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Willingness to Pursue Career in Agriculture: A Case Study of Secondary School Students in Sokoto Metropolis Nigeria

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Abstract

Career choice is very critical to the future of an individual which invariably affects society and a nation at large. Thus, the present study examined the willingness to pursue career in agriculture by secondary school students in Sokoto metropolis. Three (3) secondary schools were purposively selected, followed by random selection of 120 respondents from whom data was elicited using structured questionnaire. The data were analyzed using both descriptive and inferential statistics. Descriptive statistics used include frequency and percentage, while the inferential statistics was correlation analysis. Result showed that majority of the respondents were male (54.2%), domiciled in urban areas (68.3%) with parental occupation as civil service (55.8%). Most of the respondents were willing to pursue career in agriculture. Predominantly was occupational career rather than professional career. Preferred occupational career was poultry production (30%), while preferred professional career was animal science (13.3%) and no any professional career preferred was 41.6 percent. Shortage of information, poor government commitment and lack of capital were identified as the most perceived constraining factors to pursuance of career in agriculture by the respondents. There was a significant association between the respondents' gender (r = 0.001) parental occupation (r = 0.181*) and community background (r = 0.195*), and their willingness to pursue career in agriculture. Guidance and counselling, and public enlightenment in schools/through media would substantially enhance the students' willingness to pursue career in agriculture.

Keywords: Career, pursue, secondary school, students, willingness

Introduction

Agriculture accounts for the 40 percent of the Gross Domestic Product in Nigeria and employs a higher absolute number than any other sector (Ruhl, 2011). Even though, the agricultural sector contributes about 40 percent to the nation's GDP, the sector is still far away from attaining its potential because of the enormous land resource and need to feed more mouths with increasing population. Emeka (2007) reported that agriculture contributes between 30 and 42 percent to the Gross Domestic product (GDP) and employs 65 per cent of the labour force in Nigeria. However, it is important to recognize that agricultural sector composed of farming, gardening, lumbering, fishing, forestry, livestock and poultry. It is supposed that if the agricultural sector is developed and funded it will complement the oil industry by greatly reducing youth unemployment and boosting the country's GDP. It will also relieve Nigeria's overdependence on oil, particularly in terms of revenue generation. The value chain of the agricultural sector is very diverse and offers a variety of opportunities with high yields (Abdullah and Suleiman, 2013).

Agricultural transformation will not take place in developing countries such as Nigeria unless there is improved technical knowledge and willingness of youth to pursue career in the sector. Today, despite international efforts to address food insecurity, around 108 million people in the world were severely food insecure in 2016 (WFP, 2017). Therefore, if agricultural production is to be sustainable, youth should be empowered with

appropriate skills, knowledge and change in attitude towards farming so that they will replace the aged in the sector. Young people everywhere are the agents for social change, economic development and technical innovation. They have aspirations and want to participate fully in the development of their societies. Youths have the potentials to overcome some of the major constraints to expanding agricultural production in the country, because they are often more open to new ideas and practices than aged farmers.

What will attract young people into the agricultural sector is a great deal of coordination and skilful thinking. One of the latest feasibility 'solution' hyped these days is greater youth participation in rural development through agriculture. However, youth participation in the agricultural sector in many developing countries is very low, basically because the sector is viewed unattractive as a result of risks, inefficiency, costs, and its labour-intensive nature (Hall, 2011). In order to motivate the youth to view agriculture as a career opportunity, a general intervention must be targeted towards those within and outside the school system by enticing and sensitizing them.

In Nigeria, history has shown that most of the youth who have access to education build up their career interest on white collar jobs (Adekunle et al., 2013). It is time that the relevance of agriculture is appreciated better among youths as not only a course of study for acquisition of qualification but, a fruitful career worthy of pursuance for lifetime.

