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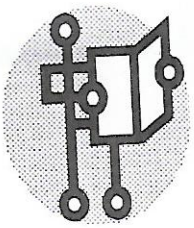

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BRIEF HISTORY OF THE JOURNAL

At the 7th Annual General Meeting of the International Research and Development Network of Children and Youth in Agriculture Programme (CY AP-Network: visit our website www.cyiapnetwork.org for more information) held at Tai Solarin University of Education, Ijagun, Ijebu-Ode, Nigeria on the 28th November, 2006, it was resolved that a journal named Annals of Child and Youth Studies (ACYS) of the Network be established Dr. Dixon OlutadeTorimiro, an Associate Professor in the Department of Agricultural Extension and Rural Development, ObafemiAwolowo University, Ile-Ife, Nigeria was unanimously appointed as the Editor-in-Chief and the Department was chosen as the Editorial Office of the Journal.

The Network/Editorial Board are:

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ASSESSMENT OF UNICEF PROGRAMMES/PROJECTS IN RURAL COMMUNITIES OF KWARA STATE

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Abstract
The study assessed the UNICEF programmes/projects in the rural communities of Kwara state, Nigeria. It explored the basic needs of rural children, the UNICEF programmes/projects available to them and their perception on the programmes/projects. It also identified the constraints faced in accessing the programmes/projects in the study areas. A random sampling technique was used to select 120 children from Isin and Ilorin East Local Government Areas of Kwara State where UNICEF programmes/projects were implemented. Data were obtained through interview schedules and analysed using frequency counts, percentages, mean scores, and Chi-square. The study revealed that 38.3% of the respondents were within the age range of 7-9 years, 52.2% were male while 45.5% were female. Some, (54.2%) of the respondents' fathers were farmers. UNICEF programmes/projects mainly available to rural children was immunization programme (87.5%) while only (20.8%) had access to potable drinking water. Most respondents strongly agreed that the UNICEF WASH programmes had improved their welfare. Insufficient teachers in schools (28.3%), transportation cost (27.5%), shortage of health workers (25%), poor maintenance of UNICEF facilities (12.5%), insufficient facilities (3.3%), cultural influence (1.7%) and failure of government to comply with the programme/project funding arrangement (1.7%) were identified as the main constraints facing rural children in assessing UNICEF programmes/projects. Further analysis showed that sex and religion of the respondents had no significant effect on the children's access to UNICEF facilities while their age and class were significantly related to their access to the facilities. The study therefore recommended the need for provision of boreholes and more enlightenment programmes on sanitation practices in schools in the rural communities.

Keywords: Assessment, Programme, Rural, Communitie

Introduction

The child right act defines a child as a person below the age of 18 years. The act contains a universal set of standards and principles for survival, development, protection and participation of children and recognizes children as human beings and subjects of rights. UNICEF Nigeria (2011) reported that this has made children very important members of the society and therefore, provision must be made for their welfare. The United Nations Children's Fund (UNICEF) is the world's leadingchildren's organization, founded in 1946 by the United Nations to provide food, clothing and rehabilitation programs to European children brutalized in World War II (1935-1945). UNICEF office was established in Lagos, Nigeria in 1953. Since then, the federal Government has been working in collaboration with the UNICEF in order to bring about development to the rural people in terms of health services for mother and children. At the beginning of the new millennium, world leaders gathered at the United Nations to shape a broad vision to fight poverty in its many dimensions. That vision, which was translated into eight Millennium Development Goals (MDGs), has remained the overarching development framework for the world for the past 15 years. Millennium DevelopmentGoals Report (2015). According to this report,

- The primary school net enrollment rate in the developing regions has reached 91 per cent in 2015, up from 83 per cent in 2000.
- The number of out-of-school children of primary school age worldwide has fallen by almost half, to an estimated 57 million in 2015, down from 100 million in 2000.
- Sub-Saharan Africa has had the best record of improvement in primary education of any region since the MDGs were established. The region achieved a 20 percentage point increase in the net enrolment rate from 2000 to 2015, compared to a gain of 8 percentage points between 1990 and 2000.
- The literacy rate among youth aged 15 to 24 has increased globally from 83 percent to 91 per cent between 1990 and 2015. The gap between women and men has narrowed.

Six of the eight Millennium Development Goals (MDGs) can best be met as the rights of children to health, education, protection and equality. They will only be sustained as the rights of every child are realized. These same six match the goals set out in 'A World Fit for Children'. And so, UNICEF's work with children necessarily assumes a central role in meeting both sets of goals and in

making the world a better place for all. UNICEF's roles include; Advocacy, research and action that create a protective environment that will; allow every child the best start in life, ensure every girl and every boy a quality primary school education, safeguard every child against disease and disability, stop the spread of HIV/AIDS and provide care for every child affected, shield every child from violence, abuse, exploitation and discrimination.UNICEF works in more than 90 countries around the world to improve water supplies and sanitation facilities in schools and communities and to promote safe hygiene practices. They sponsor a wide range of activities and work with many partners, including families, communities, governments and like-minded organizations. In emergencies, they provide relief to communities threatened by disrupted water supplies and diseases (UNICEF, 2003). All UNICEF water and sanitation projects are designed to contribute to the MDG targets for water and sanitation; this to halve by 2015, the proportion of people without sustainable access to safe water and basic sanitation. United Nations Development Programme Report (2006)

Rural communities in Kwara state and Nigeria as a whole suffer scarcity of water especially during the dry seasons. Lack of water supply predisposes children to series of health hazards as water is needed to maintain good hygiene and stay healthy. In times of scarcity, children have to go to streams or rivers in search of water to be used in the house thereby missing school. There is an increasing body of evidence showing that improving water, sanitation and hygiene in both communities and schools can have a significant impact on enrolment levels, on the ratio of girls to boys in schools, on educational achievement and on the quality of education. Water availability in households is an important factor in the enrolment, attendance and drop-out rates of children. In areas where safe water sources are distant, girls are often obliged to miss school to help fetch water. This is most often seen in African countries with low water coverage rates, but the correlation has also been documented in countries in Asia, the Middle East and Latin America. UNDP Report (2006) Also according to the Multiple Indicator Cluster Survey (2011), UNICEF contributed to an additional 4.8 million people gaining access to improved water sources; 0.9 million people gaining access to sanitation, mostly in underserved rural areas; 1.1 million pupils gaining access to WASH facilities in over 1,150 schools; and to hygiene awareness campaigns reaching

over 60 million people. Nigeria was certified free of dracunculiasis in 2012. Over the years, Nigeria has made improvements in the well-being of its children; the country is on track to achieve Millennium Development Goal 6. However, progress towards achieving the remaining Goals is limited. Under-five mortality fell from 201 deaths per 1,000 live births in 2003 to 124 per 1,000 in 2011, while infant mortality fell from 100 to 78 per 1,000. The maternal mortality ratio has improved, dropping from 800 per 100,000 live births in 2000 to 630 per 100,000 live births. The main causes of infant and child deaths are pneumonia, diarrhoea, malaria and neonatal causes, compounded by under-nutrition and vaccine-preventable diseases. The poorest population quintile has an under-five mortality rate of 220 per 1,000 births, compared to 90 per 1,000 among the richest quintile. (National Population Commission, 2008). Routine immunization levels increased from 11 percent in 2007 to 28 percent in 2011. MICS (2011).

This study is therefore, poised to assess the UNICEF programmes/projects in rural communities. The general objective of the study is to assess the UNICEF programmes/projects in the rural communities of Kwara state, Nigeria while the specific objectives are to: describe the socio-economic characteristics of the respondents, identify UNICEF projects available in the study area, ascertain the respondents perception on the UNICEF programs in the study area and determine the condition of the UNICEF projects in the study area.

Study Area

The study was conducted in Ilorin East and Isin Local Government Areas of Kwara State, Nigeria. Kwara state falls in the North central part of Nigeria. The state is geographically located between latitude 7° 20' and 11° 05' north of the equator longitude 2° 05' and 6° 45' east of the prime meridian. (Ogunlade, Oladele and Babatunde, 2009).KwaraStatewas created in 1967. The state shares boundaries with Niger State in the north, Kogi State in the east, Benin Republic in the west and Osun, Oyo in the south (Ellen and Kellog, 2005). Kwara state has a land area of 36,825 square kilometers and a population of 2.37million people. The state is a confluence of cultures, populated by the Yorubas, Hausas, Fulanis, Nupes, Barubas and others. The state also has 3 senatorial districts cutting across 16 local government areas but isin local government and Ilorin east local government are the focus of the study.

Sampling technique and sample size

Two of three local government areas where UNICEF programmes/programs are in operation were randomly selected. From the two local government areas, purposive random sampling was used to select three villages; Oke-Aba, Oba-Isin and Ola-isin from Isin LocalGovernmentArea because they are more actively involved in the programmes under study and two villages; Oha-meje and Ayetoro-oja were also purposively selected from Ilorin East LocalGovernment Area for the same reason. Twenty–four children each were randomly selected from the five villages given a total of 120 respondents. The survey instrument used to elicit primary data was scheduled interviews by meeting the respondents' one after the other with the guidance of their school teachers while the secondary data were derived from documentsand other materials from UNICEF office.Both descriptive and inferential statistics were used to analyze the data collected. Descriptive statistics such as frequency counts, percentages, mean score and were used while the inferential statistic used was Chi-square. In terms of measuring the variables, the socio-economic characteristics of the respondents were measured using simple frequencies and percentages. For example, age of respondents were measured in years, and respondents' sex was classified into male and female. The perception of respondents on UNICEF projects/programmes were measured on a 5 point Likert-type scale of strongly agreed, agreed, etc. The type of UNICEF projects available in the communities were also measured using frequency counts and percentages while the constraints being faced by respondents were rated based on their percentages.

Results and discussion

Entries in table 1 presents the socio-economic characteristics of the respondents which showed that many (38.3%) of them fall within the age range of 7-9 years. Also, most (54.2%) of the respondents were male while 45.8percent were female. This showed that more boys were enrolled in schools than girls in the rural communities. This is in agreement with the UNICEF (2005) report that about 7.3 million Nigerian children are out of school. The report indicates that disproportionate percentages of the children are girls who constitute about 60% due largely to traditional practices and prejudices ranged against girl child education in a "patriarchal milieu" Also, UNICEF (2010) estimates that over 100 million children of primary school age were out of school in 2008, 52 per cent of them were girls. To

buttress this, there is also evidence that a lack of clean and private sanitation and washing facilities in schools discourages girls from attending school full time and forces some to drop out. This becomes more pronounced as girls reach puberty and privacy and security concerns become more important. UNICEF support programmes that focus on providing girl-friendly sanitation and washing facilities are needed in schools to curb the rate at which girls drop out of school. Much is yet to be done in some countries in Africa and Asia as few as 10 per cent of schools have adequate and separate sanitation facilities, while student-to-latrine ratios can be as high as 150:1. (UNDP Report, 2006) Furthermore, the many (52.5%) of the rural children were muslims while less than 50% were christians. The table further indicated that, majority of the pupils (54.2%) were within primary 4-6 and also most of the respondents' fathers (54.2%) were farmers, 11.7% were civil servants and 10% were teachers while the other 24.1% were tailors, traders, blacksmiths, hunters, drivers, carpenters, photographers, and vulcanizers. From the table, it is evident that the majority of the people living in the rural communities are peasant farmers who need development in order to make life comfortable and improve their standards of living so as to bring about high productivity to enhance food security. In the absence of mechanized farming, more labor is needed on the farms and children tend to be used as labor to assist their fathers on farms.

UNICEF programmes/projects were provided to the rural children so as to improve their welfare and bring about changes in their ways of lives. Table 2 showed that above 90% of the respondents indicated that programmes/projects on provision of potable drinking water, VIP toilets in schools, hand washing equipment, de-worming, immunization, books to enhance learning, treated mosquito nets, HIV/AIDS and provision of refuse bins were always available in their area. This implies that almost of all the children in the study area have accesses to safe water, adequate sanitation and hygiene facilities which are crucial for survival, growth and well being. This is in consonance with the Nigeria Country Document (2013) that UNICEF, the World Health Organization and the GAVI Alliance supported the introduction of new vaccines. Technical support and commodities vaccines, vitamin A, long-lasting insecticide-treated nets and de-worming drugs which were provided for the initiation of maternal, neonatal and child health weeks in all LGAs. Coverage of vitamin A was 75

per cent for children and women during each round.\

In Table 3. 8 attitudinal statements were presented to the respondents for them to rank based on the scales of Strongly Agreed, Agreed, Undecided, Disagreed and Strongly Disagreed. The respondents ranked "The program has helped to improve my welfareand Provision of school furniture has enhanced attendance" 1st with the mean score of 4.8. The WASH program introduced has reduced the spread of contagious diseases such as cholera, dysentery etc, Provision of water in schools has increased school attendance, Sanitation prevents diseases and death and Sanitation makes our environment conducive for living" ranked 2nd with a mean score of 4.7, "Immunization /de-worming makes children healthy and prevent wide spread of diseases" ranked 3rd with a mean score of 4.6 and "Sanitation club in the school has enlightened me to educate my parents and influence my community positively" ranked 4th with a mean score of 4.5. This supports the UNDP Report (2006) on the fact that UNICEF-supported school-based hygiene education projects in China and Nigeria have reported increases of between 75 percent and 80 percent in hand-washing with soap amongst students. When school-based programmes are designed in a coordinated way with wider community programmes, children can be helped to become 'agents of change' to pass on the health and hygiene information learned at school to family and community members leading to benefits for the entire community. The implication of the ranking is that the respondents had a positive perception of all the attitudinal statements presented to them on the programmes/projects of UNICEF in the study areas.

The condition of UNICEF programmes/projects in the study areas refer to the state of the programmes/projects available in the communities and how well they have benefited the children. Table 4 revealed that bore-hole and sanitation (99.2%), provision of toilet (100%) provision of refuse bins (98.3%), hand washing campaign (100%), provision of child friendly materials (100%) provision of books to pupils (100%), girl child education (98.3), immunization/de-worming(100%), provision of health centers (99.2%), provision of drugs (98.3%), provision of mosquitoes net (95.0%), sensitization of people about HIV/AIDS (100%) preaching against stigmatization (98.3%) child right act(100%) were the programs present and continuous in the areas. This implies that UNICEF

programmes/projects have contributed to the welfare of the children in the study areas. Unhygienic environments and poor hygiene practices result in chronic diarrhoea, which is a leading cause of death in people living with HIV/AIDS and it is associated with further depression of the immune system and an increase in opportunistic infections. Safe water is essential in areas where HIV-positive mothers use infant formula as a breast milk substitute and as part of an overall treatment, care and support package for people living with HIV/AIDS. (UNDP Report, 2006) However, less than 15% of the respondents indicated that provision of bore holes (0.8%), provision of refuse bins (1.7%), encouragement of girls to go to school(1.7%), provision of health centres (0.8%),provision of drugs(1.7%) provision of treated mosquito nets(5.0%) and preaching against HIV/AIDS stigmatization(1.7%) were programmes that were present but not sustainable.

Table 5 showed that the constraints hindering the rural children in accessing the UNICEF programmes/projects the most was insufficient teachers in school with a percentage of 28.3% Not surprisingly, teacher absenteeism has a strong negative impact on educational quality; studies have shown that a 5% increase in teacher absence rates reduced average learning gains over the course of an academic year by 4% to 8% (UNICEF, 2012) also, a shortage of teachers manifests itself in a lack of consistent attendance for those hired to work in difficult areas. Back-to-school campaigns in countries in transition are especially dependent on water supplies. Teachers are hesitant to relocate to communities without a reliable and safe source of water. UNDP Report (2006). This showed that there is a need for more teachers in schools so as to make it easier for the children to enjoy the benefits of the UNICEF programmes/projects and improve their standard of education. This is followed by the transportation problem which constituted 27.5%, this implies that some of the rural roads were not in good conditions which could be a reason for teachers and students absenteeism from schools. 25% of the respondents reported that there was shortage of health workers. 12.5% reported that UNICEF facilities such as toilets, hand washing equipment and sanitation materials in their schools were insufficient in their schools.

