

## **Effects of Demographic Attributes on the use of Agricultural Management in Building Entrepreneurship Capacity of Youths in Kano State, Nigeria**

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### **Abstract**

This study examined the effects of demographic attributes on the use of agricultural management in building entrepreneurship capacity of youths in Kano State. The population of youths in these centres were 620 and a total of 178 youths were randomly selected from the population. The study measured the significant difference between demographic attributes of the participants and the use of agricultural management in building entrepreneurship capacity and continuous trainings of the youths. Primary data were collected from the sampled participants using a structured questionnaire. Descriptive and inferential statistics were used to analyse the data. One-way ANOVA was employed in determining the significant of the relationships. The demographic attributes with significant influence on the use of agricultural management in building entrepreneurship capacity of youths were gender ( $p \leq 0.01$ ), age ( $p \leq 0.05$ ), marital status ( $p \leq 0.05$ ), parent income ( $p \leq 0.05$ ), parent occupation ( $p \leq 0.05$ ) and parent education level ( $p \leq 0.05$ ) respectively. It could be concluded that agricultural practices and management remain sources of employment for the timing youths. Adequate provision of access to credit and soft loan that will help youths in acquiring necessary tools and inputs is recommended. Public Private Partnership is also recommended for the facilitation of knowledge and skills transfer among youths to boost their entrepreneurship capacity.

**Keywords:** Agriculture, Capacity, Demographics attributes, Entrepreneurship, Management and Youths.

### **Introduction**

In sub-Saharan Africa, the position of agricultural sector is eminent in the economy of the region. It drives national growth and development, provides employment for the citizens, create wealth and also help in alleviation and reduction of poverty (Ogbanga, 2018). The place of agricultural sector in provision of employment cannot be over emphasized. It remains a key sector that provides high volume of employment opportunities in most developing countries, for instance, in Brazil (25%), Egypt (32%), Israel (3.7%) and Nigeria (70%) (Bernard & Adenuga, 2017). In Nigeria, since independence of the country, most government policies have been directed towards increasing food security, provision of agricultural raw materials for industrialization of the economy and boosting the manufacturing sector with the aim of providing employment for the citizens as well as earn foreign exchange (Weor & Akorga, 2016). Several attributes such as favourable climatic conditions to grow different staple and cash crop, large expanse of land and nutritive vegetative cover for cattle rearing, huge volume of both surface and underground water for

fish and other aquatic industries and irrigation of crop during dry season production contributes to her success (Ayoola, 2009). However, several packages (i.e. special incentives) such as credit facilities and trainings have been presented to youths through policies to boost their interest in agricultural production and processing by both federal and state governments (Oke & Fabamise, 2018). However, a lot have not been achieved due to increase in the population of citizen and geometric growing in the numbers of both graduates and out of school youths (Anho, 2014). According to Adebayo and Ogunrinola (2006), the challenges of employment are glaringly seen as bane of numerous socio economics problems in Nigeria (Obianuju *et al*, 2016). However, Nigeria governments have always identified entrepreneurial skill acquisition as an avenue to reduce high rate of both unemployment and under-employment among her citizens (Maigida, Saba & Namkere, 2013). In fact, it became a policy thrust of successive government in Nigeria. Efe-Imafidon *et al* (2017) described entrepreneurial skill as knowledge acquisition with intent to establish an enterprise, to improve individual's livelihood through job creation and boosting of economic growth. It is also the ability to acquire skills and knowledge, to recognize opportunities, allocation of resources, risk taking and stating of a venture (Usman *et al*, 2018). It simply means all necessary skills required by an individual to operate a successful business and add value to work.

Kano state is one of the most populous states in Nigeria where 90% of the population are farmers. According to National Bureau of Statistics (2018), as at the last quarter of the years 2018, Kano state has the highest unemployment rate of 31.3% and underemployment rate of 24.3% in the North West region of Nigeria. This has been the situation for decades and the state government has used these institutes and several others to create business environment for the citizen of the state (Kano State Ministry of Agriculture and Natural Resources, 2014).

### **Problem statement**

Successive government in Nigeria has vigorously used skills acquisition mechanism to face the challenges of unemployment in the country through provisions of incentives contained in several policies to attract the interest of the youths. However, increase in the population of youthful age groups, high rate of graduates and out of schools youths, economic volatility that reduced income of citizens, diminishing status of once celebrated white-cola job in the labour market on daily basis also contributed to loss of jobs and has led to surge in unemployment and under-employment rate among youths. Therefore, this study was carried out to investigate whether demographic attributes has effects on the use of agricultural management to build entrepreneurship capacity of youths in Kano State, Nigeria.