As Sokoto is well known for its farming activities (Tanko and Obalola, 2013), the need to examine secondary school students willingness to pursue career in agriculture becomes imperative. Since farming is the dominant livelihood occupation of the majority. Similarly, the problem of befitting youth for the world of work will be made easier if teachers, national planners and other related stakeholders are aware of the career ambitions of their youth, especially those at secondary school and college levels. Thus, this study was designed in order to a) describe the socioeconomic characteristics of secondary school students in the study area; b) determine the willingness of secondary school students to pursue career in agriculture in the study area; c) identify the type of career secondary school students wish to pursue in agriculture in the study area; d) explore the relationship between selected socioeconomic characteristics of the respondent secondary school students and their willingness to pursue career in agriculture; and e) find out the perceived constraints to the pursuance of intended career in agriculture by the secondary school students in the study area.

Methodology

Sokoto state is located on 13°05′N 05°15′E and at an altitude of 272m above sea level with a population of 1,078,092 (NPC, 2006). Sokoto metropolis comprises of Sokoto North, Sokoto South and parts of Dange-Shuni, Kware and Wamakko Local Government Areas. The demographic structure of the city is cosmopolitan with Hausa and Fulani predominating; others include Yoruba, Igbo, Zabarmawa, Nupe, and other minority tribes from within and outside Nigeria. Occupation of the inhabitants in the city is farming, trading, with a reasonable proportion of the population working in organized private and public sectors. The maximum day time temperatures are most of the year generally under 40^0C (104.0^0F), and the dryness makes the heat bearable. The area falls within the semi-arid region where rainfall ranges between 400-700mm per annum which is erratic and poorly distributed. Presence of the Rima valley aids dry season farming and other agricultural activities and up to 70-75 percent during the rainy season (Tanko and Obalola, 2013). Being it a city, several public and private schools are obtained within.

The investigation was carried out in three (3) purposively selected secondary schools that offer agricultural science. Random sampling technique was used to select forty (40) respondents from each of the chosen schools to make a sample size of one hundred and twenty (120) students. The dependent variable was the respondents' willingness to pursue career in agriculture while, the independent variables were the respondents

socioeconomic characteristics which comprise of gender, household size, community background, parental occupation, ethnicity and family background. The variables were measured as follows:

Variables	Ways of measurement
Gender	As male or female
Household size	Based on the number of members in a family unit
Community background	As urban, rural and peri-urban
Parental occupation	As civil service, farming, self-employed and public service
Ethnicity	Based on tribal group
Family economic status	As high class, middle class, and low class categories based on the respondents' family class observed in the study area.

The dependent variable was measured using five point Likert-type scale which contain constructs that comprise of positive and negative statements that include strongly agree = 5, agree = 4,undecided = 3, disagree = 2 and strongly disagree = 1.

The study employed the use of structured questionnaire to generate the required data. Data collected were analyzed using descriptive and inferential statistics. Descriptive statistics used include frequency and percentage. Inferential statistics employed was correlation analysis (Pearson Product Moment Correlation) to test the relationship between selected socioeconomic characteristics and willingness to pursue career in agriculture.

Result and Discussions

Selected Socioeconomic Characteristics of the Respondents

Result in table 1 indicates that 54.2 percent of the respondents were male, while 45.8 percent were female. Majority (65%) of the respondents have a household size within the range of 4 to 10 persons, 18.3 percent of the respondents have 11 to 17 persons, and 12.5 percent of the respondents have 18 to 25 persons, while 4.2 percent 25 to 31 persons. This implies that majority of the respondents belong to household size of considerable number, thus most of the respondents' parents had a lot to shoulder in terms of responsibilities, resources and other family needs. In line with this, Chawla (2012) reported that parents with increased number of household size have many family challenges such as time, family welfare and investment on education of their children. Majority (60.2%) of the respondents were Hausa, 24.0 percent were Yoruba, and 15.0 percent were Igbo, while the remaining 1.00 percent were Igala. The predominance of Hausa among the respondents is not unexpected since the study was carried out in Sokoto metropolis, where Hausa is the dominant ethnic group. 21.7 percent of the respondents place of domicile is rural, 68.3 percent resides in urban areas, while 10.8 percent reside in peri-urban area. The study found that 68.3 percent were from urban area, 21.7 percent from rural area, while 10 percent were from peri-urban area. Having majority of the respondents came from urban area could be as a result of the school's location, which is urban. However, students who reside in rural areas are very likely to have experience in agriculture and might easily develop the will to pursue career in it, while most students who reside in urban and peri-urban areas may perhaps not have the same opportunity. This is in line with what was reported by Esters and Bowen (2005) who found that the experiences of urban students who chose an agricultural career focused around several themes, which included career opportunities, secondary school agricultural experiences and work experiences.

