; college students; latent interest

INTRODUCTION

Career literally means a series of jobs that a person has in a particular area of work, usually involving more responsibilities as time passes. Career may therefore be defined as the progress and actions taken by a person throughout a lifetime, especially related to that person's occupation (Business Dictionary, 2019). A career is often composed of the jobs held, titles earned and work accomplished over a long period of time, rather than just referring to one's position, while choice of a career is an act of choosing between two or more

disciplines or responsibilities. Olaosebikan (2014) defines career as somebody's progress in a chosen profession during that person's working life, or the general path of progress taken by somebody.

Choosing a career is an extremely important decision that impacts an individual's entire future and is an important decision for every school leaver. Career choice decision making it not an easy task, yet at one time or the other, individuals are faced with the task of making career choice, preparing for it, starting or making progress in it. The choice point is undoubtedly the most critical stage. This is because making a wrong career decision can mar one's happiness in life as this could result to vocational maladjustment (Bowen, 2002). The choice of careers, subjects and courses of study in schools and of subsequent path to follow are always difficult problems facing prospective undergraduates. Often, choosing the right course leading to the right profession can make difference between enjoyment and destroying the career in future (Bandura, 2001).

The importance of agriculture as a career for self- sufficiency, employment, and food supply to the individual, nation and the world at large cannot be over emphasized (Baer-Nawrocka and Sodowski, 2019), because it plays an important role as the base of economic growth and development, employment to the majority of the rural populace and an appreciable means of revenue source for many countries, including Nigeria. It is acknowledged that the only means of achieving the aforementioned aims of agricultural sector is through accelerating agricultural development by provision of adequate agricultural trainings that could develop and arouse the interest of the students at the grass root level.

In Nigeria, teaching of agricultural courses at secondary school level could enhance the courage of the students towards agriculture and the course taught in a mode and way the students are exposed to basic principles that are important to agricultural production in the country and also exposing them to various practical and projects that would help them to develop the necessary skills and abilities required in agricultural production (Okeke, 2000).

At the end of the provision of the agricultural trainings to the students, if properly provided based on practical experience and their involvement in every phase of the practical; the students latent interest is expected to be aroused and developed, to such an extent that they would develop a zeal to pursue the study of agriculture at tertiary level and after graduating, choose it as a life career.

An average secondary school student does not want to enrol for agricultural courses; rather most prefers to enrol in other optional subjects such as computer studies, business/financial studies, arts and technology courses due to some problems that could be associated with job opportunities, drudgery involved in the sector and other socio-economic factors (Lane, 2007). It is based on these aforementioned problems that this study was designed to describe the socio-economic characteristics of secondary school students offering agriculture in the study area, determine the factors distracting the students' interest in choosing agriculture as a professional career course and identify the ways of arousing students' interest towards choosing agriculture as a professional career course. It also determined the ways of making agriculture an attractive subject of study and future career to secondary school students in the study area.

The study further tested the relationship that exists between the students´ socio-economic characteristics and means of arousing their latent interest towards choosing agriculture as a career course.

MATERIALS AND METHODS

Study Area

Zamfara is one of the states created from the defunct Sokoto state. It lies between latitude 10˚50´ N to 13˚38' N and longitude 4˚16' E to 7˚13' E. The state has an estimated land area of 93,679 km^2 with projected population of 3,278,847. The state shares common boundary with Sokoto state to the North, Kebbi and Niger states to the West, Katsina state to the East and Kaduna state to the South (ZMSG, 2011).

Zamfara state falls within the Sudan Savannah agro-ecological zone of Nigeria. The zone is characterized by low rainfall and high temperatures in most of the months of the year, with scattered trees and free from tsetse flies. The climate of Zamfara state is warm tropical with maximum temperature of 43^{o}C, minimum of 18^{o}C during Harmatan period (starts from November to February). Rainfall in the state starts in May and ends in October, with maximum rainfall of 1100mm, minimum rainfall of 700mm with a sharp decline in September to October (ZMSG, 2011).

The inhabitants of the state are mainly Fulani and Hausa; however, other tribes reside in the area. Agriculture is the most important occupation of the people of the state where about 82% of the people in the study area are farmers operating mostly on small scale with an average farm size of 1 – 2 hectares. Crops cultivated include millet, sorghum, rice, maize, cowpea, soybeans, groundnut and cotton. Livestock such as goat, sheep, cattle, and poultry are also reared in the state (ZMSG, 2010).

