



**Investigation of the Factors Influencing Career Choice in
Agriculture and Forestry at the Federal College of Forestry Ibadan,
Oyo State**

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Abstract

The decline in enrolment in forestry and agricultural education at the Federal College of Forestry Ibadan, has been a major concern to relevant stakeholders especially when we consider the importance of forestry and agriculture technical education in addressing the problem of poverty and hunger and environmental sustainability as spelt out in the Sustainable Development Goals (SDGs). This study focused on the influence of students demographic factors on the choice of agriculture and forestry in Federal College of Forestry Ibadan. Descriptive and correlational survey designs were adopted. Census approach was used to include all the students of Federal College of Forestry, Ibadan, with a total of three hundred and sixteen (316) participants. Instruments used to collect data for this study was Students Career Choice' questionnaire (SCCQ) ($r=0.84$). Data collected were analysed using descriptive and multiple regressions. The result showed that many factors affect students' choice of study in Federal College of Forestry. The regression analysis also revealed that student's demographic variable (gender, age, religion, mother's qualification, father's qualification, mother's occupation, and fathers' occupation) accounted for only 17.2% of variance of students' choice. It was therefore recommend that various forestry and agricultural agencies should provide ways and means by which agricultural and forestry technical and vocational education campaigns and sensitization could be increased both in urban and rural areas.

Keyword: Forestry, Agriculture, Environmental Sustainability, Career choice, Demographic factors

Introduction

The importance of agriculture and forestry-based livelihood is more pronounced in developing countries like Nigeria, where it is the base of rural household economy, employment, and food source. Agriculture and forestry-based livelihood remains vital for sustainable development, poverty reduction and food security. The role agriculture and forestry play in the growth and development of most industrialized countries in the world

cannot be over emphasized. It is obvious that encouraging agricultural and forestry development will yield significant benefits. Such benefits may include; food security and hunger reduction, increasing income and poverty reduction, advancement in human development agenda in health and education and also reversing environmental damage. In realization of the above benefits, successive governments in Nigeria have embarked on livelihood sustainability interventions geared towards agricultural development.

Parents who are professionals (Doctors, Nurses, Lawyers, Accountants etc) desire their children to take up professions patterned after theirs but parents in the agricultural and forestry profession would rather prefer their children do what they regard as the professions of prestige to their own professions. When students are choosing a career, they may not have all the information about the job they are pursuing. The job may be more demanding than what they perceived. Students may like one aspect of a certain job and not understand what other aspect that comes with that profession.

The world is currently facing multiple problems of food scarcity, global warming (resulting in climate change) and low pricing of crude oil, resulting in global economic recession. Nigeria as a nation is not however insulated against this global crisis considering her position in crude oil exportation and grain importation alike. The World Bank reports that global food prices rose to 83% over the last three years and the Food and Agriculture Organization cites 45% increase in their world food price index within a period of nine months (Eric and Loren, 2008). Bio-fuels have also forced global food prices up by 75% for more than previously estimated. Grains have been diverted away from food to fuel. For example, over a third of U.S corn is used to produce ethanol.

The rural residents, which make-up 80.70% of the population in 1963 reduced to 70.1%, 53.0 and 51.6% in 1985, 2005 and 2012, respectively such that the estimated rural population growth is 1.1% compare to 4.0% urban growth (World Bank, 2012). The sheer frenzy of this rural-urban drift has dislocated the product captive of the urban sector and broken the backbone of agriculture. Second, the farmer population is ageing such that per capital productivity and output have declined. The effect of the ageing could be a loss of at least 30% of the rural sector workforce over the next ten years (Bloom et al., 2011). Thus, despite the contribution to economic growth, there are skills and labor shortage in the sector which ensue from the students' lack of interest in choosing agriculture and forestry as a professional career. Student perceive agriculture and forestry as an exclusive activity of the rural sector whose lack of basic infrastructure and amenities like electricity, pipe borne water, educational and health care institute, motor able road financial institution etc. (WorldBank,2012) makes it unattractive to live in. Certain factors influence career choice among youths. There are a variety of factors that also affect agricultural students. McGraw et al. (2012) reported that college students who major in agribusiness have been most influenced by factors that include great advancement opportunities, salary and benefits, and the work atmosphere.

Family and friends with a background in agriculture and forestry often times have an impact in a student's decision to major in agriculture (Wildman and Torres, 2002). Students also indicated that agribusiness professionals and extension agents had a major impact in choosing a career (Wildman and Torres, 2002). Ferry (2006) identified schooling as one of the cultural and socio-economic factors affecting the choice of a career. Farming is considered a default career for villagers with little or no education in many third-world countries.