Majority (55.8%) of the respondents indicated civil service as their parental occupation, 29.2 percent reported self-employed, 8.3 percent reported farming while, lesser percentage's (6.7%) parents were involved in public service.

This finding indicates that majority of the students do not come from farm families. This could be in agreement with what was reported by Kniveton (2004), that parents do back up their children's career choice when it's normally in line with their occupation. Besides, Reis and Kahler (1997) suggested that to maintain an active recruitment of students in agriculture, sharing information about the agriculture as a choice of career with potential students, parents, school administrators and the public will go a long way in encouraging students to pursue career in agriculture.

Furthermore, 31.7 percent of the respondents belong to high class family economic status, 66.7 percent belong to middle class family economic status, while 1.7 percent belong to low class family economic status. The dominance of middle to high class family respondents is a function of the greater ability of the parents to enroll their children in school. Moreover, Sokoto metropolis has highest enrollment of children in the state (MOE, 2010). Likewise, family economic status determines the income earnings of parents which in turn are used for family welfare. It is also a critical and most determining factor which predicts effect on academic achievements, as education of the children is central in family welfare spending. This finding is in line with that of Grawe and Mulligan (2002) who reported that economic resources and potentials of parents correlate significantly with children's schooling process and their academic achievement. In essence, children who come from families with more resources would have access to other auxiliary educational services which boosts their performance. Such parents can mold the behaviour of their children using pecuniary incentives to motivate their academic motives toward making a career choice.

Table 1: Distribution of respondents based on selected socioeconomic characteristics

Variables	Categories	Frequency	Percentage
Gender	Male	65	54.2
	Female	55	45.8
Household size	4-10	78	65.0
	11-17	22	18.3
	18-24	15	12.5
	25-31	5	4.2
Ethnic group	Hausa	72	60.0
	Yoruba	28	24.0
	Igbo	18	15.0
	Igala	2	1.00
Community background	Urban	82	68.3
	Rural	26	21.7
	Peri-urban	12	10.0
Parental occupation	Civil service	67	55.8
	Self employed	35	29.2
	Farming	10	8.3
	Public service	8	6.7
Family economic status	High class	38	31.7
	Middle class	80	66.7
	Low class	2	1.7
	Total	**120**	**100**

Willingness to Pursue Career in Agriculture

Result in Table 2 presents information on willingness to pursue career in agriculture. "I wish to pursue career in agriculture" ranked 6th factor for willing to pursue career in agriculture. This reveals that most of the respondents were

less willing to pursue career in agriculture. Despite that, "agricultural science is as an interesting subject" ranked 1st, while "I am motivated by the effectiveness of agricultural science teacher" ranked 2nd. This implies that agricultural science being an interesting subject does not motivate students to pursue career in agriculture. Similarly, this explains the rationale behind "I wish to pursue professional career in agriculture" ranked 8th factor for willing to pursue career in agriculture, which implies that most of the respondents are willing to take agriculture as an occupation rather than a profession.