Testing of hypothesis

Hypothesis: There is no significant relationship between the socioeconomic characteristics of the rural children and their perception on

UNICEF programmes/projects in the study area

Table 6 shows that sex and religion of respondent x^2= 0.833 and 0.300; p.> 0.05 had no significant relationship with their perception on UNICEF programmes/projects in the study area while significant relationship existed between respondent age and class (x^2= 32.20 and 0.300 ;< 0.05) and perception on UNICEF programmes/projects in the study area.

The null hypothesis is thus accepted that there is no significant relationship between religion and sex of the respondents and their perception on UNICEF programmes/projects while we reject the null hypothesis that states that there is no significant relationship between the age and class of respondents and their perception on UNICEF facilities.

This implies that age and class of the respondents have a significant effect on how they perceive the UNICEF programmes/projects. It could be inferred that the older the children and the higher their classes, the better their perception on the UNICEF programmes/projects.

Conclusion and Recommendations

Based on the findings of this study, it is evident that UNICEF programmes/projects have been effective in improving the welfare of the children in Isin and Ilorin East Local Government Areas of Kwara state. Some of the programmes/projects include; provision of VIP toilets, immunization and de-worming programmes, hand washing campaign, child friendly materials/equipment, HIV/AIDS education and child right act. Also, the children have access to most of the programs to a satisfactory level. However, a few projects like; provision of bore holes, refuse bins, girl child education, health centers, drugs, treated mosquito nets and preaching against stigmatization of people living with HIV/AIDS were not well maintained. Given that the hypothesis tested showed that there is no significant relationship between selected socio-economic characteristics (sex and religion) of respondents and their perception on UNICEF programmes, it implies that sex and religion do not influence their perception of the UNICEF programmes/projects. Hence, respondents would favourably consider any programme in as much as such programme would be beneficial to them. On the other hand, the study, as verified by the hypothesis, showed that age and class have a link with their

perception of UNICEF programmes. In order to reduce child mortality and illiteracy, the study therefore, recommends that stakeholders including the local communities, state and federal government; should work out a more efficient maintenance mechanism in order to enhance the sustainability of the UNICEF programmes/projects in the study area. Additionally, since there is a positive significant relationship between age and perception of respondents, the UNICEF projects should first be introduced to the older children in higher classes before extending it to other spheres of the communities. This is to further boost a strong perception and enhance the acceptance of the programmes.

References

Civil Society Action Coalition on Education for All (CSACEFA), Kwara: Every Child Needs a Teacher; Global Action Week on Education, 2013

Ellen, J. L., and Kellog, J. S. (2005): Deficiencies in drinking water distribution systems in developing countries. *J. Water and Health.* 3(2): 109-127.

Millennium Development Goals (MDGs) Report (2015): The Millennium Development Goals Report 2015, United Nations New York: 2015; Time for global action for people and planet

MICS (2011): Monitoring the situation of children and women. Nigeria Multiple Indicator Cluster Survey 2011. Main Report

Nigeria Country Document (2013): Nigeria Country Programme Document (E/ICEF/2013/P/L.7) Approved at the 2013 second regular session of Executive Board on 6th September, 2013

Ogunlade, I., Oladele, O. I. and Babatunde, A. O. (2009): Farmers' Attitude to Beneficiary Funding of Extension Services in Kwara State, Nigeria. Journal of Human Ecology 26(3): 215-220.

UNICEF New York (2003): The United Nations Children's Fund (UNICEF), New York, 2003

UNICEF (2005): " *Report on State of Child-education in Nigeria".* Paris: UNICEF

UNDP Report (2006): Human Development Report Office; OCCASIONAL PAPER on Children and Water, Sanitation and Hygiene:

The Evidence. UNICEF (United Nations Children's Fund)

UNICEF (2010): PROGRESS FOR CHILDREN Achieving the MDGs with Equity Number. 9th September, 2010: The convention on the rights of the child.

UNICEF (2011): UNICEF NIGERIA - FACT SHEET: Child rights legislation in Nigeria; Updated April 2011

Table 1. Socio-economic characteristics of respondents

Personal characteristics	frequency	percentage
Age (years)		
4-6	13	10.8
7-9	46	38.3
10-12	45	37.5
13-15	16	13.3
Sex		
Male	65	54.2
Female	55	45.8
Religion		
Christianity	57	47.5
Islam	63	52.5
Class		
Primary 1-3	31	25.8
Primary 4-6	65	54.2
JSS 1-3	24	20.0
Father's occupation		
Teacher	12	10.0
Farmer	65	54.2
Tailor	5	4.2
Trader	11	9.2
Civil servant	14	11.7
Blacksmith	3	2.5
Hunter	3	2.5
Driver	3	2.5
Carpenter	2	1.7
Photographer	1	0.8
Vulcanizer	1	0.8

Source: Field Survey, 2014

Table 2. UNICEF programmes/projects available to the children in the study area

Projects/programs	Freq (N)	Percentage (%)
Potable drinking water	25	20.8
VIP toilets	37	30.8
Hand wash equipment	82	68.3
De-worming programme	74	61.6
Immunization programme	105	87.5
Provision of books	66	55.0
Treated mosquito nets	88	73.3
HIV/AIDS campaign programme	92	76.6
Provision of refuse bins	89	74.2

Source: Field Survey, 2014 Multiple Responses.

Table 3.Perception of respondents on UNICEF programs/projects in the study area

Statements	Strongly agreed	Agreed	Undecided	Disagreed	Strongly disagreed	Total	Mean score value	Rank
The program has helped to improve my welfare	94(78.3)	25(20.8)	-	1(0.8)	-	572	4.8	1st
Provision of school furniture has enhanced attendance	70(58.3)	45(37.5)	3(2.5)	3(1.7)	-	570	4.8	1st
The WASH program introduced has reduced the spread of contagious diseases such as cholera, dysentery etc	85(70)	34(28.3)	-	1(0.8)	-	563	4.7	2nd
Provision of water in schools has increased school attendance	84(70)	33(27.5)	2(1.7)	1(0.8)	-	560	4.7	2nd
Sanitation prevents diseases and death	75(62.5)	45(37.5)	-	-	-	555	4.7	2nd
Sanitation makes our environment conducive for living	74(61.7)	46(38.5)	-	-	-	555	4.7	2nd
Immunization /de-worming makes children healthy and prevent wide spread of diseases	90(75)*	30(25)	-	-	-	554	4.6	3rd
Sanitation club in the school has enlightened me to educate my parents and influence my community positively.	83(69.2)	33(27.5)	-	-	-	545	4.5	4th

Sorce: Field Survey, 2014

Table 4. Perceived condition of UNICEF programmes/projects in the study area

Programs/Projects	Present and Continuous		Present but not sustainable		Not present at all	
	Freq	%	Freq	%	Freq	%
Bore holes	119	99.2	1	0.8	-	-
VIP Toilets	120	100	-	-	-	-
Refuse bin	118	98.3	2	1.7	-	-
Hand washing Campaign	120	100	-	-	-	-
Child friendly materials / equipment	120	100	-	-	-	-
Provision of books to pupils	120	100	-	-	-	-
Girl child education	118	98.3	2	1.7	-	-
Immunization/de-worming	120	100	-	-	-	-
Provision of health centres	119	99.2	1	0.8	-	-
Provision of drugs	118	98.3	2	1.7	-	-
Provision of treated mosquito nets	114	95.0	6	5.0	-	-
Sensitization of the people about HIV/AIDS	120	100	-	-	-	-
Preaching against stigmatization	118	98.3	2	1.7	-	-
Child right act	120	100	-	-	-	-

Source: Field Survey, 2014

Table 5. Constraints facing respondents in accessing UNICEF programmes/projects

Constraints	Frequency	percentage %	rating
Insufficient teachers in schools	34	28.3	1st
Transportation cost	33	27.5	2nd
Shortage of health workers	30	25.0	3rd
Poor maintenance of UNICEF facilities	15	12.5	4th
Insufficient facilities	4	3.3	5th
Cultural influence	2	1.7	6th
Failure of government to comply with the project funding arrangement	2	1.7	6th

Sources: Field Survey, 2014

Table 6. Relationship between the socioeconomic characteristics of the children and their perception on UNICEF programmes/projects in the study area

Variable	Df	X^2	P value	Inference
Age	3	32.20	0.000	Significant
Sex	1	0.833	0.361	Non-signific
Class	2	24.05	0.000	Significant
Religion	1	0.300	0.584	Non-signific

Sources: Field survey, 2014 *significant at 0.05 level

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TECHNICAL, ALLOCATIVE AND ECONOMIC EFFICIENCY OF WOMEN CASSAVA PRODUCERS IN OSUN STATE, NIGERIA

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Abstract
The paper determined the technical, allocative and economic efficiencies of rural women cassava farmers in Osun State. Multistage sampling technique was used to draw samples for the study. In the first stage, Osun State was purposely selected based on its prominence in cassava production. In the second stage, there are six Agro-ecological Zones in Osun State. Two Local Government Areas (LGA) per Agro-ecological Zone were randomly selected. In the third stage, two villages per LGA were selected using simple random technique. In the final stage, data were collected with the use of a pre-tested structured questionnaire from 10 rural cassava women that were randomly selected per village to give a total of 240 respondents. The major tool of analysis in this study was the stochastic frontier model used to determine the technical, allocative and economic efficiencies of cassava production in the study area. Results of the study showed that all the women cassava farmers had technical efficiency ranged from 0.115 for the least efficient farmer to 0.95 for the farmer that attained the highest technical efficiency, with mean of 0.802. The minimum allocative efficiency score was 1.013 and the maximum efficiency score was 1.66 with a mean efficiency of 1.068 while calculated economic efficiency for all the rural women cassava farmers ranged from 0.112 for the least efficient farmer to 1.465 for the farmer that attained the highest economic efficiency score, with mean of 0.857. The study concludes that rural women cassava farmers in the study had high technical and economic efficiency but there is still room for improvement.

Keywords: Cassava Production, Women, Technical, Allocative, Economic Efficiencies and Stochastic Frontier

Introduction

Cassava (*Manihotesculenta*Crantz) is an edible root crop and a perennial woody shrub which grows in tropical and subtropical area of the world, Africa inclusive. It is one of the most important food sources in tropical countries with over 500 million people relying on it as their main source of calories (IITA, 2011). As an energy derivative, cassava has been shown by the United State Department of Agriculture (2014) to be more efficient in the production of fuel than most crops used as bio-fuel. Cassava tubers and hay are used worldwide as good roughage source for ruminants such as dairy or beef cattle, buffalo, goats, and sheep. It is also used in a number of commercially available laundry products, especially as starch for shirts and other garments. Cassava root has been promoted as a treatment for bladder and prostate cancer (Abeygunasekera*et al.,* 2013). This multidimensional importance has made cassava farming a choice of enterprise to the resource-poor rural households.

Cassava farming was described as the most important productive enterprise with highest net margin in most parts of the country (Fakayode*et al.*, 2008). It dominates most crop mixture because of its role in the daily livelihood of people especially in the tropical and subtropical regions of the world (Ibeawuchi*et al.*, 2007). Its ability to provide food all year round gave it an edge over other arable crops in bailing the rural farmers out of food insecurity in the humid tropical region (Oladeebo, 2009).

Cassava produced by smallholder rural farmers is mainly cultivated in less than two hectares of land (Obisesan, 2012). Though it is important, not just as a food but even more so as a major source of cash income for producing households. As a cash crop, cassava generates cash income for the largest number of households, in comparison with other staples, it contribute positively to poverty alleviation in Nigeria rural areas, where its severity and concentration is high and the main occupation is farming (World Bank, 2007).

Nigeria ranks as the world's largest producer of cassava. However, there exists a wide yield gap between farms in Nigeria with an estimate of 11 tonnes per hectare and other farms in the world, like India with a yield estimate of 34.8 tonnes per hectare (FAOSTAT, 2010). Studies (Fakayode*et al., 2008*) have attributed this variation to production inefficiency in the way farm inputs are transformed into output. For instance, despite the vast proportion of productive resources (land, labour, capital and management) at the disposal of cassava farmers, per capita production in the humid tropic region

is 0.34 tonnes compared to 0.72 tonnes in other regions of the world. This has been attributed to inappropriate use of improved technologies, inappropriate crop and land management practices, farmers' socioeconomic factors, differentials in the accessibility to farm resources and in particular, the inefficient use of production resources (Nsoanya, 2011). Understanding the technical efficiency of cassava production in the study area among women becomes imperative. This raises some research questions as follows: what technically efficient is the cassava production system among 0.[illegible] rural women in the study high[illegible]rea?Proffering solution to this Also,[illegible]estion will assist policy makers in betwee[illegible]gning programmes that will score,[illegible]rove the technical efficiency of 0.70,[illegible]ava production such that higher score[illegible]sava outputs are produced from the efficie[illegible]e level of inputs by farm youths that ru[illegible]elli, 1995).
Osun [illegible]
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there [illegible] objective of the study was to impro[illegible]irically determine the technical techni[illegible]cative and economic efficiency of sugg[illegible]ssava production among rural far[illegible]women in the study area.

Methodology

Area of study

The study was carried out in Osun State, an inland state in Southwestern, Nigeria, with enormous human and material resources. The area is mainly agrarian in outlook with larger percentage of its people being farmers. The main food crops are cassava, maize, yam, plantain and rice while the main cash crops are cocoa, palm produce and cola. Osun State has a land mass of about 9,257/cm^2. It is currently made up of 30 LGAs spread across six main zones- Osogbo, Ede, Iwo, Ikirun, Ilesha and Ile-Ife. These zones were further divided into three agro-ecological zones byOsun State Agricultural Development Project (OSSADEP). There are rain forest (Ife/Ijesha), derived (Osogbo) and Savannah (Iwo) zone. Estimates of the most recent population figures of the 2006 population census put the human population at 4, 137, 627 million. Osun state exhibits the typical tropical climate with prominent wet and dry season. It is characterised by two-peak rain fall regions with a short August break. The average rainfall ranges from 1125mm in derived Savannah to 147mm in the rainforest belt.

Sampling technique

Multistage sampling technique was used to draw samples for the study. In the first stage, Osun State was purposely selected based on its prominence in cassava production. In the second stage, there are six Agro-ecological Zones in OsunState. Two Local Government Areas (LGA) per Agro-ecological Zone were randomly selected. In the third stage, Twovillages per LGA were selected using simple random technique. In the final stage, 10 rural women cassava

P_{6i} = Stem cutting (#)
Y_i^* = Output

Economic efficiency: The economic efficiency was calculated from the product of technical efficiency and allocative efficiency.

Results and discussion

Technical, Allocativeand Economic Efficiency of Women Cassava Farmers

Technical Efficiency of Rural Women Cassava Production

Table 1 shows that the estimated production efficiencies for all the women cassava farmers ranged from 0.115 for the least efficient farmer to 95 for the farmer that attained the est efficiency, with mean of 0.802. 75.5% of the women had n 0.71 and 0.90 efficiency 1.5% had between 0.51 and 3% had above 0.90 efficiency while only 0.5% had below 0.3 ıcy score. This result showed ral women cassava farmers in State had high level of technical ıcy but not fully efficient and still exists opportunities for ing on their current level of cal efficiency by 0.198. This ests that the rural women cassava ıers were not fully utilizing their roduction resources efficiently, indicating that they were not obtaining maximum output from their given quantum of inputs. This result corroborates the findings of Ambali*et al.* (2012) that food crop farmers had high level of technical efficiency with mean technical efficiency of 0.91 and that they are not fully efficient.

Allocative efficiency of women cassava farmers

Table 2 shows the estimated level of allocative efficiencies of women cassava farmers in Osun State. The minimum allocative efficiency score was 1.013 and the maximum efficiency score was 1.66 with a mean efficiency of 1.068. About 95% of the total respondents were between 1.01 and 1.2 level of efficiency score, 3.5% were between 1.21 and 1.4 efficiency levels. 0.5% was above 1.61 efficiency score. This indicates that the rural women farmers in the area of study were not efficient in their allocation of resources for cassava production as their efficiency score was greater than 1. This variation from allocative efficiency frontier (1) is an indication that all the rural women cassava farmers allocate their resources inefficiently in their production process. This result suggests that the farmers were not minimizing production costs, indicating that they were utilizing the inputs in the wrong proportions, given the inputs prices. This corroborates the study by Asogwa*et al.* (2011) on efficiency of small scale farmers in Nigeria, that their minimum allocative efficiency is greater than one (1.05) with the mean of 1.88, suggesting that farmers were utilizing the inputs in the wrong proportions, at the given input prices.