### **Research Questions**

- i.** Does a statistical relationship exist between demographics attributes such as age of youths, gender, marital status, level of educational attainment, parent/guardian income, parent/guardian occupation, parent/guardian educational level and the use of agricultural management to build entrepreneurship capacity?
- ii.** Does a statistical relationship exist between demographics attributes such as age of youths, gender, marital status, level of educational attainment, parent/guardian income,

parent/guardian occupation, parent/guardian educational level and continuous training in agricultural practices?

### **Objectives of the study**

The broad objective of this research was to investigate the effects of demographic attributes on the use of agricultural management in building entrepreneurship capacity of youths in Kano State, while the specific objectives of the study were categorised into two:

- i. Determine the existence of relationship between the age of youths, gender, marital status, level of educational attainment, parent/guardian income, parents/guardian occupation, parent/guardian educational level and the use of agricultural management to build entrepreneurship capacity.
- ii. Ascertain the relationship between the age of youths, gender, marital status, level of educational attainment, parent/guardian income, parents/guardian occupation, parent/guardian educational level and continuous training in agricultural practices.

### **Research Hypotheses**

The following hypotheses were formulated to guide this study:

**H<sub>01</sub>:** There is no significant relationship between demographics attributes such as age of youths, gender, marital status, level of educational attainment, parent/guardian income, parent/guardian educational level and the use of agricultural management to build entrepreneurship capacity.

**H<sub>02</sub>:** There is no significant relationship between demographics attributes such as age of youths, gender, marital status, level of educational attainment, parent/guardian income, parent/guardian occupation, parent/guardian educational level and continuous training in agricultural practices.

### **Methodology**

The study area is Kano state, Nigeria. The specific locations are the different institutes under Ministry of Agriculture and Natural Resources where these skills acquisition centre were situated, and participants converge in it for learning of new skills. These vocational training includes; Livestock Training Institute, Bagauda, Poultry Training Institutes, Tukai, Fisheries Training Institutes, Bagauda, and Farm Mechanization Training Institutes, Kadawa, Kano state, Kano state, Nigeria. This study adopted a descriptive survey research design. Descriptive survey research design was used in this study because the research involves large population, thus it uses smaller group to represent a large group. The population of students across these centres was 620; this figure was discovered in the registered used for recording the numbers of the available students under internship at the time of this research. The sample size for this work was pooled from the four aspects of agricultural activities that were giving consideration and selected for this study i.e. livestock, poultry production, fisheries and aquaculture, and farm implement fabrication. An estimated sample size of each categories of respondents was selected randomly, the mathematical formula suggested by Nassiuma (2000) as applied by Norah (2010) was used to determine the sample size as shown below;

$$n = \frac{NC^2}{C^2+(N-1)e^2}$$

Where;

n = Sample Size

N = Population

C = Coefficient of variation, assumed to be 70.9% for most survey research

e = Standard error assumed to be 0.05 in the work

therefore;

$$n = \frac{620(0.79)^2}{0.79^2 + (620 - 1)*0.05^2} = 178$$

**Table 1: Distribution of Sample Frame**

S/N	Institutes	Population	Calculation of Sample Size	Sample Size
1	Livestock	125	125/620*(178)	36
2	Fisheries	170	170/620*(178)	49
3	Poultry	217	217/620*(178)	62
4	Farm Mechanization	108	108/262*(178)	31
<b>Total</b>	<b>4</b>	<b>620</b>		<b>178</b>

Source: Pre-Survey, 2016

**Analytical techniques**

Two stages of analysis were carried out in this research study i.e. descriptive and inferential statistics. Descriptive analysis was used to describe data distribution such as frequencies, percentages and graphs were used to analyse demographic attributes of the participants and the calculated mean of the attributes while inferential statistics (ANOVA) was used to examine hypothesis testing, to determine the existence of any relationship between variables and to compare the means of two groups on the dependent variable. ANOVA was considered because of post-hoc test, to avoid and control type 1 error (Mouhamadou, 2014). The independent variable were the demographic attributes of the participants which includes gender, age, marital status education, parent/guardian income, parent/guardian occupation and parent/guardian level of education. The dependent variable was entrepreneur ability of participant and continuous training of youth on agricultural practices and thus answers were sought to the following research questions.