Table 2: Distribution of the respondents based on willingness to pursue career in agriculture

Statements	Extent of opinion (number and percent)*					WMS	MR
	SA	A	U	D	SD		
Agricultural science is an interesting subject	51 (42.5)	52 (43.3)	5 (4.2)	6 (5.0)	6 (5.0)	4.13	1st
I am motivated by the effectiveness of my agricultural science teacher in helping me to learn agriculture	42 (35.0)	55 (45.8)	4 (3.3)	18 (15.0)	1 (0.8)	3.99	2nd
I wish to explore untapped potentials in agriculture	17 (14.2)	44 (36.7)	30 (25.0)	24 (20.0)	5 (4.2)	3.37	3rd
I would like to pursue career in agriculture as an occupation	21 (17.5)	41 (34.2)	22 (18.3)	30 (25.0)	6 (5.0)	3.34	4th
My experience will enable me to pursue career in agriculture	22 (18.3)	47 (39.2)	15 (12.5)	18 (15.8)	18 (15.0)	3.31	5th
I wish to pursue career in agriculture	11 (9.2)	53 (44.2)	21 (17.5)	20 (16.7)	15 (12.5)	3.21	6th
My family background will influence my pursuance of career in agriculture	21 (17.5)	30 (25.0)	19 (15.8)	32 (26.7)	18 (15.0)	3.03	7th
I wish to pursue professional career in agriculture after graduating from secondary school	17 (14.2)	27 (22.5)	33 (27.5)	26 (21.7)	17 (14.2)	3.01	8th

SA=strongly agree, A=agree, U=undecided, D=disagree, SD=strongly disagree and WMS= weighted mean score, MR=mean rank

*Figures in the parentheses indicate percentage

On the other hand, "I wish to explore untapped potentials in agriculture" ranked 3rd, while this could be attributed to why "I would like to pursue career in agriculture as an occupation" ranked 4th factor for willing to pursue career in agriculture. The finding indicates that respondents have little idea of the vast opportunities in agriculture, which may be as a result of respondents experience in agriculture which was ranked 5th. "My family background will influence my pursuance of career in agriculture" ranked 7th factor and can be referred to as almost the least factor that contributes to respondents' willingness to pursue career in agriculture. The indication is that family background has little influence on respondents' willingness to pursue career in agriculture.

These findings are in accordance with the opinion of Russell (1993) who stated that despite the significant role of agricultural sector and its interesting transformation program, most youth still lack the motivation and willingness to engage in agricultural activities, a debilitating factor resulting in slow growth in the agricultural industry in developed and developing countries. Jackson and Williams (2003) suggested that

agricultural science teachers, together with school guidance counsellors need to make students aware of the variety of career opportunities connected to the agricultural sector and the preparation required to pursue those careers. Similarly, Jackson and Williams (2003) opined that agriculture means more than subsistence farming-today, young people can explore career options in permaculture design, biodynamic farming, communication technologies, forecasting, marketing, quality assurance, urban agriculture projects, food preparation, environmental sciences, advanced technologies, and more. Farmers, businesses, policy-makers, and educators need to promote agriculture as an intellectually stimulating and economically sustainable career and make jobs in the agriculture and food system more interesting for young people.

Type of Career Wishing to Pursue

Table 3 indicated that 34.2 percent of the respondents wished to pursue occupational career in agriculture, 15.0 percent professional career, 32.5 percent both occupational and professional career, while 18.3 percent preferred other career outside agriculture. This finding implies that majority of the respondents had idea about agriculture and were aware that it was a promising sector. Although, a considerable number were not interested in taking agriculture as a professional career, majority wished to take it as an occupation realizing its importance to themselves and society. This finding is in posit with the statement of Talbert and Larke (2006) who opined that most individuals have an accurate perception and understanding of agriculture and how agriculture impacts the society, the economy, and the environment. Hence, most people are willing to take agriculture as a career choice.

Table 3: Distribution of respondents based on the type of career they wish to pursue in agriculture

Types of career	Frequency	Percentage
Professional Career	18	15.0
Occupation Career	41	34.2
Both	39	32.5
None	22	18.3
Total	120	100

Agriculture Occupational Career Wish to Engage in

Table 4 presents agriculture occupational careers the respondents wish to engage in. These occupational careers refer to the usual or principal means of earning livelihood. 30.0 percent wish to engage in poultry production, 28.3 percent crop production, 11.7 percent agro allied industry, 9.2 percent fish production, 6.7 percent rabbit production, 2.2 percent floriculture, while 12.0 percent were not wishing to engage in any agriculture occupational career. The finding implies that respondents would like to engage more either crop or livestock production. In the same vein, Akpantaku et al. (1998) stated that participation of young agricultural graduates in livestock production may be attributed to the protein needs of the country. Also, Gwary et al. (2008) in their study reported that young agricultural graduates are more interested in crop production, probably due to the short gestation period of the crop varieties produced, which ensures quick turnover.