Economic Efficiency Levels of Rural Women Cassava Farmers

Table 3 shows that the calculated economic efficiencies for all the rural women cassava farmers ranged from 0.112 for the least efficient farmer to 1.465 for the farmer that attained the highest efficiency score, with mean of 0.857. Also, majority (54.5%) of the rural women farmers had between 0.71 and 0.90 efficiency score, 37% had above 0.90, 7.5% had between 0.51 and 0.70 efficiency score, only 0.5% efficiency score below 0.30. This result shows that rural women cassava farmers in the study area had high level of economic efficiency, though there is still room for improvement of the mean efficiency by 0.857. The wide variation in economic efficiency estimates is an indication that some of the farmers are still economically inefficient in the use of resources for production and there still exists opportunities for improving on their current level of economic efficiency. This result suggests that some of the farmers in the study area were not maximizing profit. This result is in agreement with studies carried out by Ambali*et al.* (2012) and Ogunniyi (2015) on economic efficiency that overall economic efficiency could be improved upon by optimum utilization of resources at the given input price in order to maximize profit.

Conclusion and Recommendations

The study concludes that rural women cassava farmers in the study had high technical and economic efficiency but there is still room for improvement. The allocative efficiency in score is greater than 1, this showed that farmers were not efficient in allocating their resources for cassava production in study area.

The following recommendations are made with a view to improving production efficiency of rural women cassava farmers:

(i) The federal government a developmental agencies/priv organisation should productive resources a and accessible to rural cassava farmers in the to increase cassava p

(ii) Credit facilities as extension service sh beadequately provide farmers.

(iii) (iii) Rural women farmersshould be ser appropriate and effic productive resources, on proper managenent practices could be accomplished effective training enlightenment programmes extension services of the States Agricultural development project (ADP).

References

Abeygunasekera, A. M. And Palliyaguruge, K. H. (2013). "Does cassava help to Control Prostate cancer? A case report".*Journal of Pharmaceutical Technology and Drug Research,* 2:3

Ambali, O. I., Adegbite D. A., Ayinde I.A. and Idowu A.O. (2012).Analysis of Production Efficiency of Cassava Farmers in Ogun State, Nigeria.*Asian Journal of Agricultural Sciences,* 4(3), 82 – 90.

Asogwa, B. C., Ihemeje, J. C. And Ezihe, J. A. C. (2011). Technical and allocative efficiency of Nigerian rural farmers: Implication for poverty reduction. *Agricultural Journal.* 6(5):243 – 251.

Battese, G. E, and Coelli, T. (1995). A model of technical inefficiency effects in a stochasticFrontier production function for panel data. *Empirical Economics,* 20: 325-332.

Coelli, T.J., (1995): "Recent Developments in Frontier Modelling and Efficiency Measurement". *Australian Journal of Agricultural Economics* 39 (3) 219-245.

Fakayode, S.B., Babatunde R.O., and Ajao. R. (2008): Productivity analysis of cassava based Production systems in guinea savannah. American-Eurasian.*Journal of Scientific Research* 3 (1): 33-39. 2008.

Food and Agricultural Organization (FAO) (2010). Online Database, Available at http://faostatfao. Org and http://en.wikipedia.org/wiki/cassava Food and Agriculture Organization of United Nations. Rome.

Ibeawuchi,, I.I., Dialoke, S.A., Ogbede, k.O., Ihejirika, G. O., Nwokeji, E.M. (2007). Influence of yam/cassava based intercropping systems with legumes in weed suppression and disease/pest incidence reduction. *Journal of American Science,* 3, 49-59.

International Institute of Tropical Agriculture, (IITA) (2011). Integrated Cassava Project in Conjunction with Presidential initiative on Cassava: A study on the impact of IITA's processing research on Nigeria's staple food system. Retrieved online on 23-09-2015.

Nsoanya, L.N. and Nenna, M.G. (2011).Adoption of improved cassava production technologies in Anambra-East Local Government Area of Anambra State, Nigeria.Jorind, 9(2): 36-43. www.transcampus.org.www.ajo1.info/journals/jorind/accessed 4th May 2011.

Obisesan A.A. (2012). Credit accessibility and poverty among smallholder cassava farming Households in southwest Nigeria.*Greener Journal of Agricultural Sciences,* 3(2): 120-127 .

Oladeebo, J.O. (2009). Technical, allocative and economic efficiency of cassava producers in Oyo State of Nigeria..*ScientiaAgriculturae,* 11 (2): 53-59

Ogunniyi L.T (2015). Resource-use Efficiency of Cassava Production in Atakunmosa Local Government Area of Osun State. *Prime Journal of Social Science.*1(2): 27-30

United State Department of Agriculture (USDA) (2014).National nutrient database.Retrieved June 2015.

World Bank (2007).Social Capital.*Development in Practice* 17 (5): 566-578.

Table 1: Technical Efficiency Scores of Rural Women Cassava Farmers

Efficiency	Frequency	Percentage
≤ 30%	1	0.5
31% - 50%	1	0.5
51% - 70%	23	11.5
71% - 90%	159	79.5
≥ 91%	16	8.0
Total	**200**	**100.0**
Minimum	0.115	
Maximum	0.950	
Mean	0.802	
Std. deviation	0.103	

Source: Data Analysis, 2017

Table 2: Allocative efficiency scores of rural women cassava farmers

Efficiency	Frequency	Percentage
≤ 1	0	0
1.01 – 1.2	190	95.0
1.21 – 1.4	7	3.5
1.41 – 1.6	2	1.0
≥ 1.61	1	0.5
Total	**200**	**100.0**
Minimum	0.013	
Maximum	1.66	
Mean	1.0681	
Std. deviation	0.866	

Source: Data Analysis, 2017

Table 3: Economic Efficiency Scores of Rural Women Cassava Farmers

Efficiency	Frequency	Percentage
≤30%	1	0.5
31% - 50%	1	0.5
51% - 70%	15	7.5
71% - 90%	109	54.5
≥91%	74	38
Total	**200**	**100.0**
Minimum	0.122	
Maximum	1.465	
Mean	0.857	
Std. deviation	0.135	

Source: Data Analysis, 2017

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LIVELIHOOD PATTERN AMONG MIGRANT YOUTHS IN RURAL COMMUNITIES IN OSUN STATE, NIGERIA

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Abstract
The study investigated livelihood pattern among migrant youths in rural communities in Osun State. It described their socio-economic characteristics, determined their livelihood activities, identified their accessibility to productive resources and reasons for migration.A multistage sampling procedure was used to select the respondents. Data were collected through structured interview schedule from 110 migrant youths in the study area. Data collected were subjected to descriptive statistics such as frequency counts, percentages, mean and standard deviation while correlation analysis was the inferential statistical tool used. Results showed that majority (78.2%) were male with the mean age of 27.3 years.About46% wereIgede from Benue State with the mean annual income of ₦162, 647.97. Food crop production (mean = 2.23) and crop processing were the major livelihood activities of the respondents. Majority (85.5%) had partial access to land and above half (58.2%) had access no to credits while 83.6 percent belonged to community associations. Crude farm tools (mean = 1.93) was the most accessible physical asset to them while the major reason for migration among them was searching for sustainable income (mean=4.65). Income (r = 0.35) and educational level (r=0.43) had significant relationship with livelihood activities.It was recommended that government should provide soft loans and tractor hiring centres so as to improve their income generating activities.

Key words: Livelihood assets, Livelihood activities,migrant youths,and migration.

Introduction

The livelihood concept, according to Chambers and Conway (1992), is based on the premise that a rural household has access to (or has an endowment of) a minimum amount of resource base (capitals or assets), which can be utilised to fashion out a set of livelihood strategies (crop farming, livestock rearing, off farm employment and non-farm activities) to improve its welfare. Livelihood activities according to Ellis (2000) are made up of the abilities, assets and activities necessary for a means of living gained by rural households. DFID (2001) stated that livelihood activities are economic activities that people know, own and undertake to earn income today and into the future. Livelihood activities undertaken by people are shaped by their inherent capabilities and assets. Abilities do not only include sheer physical labour, but also knowledge, trainings, skills, and years of experience. Carney (1998) explains that it is sustainable when it has the capacity to meet the immediate needs of the people while its ability to meet future needs is not jeopardized. A livelihood can then be precisely said to comprise the capabilities, assets and activities required for a means of living and is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.

Kollmair and Gamper (2002) stated that natural assets are forest land (non-timber forest products and wildlife), agricultural land (inherited or acquired), water (stream, well, borehole, or pipe-borne water), soil (fertility), and genetic resources (for example, disease resistant livestock and crops). Human asset represents the household size (demographics), skills (credit management, entrepreneurship, leadership, numerical and language), knowledge (indigenous, non-formal, extension or formal), ability to labour (amount and quality), and health status that one has access to in other people that together enable one to pursue different livelihood strategies and achieve livelihood objectives.

Financial asset is the medium of exchange critical to the successful utilization of the other assets. There are two main sources of financial asset: available stocks–savings, bank deposits, livestock, credit, and loans; and regular inflows of money– pension or other transfer from the state, remittances, and incomes. Physical asset comprises of the basic infrastructures (public roads and bridges, power supply, water supply, irrigation system, and information channels) and producer goods (privately owned buildings, machines, and tools). Social assets are developed through networks and

connectedness, membership of formalized groups and relationships of trust, reciprocity and exchanges. They are social networks, relations, affiliations, and associations.

The quantity and quality of these assets and access to them, as opined by Oparindeand Birol (2008) are influenced by the vulnerability context, which comprises of trends, shocks and seasonality. It is a collection of external pressures that are key factor in many of the hardships faced by poor people. Hazards affect natural capital (floods that ruin agricultural land), physical capital (loss of housing, tools), financial capital(loss of savings), human capital (loss of life, injury, and unemployment) and social capital (damage to social networks). People's susceptibility to these hazards is the measure of their vulnerability context, which has direct impact on their assets and consequently affects their livelihood activities. According to Sheheli (2012), when different dimensions of the livelihood issue are considered, the incidence of income is the most important. Living standard of the rural poor would only be uplifted when they receive income from the economic activities (Ahmed *et al.*, 2007; Ahmed, 2009). Ullah and Routray (2007) opined that income generating activities change the livelihood of the poor especially migrants in terms of living condition, housing, nutrition, savings, dress, medical treatment, health, sanitation, liberalization and education.

It is now recognized that migration is a part of the normal livelihood strategy of the poor and does not occur only during times of emergency or distress. Migration, one of the livelihoods strategies in response to poverty, is inevitable (Dorward*et. al.*, 2001). Migration reduces the poverty. Nevertheless, the dominant perception of migration among policymakers, academics and officials in Nigeria continues to be that migration is only for survival and that migrants remain poor. The image of the migrant continues to be that of a powerless, impoverished and emaciated person who is trapped in poverty. On average 25 percent of the households had at least one member migrating. Out-migration is greater in the poorly developed agricultural areas and particularly high amongst the landless farmers especially youths. It is concluded that non-migrants had more knowledge and adoption about different agricultural practices and also production and productivity of different crops was higher as compare to migrants.

Most of the past developmental projects for agricultural and rural development concentrate mostly on indigenous people giving less attention to non-indigenes (migrants). For agriculture to develop and be sustained there is need to give recognition to non-indigenes especially migrant

youths who are residing in most rural areas. Therefore, having knowledge of livelihood pattern of migrant youths would provide a working knowledge that will inform the intervention to be developed for them. Hence this study would assess livelihood pattern of migrant youths in rural communities of Osun State.

Objectives of the Study

The main objective of this study was to investigate the livelihood patternof migrant youths in rural communities ofOsun State, Nigeria. The specific objectives were to

(a) describe the socioeconomic characteristics of the migrant youth in the study area;

(b) determine the livelihood activities of the respondents;

(c) identify their accessibility to productive resources; and

(d) identifytheir reasons for migration.

Hypotheses of the Study

There is no significant relationship between the socio-economic characteristics and livelihood activities of the migrant youths in the study area.

Methodology

The study was carried out in Osun State, Nigeria. A multistage sampling procedure was adopted to select the respondents. In the first step, three Local Government Areas (LGAs): Osogbo, Obokun and Ife North, with large population of migrant youths were purposively selected. In the second stage, two rural communities were randomly selected from each of the three local governments: In Obokun, Otan-Ile and Esa-Odo; in Osogbo, Kelebe and Oke-pupa; and Ife North, Moro and Edunabon communities were selected. In the third stage, an average of eighteen respondents each was randomly selected from each of the community, making a total of 110 respondents. Primary data were collected from the respondents using validated structured interview schedule. Data collected for the study was analyzed using descriptive statistics such as frequency counts, percentages,mean and standard deviation and inferential statistics such as correlation analysis was used to test the hypothesis set for the study.

Measurement of variables

The dependent variable for this study isa livelihood activity which was operationalized as the extent of involvement in income generating activities. This was measured using a 3 type Likert scale of fully involved, partially involved and not involved and were scored 3, 2 and 1 respectively as used byUmunnakwe*et al.* (2015) and Umunakwe andPyasi (2014). The cumulative score obtained for each respondent was categorized into three; high, moderate and low levels using mean plus/minus standard deviation.

Results and discussions

Personal and socio-economic characteristics of the Respondents

The results in Table1 show that below half (45.5%) of the respondents were between 25 and 29 years old with the mean ageof 27.3years. This implies that most of these migrant youths were still agile, energetic and cancope with any job for survival, with the aim of benefiting from perceived opportunities outside their communities. Majority (62.7%) of the respondents were married while 35.7 percent of the respondents were single. This implies that migrants do move in most cases with members of their families in search of better living and married very early in life to seek companion and cheap labour for their farm work. This is contrary the finding of Angoet *al.*, (2014) which asserted that single people among the members of the society migrated more than the married migrants, which could be attributed to the fact that those were married,may find it difficult to move without their household members. Majority (78.2%) of the respondents were male while only 21.8 percent were female. This result showed that majority of migrant youths were male and this conforms to the position of Ajearoet *al.*, (2003) which established that majority of the migrant youths were males. This suggest that male were more adventurous than female and were mostly bread winner of the family looking for a sustainable means of livelihood to take care of their family members. Above half (45.5%) of the respondents were from Igede ethnic group from Benue State and 24.5 percent were from Urhobospeaking area of Delta State. This result corroborates the report of Oyesolaet *al.* (2006) which established that the Igedes areaas one of the major migrants found in the rural communities of Osun State. Also, majority (88.2%) of the respondents were Christians while 10 percent were Islam. This implies that Christianity and Islam were the dominant religion of the youth migrants in the study area.Above half (54.5%) of the respondents had primary education while about 34.5 percent attended secondary school. Better education stimulates migration, by raising individuals' level of aspirations, and thiscouldbe an eye opener to migrant youthsto seek greener pastures for sustainable livelihood in other communities. This implies that none of the migrant youth were illiterate as they had attained one form of education or the other. This finding is in line with finding of Pradjhan (2013) who in a similar study in India reported that almost all the respondents in this study area were literate

Furthermore, majority (50.9%) of the respondents had farming as their primary occupation, 31.8 percent of the respondents engaged in farm labour and 14.5 percent engaged in processing. This agrees with the report of Ekong (2010) which stated that rural dwellers in Nigeria have farming

as their major livelihood activity.The results further show that majority (58.2%) of the respondents had family size between 2 and 4 person with mean family size of 3 persons. These migrant youths may have small household size compared to what is obtainable in rural communities of developing countries like Nigeria because they were still young and at their reproductive stages. Hence, there is possibility of the large family size in future which would serve as family labour in agriculture and other livelihood activities.The mean annual income of the respondents was ₦162, 647.97. Income has direct and vital implication on level of livelihood activities, as it is directly proportional to access to capital assets. From the result, one could say that the migrant youths in study area are still struggling to have the basic necessity of life since they live on barely two dollars in day.