Nigeria's agriculture and forestry sector to a large extent, still possesses the characteristics of a peasant economy that was prominent in the pre-independence period (Adewumi and Omotosho, 2002). More than 70 percent of the farming population in Nigeria consists of small holder farmers and foresters, each of whom owns or cultivates less than 5 hectares of farmland (NARP, 1994). Less than 50% of the country's cultivable agricultural land is under cultivation. Even the small-holder and traditional farmers and foresters who use rudimentary production techniques, with resultant low yields, cultivate most of this land. Farmers and forester are constrained by many problems including poor access to modern inputs and credit, poor infrastructure, inadequate access to markets, land and environmental degradation, inadequate research and extension services, etc.

Although there has been a recent rise in agricultural and forestry productivity, such improvement is derived more from expanded planting areas for staple crops than from yield increases. However, agriculture and forestry constitute one of the most important sectors of the economy. A vibrant agriculture and forestry sector is capable of ensuring the supply of raw materials for the industrial sectors as well as providing gainful employment for the teeming population (Ukeje, 2007). There are many careers in agriculture and forestry from which students may choose. There are great opportunities for advancement and job placement in the agricultural field (Thiesse, 2012). Careers in the agricultural field include extension agents, crop production services, and agricultural communications.

Today, agriculture and forestry are more advanced and the job field has expanded opportunities for graduating students. Agriculture represents 1.6% of all jobs in the United States and 5.9% of jobs in rural areas of the United States (USDA, 2009). Agriculture affects U.S. employment indirectly by supporting industries such as agricultural services and agricultural processing and marketing (USDA, 2009). Students now have opportunities to work in specific concentrations instead of going back home to work on the farm (Thiesse, 2012). Students now have the option to work in many areas including teaching (for example, working as extension agents to educate local farmers), marketing for companies such as machinery and crop production service companies, commodity trading, or working in agricultural production.

Statement of the Problem

In order to ensure sustenance of forest resources and food production and their roles on economic development and environmental protection, it is imperative to train sufficient number of professionals in the field of agriculture and forestry and its allied disciplines, who are expected to contribute to rural development, food security, sustainable natural resources, environmental management, poverty reduction and mitigate the adverse effect of global warning in the country, hence the importance of technical and vocational education in field of forestry and agriculture. Despite the importance and huge prospect in forestry and agricultural profession in Nigeria, choice of careers in this aspect of agriculture profession is still rated low among the students. Students enrollment into school like Federal College of Forestry which is a school where only forestry and agricultural courses are been offered is very low compared to other tertiary technical and vocational institutions in Oyo state.

Research Questions

1. What are the factors influencing career choice in agriculture and forestry at Federal College of Forestry Ibadan?
2. What are the composite contributions of the students' demographic factors on their choice of career?
3. What are the relative contributions of the students' demographic factors on their choice of career?

Methodology

Sample

The population for the study was all the Federal College of Forestry Ibadan students of 2019/2020 academic section. The study adopted census approach to select all the three hundred and sixteen (316) students of federal College of Forestry, Ibadan considering the size of the population of the students. The demographic characteristics of the respondents are as indicated in Table 1.

Table 1: Demographic Characteristics of the respondents.

S/N	Variables	Frequency	Percentage	Total
1.	Gender			
	Male	215	68.0	100
	Female	101	32.0	
2.	Age (Years)			
	16 -20	15	4.7	100
	21 – 24	255	80.7	
	25 and above	46	14.6	
3.	Religion			
	Christianity	141	44.6	100
	Muslim	159	50.3	
	Traditional	16	5.1	
4.	Father Occupation			
	Farmer	26	8.2	100
	Trading	103	32.6	
	Civil servant	179	56.6	
	Artisan	8	2.5	
5	Mother Occupation			
	Farmer	20	6.3	100
	Trading	125	39.6	
	Civil servant	159	50.3	
	Artisan	12	3.8	
	Total Number of Respondent	316		100

Instrumentation

The instrument used to collect data for the study was a questionnaire title Determinant of students' choice of career questionnaire. (SCCQ) designed by the researchers. The questionnaire had two sections A and B. Section A was used to source students background information, while section B was used to gather information on the factors that can affect students' choice of their career in Federal College of Forestry. Four Likert scale: Strongly Agreed (SA), Agreed (A), Disagreed (D), and Strongly Disagreed (SD) was used in section B. The face and content validity of the instrument was determined by four research experts who satisfied the use of the instrument. To determine the reliability of the instrument, a pilot testing of the instrument was done using forty (40) students in Federal College of Agriculture, Ibadan. Test reliability of the instrument was determined using Cronbach Alpha that yielded an acceptable correlation coefficient of 0.84. Data collected were analysed using simple percentage, mean and standard deviation and multiple regressions.