**Result of the Findings**

The Table 2 below shows the demographic attributes of the youths. The table reveals that 58% of the total youth interviewed were male while 42% were females. This implies that male folk dominated the learning of skills due to cultural believe that men has more responsibilities more than their female counterpart. The age groupings also indicate that 22% of youths under internship are between the age of 18-22 years, those between the age

bracket of 23-27 years has 28%, the youths between the age range of 28-33 has 31% and youths with age 34 years and above has only 19%. This implies that youths between the age range of 28-33 years participate more in skills acquisition because it's the age group where adulthood is been groomed and a means of livelihood is highly of importance. The tables further reveal that 49% of the participant are single with less responsibility to cater for, only 42% of the participant were in married. Divorce and widow have 7% and 2% respectively. On the educational level of the participants, 36% has Senior Secondary School Examination certificate, 13% has Certificate or Technical education, while 37% has National Certificate of Education, only 13% has other form of education like Quranic education or higher degree certificate.

However, the Table 3 below also reveals the parent or guardian level of income, those with ₦0 - ₦18000 monthly income has 17%, while those parent or guardians with monthly income between the range of ₦19000 - ₦36000 has 31% and 52% of the parent or guardian has monthly income between ₦37000 and above. This implies that the higher the income level of the parent of guardian, the more the opportunities available for the youths learn skills. On the parent or guardians' educations, it was reveals that 31% are employed in a formal setting while 43% are self-employed, 11% are unemployed while 15% are retiree. This implies that self-employed parents have more interest on skills acquisition for independence of the children. For the parent and guardians' level of education, 31% has Senior Secondary School Examination certificate, 22% has National Certificate of Education, 20% has degree and other higher certificates while 28% has Certificate or Technical education. The Table 3 is illustrated below.

**Table 2: Distribution of Demographic Attributes of the Participants**

Demographic Traits	Demographic Grouping	Frequency	Percentage
Gender	Male	104	58
	Female	78	42
	Total	178	100
Age	18-22 years	39	22
	23-27 years	50	28
	28-33 years	56	31
	34years above	33	19
	Total	178	100
	Marital Status	Single	88
Married		74	42
Divorce		12	7
Widow		4	2
Total		178	100
Level of Education	SSCE	64	36
	Certificate or Technical Education	24	13
	NCE/Diploma	66	37
	Others	24	13
	Total	178	100

*Source: Field Survey, 2016*

**Table 3: Distribution of Demographic Attributes of The Participants**

Demographic Traits	Demographic Grouping	Frequency	Percentage
Parent or Guardian Income	₦0 - ₦18,000	30	17
	₦19,000 - ₦36,000	56	31
	₦37,000-above	92	52
	Total	178	100
Parent or Guardian Occupation	Employed	55	31
	Self-employed	77	43
	Unemployed	19	11
	Retiree	27	15
	Total	178	100
Parent or Guardian Education	SSCE	55	31
	NCE/Diploma	39	22
	Degree and above	35	20
	Certificate/Technical Vocation	49	28
Total	178	100	

Source: Field Survey, 2016

## ANOVA

Analysis of variance was used to examine the significant relationship between demographics attributes and agricultural management in building entrepreneur capacity of youths and continuous training of youths on best agricultural management to boost their entrepreneur skills. One-way ANOVA was conducted for each of the select demographic attributes. Following the basic steps, different estimates of population variance from the data were derived after which a statistic from the ratio of these two estimates i.e. between groups and within groups variance were calculated (Mouhamadou, 2014). Therefore, a significant F value implies that the population means are probably not equal. However, before the conduct of ANOVA, all necessary assumptions were met. The two assumptions of concern were population normality and homogeneity of variance.

### Research Question 1:

i. Does a statistical relationship exist between demographics attributes such as age of youths, gender, marital status, level of educational attainment, parent/guardian income, parent/guardian occupation, parent/guardian educational level and the use of agricultural management to build entrepreneurship capacity?

**H<sub>0</sub>:** There is no significant relationship between demographics attributes such as age of youths, gender, marital status, level of educational attainment, parent/guardian income, parent/guardian educational level and the use of agricultural management to build entrepreneurship capacity

**H<sub>1</sub>**: There is a statistically significant relationship between demographics attributes such as age of youths, gender, marital status, level of educational attainment, parent/guardian income, parent/guardian educational level and the use of agricultural management to build entrepreneurship capacity.