Extent of livelihood activities

Results in Table 2 reveal that engaging in food crop production (mean = 2.23) ranked highest among the livelihood activities of the respondents. This is because majority of the migrant youths have access to arable land which are suitable for food production. This was followed byengaging in processing of agricultural produce like oil palm, cassava and rice (mean = 1.65) andworking as casual/hired labour on the farm (mean = 1.40). The need to meet urgent and pressing individual/family needs could be responsible for the involvement of migrant youth in hired labour especially the skill deficient ones, petty trading (mean= 0.94), cash crop production(mean = 0.46), the possible explanation for migrant youths to be involved in petty trading could be low skill and low capital requirements associated with participation in petty trade,motorcycle riding/okada (mean = 0.52), and livestock farming (mean = 0.43). While hunting game animalswith mean score of 0.31 ranked least among their livelihood activities.It was observed that livelihood activities of respondents significantly contributed to their well-being. This finding is in line with the findings of Oyesola*et al.*(2006) who established that food crop production, trading, livestock farming, transport business and hired labour were the major livelihood activities of migrants in Osun State. The results also similar to the findings reported by Oladeji (2007)and Nandini and Kiresur (2013) that crop production is the most participated agricultural income generating activities among rural dwellers.

Accessibility to productive resources

Access to natural assets

Result in Table 3 show that majority (85.5%) of the respondents had partial access over land while only few (14.5%) had full access over land. Majority (89.9%) acquired their land through rent, 7.3 percent acquired land through purchase, while only 1.8

assets to promote their livelihood and socio-economic status.

Reasons for Migration

Result in Table 5show that searching for sustainable income (mean = 4.65) ranked first among the reasons for migration by the respondents from their States to the study area, followed by securing improved livelihood welfare (mean = 4.54), securing adequate land for farming (mean = 4.12), infertility of soil (mean = 3.82), crop failure and famine (mean = 2.90), communal crisis or conflict (mean = 2.65) and learning trade with mean score of 2.25 was ranked last as the reasons for migration. This findingagrees with the submission of Bello *et al.,* (2015) and Aromolaran (2013)which reported that important factors responsible for rural youth migration include, seekingmeans for better employment, improvedlivelihood welfare, search for money, conflict, inadequate social amenities, education needs, boredom in agriculture and crop failure and famine.

Testing of hypothesis

Relationship between livelihood activities and socio-economic characteristics

Results in Table 6 show that annual income ($r = 0.35$; $p \leq 0.05$) and educational level ($r = 0.43$; $p \leq 0.01$) had positive and significant relationship with respondents' livelihood activities.This could imply that migrant youths who earn higher income engage in other livelihood activities. This may be as a result of having more money which can enable them invest more in other livelihood activities. This is consistent with the findings of Ifeanyi-Obi and Matthews-Njoku(2014)which established that income had significant relationship with choice of livelihood activities among rural dwellers.The study also reveals that those respondents with higher educational attainment/level were more involved in livelihood activities. This means that education has exposed them to more income generating opportunities. This result confirmed the reports of Oyesola*et al.*,(2006) which reported that educational attainment of migrant farmers had significant relationship with economic activities in Oyo State.

Conclusion and Recommendations

The study has found that a large proportion of respondents engaged in food crop production as their livelihood, followed by crop processing and hired labour. Since most of the migrant youths are economically weak, farm and non-farm activities constitute the main source of their livelihood. It also showed that majority had low access to land, credit facilitiesand some physical assetslike storage, facilities and tractor. Majority migratedbecause of searching for sustainable income and better welfare. The study also established that income and

educational attainment had significant relationship with livelihood activities. Based on the findings the following recommendations are made:

1.Land should not be given to migrants to plant arable crops only but also permanent crops in which they will be able to boost or increase the production of cash crops in the State with proper agreement that alleviate the fear of taken over the land.

2. The government and other stakeholders should providecredit facilities and other inputs formigrant youths to support their livelihood activities.

3. Tractor hiring serviceand storage facilities should be providedfor migrant youths at affordable price to increase their farm size and production.

4. A policy should be put in place to protect the interest of these youth migrants in terms of whatever livelihood activities they choose and they should be allowed to do them effectively.

5. Government and relevant stakeholders should take into consideration all income generating activities engaged in by migrant youths when initiating and embarking on programmes targeted at improving their livelihoods.

References

Ahmed, N. (2009). The Sustainable Livelihoods Approach to the Development of Fish Farming in Rural Bangladesh.*J. Int. Farm Manage.* 4(4): 1-18.

Ahmed, N., Wahab, M.A. and Thilsted, S.H. 2007.Integrated Aquaculture-Agriculture Systemsin Bangladesh: Potential for SustainableLivelihoods and Nutritional Security of theRural Poor.*Aqua. Asia* 12(1): 14-22.

Ajearo, C.K., Madu, I.A, and Mozie, A.T. (2003).Appraisal of the Factors of Rural-urban Migration in Southern Nigeria.*Innovative Journal of Social Science* 1(2): 1-8.

Ango, A.K, Ibrahim, S.A, Yakubu, A.A. and Usman, T. (2014) Determination of Socioeconomic Factors Influencing Youth Rural-Urban Migration in Sokoto State, Nigeria.*Nigeria Journal of Human Resource*. 45(3) 223-231.

Aromolaran, A.K. (2013) Assessment of Benefits Associated with Rural-urban migration among Non Migrant in Odeda area, Ogun State Nigeria.*International Journal of Pure and Applied Sciences and Technology.*

Carney, D. (1998). Sustainable rural livelihoods: what contribution can we make? Conference proceedings of the International Develcpment's National Resources advisers' conference, July 1998.428

Chambers, R. and G. R. Conway (1992). Sustainable rural livelihoods: practical concepts for the 21st century

IDS, IDS Discussion Paper No 296Chambers, R., 1997, Whose Reality Counts: Putting the First Last, London: Intermediate Chen, M., 1989, 'Women and household livelihood systems' ARDA, 15 (2-3).

DFID (2001). Sustainable Livelihoods Guidance Sheets Section2. London. From <http:www.livelihoods.org/info/guidance_sheets_pdfs/section2.pdf>

Dorward A, Anderson S, Nava Y, Pattison J, Paz R, Rushton J, Sanchez-Vera E (2009). Hanging in, stepping up and stepping out: Livelihood aspirations and strategies of the Poor. *DFID Development Policy Review.*27(2): 131-146.

Ekong, E. E. (2010). Rural Sociology: An Introduction and Analysis of Rural Nigeria (3rd ed.), Dove Educational Publishers Uyo, Nigeria. 2010; 23.

Ellis, F. (2000).The Determinants of Rural Livelihood Diversification in Developing Countries.*Journal of Agricultural Economics,* 51(2): 289-302.

Ifeanyi-obi, C. C and Matthews-Njoku, E. C (2014).Socio-Economic Factors Affecting Choice of Livelihood Activities Among Rural Dwellers In SouthEast Nigeria *IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS) e-ISSN: 2319-2380, p-ISSN: 2319-2372.*Volume 7, Issue 4 Ver.I , PP 52-56 *www.iosrjournals.org*

Kollmair M, St. Gamper J (2002). The Sustainable Livelihoods Approach.*Input Paper for the Integrated Training Course of NCCR North-South Aeschiried, Switzerland (IP6)* in University of Zurich, September.

Nandini, S. and Kiresur, V. R. (2013).Engendering Rural Livelihoods in Karnataka – A Socioeconomic Assessment.*Agric. Economics Res. Rev.* 26(2): 97-107.

Oladeji, J.O. (2007). Effect of Land Degradation on Income Generating Activities of Farmers in Imo State, Nigeria.*J. Econ. Rural Dev.*16(1): 93-106.

OparindeA,and Birol E 2008. Impacts of HPAI on Rural Livelihoods: Conceptual and Analytical Frameworks.*Africa/Indonesia Team Working Paper.*10: 3-6.

Oyesola, O.B., M.G. Olujide, and J.O. Oladeji (2006).Economic Activities of Migrant Rural Dwellers in Irewole Area of Osun State, Nigeria. *Tropical Agricultural Research and Extension* 9, 2006 Pp. 43-52. Available online at https://www.researchgate.net/publication/268436956

Oyesola, O.B. (2007). Rural Dwellers Perception on Effect of Infrastructural Facilities on Livelihood Activities in Akinyele Local Government Area of Oyo State, Nigeria. Journal .of

Economics and .Rural Dev. 16(1): 83-92.

Pradjhan, K.C. (2013) Youth Migration from Rural to Urban of Western Odisha, India: A Micro Level Analysis of Selective Industries inTamilWadu. India, *America Open Economic Journal* 1(1): 1-11.

Sheheli, S. (2012).Improving Livelihood of Rural Women through Income Generating Activities in Bangladesh.*PhD Dissertation, Humboldt University, Berlin Germany.*. 3

Ullah, A.K.M.A. and Routray, J.K. 2007. Rural Poverty Alleviation through NGO Interventions in Bangladesh: How Far is the Achievement? *International Journal of Social Economics*34(4): 237 -248.

Umunnakwe, V.C. and Olajide-Adedamola2 F.O. (2015).Socio-personal Correlates of Participation in Livelihood Activities among Rural Youth in Jabalpur District of Madhya Pradesh, India nt. *J. Agril. Res. Innov. & tech.* 5 (1): 28-35, June, 2015 available online at http://www.ijarit.webs.com

Umunakwe, V. C and Pyasi V. K (2014).Dterminants of Livelihood Patterns among Rural Youths.*International Journal of Extension Education* Vol.10.19-26

Table 1: Distribution of respondents according to socio-economic characteristics (n =110)

Variable	Frequency	Percentage	Mean ±Stan. Dev
Age			
19 – 24	29	26.4	27.32 ± 4.24
25 -28	50	45.5	
≥ 30	31	28.1	
Marital status			
Single	39	35.5	
Married	69	62.7	
Divorced	1	0.9	
Widowed	1	0.9	
Sex			
Male	86	78.2	
Female	24	21.8	
State of origin			
Benue (Igede)	50	45.5	
Delta (Urohbo)	27	24.5	
Kogi (Ibira)	9	8.2	
Ebonyi (Ibo)	20	18.2	
Adamawa (Fulani)	4	3.6	
Level of education			
Adult education	8	7.3	
Primary school	60	54.5	
Secondary school	38	34.5	
Higher education	4	3.7	
Religion			
Islam	11	10	
Christianity	97	88.2	
Others	2	1.8	
Primary occupation			
Farm labour	35	31.8	
Farming	56	50.9	
Processing oil palm	16	14.5	
Family size			
2-4	64	58.2	3.45± 0.85
Above 4	46	41.8	
Annual Income			
Below ₦ 20,000	11	10	
₦ 20,000 – ₦ 60,000	15	13.6	

₦61,000 – ₦100,000	22	20	₦162,647.97 ± 63.23
Above ₦100,000	62	56.4	

Source: Field survey, 2015

Table 2: Distribution of respondents according to the extent of livelihood activities (n = 110)

Livelihood activities	Mean	Ranking
Food crop production	2.35	1st
Cash crop production	0.46	5th
Hired labour	1.40	3rd
Crop processing	1.65	2nd
Petty trading	0.94	4th
Livestock farming	0.43	7th
Motorcycle riding	0.52	6th
Hunting game animals	0.31	8th

Source: Field survey, 2015

Table 3: Distribution of respondents based on accessibility to productive resources (n = 110)

Variables	Frequency	Percentage
Type of access over land		
Partial access	16	14.5
Full access	94	85.5
Method of land acquisition		
Rent	97	89.0
Inheritance	2	1.8

Purchase	8	7.3
No response	2	1.8
Access to credits		
Had access	64	58.2
Had no access	46	41.8
Source of credits		
Relatives/friends	20	18.2
Money lender	3	2.7
Cooperative society	15	13.6
Community bank	2	1.8
Informal saving	45	40.9
Membership of association		
Yes	92	83.6
No	18	16.4
Type of associations		
Cooperative societies	53	48.2
Town group	17	15.5
Farmers group	20	18.2
Community based association	2	1.8

Source: Field survey, 2015

Table 4: Distribution of respondents based on accessibility to physical assets

Farm inputs	Ranked mean
Crude farm tools (cutlass, hoe)	1.95
Pesticides	1.65
Herbicides	1.64
Improved seeds	0.74
Fertilizer	0.45
Storage facilities	0.06
Tractor/ machineries	0.03

Source: Field survey, 2015.

Table 4: Distribution of respondents based on accessibility to physical assets

Farm inputs	Ranked mean
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Fertilizer	0.45
Storage facilities	0.06
Tractor/ machineries	0.03

Source: Field survey, 2015.

Table 5: Distribution of respondents' according to their reasons for migration (n = 110)

Reasons	Mean	Rank
Inadequate land for farming	4.12	3rd
Infertility of soil	3.82	4th
Crop failure and famine	2.90	5th
Communal crisis/conflict	2.65	6th
Learning trade	2.25	7th
Securing improved livelihood welfare or better employment	4.54	2nd
Secure more sustainable income	4.65	1st

Source: Field survey, 2015

Table 6: Pearson's Product Moment correlation showing relationship livelihood pattern and selected socio-economic characteristics

Variable	Correlation coefficient	P-value	Decision
Age	-0.22	0.28	NS
Family size	0.13	-0.37	NS
Educational level	0.43**	0.00	S
Income per annum	0.35*	0.03	S
Years of residence	-0.02	-0.12	NS

Significant at 0.05, N = Significant, NS = Not significant
Source: Field survey, 2015

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ASSESSMENT OF YOUTH INVOLVEMENT IN ROOT AND TUBER CROPS PRODUCTION IN SOUTH-WESTERN NIGERIA

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Abstract
The study assessed youth involvement in root and tuber crops production in south western Nigeria. Data were collected through the use of interview schedule from one hundred and twenty respondents. Data analysis employed descriptive statistics such as frequency counts, percentage, means and inferential statistics employed to test the hypothesis set for the study was linear regression model. The results of the analysis revealed that the mean age of the respondents was 26.5 years with standard deviation of 2.8, while male constitutes 63.3 percent and female 36.7 percent of the respondents. About 52.5 percent were married whilst 47.5 percent were single; 8.3 percent had no formal education, 91.7 percent could read and write. The mean year of farming experience was 8 with standard deviation of 3.4 and just 2.5 percent of the respondents had household size of more than 10 members. The major root and tuber crops grown were cassava (100%), yam (91.7%), cocoyam (84.2%) and sweet potatoes (75.0%) Information sources about root and tuber crop production were through neighbours and friends (75.0%) and Radio (70.0%).It can be deduced that respondents had favourable perception on root and tuber crops production when 93.4 percent agreed that it was a high income generation venture. The results of the linear regression model shows that regression coefficients of household size (r= 0.198), educational level (r=0.338), farming experience(r=0.256) and annual income (r=0.397) had positive relationship with the youth's involvement in root and tuber crops production. The main constraints of youths in their attempts to be involved in root and tuber crops production were: inadequate land; inputs; marketing problems; and pest and disease outbreaks. It was recommended therefore that: adequate assistance should be given to farmers through the provision of more market outlets for root and tuber crops and provision of farm inputs should be highly subsidized by the government.

Key words: Assessment, Youth, Involvement, Production

Introduction

The concept of youth has been defined by Nwachukwu (2008), as the period in an individual life which comes between the end of childhood and entry into adulthood. The United Nations defined youth as individuals between the lower age of 17 years and upper age limit of 39 years. The psychologists view the youth as an individual in whom there is time, energy and potentials which have not been fully utilized, youths are those people with zeal, exuberance, dynamism and are volatile in nature.In Nigeria, about 40 percent of the population are youths (National Population Commission, 2006) and are the major group needed for agricultural transformation. It is obvious that government cannot provide for the needs of all the youth in the Nation. Youths in all countries are both a major human resource for development in agriculture and technology innovation (Nwachukwu, 2008).Therefore, the involvement of youths in agriculture through which the spirit of self-help is promoted is of paramount importance. Participation or involvement of youths in agriculture is a way of increasing their skills, knowledge, confidence and self-reliance and opportunity to collaborate and engage in sustainable development (Nelson and Wright, 1997; Akinbile *et. al*, 2008; Kyle, 2009). However, it is vital to note that in rural areas, the agricultural sector often overlooked youths simply because of their unfavourable disposition to agriculture. Sadly, youths encountered few opportunities and acquire the practical skills required to make them more productive and competitive in agriculture (World Bank, 2000).