Sampling Procedure and Sample Size

Reconnaissance survey conducted indicated that there were 151 secondary schools in the study area. A multi-stage sampling technique was employed to arrive at the sampling size of the study. In the 1st stage, all the 14 Local Government Areas (LGAs) in the state were included in the study, out of which two LGAs were randomly selected. In the 2nd stage, 41 mixed schools from the selected LGAs were identified, out of which three (3) mixed schools were randomly selected from nine (9) mixed schools in Bungudu LGA, two (2) schools from six (6) mixed schools in Maru LGA, two (2) schools from four (4) mixed schools in Maradun LGA, three (3) schools from eight (8) mixed schools in Talata Mafara LGA, three (3) schools from eight (8) mixed schools in Kauran Namoda LGA and two (2) schools from the six (6) mixed schools in Shinkafi Local Government Area, giving a total number of 15 mixed schools involved in the study. In the 3rd stage, total number of students from the selected mixed schools was identified as 3,721students constituting the sample frame of the study, from which 10% of the students was proportionately selected giving 373 students, constituting the sample size of the study. As such, 373 students were administered with the questionnaire, but 329 copies of the instrument were returned.

Data Collection and Analysis

Primary data were obtained through the use of structured questionnaire which was administered to the respondents with the assistance of agricultural science teachers of the selected secondary schools. Secondary information was obtained from journals, magazines, research literature, textbooks and the internet. The data collected for the study were subjected

to descriptive (frequencies counts, percentages, means and standard deviations) and Inferential (Multiple regression) statistical analyses.

Table 1: Sampling procedure and sample size of the study (n = 373)

LGAs in the Zone	Selected LGAs	mixed Schools in the selected LGAs	Mixed schools selected	Students Population	10% Selected students
Gusau	Bungudu	9	3	688	69
Tsafe	Maru	6	2	576	58
Bungudu					
Maru					
Anka	Maradun	4	2	493	49
Bukkuyum	T/Mafara	8	3	765	77
Gummi					
Bakura					
T/Mafara					
Maradun					
K/Namoda	K/Namoda	8	3	682	68
B/Magaji	Shinkafi	6	2	517	52
Shinkafi					
Zurmi					
14 LGAs	6	41	15	3,721	373

Source: Field survey, 2017.

Model Specification

Multiple Regression Analysis

$Y = x_1 + x_2 + x_3 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots + X_n$

Y = Opinion of students

X_1 =Age of the students

X_2 =Sex of the students

X_3 =Class level of the students

X_4 = Class category of the students

X_5 = Parents educational level

X_5 = Family size

X_7 = Attitude of students

X_8 =Factors of arousing student's latent interest

X_{10} = Attractiveness of Agricultural courses

RESULTS AND DISCUSSION

Socio-economic Characteristics of the Students

Table 2 reveals that majority (79. 0%) of the students were within the age range of 16-20 years, 17.0% of them were within 10-15 years while only few (4.0 %) were within 21-25 years. As earlier stated, students in the study area were senior secondary school students and going by the 6-3-3-4 system of education in Nigeria, a child that starts an educational career at the age range of 4-8 years is likely to fall under the category of 16-20 years in senior

secondary class. Furthermore, at a young age, students developed an understanding of the duties, responsibilities, and lifestyles of a teacher and eventually began to consider teaching as a profession. This finding is in accordance with Ferry (2006), who identified age as one of the cultural and socio-economic factors affecting the choice of a career by a student.

Table 2: Distribution of students according to their socio-economic characteristics (n=329)

Variables	Frequency	Percentage	Mean	SD
Age (years)				
10-15	56	17.0		
16-20	260	79.0	17.46	2.08
21-25	13	4.0		
Sex				
Male	296	90.0		
Female	33	10.0		
Class category				
Science class	297	90.3		
Art class	32	9.7		
Parents educational level				
Formal	233	70.8		
Informal	96	29.2		
Students family size (people)				
1-10	199	60.5		
11-20	110	33.5	10.25	0.79
21 people and above	20	6.0		
Parents primary occupation				
Farming	170	51.7		
Civil Servant	92	28.0		
Private	67	20.4		
Source of parent's income				
Farming	170	50.7		
Civil service	92	28.0		
Private enterprises	67	20.4		

Source: Field Survey, 2017; SD = Standard Deviation

Results presented in Table 2 showed that majority (90.0%) of the students were male while few (10%) were female. This may be attributed to the socio-demographic as well as the geographic context of northern part of Nigeria where male respondents are mostly engaged in agricultural activities due to its hectic nature. As stated by Joshua *et al.* (2008), sex difference had no effect on interest in learning, performance and acceptance of the subject, but in solving problems of agricultural science, male respondents are better.