Agriculture Professional Career Wishing to Pursue

Professional career is that which an individual pursues through acquisition of specialised knowledge, skills and trainings that culminate into a qualification at the end. Result in table 5 indicated that 13.3 percent of the respondents wish to pursue professional career in animal science, 10.0 percent agricultural engineering, 10.8 percent agronomy, 9.16 percent soil science, 8.3 percent agricultural economics, while 6.6 percent agricultural extension. The findings revealed the type of professional career respondents were willing to pursue in agriculture.

It could be noted that different agricultural sub-sectors were attractive and if students could be motivated and encouraged to realize the vital importance of agriculture there would be an increase of highly qualified individuals in the food, fibre and natural resources sectors. However, 41.6 percent of the respondents wished other career than agriculture. Dramé-Yayé et al. (2011) claims that despite the immense value of agriculture, support for agricultural education and training programmes, production, value addition, marketing, and development of appropriate policies has not been commensurate. Therefore, interest in pursuing agriculture related programmes is declining especially among high-school graduates.

Table 4: Distribution of respondents based on the type of agriculture occupational career

Agricultural occupational career	Frequency	Percentage
Poultry production	36	30.0
Crop production	34	28.3
Agro allied processing	14	11.7
Fish production	11	9.2
Rabbit production	8	6.7
Floriculture	2	2.2
None	15	12.0
Total	120	100

Table 5: Distribution of respondents based on the type of professional career

Types of professional career	Frequency	Percentage
Animal science	16	13.3
Agricultural engineering	12	10.0
Soil scientist	11	9.16
Agricultural Extension	8	6.6
Agricultural economics	10	8.30
Agronomy	13	10.8
None of the above	50	41.6
Total	120	100

Relationship between selected characteristics and willingness

Table 6, presents the result of correlation analysis between selected socioeconomic characteristics of the respondents and their willingness to pursue career in agriculture. Result indicates that gender ($r = 0.001$), community background ($r = 0.195$) and parental occupation ($r = 0.181$) had significant relationship with willingness to pursue career in agriculture. However, household size (0.140), ethnic group ($r = 0.051$) and family economic status ($r = 0.119$) were not found significant. Chawla (2012) reported a similar result, where it was found that several factors were said to be theoretically and empirically influence career aspirations and career choice process. Some of these factors include, parents' occupation, community background of students, parents' level of education, family background, and self- esteem.

Although, three variables (gender, community background and parental occupation) were found significant and positively related to the respondents' willingness to pursue career in agriculture, the strength of the relationship was weak. Therefore, with gender, community background and parental occupation there will be increase in willingness to pursue career in agriculture to a lesser extent.

Willingness to pursue career in agriculture

Table 6: Relationship between socioeconomic characteristics of respondents and their willingness to pursue career in agriculture

Variables	Coefficients	p-values
Gender	0.001	0.000*
Household size	0.140	0.128
Ethnic group	0.051	0.058
Community background	0.195	0.033*
Parental occupation	0.181	0.048*
Family economic status	0.119	0.197

*Correlation is significant at the 0.5% level

Perceived Constraints to the Pursuance of Career in Agriculture

Table 7 presents result of attitudinal statements on the constraining factors to pursuance of career in agriculture. Shortage of information ranked as the most constraining factor (1st) for not willing to take up agriculture as a career. This finding revealed that whether outside or inside the school, students were not adequately exposed to career opportunities in agriculture either through the mass media or interpersonal contacts. This finding is in substantiates the finding of Esters and Bowen (2005) that students who did not choose an agricultural career were influenced by lack of information explaining career opportunities in agriculture.