The fact that rural youth comprise of a substantial portion of the population brightens the necessity of developing their fore untapped potentials (Jonathan, 1994). He opined that incorporating youths in Agricultural production will facilitate capacity building and empowering them for agricultural sensitivity which will predispose them to a favourable attitude and future career in agriculture. Despite the identified features possessed by youths in the Nation, some of them are being faced by series of problems (United Nations Youth Agenda, 2004). These problems encountered by youths are not only for the societies of today, but for generations yet to come. In order to look for a way out of these problems, youths with no vocational or technical skills migrate from rural areas to urban areas looking for scarce white collar jobs (National Economic Empowerment and Development Strategy, 2004). This migration has led to increased level of unemployment in urban areas

. Social ills and vices among others while farming activities are left in the hands of aged people in the rural areas. The employment situation is worsening everyday as about 54 percent of the youths are unemployed (National Bureau of Statistics, 2012)

However, successive governments have drawn policies incorporating youths in economic activities. Few of these policies are Farm settlement scheme (1962-1964), Young farmers' club (1965), etc. These policies and many others are no longer in place due to political instability, insincerity, poor governance among others (Angba 2003). Study by Food and Agriculture Organization (2000), has shown that youth play vital roles in social and economic development. Ekong (2001) asserted that few studies available on food crops production have focused mainly on the parents of the youths while the youths who constitute a large proportion of the production force are abandoned. Thus, youths' involvement have not been ascertained scientifically (Akwiwu, *et. al*; 2005). Also, many youth programmes on agriculture have failed due to shortage of data and information on what determines youth involvement, especially in root and tuber crops production (Aliyu, 2000). There is dearth of information on involvement of youths in root and tuber crops production. Rather, efforts were made at examining how to harness their potentials (Akiwiwu, *et al*; 2005), youths migration (Angba, 2003), preference for agriculture discipline (Ajaero and Njoku, 2005).

It is therefore important to carry out a study to assess youth involvement in root and tuber crops production in the study area. Hence, the following research questions were raised: What are the socio-economic characteristics of the respondents in the study area? What are the various root and tuber crops being grown by youths in the study area? Through which means did the youths get information on the cultivation of these crops? How did youths perceive their involvements in the production of root and tuber crop in the study area? What are the reasons which made them to be involved in the production of these crops?; and what are the constraints they encountered while involve in the production of root and tuber crops?

Objectives of the Study

The main objective of the study is to assess youth involvement in root and tuber crop production in South Western, Nigeria. The specific objectives are to:

1. describe the socio-economic characteristics of youths in the study area;

2. identify the types and sources of information on root and tuber crops youths are involved in;
3. determine the perception of youths towards the production of root and tuber crops in the study area;
4. examine reasons for their involvement in root and tuber crops production; and
5. identify the constraints militating against their involvements in the production of root and tuber crops in the study area;

Hypothesis:

H_0: There is no significant relationship between the socio-economic characteristics of youths and their involvements in root and tuber crops production.

Methodology

The study was carried out in South Western Nigeria, which comprises of Ekiti, Lagos, Osun, Ondo, Ogun and Oyo States, because root and tuber crop production are carried out predominantly there. A multi-stage sampling technique was employed to select one hundred and twenty respondents for the study. At the first stage, three states were randomly selected. At the second stage, two local government areas (LGAs) were randomly selected from each of the three states earlier selected for the study. At the third stage, two communities were purposively selected from each LGA selected based on their involvement in root and tuber crops production. At the final stage, ten youths are purposively selected from each communities based on their involvement in root and tuber crops production. A total of one hundred and twenty respondents were selected for the study. Descriptive statistics such as frequency distribution, percentages, and means were used to explain the socio-economic characteristics of the respondents. Independent variables measured included the socio-economic characteristics of the respondents such as age, sex, household size, religion, level of education etc. The level of youth involvement in root and tuber crop production was measured on a five point rating scale of Strongly agree-5points, Agree-4points, Undecided-3points, Disagree-2points and Strongly disagree-1point. Hence, the levels of youth involvement in root and tuber crop production were expressed in ranks using their mean values. Also inferential statistics such as linear regression analysis was employed to analyse the relationship between the socio-economic characteristics of the respondents and their involvement in root and tuber crops production. The

linear regression model is as given below:

$Y = F(X_1, X_2, ...Xn)$

Where, Y = Level of involvement in root and tuber crops p

X_1= age

X_2= sex

X_3= marital status

X_4= educational status

X_5= income

X_6=household size

X_7= farming experience

Results and Discussion

Table 1 shows that the mean age of the respondents was 26.5 years with standard deviation of 2.8. Respondents whose age fell between 24 – 27 years were 39.2 percent. Those that fell between the age category of 28 and 30 years were 34.1 percent. About just 15.0 percent of the respondents were between 31 and 39 years, whilst 11.7 percent of the respondents were between 18 and 23 years of age. This shows that majority (73.3%) were within the productive age range of 24 to 30 years. Data in Table 1 also reveals that more male respondents (63.3%) were involved in the production of root and tuber crops than their female counterparts (36.7%). Slightly above half of the respondents (52.5%) were married whilst 47.5 percent were yet to marry. The distribution of the respondents according to the educational level shows that only 8.3 percent had no formal education, while 28.3 percent had primary education. Also, 37.5 percent had secondary education, while 25.8 percent attended tertiary education. This implies that majority of the youths 91.7 percent were literate. There were no distinct differences with regards to religion. About 46.7 percent of the respondents were Christians, while 45.0 percent were Muslims. Also 47.5 percent of the respondents had farming experience of between 6 and 10 years, while 33.3 percent had between 1 and 5 years of farming experience, only 18.3 percent of the respondents had more than 10 years of farming experience.

The mean year of farming experience was 8 with standard deviation of 3.4, which implies that they have gathered enough farming experience which helped them to be involved in root and tuber crop cultivation. The mean household size was 4.9 with standard deviation of 2. The low household size of the respondents could probably suggests that because they were young people who were just coming up. The results in Table 1 further reveals that the mean annual income of the respondents was #245,115.00 with standard deviation of #25,001.00. This presupposes one of the reasons for their involvement in root and

tuber crop production because the income per annum might be considered as reasonable. Although the entire income of the respondents per annum might not come all directly from root and tuber crops production but it might have probably influenced the income of the respondents.

The results in Table 2 show the distribution of the respondents according to the type of root and tuber crop production they are involved in. It was revealed that respondents involved in the cultivation of different crops using mixed cropping system. All of the respondents (100.0%) were involved in the production of cassava in the study area. This might be as a result of the fact that cassava forms the major staple food crop for man and can survive in very harsh climatic environment compared to other crops. About 84.2 percent, of the youth in the study area were involved in cocoyam production, while 91.7 percent involved in yam production. Furthermore, 75.0 percent of the youths in the area took part in the production of sweet potatoes and 54.2 percent in Irish potato. The higher percentage of youth involvement in yam production might be as a result of the fact that the crop can be processed and eaten in various forms by most people in the country just like cassava. Agwu and Alu (2005), submitted that yam has potential for livestock feed and industrial starch manufacture and provision of financial earning. It is a prestige crop, which is viewed and received with high respect. Hence, it is important for food, income and socio-cultural activities. This finding is in line with that of Aliyu (2000), who reported that the involvement of the youth in the cultivation of these root and tuber crops was evident in the fact that root and tuber crops are efficient sources of low cost calories because of their adaptability to the wide range of ecologies.

Data in Table 3 present the respondents' distribution based on different sources of information which engendered their involvements in various root and tuber crop production. The information collected also assisted them to acquaint themselves with improved technologies on the root and tuber crops. Useful information were gathered from neighbours and friends as submitted by 75.0 percent of the respondents. Also, 70.0 percent of the respondents collected useful information through radio programmes. About 66.7 percent of the respondents received information from meetings and workshops they were opportuned to attend on different root and tuber crop production. About 35.8 percent of

the respondents had contacts with the Extension agents with regards to information which could help them in the cultivation of these crops while only 19.2 percent of the respondents could account for information they collected on root and tuber crop production from formal institutions.

In using the mean scores to rank root and tuber crop producers' perception of their involvements in Table 4. It was revealed that the perception that producers can be self reliant was ranked highest with a mean score of 2.48. This was followed by the perception that root and tuber crop production is a high income venture with a mean score of 2.46. However, as perceived by the respondents, 55.0% strongly agreed that root and tuber crops are being plagued by pests and diseases and this was ranked third with the mean score of 2.43. Furthermore, about 44.2% of the respondents submitted that inadequate storage facilities were a problem with the mean score of 2.37 which ranked it fourth. There will always be a room for improvement of root and tuber crop production in the study area and this was evident in the perception of few of the respondents (20.8%) who strongly made them to involve in the production of these crops.

The results in Table 6 show the respondents' constraints in their agreed that consumers are satisfied with the produce with the least mean score of 1.27 which ranked it twelfth in the perception statements. About (44.2%) of the respondents strongly agree and (27.5%) agree that there was a problem of inadequate storage facilities. Furthermore, 24.2 percent strongly agree and 50.8 percent agree that root and tuber crops producers could be self-reliant.

The results in Table 5 show that the major reasons why respondents in the study area involved in the production of root and tuber crops were through parental influence (8.3%), this might probably being that the respondents' parents were farmers. Another reason was that it was a source of income by 19.2 percent of the respondents. Respondents involved in root and tuber crops production for family consumption as submitted by 15.0 percent while paucity of white collar jobs made 26.7 percent of the respondents to be involved in the production of root and tuber crops. About 25.0 percent of the respondents involved in root and tuber crop production for their consumption and surplus for sale. Only 5.8 percent of the respondents, in an attempt to create employment, attempts to be involved in the production of root and tuber crops. The major constraints militating against the production of these crops

as submitted by the respondents were poor extension services (17.5%) through which they (youths and farmers who are parents) could be thoroughly put through, and marketing problems (17.5) probably due to bulkiness of these produce. Others are limited access to formal agricultural credits (13.3%), high cost of transportation (14.2%), disease and pest infestations (10.8%), inadequate storage facilities (7.5%).

Data in Table 7 indicated relationships between youths' age (b = -0.63; $p \leq 0.05$), household size (b = 0.198; $p \leq 0.05$), educational level (b = 0.338; $p \leq 0.05$), farming experience (b = 0.256; $p \leq 0.05$) and annual income (b = 0.397; $p \leq 0.05$) and their level of involvement in root and tuber crop production. The co-efficient of age indicates a negative relationship with the involvement of youth in root and tuber crop production in the study area. The implication hjof this is that for every unit increase in the age of the respondents, there is a decrease in the level of involvement of the production of these crops. The finding contradicts the findings of Abdul-Hakeem and Che-mat (2011) and Akudugal (2012) who found that and farming experience influenced the involvement of youths in root and tuber crop production in the study area were identified. Also, the youth age was significant and positively related to the involvement of youths in root and tuber crop farming. The regression co-efficient of household size, educational level, farming experience and annual income were however positively related to the youths' involvement in root and tuber crop production. The more educated an individual is the more likely the adoption of improved farm technologies. The result is also consistent with the findings of Sanchez (2005), Nnadi and Akwiwu (2008) who found out that education contributes positively to an individuals' capacity and increases adoption of farm technologies. The relationship of farming experience with the involvement of youths in the cultivation of root and tuber crops which was positive implies that the more farming experience they acquire with time the more they get themselves involved in root and tuber crops.

Conclusion and Recommendations

Based on the findings of this study, it is concluded that certain socio-economics characteristics such as household size, educational level

some of the root and tuber crop production which youths involved in, were also identified. Such crops among others are cassava, yam,

cocoyam, ginger, sweet potatoes among others. The study also revealed some of the problems encountered by the youths when they involved in root and tuber crop production which were problems of land acquisition, pests and diseases infestations and labourious nature associated with the production. Therefore, it was recommended that adequate land should be made available to the youths who are willing to cultivate these crops. Also, inputs such as fertilizers, modern farm implements, chemicals, improved seeds etc should be highly subsidized, if these cannot be provided freely by the government or any other concerned agencies. Government should design policies that will not only favour huge production of root and tuber crops for food security, but also provide ready markets to avoid huge loss through storage.

References

Abdu- Hakeem and Che-Mat (2011). Determinants of Farmers participation in Off-farm Employment. A case study of Daul-Aman, Malaysia, *Asian Journal of Agricultural and Rural Development.*1(2): 27-37.

Agwu, A E. and J I. Alu (2005).Farmers' Perceived Constraints to Yam Production in Ushongo Local Government Area of Benue State, Nigeria.Agricultural Rebirth for Improved Production in Nigeria. *Proceedings of the 39th Annual Conference of the ASN* held at the University of Benin, Benin City, Nigeria. October 9th – 13th, 2005. 347 – 349.

Ajaero, J O. and N J. Njoku (2005).Agricultural Undergraduate preference for agriculture discipline in Federal University of Technology, Owerri, Nigeria. Global Approach Extension Practices, 1:18-23.

Akinbile, L A.; Hussain, L A. and Yekini, O T. (2008). Community Development/Community Based Organization Participation in Community Based Poverty Reduction Projects in Selected Communities in Ekiti State. *Journal of Nigerian Rural Sociological Association.* 8(1) 41-47.

Akudugal, M. A (2012). Estimation of the Determinants of Credits demanded by Farmers and Supply by Rural banks in Ghana's Upper East Region, *Asian Journal of Agriculture and Rural Development.* 2(2): 189-200.

Akwiwu, C.D.; Nwajuiba, C.U. and F.N. Nnadi (2005).Harnessing the Potentials of Youths for Rural Household Food Security in Nigeria. Animal Production Resources. Adv. 1:104-110.

Aliyu, A. (2000). Strategies for National Food Security, through Root and Tuber Crops Research and Production. Paper Presented at the Annual Review and Research Planning Workshop at NRCRI Umudike held on March 8th – 12th, 2000.

Angba, A O. (2003). Effect of Rural Urban Migration of Youths on Agricultural Supply in Umuahia North Local Government Area of Abia State, Nigeria. *Journal of Agricultural and Social Research.* 3:77-83.

Ekong, E E. (2003). An Introduction to Rural Sociology Uyo: Dove Publishers Limited. 390 – 392.

Jonathan, F C. (1994). Background Papters Extension and Rural Youth Programmes.Summary of Country Papers.

Kyle, J E. (2009). Promoting Youth Pariticipation.http/www/cctres.com/ membership /libraryyouthp articipat ionasp.accessed.

National Bureau of Statistics (NBS) Publications (2012) 50-51.

National Economic Empowerment and Development Strategy (NEEDS) (2004). Agricultural National Bureau of Statistics (NBS), Publications 2008 and 2010.

National Population Commission (NPC) (2006). Analytical Report of National Level.Onwa Press, Lagos.

Nelson, H. and Wright, P. (eds) (1997). Power and participatory Development.Theory and Practice.In the participatory process for supporting Collaboration Management of Resources.An overview FAO Rome Pp.1.

Nnadi, F N and Akwiwu, C D (2008). Determinants of youth's participation in Rural Agriculture in Imo State, Nigeria. *Journal of Applied Science*. 8(1): 328-333.

Nwachukwu, I (2008).Youth Development for Agriculture and Rural Transformation in Nigeria. Proceedings of the 7th *Annual Congress of the Nigerian Rural Sociological Association* held at NRCRI Umudike, 19th – 22nd August, pp.11-14.

Sanchez, V (2005). The determinants of Rural Non-Farm Employment and Income. Unpublished M.Sc. Thesis Michigan State University: Department of Agricultural Economics. Pp. 21-22.

United Nations Youth Agenda (UNYA) (2004).Empowering for Development and Peace.http://www.un.org/youths.

World Bank (2000).Agricultural Knowledge and Information

System.Strategic Vision and Principle. Rome: FAO/World Bank

Table 1: Distribution of the respondents based on their socio-economic characteristics (n=230)

Variables	Frequency	Percentage	Mean	SD
Age (years)			26.5	2.8
18 – 23	14	11.7		
24 – 27	47	39.2		
28 – 30	41	34.1		
31 – 39	18	15.0		
Sex				
Male	76	63.3		
Female	44	36.7		
Marital status				
Single	57	47.5		
Married	63	52.5		
Educational level				
No formal education	10	8.3		
Primary education	34	28.3		
Secondary education	45	37.5		
Tertiary education	31	25.8		
Religion				
Christianity	56	46.7		
Islam	54	45.0		
Traditional religion	10	8.3		
Farming experience				
1 – 5	40	33.3		
6 – 10	57	47.5	8.0	3.4
> 10	23	18.3		
Household size			4.9	1.7
3 – 5	87	72.5		
6 – 10	30	25.0	243,115	
> 10	3	2.5		2,5
Income (per annum)			001	
≤ 50,000	15	10.8		
51,000 – 100,000	21	15.0		
101,000 – 200,000	05	8.3		
201,000 – 300,000	29	24.2		
301,000 – 400,000	12	10.0		
401,000 – 500,000	38	31.7		

Source: Field Survey, 2015

Table 2: Distribution of respondents according to the type of root and tuber crops produced.