The Table 4 below, reveals the results of analysis of variance in determining the relationship between demographic attributes and use of agricultural management in building entrepreneurship capacity of youths in Kano state. Since the P value is less than 0.05 level of significant, the null hypothesis is rejected with regards to gender (0.003), age (0.021), marital status (0.042), parent or guardian income (0.027), parent or guardian occupation (0.033) and parent or guardian educational level (0.046). This implies that there are significant differences between the use of agricultural management in building entrepreneurship capacity of youths and gender, age, marital status, parent or guardian income, the occupation of the parent or the guardian and educational level of the parent or guardian. However, where P value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. Therefore, participant level of education was 0.427. This implies that there is no significant difference between the use of agricultural management in building entrepreneurship capacity of youths and education level of the participant youths. See Table 4 below for the illustration.

**Table 4: Distribution of Demographic Attributes in Building Entrepreneurship Capacity of Youths**

Dependent variable	Independent variable	Independent Variables Grouping	Mean	SD.	F value	P value	Decision
Building Entrepreneurship Capacity of Youths	Gender	Male	6.18	1.647	9.082	0.003***	H <sub>0</sub>
		Female	6.07	1.275			Rejected
	Age	18-22 years	5.97	1.267	3.326	0.021**	H <sub>0</sub>
		23-27 years	6.06	1.531			Rejected
		28-33 years	6.14	1.212			
		34years above	5.76	1.888			
	Marital status	Single	6.19	1.113	2.798	0.042**	H <sub>0</sub>
		Married	5.91	1.563			Rejected
		Divorce	5.08	2.539			
		Widow	6.75	0.500			
	Level of Education	SSCE	6.25	0.926	0.931	0.427	H <sub>0</sub>
		Certificate or Technical Education	5.96	1.301			Accepted
		NCE/Diploma	5.85	1.791			
		Others	5.88	1.702			
	Parent or Guardian Income	₦0 - ₦18,000	5.80	1.690	3.684	0.027**	H <sub>0</sub>
		₦19,000- ₦36,000	6.16	1.276			Rejected
		₦37,000-above Naira	5.99	1.479			
		Employed	6.00	1.401			
	Parent or Guardian Occupation	Self-employed	5.96	1.610	2.978	0.033**	H <sub>0</sub>
		Unemployed	6.47	0.612			Rejected
Retiree		5.85	1.512				
Parent or Guardian Education	SSCE	6.24	1.036	2.729	0.046**	H <sub>0</sub>	
	NCE/Diploma	6.05	1.234			Rejected	
	Degree and above	6.29	1.152				
		Certificate/Technical Vocation	5.53	2.022			

Source: Field Survey, 2016



### Mean Distribution of Demographic Attributes on Building Entrepreneurship Capacity of Youths

The mean value of demographic attributes was examined with regards to its building of entrepreneurship capacity of youths in Kano state. The mean value for gender reveals that male has 6.18 and while female has 6.07 and this implies that the female folk need more capacity building on entrepreneurship than the male counterpart. This is in line with the findings of Yemi and Sani (2015) that, in general women are mostly affected with both unemployment and underemployment. On the age grouping, youths within the age range of 28-33 years has highest mean value of 6.14, while those on the age range of 23-27 years has 6.06, youths in the age bracket 18-22 years has 5.96 and 5.76 for those youths in age bracket of 34 years and above. This support the assertion made by Yemi and Sani (2015) that problem of unemployment is more prevalent amongst the 15-24 and 25-34 age groups. For marital status, divorce has the lowest mean value of 5.08, married has 5.91, single has 6.19 and 6.75 for widow which is has the highest mean value. On education status of the youths, those with Senior Secondary Certificate Examination has mean value of 6.25, the youths with Certificate or Technical Education has 5.96, the Nigeria Certificate in Education or Diploma holder has 5.85 while youths with other forms of education has 5.88 mean value.