Findings further revealed that majority (90.3%) of the students were in science class, while only 9.7% of them were in art class. Therefore, being in science class greatly influences student's option of science fields such as agriculture. This finding is in line with Nneka (2013), who reported that science-based courses and careers which students may opt for or pursue for the whole of his/her life is agricultural sciences and a number of special or specific science disciplines.

As indicated in Table 2, majority (70.8%) of the students reported that their parents were formally educated, while the remaining 29.2% reported that their parents had only informal education. Parents' educational status was found to have influence on child's school attendance, success and his/her choice of a career. Furthermore, in a study of the influences of adolescents' vocational development reported by Mortimer (1992) was of the opinion that the variable that had the most effect on educational plans and occupational aspirations of a child was parental education.

As shown in Table 2, most (60.5%) of the students reported that their family size ranges between 1-10 people, appreciable amount (33.5%) of the students reported to have family size ranging from 11-20 people, while only few (6.0%) of them had a family size of 21 people and above. The average family size of the students was 10 people, indicating that the family size of the students was moderate. Family size was found to be one of the factors that influence the adolescent career aspirations because parents with large families tend to have less money to aid the older children in attending college, while younger children may receive more financial assistance since the financial strain is less once the older children leave home (Schulenberg *et al.*, 1984).

Finally, the findings (Table 2) reveal that more than half (50.7%) of the students reported that their parent´s source of income was farming, 28.0% of them reported that their parents' source of income of was civil service, while few (20.4%) reported that their parents had private enterprises as their source of income. In a similar view, Anagbogu (1988) contended that some parents may not have enough money to encourage their children to go to school but being that educational pursue provides knowledge and money, as such some parents endeavour to send their children to school and which is considered as the beginning of choosing their life career.

Factors Distracting Student's Interest in Choosing Agriculture as a Career Course

Findings in Table 3 show that 32.82% of the students reported drudgery associated with agriculture as a factor distracting their interest toward choosing agriculture as a career course.

Table 3: Distribution of students based on factors distracting their interest in choosing agriculture as a career course (n = 329)

Distracting Factors	Frequency	Percentage
Associated drudgery	296	32.82
Teachers personality	277	30.71
Lack of job opportunities	109	12.08
Course contents	70	7.76
Parental influence	69	7.65
Peer group influence	81	8.98
	*902	

Source: Field survey, 2017; *Multiple response

More than 30% of the students indicated agricultural teachers' personality as their distracting factor while 12.08% of the students were of the opinion that lack of job opportunities in the field of agriculture was the factor that hindered their choice of agriculture as a career course. These findings imply that majority of the students' perceived farming as

a business associated with fatigue and meant for only the less privilege persons in the society. This finding is in accordance with Juma (2007) who asserted that a career in agriculture lacks appeal for many young people who perceived farming to be a dirty activity, and as an employer of the last resort.

Ways of Arousing Students Interest towards Choosing Agriculture as a Career Course

Teaching Methods: As shown in Table 4, majority (92.10%) of the students reported that teaching methods had significant influence on their choice of agriculture as a career course and few (7.9%) of them posited that teaching methods employed during teaching of agriculture did not arouse their interest towards choosing agriculture as a career course. Teacher's role and application of appropriate teaching methods in teaching a subject matter is inevitably recognized as an impetus in arousing the interest of students towards choosing that subject matter, most especially if the teacher makes the subject attractive and fascinating by the use of appropriate teaching methods. In a similar manner, Eze (2014) enumerated factors that limits student's choice of agricultural occupation, in which quality of agricultural teachers, teaching methods, returns to agricultural projects, availability of inputs for agricultural enterprises and public image of agricultural occupation were highlighted. Berry (2004) also reported that the key factors that were the major contributors in students' selection of subjects include: interest in the subject, perceived usefulness or importance of the subject, career preferences of the subject combination for further studies, teachers' advice and the teaching strategy.