Crop varieties	Frequency	Percentage
Cassava	120	100.0
Cocoyam	101	84.2
Sweets potatoes	90	75.0
Yam	110	91.7
Irish potato	65	54.2
Carrot	42	35.0
Ginger	58	48.3

Source: Field Survey, 2015
Multiple responses were given

Table 3: Distribution of respondents according to the sources of information on Root and Tuber crops production.

Information sources	Frequency	Percentage
Extension agents	43	35.8
Neighbours and friends	90	75.0
Radio	84	70.0
Television	49	40.8
Workshop/meetings	80	66.7
Schools	23	19.2

Source: Field survey, 2015
Multiple responses were given

Table 4: Distribution of respondents based on their perception on involvement in root and tuber crops production

Perception statements	SA	A	U	D	SD	Mean	Rank
Root and tuber crops production is laborious	40.0	52.5	--	7.5	--	2.33	5th
It is relatively easy to produce	13.3	10.8	0.8	60.0	15.0	1.37	11th
Root and tuber crops production is a high income generation venture	46.7	46.7	5.0	0.8	0.8	2.46	2nd
The cost of production is low	36.7	25.8	1.7	30.8	5.0	2.15	7th
High cost of production	23.3	15.0	2.5	32.5	25.7	2.08	8th
Inadequate storage facilities	44.2	27.5	3.3	24.2	--	2.37	4th
Producers can be self reliant	24.2	50.8	16.7	8.3	--	2.48	1st
Markets for the produce are readily available	7.5	14.2	36.7	34.7	6.7	2.02	9th
Consumers are satisfied with the produce	20.8	33.3	38.3	7.5	--	1.27	12th
Root and tuber crops are being	55.0	29.2	5.8	7.5	1.7	2.43	3rd

plagued by pests and diseases							
Root and tuber crops are being plagued by thefts and pilfering	0.8	43.3	6.7	40.0	8.3	1.55	10th
Land acquisition for production is a big problem	36.7	46.7	14.2	0.8	0.8	2.16	6th

Strongly Agree = SA, Agree – A, Undecided – U, Disagree = D, Strongly Disagree = SK

Source: Field Survey 2015

Table 5: Distribution of respondents based on reasons for the involvement in root and tuber crop production.

Reasons	Frequency	Percentage
Through parental influence	10	8.3
It is a source of income	23	19.2
For family consumption	18	15.0
Dearth of white collar jobs#	32	26.7
Consumption and surplus for sale	30	25.0
Struggle to be self-employed	07	5.8

Source: Field Survey, 2015

Table 6: Distribution of respondents based on constraints to root and tuber crops production

Constraints	Frequency	Percentage
Limited access to agricultural credits	16	13.3
Inadequate storage facilities	09	7.5
Poor extension services	21	17.5
High cost of production	04	3.3
Pest and diseased outbreaks	13	10.8
High cost of transportation	17	14.2
Marketing problems	21	17.5
Government policy	05	4.2
Inadequate modern inputs	07	5.8
Thefts and pilfering	07	5.8

Source: Field Survey, 2015

Table 7: Relationship between socio-economic characteristics of respondents and their involvements in root and tuber crops production

Variable	Co-efficient	Standard error	T-value	P-value
Age	-0.630*	0.382	1.649	0.013
Household size	0.198*	0.104	1.899	0.011
Educational level	0.338*	0.148	2.280	0.023
Farming experience	0.256*	0.088	2.921	0.009
Annual income	0.397*	0.107	3.721	0.007

Source: Field Survey, 2015 * Significant at ≤ 0.05

$R^2 = 0.76$, Adjusted $R^2 = 0.73$

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PERCEPTION OF AGRICULTURE AS A FUTURE CAREER BY UNDERGRADUATES IN GOVERNMENT UNIVERSITIES IN OYO STATE

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Abstract
The study makes an exploration of the perception of agriculture as a career among undergraduates in two selected government universities in Oyo State. Structured questionnaire was used to collect data from one hundred and twenty youths selected through a simple random sampling technique. Tenrespondents each were selected from 400 and 500levels students of the three Departments of the two universities involved. Questionnaire was designed based on the study objectives. Data collected were collated and subjected to statistical analyses such as frequency counts, percentages, weighted Mean Scores (WMS) while Chi-square (X^2) Analysiswas utilized to test the study hypothesis.Results revealed that majority (60%) of the youths selected were male. Only about 6.7% of the youth's fathers were farmers while there was generally a positive attitude to agriculture among the selected undergraduates (WMS, 4.3). The most stimulating means to selected respondents' interest in agriculture were improved fundingWMS, (4.7) and provision of timely delivery of input to farmers(WMS, 4.7). Lack of initial capital (WMS, 4.1), and being an energy sapping activities (WMS, 3.9) posed the most constraining factors to youth interest in agriculture. For Agriculture to develop, government is enjoined to give priority attention to the sector (WMS, 4.8) most especially now that youth unemployment is rampant in the country. Chi-square analysis of relationship between selected socio-economic characteristics of the undergraduates and their perception of agriculture revealed no significant relationship between gender ($X^2 = 4.80$, p □ 0.05), age ($X^2 = 36.0$, $p< 0.05$), fathers' occupation ($X^2 = 164.90$, $p< 0.05$) and mothers' occupation ($X^2 = 168.66$, $p< 0.05$).Government is recommended to give priority attention to agriculture in order to arouse youths' attention. Consolidation of positive attitude in youth by giving land and loans without collateral to those interested in agricultural businesses was also recommended

Key words: Perception, Agriculture, career, undergraduates

Introduction

The current threat to the world security include the problem of food scarcity, global warming (resulting in climate change) and low pricing of crude oil, thus resulting in global economic recession. The World Bank reports that global food prices rose to 83% over the last three years and the Food and Agricultural Organization also declared 45% increase in their world food price index during the past years (Erich and Loren, 2008). Biofuels have also forced global food prices up by 75% for more than previously estimated. Grains are being diverted away from food to fuel. For example, over a third of U.S corn is now used to produce ethanol and about half of vegetable oil in Europe goes towards the production of biodiesel.

The implication of this recent trend is that, developing countries like Nigeria has problem of production of sufficient food and fibre for her large population, thereby having the greatest challenge of how to estimate hunger and whose economy relied solely on importation of staple food items and many other economic resources for feeding of theteeming populations.One major reason is the fact that youth constitutes majority of the population. And hence, many are neither employed nor productive despite their potentialities.

The country is therefore needed to go back to the drawing board to formulate more pragmatic polices capable of turning the food production pendulum back to their side. One of the ways to overcome this problem is the involvement of the youths in agriculture early in life. Agricultural future of most of the developing countries may be bleak if the bulk of the production efforts are left in the hands of aged subsistent farmers who presently constitute the major farming population. The productivity level of these aged farmers cannot meet the increasing demand for food and fiber needed owning to increasing population of these countries. It is therefore imperative that the youths should beactively involved in Agriculture and application of modern technologies for better productivities.

The youths at present constitute about 60% of Nigeria's population, and even though they are dynamic and energetic. Their full potential is yet to be fullychanneled towards agricultural production. Overall effect of this scenario is that more Nigerians are growing hungry and the resources that could have been used to improve our infrastructures are spent on importation of food into the country. There is therefore a compelling need to boost and sustain youths' participation in agriculture. Factors responsible for the choice of other disciplines like mathematics, computer sciences, engineering, medicine and other fields of human endeavour besides agriculture could assist in designing a genuine programme that will attract youths and

encouragethem towards agricultural production. To this end, Ayanwale *et al* (2007) made it clear that until the factors responsible for the reluctance of most Nigerian youths to take agriculture as a profession are clearly identified and courageously tackled, agricultural development efforts will continue to end in futility and the masses will continue to suffer inabject poverty and the hard earned foreign exchange will continue to be spent on food importation.

According to Dawodu (2005) the youths constitutes the important segment of the Nigerian population by virtue of their size. Youth unemployment is the major cause of most societal ills, such as armed robbery, drug abuse, cultism, prostitution and most recently political thuggery and area boys syndrome. Therefore,encouraging them to take up careers in agriculture sector in order to make them useful members of the society is an important developmental task for Nigeria. According to International Labour Organization (2005), about 500million young people around the world will enter the work force within the next decade. While rapid globalization and technological change offer new opportunities for productive work and income for the lucky few and working age young people. These trends only increase the vulnerability inherent in the transition from childhood to adulthood. However, it is obvious that majority of the jobs available to the youths are low paid, insecure, and with few benefits or prospects for advancement. Nigerian youths are not exception to this problem. Nigeria's Agriculture sector has potentials for providing a solution to this problem by designing agricultural development programmes that will encourage youths to engage in agriculture as career with all seriousness and sense of commitment.There is als a need to understand the nature and causes of youth attitude towards a career including agriculture. It will assist government in exploiting the existing numerous agricultural potentials of the country that is capable of engaging the youths and making them useful members of the society.This study intends to examine the perception of Nigerian undergraduate students in government universities in Oyo State towards Agriculture as a career. The relationship between their socio economic characteristics and the perceptionof these undergraduates towards agriculture as a career would also be tested as the study hypothesis.

Methodology

The study was carried out in two government universities in Oyo State. The universities were Ladoke Akintola University of Technology (LAUTECH), Ogbomoso and University of Ibadan, Ibadan, Oyo State. Ladoke Akintola University of Technology is situated in Ogbomoso North Local Government while University of Ibadan is a federal

government university situated in Ibadan North Local Government of Oyo State. The population of the study comprises the undergraduate of LAUTECH and those of University of Ibadan. The population include 400 and 500 levels students offering agriculture in the two institutions. Three Departments, Agronomy, Agricultural Economics and Extension; and Animal production and health were selected from each university.

Simple random sampling technique was employed to select ten respondents from each of 400 and 500 level students from each of the three selected Departments in each of the two selected universities. At the final stage of the selection, one hundred and twenty respondents were sampled for the study.A structured questionnaire was designed based on the objectives and was used to collect relevant information from the respondents. The questionnaire used consists of several sections. Section 1 contains adequate information on socioeconomics characteristics such as gender, age, religion and occupation of the undergraduates' parents which was measured on nominal and ordinal levels. Attitude of respondents on agriculture, means of stimulating youth interest in agriculturalproduction, constraints to preference for agricultural careers were measured on a five point Likert type scale. The variable scale include strongly agree (4), agree (3), undecided(0), disagree (2) and strongly disagree (1).

Data collected were collated and subjected to statistical analyses. Statistical tool employed includes descriptive and inferential statistics. Descriptive tools used were frequency counts, percentages, Weighted Means Average (WMS) while inferential tool employed to test the null hypothesis of the study was Chi-square (X^2) Analysis.

Results and discussion

Socioeconomic Characteristics of the Selected University Undergraduates

The study sought socioeconomic characteristics of the selected undergraduates such as gender, age, religion and parents occupations. Results in Table 2 Shows that 61.7% and 58.3% of the undergraduates were male from LAUTECH and UI respectively while from the pooled result, 60% and 40% constituted the male and female population respectively. This implies that both male and female youths were involved in the pursuit of agriculture as a course but probably not as a career. The Table further shows that majority 48.3, 44.2 and 7.5%, respectively of the undergraduates were between the age ranges of 19-22, 23-26 and 27-30 years of. It implies that 100% of respondents surveyed were youths in the active phase of life and hence may be very productive in their undertakings in agricultural productions (Ayansina,

2011). It was also deduced that the father of some of the respondents were Civil Servant (28.3%)while only 6.7% of the respondents were into agriculture. As low as 5.8% were also famers among the mothers of the respondents. The results implies low level of involvement in agriculture among the parents of the youth sampled for the study. This might serve as point of reference to the children and thereby discourage their interest in the profession unless a proper redress is put in place by the government and stakeholders in the sector

Attitudes of Respondents to Agriculture as a Course

As revealed from the result inTable 3, it was found that youths still hold a positive attitudinal disposition to agriculture as a profession. They believed that education is a catalyst towards agricultural productivity. It is believed that an educated farmer will be more productive than illiterate farmers. As further shown in table 3, undergraduates under the study were generally of the opinion that Agriculture is the most important sector of the Nigerian Economy (WMS, 4.3), Agriculture is the major employer of labour including youths in Nigeria (WMS, 4.3) and it is easy to start agricultural production with agricultural loan either from commercial or agricultural Bank (WMS, 4.3). Further in the Table, youth declared that despite the hard work involved, all aspects of agriculture bring food and money to the farmers. (WMS, 4.2). As further declared by the youths according to the table, agriculture could be key to successful human life particularly among the youth like them who study the profession in the universities (WMS, 4.0) and that more youths should engage in agricultural production because they are expected to be leaders and feeders of tomorrow (WMS, 3.7).

Although, there is still a positive response in their attitude towards agriculture, yet many of them prefer to work in the offices when one considers item 7, my father is a farmer, therefore, I should be a farmer too, which had a low response of WMS of 2.8.

Means of Stimulating Youth Interest in Agriculture

As shown in Table 4, a number of incentives were expressed as perceptional statement stimulating their interest in agriculture. According to the Table, the most stimulating incentive embraced by the selected undergraduates were: improved funding of agricultural sector, provision and timely delivery of production input, allocation of loans to youths interested in agriculture and improvement of roads and social facilities in rural areas which hadWMS of 4.7, respectively. Other notable stimulating incentives in Table 4 were organization of agricultural shows and workshops (WMS, 4.6) and

organization of training and capacity building development programmes for youths in agriculture (WMS, 4.6).

The importance of incentive is stemmed from the fact that alleviating poverty in agriculture sector requires appropriate attention and encouragement of farmers. Youth especially need awards of scholarship to study agriculture and practice it in real term. In addition, organizing youths into cooperative groups for timely assistance and provision of credit facilities without collateral may serve as a motivationfor them to choose the profession as career.

Constraints to the Choice of Agriculture as Career

Agriculture as a career choice is burdened with misconceptions (George Morris Centre, 2005) and generally viewed in the country as an occupation of the poor who cannot afford education that would have earned them job in offices.

Results in Table 5 presents constraints to the choice of agriculture as a career. As declared by most of the selected undergraduates were lack of initial capital (WMS, 4.1), energy sapping activities(WMS, 3.9) and people's negative perception of farming as a profession (WMS, 3.8). Other constraints according to the Table were poor marketing structure of agricultural produce (WMS, 3.7), many risk involved in agricultural production (WMS, 3.4) and disrespect for farmers in the society (WMS, 3.3). The findings is supported by Ajani *et a.,l* (2015) who declared that youth involvement in agriculture is impeded by lack of competitive market for agricultural products as compared to industrial goods. The findings in the study is further corroborated by the position of Gwary *et al.* (2011) that lack of capital is a major constraint to youths agricultural produce marketing activities In another vein, the deepening security challenges being faced in the present day of our country also portends a serious stumbling block for the youth's enterprise development as well as Agricultural business.

Government Responsibilities and Need for Agricultural Development

As shown in Table 6, undergraduates' perception of relevance of government to nation's economy in respect of agriculture was sought. As depicted from the findings, the statement that the government should give priority attention to agriculture and that the money spent on agriculture has been wasting away were ranked first with weighted mean score (WMS) of 4.8. This is followed by the statement that a nation with weak agriculture base is a dead nation, this also attracted a Weighted Means Score (WMS) of 4.8. It was also a general consensus that part of the budget on agriculture has been taken to other sectors of the economy (WMS, 3.6). By this position, it is

belief among them that agriculture is filled with opportunities but its development was constrained by poor budgetary allocation, negative perception, disrespect for the profession, being an energy sapping activities, and inadequate capital for investment among other problems.