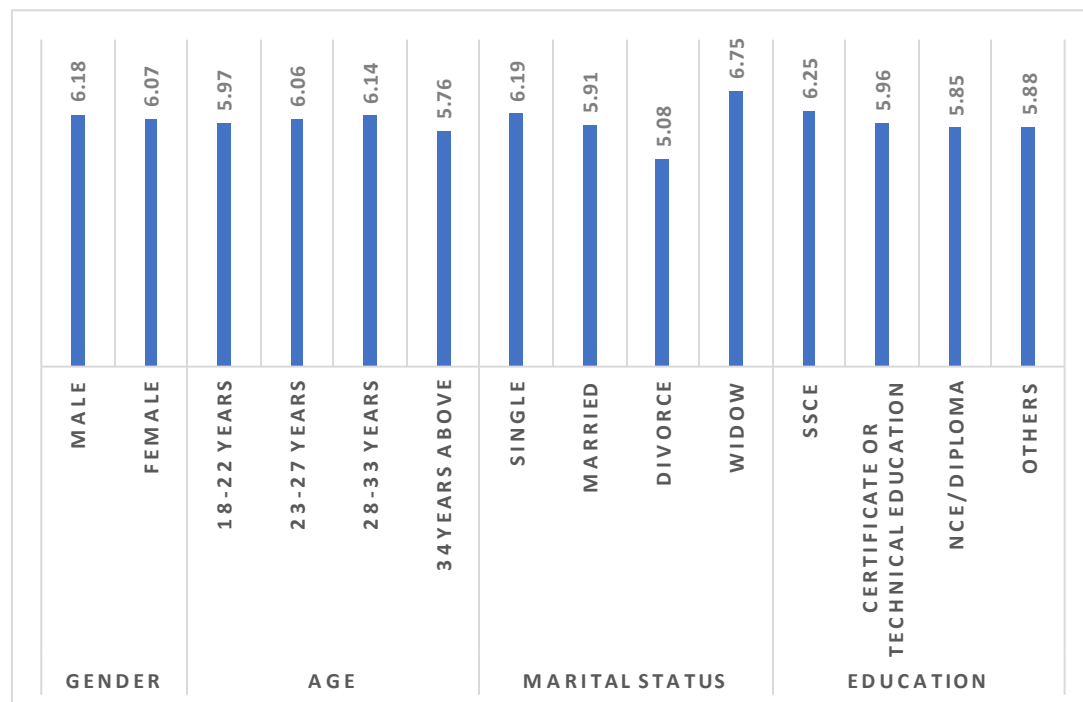


Figure 1: Mean Distribution of Demographic Attributes

The parent or guardian that earn between ₦0 - ₦18000 has 5.80 as mean value, those parents that earn between ₦19000- ₦36000 has 6.16 and 5.99 for those parents or guardians that earn ₦37000 and above. The occupation of parent or guardians also has 6.00 mean value for the employed parents, 5.96 for self-employed parents, 6.47 for the unemployed parents and 6.24 for the retiree parents of guardians. On the level of parents or guardian’s education, parents with senior secondary certificate examination has 6.24, guardians with Nigeria Certificate in Education or Diploma has 6.05, those with Degree and above has 6.29 while 5.53 for parents or guardians with certificate/technical education