Teaching Aids: Table 4 also revealed that an appreciable percentage (44.07%) of the students reported the use of a projector as a teaching aid attracts their interest in choosing agriculture as a career course, 27.65% of them were of the view that the use of tractors in farming operations arouse their interest while few (5.55%) of students opined the establishment of school farms arouses their interest on agriculture. The nature of teaching aids that are used in teaching agriculture as a course of study was found to be one of the factors responsible for attracting/distracting students' interest towards choosing agriculture as a course of study and as a future career. This finding is in line with Omebe (2003), reported that teachers and training facilities when available stimulates learning and increases the students' morals on the course and even the career. He further reported that the institutional teaching aids and materials help students to develop interest in agricultural course, most especially on the field that needs practical work of any kind.

Ease of Comprehension of Agricultural Lessons: Results in Table 4 posits that majority (82.1%) of the students opined that it is easy to comprehend agricultural lessons, 12.46% of them were of the opinion that they moderately understand agricultural lessons while few (5.47%) of them reported agricultural science as a hard course to comprehend with. These findings are in line with Njoroge and Orodho (2014) who reported that nearly 80% of the students confirmed that agriculture is not a difficult course to learn.

Performance of Students in Agricultural Science Examinations: Table 4 further revealed that more than half (55.9%) of the students had a scored grade of 20 – 40%, 22.5% of them scored 41 – 60% while 21.6% of the students scored a grade of 60% and above. Although the percentage of respondents with score of 60% and above is lower than those with 41 – 60% and 20 – 40%, it shows that the students' performance on the agricultural subjects is below average and not encouraging. This could be an indication that an average

secondary student is not interested in having agriculture as career course and hence need to be motivated to do so.

Shifting to Scientific Farming and Use of Modern Technologies: Results in Table 4 finally indicated that the student's interest in shifting to scientific farming and the use of modern agricultural technologies could be an influencing factor for arousing their interest in choosing agriculture as a career course. The results therefore, depicts that majority (95.1%) of the students reported shifting to science – based farming and use of modern technologies could reduce drudgery associated with agriculture and hence will influence their interest in choosing agriculture as a career course of study, while 4.6% of the students disagreed with the fact that introduction of science based agricultural practices and use of modern agricultural technologies will motivate them to choose agriculture as a career course. This finding is in accordance with Ngesa (2006) who reported that provision of modern farming implements, skilled and competent people will play a critical role in encouraging farm families in appreciable productivity in agriculture.

Table 4: Distribution of students based on factors arousing interest of students (n = 329)

Variables	Frequency	Percentage
Teaching methods as a factor		
Yes	303	92.10
No	26	7.90
Teaching aids as a factor		
Use projectors in teaching	145	44.07
Use tractors in farm operations	91	27.65
Laboratory practical	73	22.2
Establishment of school farms	18	5.50
Use of threshers	2	0.60
Ease of comprehension of agricultural lessons		
Very easy to comprehend	270	82.1
Moderately easy to comprehend	41	12.46
Very hard to comprehend	18	5.47
Performance in agricultural science examinations		
20 – 40 marks	184	55.9
41 – 60 marks	74	22.5
60 marks and above	71	21.6
Shifting to science-based agriculture and use of modern technologies		
True	313	95.1
False	16	4.9

Source: Field Survey, 2017

Means of Attracting Students Interest towards Choosing Agriculture as a Career Course

Agriculture Students' Scholarship Funds (ASSF): The findings in Table 5 revealed that majority (77.5%) of the students opined that ASSF attracted their interest toward studying agriculture whiles few (22.4%) of them were of the view that the fund assisted them in their studies. This finding clearly indicates that provision of scholarship funds can both

assist and attract interest of the students in their study of agriculture and at the same time arouse their friends' interest towards choosing agriculture as a course and career. In a related study conducted by Bryant *et al*. (2006), reported that adverse economic conditions were found to have reduced low-income families' abilities to fund agricultural studies of their wards.

Table 5: Students distribution based on means of attracting their interest towards choosing of agriculture as a career course (n = 329)

Variables	Frequency	Percentage
Provision of Scholarship Funds		
Funds assisted my studies	74	22.5
Funds attracted my interest	225	77.5
Automatic job opportunities		
Yes	169	51.3
No	160	48.6
Assistance to low-income farm families		
Yes	260	79.0
No	69	21.0
Introduction of Scholarship to Agriculture Students		
Yes	231	70.2
No	98	29.8
Foreign Agricultural Packages		
Highly agreed	189	57.4
Moderately agreed	132	40.1
Not agree	008	2.4

Source: Field survey, 2017.