Other constraints that ranked in decreasing degree of perception include fear of risk, unavailability of land, poor marketing structure, tediousness of agriculture, little or no technological advancement in agriculture, lack of interest, synonymousness of agriculture with poverty, opposition from parent and poor prospect.

Poor government commitment to agriculture ranked 2nd. This findings supports the argument that the problems confronted by agricultural development projects begin with lack of sustained commitment by governments in term of funding, support and supervision which may result into the project not been fiscally empowered, and leading to project failure which presents poor image of agriculture to the public thereby hindering choice of students to pursue career in agriculture.

Lack of capital was ranked as another critical constraints (3rd) militating against willingness to pursue career in agriculture. This finding indicate that most of the respondents believe that capital is the pillar to successful agriculture career mostly as an occupation, equally lack of capital has a strong influence on decision to take up agriculture as a career. This findings is in line with the report of Azubuike et al. (2011) which state that resources availability especially land and access to credit facilities may influence the choice of agriculture as a career.

Conclusions

Most of the students view agriculture as a sector with a number of potentials yet to be tapped. However, their less willingness to pursue career in agriculture especially professional career might be a function of lack of motivation, encouragement and awareness considering the vast opportunities in it. A simple majority preferred poultry production as occupational career in agriculture, whereas in terms of professional career majority of them preferred none. On the other hand; gender, parental occupation and community background have some degree of significant association with the students' willingness to pursue career in agriculture. Notwithstanding; shortage of information, poor government commitment to agriculture and lack of capital were the major perceived constraints to pursuance of career in agriculture by the students. Therefore, in order to reverse the present situation the following were put forward:

1. Ministry for Education should strengthen the guidance and counseling structures in secondary school so as to catch them young.

2. Agriculture should be made compulsory at both primary and secondary school levels in order to inculcate the importance of the profession, and spirit of farming in youth.
3. Agricultural extension organizations should organize public enlightenment through media agricultural programs to encourage youths to choose agriculture as a career.

Table 7: Distribution of respondents based on their perceived constraints to pursuance of career in agriculture

Variables	SA	A	U	D	SD	WMS	MR
Shortage of information	32 (26.7)	39 (32.5)	11 (9.2)	26 (21.7)	12 (10.0)	3.44	1st
Poor government commitment to agriculture	19 (15.8)	42 (35.0)	19 (15.8)	33 (27.5)	7 (5.8)	3.28	2nd
Lack of capital	14 (11.7)	53 (44.2)	9 (7.5)	37 (30.8)	7 (5.8)	3.25	3rd
Fear of risk	18 (15.0)	43 (35.8)	16 (13.3)	26 (21.7)	17 (14.2)	3.16	4th
Unavailability of land	17 (14.2)	40 (33.3)	11 (9.2)	33 (27.5)	19 (15.8)	3.03	5th
Poor marketing structure	15 (12.5)	35 (29.2)	15 (12.5)	44 (36.7)	11 (9.2)	2.99	6th
Tediousness of agriculture	14 (11.7)	28 (23.3)	22 (18.3)	52 (43.3)	4 (3.3)	2.97	7th
Little or no technological advancement	18 (15.0)	31 (25.8)	17 (14.2)	33 (27.5)	21 (17.5)	2.93	8th
Lack of interest	14 (11.7)	22 (18.3)	20 (16.7)	47 (39.2)	17 (14.2	2.74	9th
Synonymousness of agriculture with poverty	11 (9.2)	20 16.7)	31 (25.8)	36 (30.0)	22 (18.3)	2.68	10th
Opposition from parents	19 (15.8)	22 (18.3)	10 (8.3)	37 (30.8)	32 (26.7)	2.66	11th
Poor prospect	5 (4.2)	23 (19.2)	31 (25.8)	34 (28.3)	27 (22.5)	2.54	12th

SA=strongly agree, A=agree, U=undecided, D=disagree, SD=strongly disagree, WMS= Weighted Mean Score and MR =Mean Rank

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