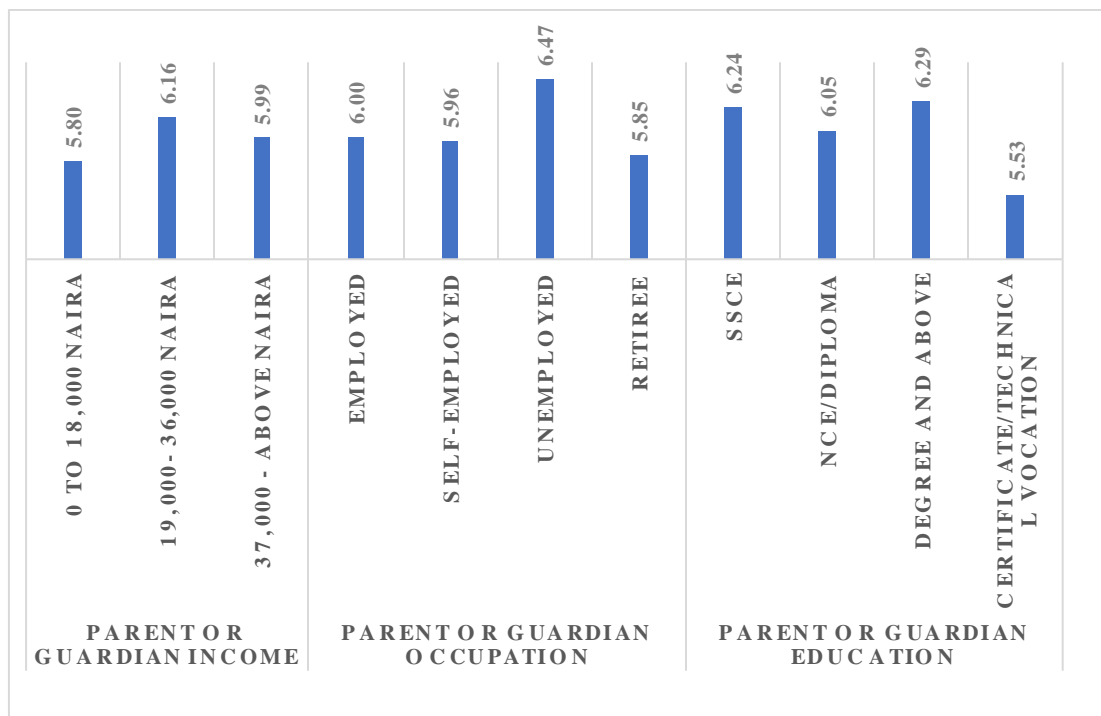


Figure 2: Mean Distribution of Demographic Attributes

**Research Question 2:**

- i. Does a statistical relationship exist between demographics attributes such as age of youths, gender, marital status, level of educational attainment, parent/guardian income, parent/guardian occupation, parent/guardian educational level and continuous training in agricultural practices?

**H<sub>0</sub>:** There is no significant relationship between demographics attributes such as age of youths, gender, marital status, level of educational attainment, parent/guardian income, parent/guardian occupation, parent/guardian educational level and continuous training in agricultural practices.

**H<sub>1</sub>:** There is significant relationship between demographics attributes such as age of youths, gender, marital status, level of educational attainment, parent/guardian income, parent/guardian occupation, parent/guardian educational level and continuous training in agricultural practices.

In Table 5 below as illustrated, since the P value is less than 0.05 level of significant, the null hypothesis is rejected with regards to gender (0.037), parent or guardian income (0.011), parent or guardian occupation (0.035) and parent or guardian educational level (0.010). It could be concluded that there is significant difference between the continuous training of the youth participating in skills acquisition and gender of the participant, the parent or guardian income level, the occupation of the parent or the guardian and educational level of the parent or guardian. However, where P value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. Therefore, age of the participants has 0.953, marital status has 0.819 and participant level of education was 0.357. This implies that there is no significant difference continuous training of the participant and age, marital status and education level of the participant youths. Below is the table 5 for better illustration.

**Table 5: Distribution of Demographic Attributes on Continuous Training of Youth on Entrepreneurship**

Dependent variable	Independent variables	Independent Variables Grouping	Mean	SD.	F value	P value	Decision
Continuous Training of Youth on Entrepreneurship	Gender	Male	4.94	2.135	4.402	0.037**	H <sub>0</sub> Rejected
		Female	5.59	1.098			
	Age	18-22 years	5.10	1.984	0.113	0.953	H <sub>0</sub> Accepted
		23-27 years	5.34	2.026			
		28-33 years	5.16	2.164			
		34years above	5.24	2.122			
	Marital status	Single	5.18	2.152	0.309	0.819	H <sub>0</sub> Accepted
		Married	5.34	1.967			
		Devoice	4.75	2.137			
		Widow	5.00	2.160			
	Level of Education	SSCE	5.41	1.908	1.084	0.357	H <sub>0</sub> Accepted
		Certificate or Technical Education	5.54	1.865			
		NCE/Diploma	5.12	2.202			
	Parent or Guardian Income	Others	4.63	2.242	4.611	0.011**	H <sub>0</sub> Rejected
		₦0 - ₦18,000	5.13	2.063			
		₦19000- 36000	5.88	1.478			
	Parent or Guardian Occupation	₦37000 - above	4.84	2.279	2.929	0.035**	H <sub>0</sub> Rejected
		Employed	4.56	2.379			
Self-employed		5.43	1.950				
Unemployed		5.84	1.302				
Parent or Guardian Education	Retiree	5.48	1.889	3.934	0.010***	H <sub>0</sub> Rejected	
	SSCE	5.53	1.597				
	NCE/Diploma	5.85	1.582				
	Degree and above	5.03	2.281				
		Certificate/Technical Vocation	4.49	2.484			