Result

Research Question 1: What are the factors influencing career choice in Agriculture and Forestry at Federal College of Forestry Ibadan?

Ground rule for Table 1: A mean score of 2.5 and above is an expression of influential factors that determine student choice of career in Federal College of Forestry.

Table 2: Factors that determines students' choice of career in Federal College of Forestry

S/N	Items I am influenced by...	SA	A	D	SD	Mean	S/D
1	my skills and ability to pursue this course	248(78.5)	45(14.2)	11(3.5)	12(3.8)	3.68	.720
2	my ambition to become a forester or an agriculturist.	199(63.0)	82(26.0)	20(6.3)	15(4.7)	3.47	.814
3	the fact that my choice of this course will give me a prestige	169(53.5)	89(28.2)	45(14.2)	13(4.1)	3.31	.865
4	the fact that the course will give me stable and secure future	135(42.7)	108(34.2)	34(10.8)	39(12.3)	3.07	1.013
5	availability of jobs in the field of agriculture and forestry.	97(30.7)	118(37.3)	59(18.7)	42(13.3)	2.85	1.007
6	the desire to be self-employed and become employer of labour	51(16.1)	129(40.8)	93(29.4)	43(13.7)	2.59	.916
7	my interest in planting	38(12.1)	123(38.9)	105(33.2)	50(15.8)	2.47	.899
8	an opportunity for further education and training	124(39.2)	107(33.9)	98(31.0)	42(13.2)	3.33	.886
9	the attractive working conditions attached	30(9.5)	97(30.7)	121(38.3)	68(21.5)	2.28	.908
10	my parents	26(8.2)	82(26.0)	126(39.9)	82(25.9)	2.16	.908
11	advice of a family member who is a forester/Agriculturist.	21(6.6)	74(23.4)	132(41.8)	89(28.2)	2.09	.881
12	guidance counselor's advice	28(8.8)	65(20.6)	125(39.6)	98(31.0)	2.07	.932
13	my secondary school teacher	24(7.6)	70(22.2)	117(37.0)	105(33.2)	2.04	.927
14	government policy on environmental protection	46(14.6)	61(19.3)	118(37.3)	91(28.8)	2.20	1.041
15	distance between my place of living and the school	48(15.2)	65(20.6)	117(37.0)	86(27.2)	2.23	1.005
16	my inability to make a good grade in UTME	165(52.2)	78(24.7)	42(13.3)	31(9.8)	3.19	.994
17	society attitude to Forestry and Agricultural Education	44(13.9)	91(28.8)	104(32.9)	77(24.4)	2.30	.943
18	my grade in senior certificate examination	36(11.4)	98(31.0)	110(34.8)	72(22.8)	2.34	.932
19	my friends	35(11.0)	96(30.4)	113(35.8)	72(22.8)	2.41	1.005
20	the employment opportunity I have in my family.	55(17.4)	84(26.6)	111(35.1)	66(20.9)	2.10	.889

Percentages in parenthesis (%)

From the responses of the students in the questionnaire, as shown in Table 1, eight factors influenced student's choice. These factors are students having the skills and ability to pursue this course' with mean of 3.68 and 92.7% of the students agree to that, the ambition to become a forester or an agriculturist having mean of 3.47 and 895 responded positively to that, the choice of forestry and agricultural courses gives

prestige with the mean of 3.31 and 81.7%, This course will give stable and secure future with mean 3.07 and 76.9%, Availability of jobs in the field of agriculture and forestry having mean of 2.85 and 68%, The desire to be self-employed and become employer of labour mean 2.59 and 64.1%, An opportunity for further education and training with mean 3.33 and 73.1% while 76.9% of them are in Federal College of Forestry because they could not make good grades in UTME with mean 3.19.

Research Question 2: What are the composite contributions of the students' demographic factors on their choice of career?

Table 3: The Composite Contributions of the Students' Demographic Factors on their Choice of Career in Federal College of Forestry.