Automatic job opportunities: Table 5 further revealed that more than half (51.3%) of the students reported that automatic job opportunities for agricultural graduates as a motivating factor could attract their interest in choosing agriculture as a career course, while 48.6% of them were of the opinion that automatic government job opportunity doesn't influence their choice of agriculture as a career course. This finding implies that creating job opportunities by government and nongovernment organizations for the agriculture graduates could be considered as an important factor that could attract the interest of many students towards choosing agriculture as a career course. This finding corroborates that of Fizer (2013), reported that lack of varieties of job opportunities for agriculture graduates could be responsible for negative interest in choosing agriculture as a career course among many secondary school students.

Assistance to low-income farm families: As shown in the Table, majority (79.1%) of the students believed that financial assistance to low-income farm families will attract their interest towards choosing agriculture as a career course of study while few (21.09%) of the students reported financial assistance low-income farm families couldn't be a means of attracting their interest towards choosing agriculture as a career course. Mishra *et al.* (2001) reported that Price and Income Support Programs were implemented 70 years ago to provide

financial assistance to farms, farm people, and rural areas in many developing countries which translates into increased economic well-being to farm families. This report shows that changes in income of the farm families could lead to enrolling many children in to schools.

Foreign Agricultural Packages as Attracting Factor: Table 5 revealed that more than half (57.4%) of the students highly agreed that agricultural activities of foreign donors could be a means of attracting students to choose agriculture as a career course, 40.1% of the students moderately agree with fact the provision of foreign agricultural packages could attract their interest while few (2.1%) of them did not agree. Foreign agricultural packages such as IFAD's support programme and Fadama programmes to Nigerian Government's Poverty Reduction Programme and other agricultural programmes especially in rural areas targets large number of smallholder farmers and is essentially people-centered and such programmes could attract the interest of students towards choosing agriculture as a career course.

Relationship between Students Attitude toward Agriculture and their Socio-economic Characteristics

Multiple regression analysis results in Table 6 indicated a significant relationship ($P<0.01$) between students' attitude towards agriculture and their socio-economic characteristics. This finding implies that Attitude of students towards agriculture is influenced by their socio-economic factors. As such, student´s age, sex, family size; parent's and educational level have a significant influence on their choice of agriculture as a career course.

Table 6: Relationship between students attitudes toward agriculture and their socio-economic characteristics

Variable	(*b*)	SE	(β)	t-value	P-value	Decision	Remark
*Constant	54.209	3.187		17.008	0.000*	Sig	Reject
Relationship between students' attitude and their socio-economic characteristics	0.255	0.090	0.155	2.831	0.005*	Sig	Reject

*=Significant at 0.05%

CONCLUSION

It can be concluded that majority of secondary school students' attention was geared towards the lucrativeness of a profession after their secondary school education and that is why factors like absence of automatic government job for agriculture students, drudgery, peasantry nature of agriculture, inadequate modern agricultural machineries, appeared sound in distracting their attitudes towards the choice of agriculture as a career. School-based factors like teaching aids, methods and teacher's personality plays a role in attracting their attitudes towards choosing agriculture as a career course. The study further concluded that a significant relationship exists between means of attracting students' attitude towards agriculture as a professional career course and their socio-economic factors.

Based on the findings and conclusion drawn from this study, the following recommendations deem necessary: Quality assurance departments of Ministries of Education should ensure prompt and effective supervision of teachers to ensure right transfer of agricultural knowledge from teachers to students through the use modern agricultural teaching aids and practical; Government should make agriculture responsive to the needs and aspirations of students through the provision of job opportunities, farm inputs at affordable prices or even on loan basis; Government or Non-governmental organizations should create farm settlement schemes and create jobs for students that excelled in agricultural activities right from secondary schools so as to create positive attitude towards agriculture as a course and a career; Mechanized agriculture should replace manual labour by subsidizing the price of mechanized implements by government or donor agencies to solve the problem of drudgery attached to manual labour in agricultural operations; Agriculture students' scholarship funds should be introduced by the government and or non-governmental organizations to arouse the interest of the students towards choosing agriculture as a course and a career.

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