Government is therefore recommended to give priority attention to agriculture in order to make the profession an attractive venture. There is alsoa need to consolidate youth positive attitude towards the business by making lands and loan without security collaterals available to whoever interested in the business. Other benefits and business incentives like price guarantee scheme and subsidies should always be made available to youths and individual interested in agricultural business in order to encourage and empower them in the profession.

References

Ajani, E. N; Mgbenka, R. N; and Onah, O. (2015) Empowerment of Youths in Rural Area through Agricultural Development Programmes: Implication for Poverty Reduction in Nigeria. *International Journal of Research in Agriculture and Forestry* 2(12): 34-41

Akpan S.B (2010). Encouraging Youths involvement in Agricultural Production and Processing Nigeria Strategy Support Program Policy Note No. 29. I*nternational Food Policy Research Institute*, Nigeria Office, Abuja. Page 1-2,

Ayansina, S. O. (2011) Farmers' Perception of Public and Private Extension Services in Southwestern Nigeria. Unpublished PhD Thesis of university of Ilorin, Nigeria

Dawodu, S. T. (2005). Why Nigeria Should Value Her Youth. National Youth Organization: Memorandum to the National Political Reform Conference.

Eric, H. G and Loren, P (2008): from food Rebellions to Food Sovereignty: Urgent Call to Fix a Broken Food System, Institute for Food and Development Policy, May, 16 2006.

George Morris Centre, 2005. Environmental scan & literature search of agricultural human resource issues. George Morris Centre, Ontario, Canada.

Gwanya, T. (2008), Address by the Director-General at the Launch of Youth in Agriculture and Rural Development (YARD). On 20-22 June 2008, Goudini Spa, Western Cape Department of Land Affairs, Republic of South Africa.

Gwary, M. M., Kwangbe, P. V., Ja' afa, Furo, M. R. and Dennis, A. (2011) Analysis of Entrepreneurial Agricultural Activities of Youth in MichikaLocal Government Area of Adamawa State.

Nigeria Journal of Development and Agricultural Economics.3 (3): 91-97

International Labour Organisation (2005) . Fact sheets on Youth Employment. http://www.ilo.org/wcmp 5/groups .../public/...dropouts/...dcomm/documents/publication/wcms_067597.pdf. Accessed December 2013.

Oyewole, M.F., M.G. Olujide and J.A.Oyedeji (2015). Youth Participation in Watermelon Production in Ado-Odo Ota Local Government Area of Ogun State. *Proceedings of 20th Annual National Conference of the Agricultural Extension Society of Nigeria* held atThe National agricultural Extension and Liaison Services (NAERLS), Ahmadu Bello University, Zaria. (15th -17th May, 2015)

Table 1: Sampling Procedure and Sample Frame

LEVEL	INSTITUTIONS	DEPARTMENTS			TOTAL
		AGN	AEE	APH	
400	LAUTECH	10	10	10	30
	UI	10	10	10	30
500	LAUTECH	10	10	10	30
	UI	10	10	10	30
Grand Total		40	40	40	120

Source: Field survey 2015

Table 2: Distribution of Respondents'by Socio economic Characteristics

Socio Economics Characteristics	LAUTECH	Frequency (percentage)	POOLED
		UI	
Gender			
Male	37(61.7)	35(58.3)	72(60.0)
Female	23(38.3)	25(41.7)	48(40.0)
Age(Years)			
19-22	22(36.7)	36(60.0)	58(48.3)
23-26	32(53.3)	21(35.0)	53(44.2)

27-30	6(10.0)		3(5.0)		9(7.5)	
Religion						
Christianity	54(90.0)		46(76.7)		100(83.3)	
Islamic	6(10.0)		14(23.3)		20(16.7)	
Parental Occupation						
Father Mother						
Civil Servant	14(23.3)	9(15.0)	9(15.0)	10(16.7)	34(28.3)	19(15.8)
Farming	5(8.3)	5(8.3)	5(8.3)	2(3.3)	8(6.7)	7(5.8)
Teaching	12(20.0)	21(35.0)	21(35.0)	12(20.0)	19(15.8)	33(27.5)
Business	11(18.3)	17(28.3)	17(28.3)	26(43.3)	22(18.3)	43(35.8)
Clergy	4(6.7)	1(1.7)	1(1.7)	-	5(4.2)	1(0 .8)
Artisan	2(3.3)	2(3.3)	2(3.3)	1(1.7)	2(1.7)	3(2.5)
Banking & Finance	2(3.3)	1(1.7)	1(1.7)	-	3(2.5)	1(0.8)
Force	1(1.7)	-	-	1(1.7)	3(2.5)	1(0.8)
Health	-	3(5.0)	3(5.0)	7(11.7)	2(1.7)	10(8.3)
Politics	2(3.3)	-	-	-	2(1.7)	-
Engineering	7(11.7)	-	-	-	18(15.0)	-
Home Management	-	1(1.7)	1(1.7)	1(1.7)	-	2(1.7)
Surveying	-	-	-	-	1(0.8)	-
Logistics	-	-	-	-	1(0.8)	-
Total		**60(100)**		**60(100)**		**120(100)**

Source: Field survey 2015

Table 3: Distribution of respondents by their attitude towards agricultural production

Perceptional Statement	Frequency (Percentage) Level of Agreement.						
	Strongly Agree	Agree	Undecided	Disagree	Strongly disagree	WMS	Rank
1. Agriculture is the most important sector of the Nigerian economy.	59(49.2)	43(35.8)	10(8.3)	5(4.2)	3(2.5)	4.3	1st
2.Agriculture is potentially a majoremployer of labour for Nigerians including youth.	60(50.0)	45(37.5)	12(10.0)	1(0.8)	2(1.7)	4.3	1st
3.Agriculture is the key to successful human life particularly for a young person like you.	40(33.3)	55(45.8)	16(13.3)	3(2.5)	6(5.0)	4.0	6th
4.You can start agricultural production with	48(40.0)	62(51.7)	7(5.8)	1(0.8)	2(1.7)	4.3	1st

agricultural loans from a commercial or Agricultural bank.							
5. A person who has gone to school could be a better farmer than a person who has never been to school.	59(49.2)	44(36.7)	13(10.8)	3(2.5)	1(0.8)	4.3	1st
6. All youths should engage in agricultural production because they are leaders of tomorrow.	24(20.0)	50(41.7)	35(29.2)	3(2.5)	8(6.7)	3.7	7th
7. My father is a farmer; therefore I should be a farmer too.	6(5.0)	11(9.2)	62(51.7)	33(27.5)	8(6.7)	2.8	15th
8. Despite the hard work involved, all aspects of	50(41.7)	51(42.5)	11(9.2)	5(4.2)	3(2.5)	4.2	5th

agriculture bring food and money to the farmer.							
9.For a youth to be a farmer he/she must be ready to live and work in the village or on a farmland.	9(7.5)	20(16.7)	48(40.0)	40(33.3)	3(2.5)	3.1	14th
10.Only illiterate youth should engage in agricultural production.	9(7.5)	9(7.5)	33(27.5)	64(53.3)	5(4.2)	3.4	10th
11.I can still be successful in life without necessarily engaging in agriculture & it shared work.	44(36.7)	51(42.5)	11(9.2)	8(6.7)	6(5.0)	2.0	17th
12.Every aspect of agriculture is difficult therefore; participating in it will be my last option.	6(5.0)	13(10.8)	51(42.5)	45(37.5)	5(4.2)	3.3	12th

13.I would be a farmer only if I have no other work	4 (3.3)	9 (7.5)	52 (43.3)	51 (42.5)	4 (3.3)	3.4	10th
14.I dislike farmer's way of life.	4 (3.3)	10 (8.3)	52 (43.3)	51 (42.5)	3 (2.5)	3.3	12th
15.I prefer to work in an office than to engage in any agricultural production.	23 (19.2)	23 (19.2)	36 (30.0)	28 (23.3)	10 (8.3)	2.8	15th
16Farming should be for drop out of schools	8 (6.7)	7 (5.8)	26 (21.7)	75 (62.5)	4 (3.3)	3.5	9th
17.Farming should be left for old and illiterate people.	4 (3.3)	7 (5.8)	27 (22.5)	78 (65.0)	4 (3.3)	3.6	8th

Table 4: Means of Stimulating Youth Interest in Agriculture

Perceptional Statement	Frequency (Percentage) Level of Agreement.						
	Strongly Agree	Agree	Undecided	Disagree	Strongly disagree	WMS	Rank
Improved funding of agricultural	88 (73.3)	30 (25.0)	1 (0.8)	-	1 (0.8)	4.7	1st
Awarding of scholarship to youths studying agriculture.	85 (70.8)	28 (23.3)	4 (3.3)	1 (0.8)	2 (1.7)	4.6	5th
Provision & timely delivery of farm inputs.	88 (73.3)	28 (23.3)	3 (2.5)	1 (0.8)	-	4.7	1st
Organization of agricultural shows, workshops.	79 (65.8)	38 (31.7)	2 (1.7)	1 (0.8)	-	4.6	5th
Organizing training & capacity development programmes for youths in agriculture.	80 (66.7)	38 (31.7)	1 (0.8)	-	1 (0.8)	4.6	5th
Allocating lands to youths	85 (70.8)	30 (25.0)	4 (3.3)	1 (0.8)	-	4.7	1st

interested in agriculture.							
Improving roads & social facilities in rural areas.	87 (72.5)	29(24.2)	1 (0.8)	2 (1.7)	1 (0.8)	4.7	1st
Organizing youths into cooperative groups for timely assistance.	63 (52.5)	47 (39.2)	8 (6.7)	2 (1.7)	-	4.4	1st
Providing credit facilities without collateral for youths participating in agriculture.	66 (55.0)	34 (28/3)	8 (6.7)	9 (7.5)	3 (2.5)	4.3	9th

Source: Field survey 2015

Table 5: Constraints to the Choice of Agriculture as Career

Perceptional Statement	Frequency (Percentage) Level of Agreement.						
	Strongly Agree	Agree	Undecided	Disagree	Strongly disagree	WMS	Rank
People's Perception	29(24.2)	60(50.0)	15(12.5)	14(11.7)	2(1.7)	3.8	3rd
Farmers are not respected	27(22.5)	41(34.2)	11(9.2)	28(23.3)	13(10.8)	3.3	6th
Energy sapping	27(22.5)	66(55.0)	12(10.0)	12(10.0)	3(2.5)	3.9	2nd
Many areas of risk involved	20(16.7)	57(47.5)	19(15.8)	20(16.7)	4(3.3)	3.6	5th
Slow return of profits from agriculture	15(12.5)	53(44.2)	19(15.8)	31(25.8)	2(1.7)	3.4	7th
Work of the last option	10(8.3)	25(20.8)	20(16.7)	51(42.5)	14(11.7)	2.7	9th
Low societal prestige (a job for the poor)	22(18.3)	31(25.8)	6(5.0)	44(36.7)	17(14.2)	3.0	8th
My parents and friends	8(6.7)	13(10.8)	19(15.8)	56(46.7)	24(20.0)	2.4	10th

will not allow me.							
Poor marketing structure of agricultural produce.	31(25.8)	52(43.3)	7(5.8)	25(20.8)	5(4.2)	3.7	4th
Lack of initial capital	50(41.7)	50(41.7)	4(3.3)	11(9.2)	5(4.2)	4.1	1st

Table 6: Government Responsibility and Need for Agricultural Development

Perceptional Statement	Frequency (Percentage)						
	Level of Agreement.						
	Strongly Agree	Agree	Undecided	Disagree	Strongly disagree	WMS	Rank
A nation with weak agricultural base is a dead nation.	83(69.2)	23(19.2)	6(5.0)	6(5.0)	2(1.7)	4.5	3rd
Government should give priority attention to agriculture.	95(79.2)	25(20.)	-	-	-	4.8	1st
Part of the budget on agriculture should be taken to other sectors of the economy.	11(9.2)	20(16.7)	11(9.2)	46(38.3)	32(26.7)	3.6	4th
Money spent on agriculture is a waste.	-	1(0.8)	3(2.5)	17(14.2)	99(82.5)	4.8	1st

Source: Field survey 2015

Table 7: Chi- Square analysis showing the significant relationship between socio-economic characteristics and the perception of the respondents (Pooled result)

Variables	X^2-Cal	Do	X^2-tab	Result	Decision.
Gender	4.800	1	3.84	Significant	Reject Ho
Age	36.350	2	5.99	Significant	Reject Ho
Religion	53.333	1	3.84	Significant	Reject Ho
Father's Occupation	164.900	13	26.30	Significant	Reject Ho
Mother's Occupation	168.667	9	16.92	Significant	Reject Ho

Source: Field survey 2015

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ASSESSMENT OF ADOPTION OF AGRICULTURAL E-WALLET AMONG RURAL YOUTH IN OSUN STATE, NIGERIA

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Abstract
The study assessed the adoption of agricultural e-wallet among the rural youths in Osun State. The study specifically identified the types of agricultural enterprise they engaged in and their level of adoption of the agricultural electronic wallet.

A multi-stage sampling procedure was used to select 121 respondents from three Local Government Areas (LGAs) (Ede South, Ife central,, and Ayedaade LGAs). The three LGAs were purposively selected for the study because of the high involvement of youths in the e-wallet programme. Descriptive and inferential statistics such as mean, standard deviation, percentage, and correlation were used to analyse the data collected. The results revealed that the respondents mean age was 34.78 ± 4.26 years while majority (86.8%) were male and about 47.9 percent had tertiary education. Also, higher percentage (56.2%) of the respondents were into maize and rice production and all the respondents (100%) had fully adopted e-wallet system of agriculture in the areas of registration of farmers, fertilizer distribution, usage of redemption centre and exposure to value chain of crop. Correlation ana.ysis results revealed that there was a positive and significant relationship between years of farming experience ($r=0.435$, $P\leq0.01$), level of education ($r=0.314$, $P\leq0.01$) and adoption of electronic wallet of agricultural inputs distribution among the respondents. The study concluded that the agricultural e-wallet technology had enhance respondents' productivity and effectiveness, which will boost food security, if agricultural stakeholders can continue to be proactive, and be ready to carry out constant and continuous evaluation of the programme.

Keywords: Adoption, E-wallet, Rural youth

Introduction

In Nigeria, agricultural production is still being carried out using physical strength, which declines with age. This has therefore been observed as one of the major constraints to agricultural production in Nigeria (Okeowo *et al.,* 1999). Though youths have desirable qualities that can promote agriculture, most of them have strong apathy toward it (Jibowo, 1998; Adedoyin, 2005; Adewale *et al.*, 2005). The development of the agricultural sector for Nigerian economy therefore depends on the young people, more especially the rural youths. This is because a large population of youths represents the link between the present and the future as well as a reservoir of labour (Okeowo *et al.,* 1999).

Youth could therefore be defined as a phase of individual development between childhood and adulthood. Ekong (1988) viewed youths as a vital source of man power (labour) for agricultural practice and development programmes in the community. They serve as agricultural labour force and they could be describe as any person between 15 and 30 (Akpan, 1985)

The National Food Security Programme (NFSP) issued in August 2008 by the federal Ministry of Agriculture and Water Resources is designed to attain food security by ensuring that all Nigerians have access to good-quality food while making Nigeria a major exporter of foodstuffs. The programme designated priority crops (cassava, rice, millet, wheat) for achieving food security and outlines objectives for all stages of these supply chains. The aim is to create more value in production, particularly down streaming the chain, by improving storage, processing, and access to agricultural markets. The programme also plans the creation of irrigation schemes on 450,000 ha of farmland. The strategic frameworks in National Economic Empowerment Development Strategy (NEEDS) II and the 7-point Agenda have been translated into short-to-medium-term programmes. The Federal Ministry of Agriculture and Water Resources has drawn up a 5-point Agenda for agriculture, a detailed roadmap of steps to be implemented to attain the objectives listed for agriculture in the 7-point Agenda. The agriculture policy measures in the 5-point Agenda comply with the major orientations outlined in the Comprehensive African Agriculture Development Programme (CAADP). In addition, agricultural sector policies have increasingly focused on harnessing agriculture, Agro-allied industries and small and medium enterprises for poverty reduction, employment creation and economic

growth. Currently, the main sector strategy targeting poverty reduction is the Federal Government's Agricultural Transformation Agenda, comprising the Growth Enhancement Scheme, the Value Chain Development Programme and the Nigeria Incentive-based Risk-sharing Agriculture Lending Scheme. Under the Agricultural Transformation Agenda, the Federal Government seeks to create over 3.5 million jobs within the rice, cassava, sorghum, cocoa and cotton value chains and to generate over USD 2 billion of additional income for Nigerian farmers. It is expected that national food security will be boosted with the addition of 20 million tonnes of food supply by 2015, including rice (2 million tonnes), cassava (17 million tonnes) and sorghum (1 million tonnes) (Federal Ministry of Agriculture and Rural Development, 2011). The sector approach is complemented by the implementation of targeted programmes and interventions including conditional cash transfer, the National Directorate of Employment, the national poverty eradication programme and the subsidy reinvestment programme (SURE-P). The SURE-P is one of the latest in a set of recent special interventions in agriculture projects (FMARD, 2011).