Source: Field Survey, 2016

### Mean Distribution of Demographic Attributes on Continuous Training of Youths

The mean value of each demographic attributes was also evaluated and analysed on continuous training of youth in agricultural management. For the gender, it was discovered that male has 4.94 and female also has 5.59 mean value. This implies that, the male participants are in need of continuous trainings there their female counterpart. On age, the mean value of age group between 18-22 years was 5.1, 23-27 years was 5.34, 28-33 years was 5.16 and 33 years above was 5.24. This shows that, the age group of 18-22 years need more of continuous training followed by 28-33 years, 33 years and above. This finding corroborates with earlier findings of National Bureau of Statistics (2014). The mean value for the marital status of the participant also shows that, single has 5.18, married has 5.34, divorced has 4.75 and widow has 5.00. This implies that married participant has highest value of 5.34. Hence the divorced needs continuous training on skills acquisition, then the widow follows by single. The mean value of participant level of educations also reveals that, those participants with other forms of education lowest mean value of 4.63, participants with Nigeria Certificate in Education or diploma has 5.12, the youths with Senior Secondary Certificate Examination has mean value of 5.42 and those with Certificate or Technical Education has the highest mean value of 5.34. This indicate that participants with other forms of education need continuous training, followed by those with Nigeria Certificate in Education or Diploma and participants with Senior Secondary Certificate Examination (Alabi, 2019).

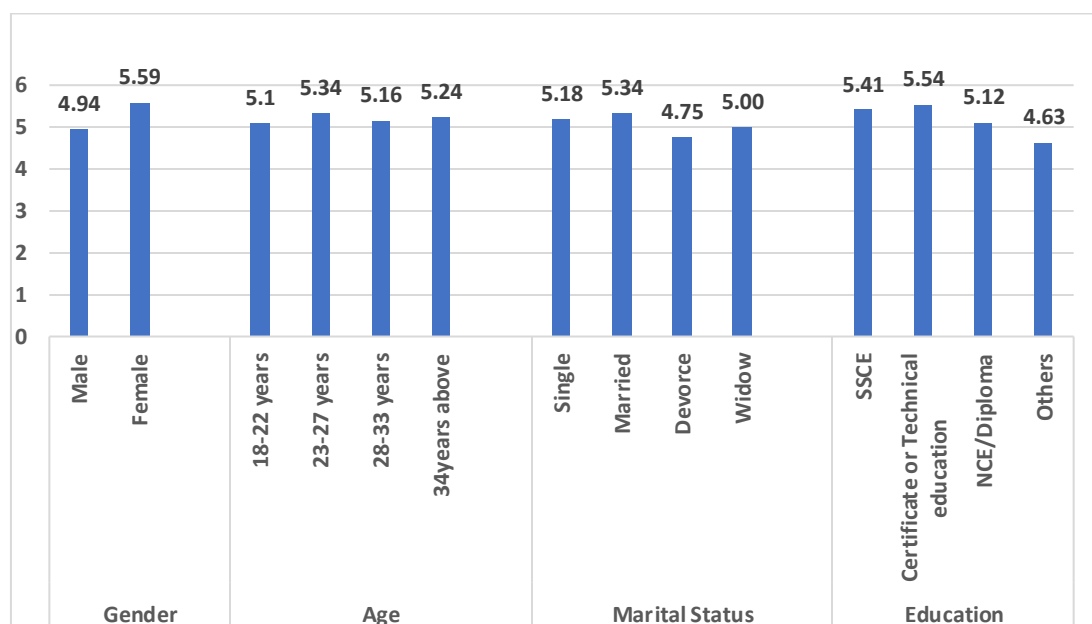


Figure 3: Mean Distribution of Demographic Attributes on Continuous Training

### Mean Distribution of Demographics Attributes Continuous Training of Youths

In the figure below, the mean value of parent or guardian income indicated that those that earn above ₦37000 monthly has lowest value of 4.84 and as such need more of

continuous training with regards to skills acquisition and this was followed by those parents or guardian that earn between ₦0 - ₦18000 monthly with mean value of 5.13. Parents or guardians that earn between ₦19000 - ₦36000 monthly has highest mean value of 5.88. On the occupation of parent or guardian, the employed parents or guardians has lowest mean value of 4.56 and as such in need of more continuous training, followed by self-employed parents or guardians with 5.43, the retiree also has 5.48 while unemployed parents or guardians has highest mean value for continuous training. For the educational level of the parents or guardians, those with certificate/technical education has lowest mean value of 4.49, parents with degree and above certificates has 5.03 mean value, those with senior secondary certificate examination has 5.53 and those parents with Nigeria Certificate in Education or Diploma has the highest mean value of 5.58.