Model	Sum of square	Df	Mean square	F	Sig.
Regression	210.800	7	30.114	10.315	.000
Residual	904.054	308	2.919		
Total	1109.984	315			

R = .436
 R² = .190
 Adjusted R² = .172

Table 3 shows the joint contribution of students' demographic factors to the prediction of what determines choice of career. The table shows a coefficient of multiple regression (R = .431, R² = .186 and adjusted R² of .172). This means that the students' demographic factors accounted for only 17.2% of the variance on the influence of their choice of career. Therefore, the regression ANOVA produced (F_{7, 308} = 10.315, P < 0.05). This implies that a joint contribution of all the students' demographic factors investigated in this study with the influence in choice of student career is statistically significant.

Research Question 3: What are the relative contributions of the students' demographic factors on their choice of career?

Table 4: Relative Contribution of Determinant Factors to Students' Choice of Profession

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-2.193	.701		-3.127	.002
Gender	-.079	.214	-.020	-.372	.710
Age	.786	.239	.180	3.295	.001
Religion	.229	.169	.071	1.356	.176
Father's occupation	.214	.193	.078	1.109	.268
Mother's occupation	.744	.195	.267	3.806	.000
Father's Qualification	.093	.103	.050	.901	.368
Mothers Qualifications	.106	.082	.067	1.292	.197

Table 4 shows that out of the seven variables (age, gender, religion, mother's occupation, father's occupation, mother's qualification, father's qualification) only the Age and Mothers' occupation contributed significantly to the determinant of the choice of career of students of Federal college of forestry are ($\beta=0.180$, $t=3.295$, $P<0.005$) and mothers occupation ($\beta=0.267$, $t=3.806$, $P<0.005$).

Discussion

The result showed there are more male students than females in Federal College of Forestry Ibadan, this could be attributed to the fact that girls view forestry and Agriculture especially in technical and vocational institution, which is practical oriented as tedious and strenuous activities hence few of them choose it while boys embrace agriculture and forestry as an opportunity for innovation and source of employment. This finding agrees with the work of Fabunmi and Adedayo (2017) that there is significant difference in career interest leading to career choice between the boys and girls.

The result in table 2 shows that students' ambition play important role in their choice of career in Federal College of Forestry considering the fact that majority of them agreed that their ambition to become a forester or an agriculturist influenced them. This finding agrees with that of Anwar, Abdul, Mohamed Abdulrazak (2016) that individuals play an important part in the process of forming their initial career choice. Availability of jobs in the field of agriculture and forestry and the desire to be self-employed and become employer of labour also influenced the students' choice, this is in consonant with Dlamini (1999) which reveals that availability of employment in the profession and positive contribution of agriculture to national development are among the factors that influence students' choice of agriculture as a field of study.

The study also revealed there that there is joint contribution of all the demographic factors; (age, gender, religion, mother's occupation, father's occupation, mother's qualification, father's qualification) investigated on the study with the determinant factor of choice of student career was statistically significant. This buttresses the works of (Ahuja (2002), Maina (2013)), that many factors such as social and structural influence can inform career choices positively or negatively.

Conclusion

The study was carried out in Federal College of Forestry, Ibadan. It exposes the factors influencing choice of Agriculture and Forestry as a career in the college. The findings revealed that there are numerous factors found to influence the choice of students; these include, personal ambition, society's attitude to agriculture and forestry as a profession, availability of jobs in the field of agriculture and forestry, desire to be self-employed and be an employer of labour; most outstanding influence being age and

occupation of mother. The study also revealed that there are more male students than females in Federal College of Forestry Ibadan, this could be attributed to the fact that girls view forestry and Agriculture, which is practical oriented as tedious and strenuous activities, hence few of them choose it while boys embrace agriculture and forestry as an opportunity for innovation and source of employment.

Recommendations

Based on the findings of the study the following recommendations were made:

- Students should be exposed to successful agricultural activities like mechanized farming to motivate them on the subject area.
- Parents should be enlightened and educated on their roles in guiding their children or wards in making career choices.
- Female students should be encouraged to take on courses in agriculture and not to regard it as career for males only.
- The forestry and agricultural agencies should provide ways and means by which agricultural and forestry technical and vocational education campaigns and sensitization could be increased not just in urban areas but also in rural areas.
- Government and non-governmental agencies should encourage students by giving scholarship to students who take up careers in the field of agriculture and forestry.
- Adequate security should be provided for those who work in the field of agriculture and forestry.

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