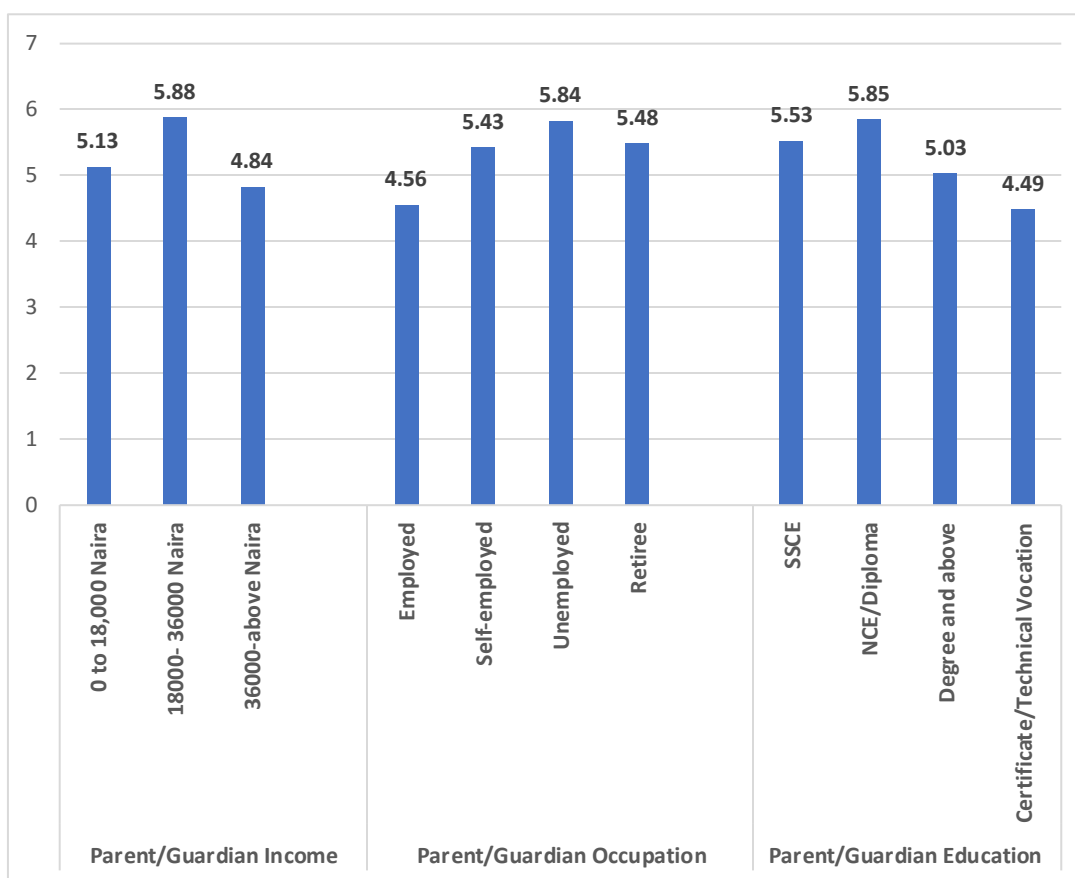


Figure 4: Distribution of Demographics Attributes on Continuous Training

### Conclusion

This study has examined the effects of demographic attributes such as age, gender, marital status, education, parent/guardian income, parent/guardian occupation and parent/guardian educational level on the use of agricultural management in building entrepreneurship capacity of youths in Kano state. Based on hypothesis tested, this study revealed and established that, demographic attributes have effects on the use

agricultural management in building entrepreneurship capacity as well as continuous training of the youths.

### Recommendations

Based on the findings of the study, the following recommendations were made;

- i. Adequate provision of access to credit and soft loan that will help youths in acquiring necessary tools and inputs.
- ii. Public Private Partnership is also recommended for the facilitation of knowledge and skills transfer among youths to boost their entrepreneurship capacity.
- iii. Farming household should be encouraged to diversify their income generation activities.
- iv. Formation of effective cooperatives that will front for the youths to boost their collective bargaining power.

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