For four decades, the Nigerian government sought to support its agricultural sector through the procurement and distribution of fertilizer and other inputs to the farmers in the country in order to increase food production. Unfortunately, the government's reliance on a broken and corrupt system resulted in the siphoning of billions of dollars and a small percentage of farmers actually receiving the inputs. Recognizing the need to extricate the middlemen, the ministry of Agriculture oversaw the introduction of a first of its kind in the agricultural sector (FMARD, 2011).

Agricultural Electronic Wallet (e-wallet) is a system through which subsidized electronic vouchers for inputs are delivered directly to the farmers' mobile phones and then the vouchers are used like cash to purchase the inputs directly from agro-dealers. The e-wallet system, which took only ninety days to implement, has enjoyed rapid adoption across the value chain. However, little or no empirical evidence has been documented in literatures to assess the level of adoption of this technology among the youths, thus, this study. The study specifically seeks to identify the types of agricultural enterprises they are engaged in and determine their level of adoption of the agricultural electronic wallet and identify the relationship between

socio-economic characteristics of the respondents and their adoption score.

Theoretical Framework

For this study, diffusion of innovation theory will be applied to explain the framework of the study. This is because the theory of diffusion of innovation shows the how, why, and at what level new ideas and technology spread through cultures, operating at the individual and organizational level (Tiago and Maria, 2011). Also, diffusion of innovation theory views innovations as being communicated through certain channels over time and within a particular social system (Rogers 1995). Nonetheless, individuals are seen as possessing varying degrees of willingness to accept innovations, and thus it is generally observed that the portion of the population adopting an innovation is approximately normally distributed over time (Rogers 1995). To this end, Agricultural wallet (also known as e-wallet) is being introduced to youth farmers who perceived it as an innovation. However, the level of adoption of this innovation varies with time and knowledge acquisition. The channels implored are the media and extension agents without leaving out the farmers' associations.

Methodology

The study was conducted in Osun State in Nigeria. The State with an agrarian population of about 70 percent covers a vast landmass of 15,875 square kilometres and lies between longitude 6 °51'N and 8 °10'N on the North-South pole and latitudes 4 ° 05'E and 5°02'E on the East - West pole with estimated population of about 4,137,627 (National Population Commission, 2006).

A multi-stage sampling procedure was used for the sample selection. At the first stage, purposive sampling technique was used to select three Local Governments Areas from the three Agricultural zone in Osun State viz Ayedaade, Ife South and Ede North LGAs. These LGAs were selected because of the high involvement of youths in the ATA programme. At the second stage, purposive sampling technique was also used also used to select two farming communities from each Local Government Area namely: Orile-Owu and Ode-Omu in Ayedaade; Isoya and Omi-Fifun in Ife South; and Alajua and Bepo-Aho in Ede North based on availability of youth that were involved in the use of Agricultural e-wallet for input delivery. At the third stage, snowball sampling technique was used to select individual youth farmers in the communities with 40 respondents from Orile-Owu and Ode- Omu, 40 respondents from Isoya and Omi-Fifun, 41 respondents from Alajua and Bepo-Aho, making a total number of 121 youth farmers. The

data were collected between the month of February and March, 2015. Interview schedule and questionnaire were used to collect information from the respondents. Descriptive statistics such as mean, frequency count, percentages, and inferential statistics such as correlation were used to analyse the data collected.

Results and Discussion

Results in Table 1 reveals that majority (86.8%) of the respondents were male, with mean age of 34.78 ±4.628. Almost half (47.9%) had tertiary education. This implies that most of the respondents were in their active and productive years who can easily adopt new innovations that could enhance food security. This finding is in line with Adedoyin (2005) and Torimiro and Adisa (2006) who concluded that youths are male and female between 19-40 years. However, Durston (1996) earlier reported that this category of older youth is considered to be matured and more productive in economic enterprises. Notwithstanding, female involvement in this programme was very low (13.2%) because farming is perceived as a male dominated occupation in the rural areas as a means of livelihood (Torimiro and Oluborode, 2006). All (60%) the respondents were educated with their level of education ranging from primary education to tertiary education. This findings corroborate with Ozor and Madukwe, 2005; Madukwe, 1995) that educated farmers would be highly receptive to new innovations which could enhance food security. Also, majority of the respondents' parents (82.6% and 64.5% father and mother respectively) chose farming as occupation. Thus, the parents have a direct influence on the respondents because socialization into farming started long ago after their birth, and interest had been built over time. Furthermore, results in Table 1 showed that majority (75.2%) of the respondents were married. This implies that young people in the rural areas get married early and become more involved in adult responsibilities (Perez-Morales, 1996), and also provide more labour force for farming activities.

Result in Table 2 shows that more than half (56.2%) of the respondents were engaged in crop production such as maize and rice. This clearly agreed with Adesope (1996), and Aphunu and Atoma (2010), who ascertained youths involvement in arable farming, and crop processing amongst others. This could be as a result of access to ready market for these produce, and short period of maturity of these crops on the field.

Result in Table 3 reveals that all (100%) the respondents were aware, interested, evaluated, tried and finally adopted the e-wallet system of agriculture, electronic wallet

registration of farmers, redemption centre, and fertilizer distribution. However, all (60%) the respondents were not aware of using e-wallet to procure day old chicks, poultry feeds, vaccine, adopt herbicide, and wire collar packages, talk less of developing interest or tried to use it. This implies that all the respondents interviewed were mainly crop farmers and do not have enough knowledge on the usage of herbicides in the study area.

Hypothesis testing

H_o1: There is no significant relationship between socio-economic characteristics of rural youth and adoption score of electronic wallet of agricultural inputs distribution. Results in Table 4 shows that there is a significant relationship between years of farming experience ($r=0.435$, $P\leq0.01$) and level of education ($r=0.314$, $P\leq0.01$) in relation to the respondents' adoption of electronic wallet. By implication, the more the years the respondents have spent in farming, the more likely they would likely adopt innovation. This is owing to involvement in several programmes and projects which would have built the confidence of such respondents unlike the less experienced ones. Also, education provides enlightenment and exposure to youth farmers, and thus encourages adoption of innovation within a short adoption period (Agboola *et al.*, 2015). Thus, the higher the level of education, the more they will adopt innovation.

Conclusion

The study concluded that e-wallet was widely adopted by the youths, specifically by maize and rice farmers, but herbicides distribution was not part of the programme. However, the parents had great influence on their chosen occupation as many of them were born into farm families. It was recommended that the programme should promote other agricultural enterprises aside maize and rice which could encourage more involvement of youths. Also, strategies should be employed to encourage continuous usage of e-wallet services with the aim to ensuring effective use of the nation's human resources (youths), and promoting food security.

References

Adedoyin S. F. (2005). Youth and Children Programme in Extension in Agricultural Extension in Nigeria. In Adedoyin, S.F. (Eds) 2005. *Proceedings of the 10th Annual National Conference of the Agricultural Extension Society of Nigeria, Ile-Ife,* 60-88.

Adesope, O.M. (1996). Evaluation of youths' Participation in Community Development Projects in River State, Nigeria. *Unpublished M.Sc Thesis, Department of Agricultural*

Economics and Extension, Federal Universioty of Technology, Owerri.

Adewale J. G., Oladejo, J. A., Ogunniyi, L.T. (2005). Economic Contribution of Farm Children to Agricultural Production in Nigeria: A case study of Ekiti State. *Journal of Social Sciences.* 10(2): 149 – 152

Agboola, A. F., Adekunle, I. A. and Ogunjimi, S. I. (2015). *Asessment of youth participation in indigenous farm practices of vegetable production in Oyo State, Nigeria.* Journal of Agricultural Extension and Rural Development 7(3): 73-79 DOI: 10.5897/JAERD2014.0590.

Akpan, O. A (1985): Mobilizing youth for rural development; Rome report of the second youth *development seminar ,for selected countries in Africa* P 84

Aphunu, A., and Atoma, C. N. (2010). Rural Youths' Involvement in Agricultural Production in Delta Central Agricultural Zone: Challenge to Agricultural Extension Development in Delta State. *Journal of Agricultural Extension.* 14(2): 46-55

Durston, J., (1996). Comparative International Analysis of Rural Youth Policy in Developing Countries: Coping with Diversity of Change, pp: 45–61. In: *Expert Consultation in Extension and Rural Programmes and Sustainable Development.* FAO, Rome

Ekong, E. E (1988). Rural sociology: An introduction and Analysis of Rural Nigeria. 2nd Edition Dove – Education Publisher Uyo. 363.

Federal Ministry of Agricultural and Rural Development (FMARD), Nigeria (2014). We Will Grow Nigeria's Agricultural Sector.

Jibowo, A. A. (1998). *Agrological Transmission: The Secret of National Food Surplus.* An Inaugural Lecture delivered on July 11th in OAU Ile-Ife

Madukwe, M.C. (1995). *Agricultural Extension. Systems and Strategies.* In Eboh, E.C., Okoye C.U., and Ayichi, D. (eds.). Rural Development in Nigeria: Concepts, Processes and prospects. Enugu: Auto-century Publishing Company Limited. 265-273.

National Population Commission, (2006): National Population and Housing Census Document, N.P.C, Abuja.

Okeowo, T. A., Agunbiade J. B., Odeyemi L.A. (1999). An Assessment of the Level of Involvement of Farm-Children in Farming Decisions in Ikorodu Area of Lagos State. In Farm Children and Agricultural Productivity in the 21st Century *Proceedings of the Second Annual Conference of Children-In- Agricultural Programme (CIAP)* held at the

Conference Centre, O.A.U., Ile-Ife (eds Stella, B.W.; Oginni, F.O. and Akinloye, J.F.). 275 – 282.

Ozor, N., and Madukwe, M. C. (2005). Obstacles to the Adoption of Improved Rabbit Technologies by Small-Scale Farmers in Nsukka Local Government Area of Enugu State.

Perez-Morales, R. (1996). Issues Papers: Youth Policy and Resources Related to Rural Youth Programme. In: Cook, J. F. (ed.), *Expert Consultation on Extension Rural Youth.* 101–108.

Rogers, E.M. (1995). Diffusion of innovations. Fourth Edition ed., New York, Free Press.

Tiago, O. and Maria, F. M. (2011). Literature Review of Information Technology Adoption Models at Firm Level. Electronic Journal Information Systems Evaluation 14 (1)

Torimiro, D. O and Adisa, B. O. (2006). Challenges faced by children and youth; The responses of development service providers in Nigeria. Torimiro, D.O and Adisa, B.O (eds). *Proceedings of the 8th National Research Conference and Network Meeting of Children and Youth in Agriculture in Nigeria (CYIAP- Network)* held in the Department of Agricultural Extension and Rural Development, University of Ilorin, Ilorin, Kwara State. November 27-30, 2006

Torimiro, D. O. and Oluborode, A. A. (2006). Exploring Socio-economic Correlates of Production Needs for Southwest Nigeria. *Journal of Applied. Science Res.,* 5: 248–255

Table 1: Distribution of respondents on personal and socio-economic characteristics

Source: Field survey, 2015.

Variables	Frequency	Percentage	Mean
Age in Years			
≤30	14	11.6	
31-35	47	38.8	34.78 ± 4.63
36-40	60	49.6	
Sex			
Male	105	86.8	
Female	16	13.2	
Level of Education			
Primary (Year 6)	24	19.8	
Secondary (Year 12)	39	32.2	
Tertiary (Year 12 and above)	58	47.9	
Father's Occupation			
Farmer	100	82.6	
Trader	14	11.6	
Carpenter	7	5.8	
Mother's Occupation			
Farmer	78	64.5	
Teacher	13	10.7	
Trader	30	24.8	
Marital status			
Single	26	21.5	
Married	91	75.2	
Divorced	4	3.3	
Religion			
Christianity	52	43	
Islam	69	57	
Years of farming			
1-10years	46	38	
11-20years	44	36.4	14.3
21-30years	31	25.6	

Table 2: Distribution of respondents on the type of agricultural enterprises they engage in

Variables	Frequency	Percentage (%)
Type of agricultural activities engaged in?		
Generic(maize and rice)	68	56.2
Fishery	2	1.7
Oil palm	1	0.8
Maize and cocoa	42	34.7
Maize and oil palm	2	1.7
Cocoa and oil palm	2	1.7
Generic and fishery	4	3.3
Do you have access to market for your product?		
Sometimes	2	1.6
Always	119	98.4
Inputs received from redemption centre		
Seed and fertilizers	102	84.3
Seed, fertilizers and fingerlings	6	5
Fertilizer	11	9.1
Seed	2	1.7
How do you finance agricultural activities		
Credit from government	7	5.8
Credit institutions	2	1.7
Self	112	92.6

Source: Field survey, 2015.

A=Aware, I=Interest, E=Evaluation, T=Trial, A=Adoption

Table 3: The level of adoption of the agricultural wallet

Variable	A (%)	I (%)	E (%)	T (%)	Ad (%)
E-wallet system of Agriculture	121(100)	121(100)	121(100)	121(100)	121(100)
Registration	121(100)	121(100)	121(100)	121(100)	121(100)

of farmers					
Value chain of crop under e-wallet	121(100)	121(100)	121(100)	121(100)	121(100)
Redemption centre	121(100)	121(100)	121(100)	121(100)	121(100)
Fertilizer distribution	121(100)	121(100)	121(100)	121(100)	121(100)
Seeds	118(97.5)	118(97.5)	118(97.5)	118(97.5)	118(97.5)
Fingerlings	6(5)	6(5)	6(5)	6(5)	6(5)
Fish feed	-	-	-	-	-
Day old chicks	-	-	-	-	-
Poultry feed	-	-	-	-	-
Vaccine	-	-	-	-	-
Cocoa seedlings	6(5)	6(5)	6(5)	6(5)	6(5)
Oilpalm seedlings	-	-	-	-	-
Herbicide distribution	-	-	-	-	-
Wire collar	-	-	-	-	-

Source: Field survey, 2015.
A=Aware, I=Interest, E=Evaluation, T=Trial, Ad=Adoption

Table 4: Pearson correlation show relationship between social economic characteristics and Adoption score of Ewallet of Agricultural inputs

Variable	r-value	P-value	Decision
Age in years	0.102	0.265	NS
Year of farming experience	0.435**	0.001	S
Level of Education	0.314**	0.003	S

Source: Field survey, 2015

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ACCEPTABILITY AND PHYSICOCHEMICAL ATTRIBUTES OF YOGHURT FORTIFIED WITH GINGER AND GARLIC

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Abstract
Yoghurt is a product from the lactic acid fermentation of milk through the action of bacterial cultures. In this work, yoghurt was produced from raw cow milk and fortified with ginger and garlic in varied proportions (0.2 – 0.8%). The acceptability and physicochemical qualities of the yoghurt samples were evaluated using standard methods. The results obtained showed that the samples differed significantly ($p < 0.05$) in overall acceptability but not in colour and consistency. There were also significant differences in proximate compositions: protein (4.28 – 4.85%) and carbohydrate (10.68 – 11.94%) contents increased with increased levels of ginger and garlic while a decreasing trend was recorded in moisture content (80.37 – 79.95%) as well as in fat (3.29 – 2.57%). The ash content (0.68 – 0.72%) increased with increased ginger inclusion. There were increases in calcium, magnesium, phosphorus, iron and potassium contents of the yoghurt samples as garlic and ginger inclusion levels increased. The pH and total titratable acidity values were 4.3 – 4.9 and 0.22 – 0.26 g/100 ml, respectively. The study has therefore revealed that ginger and garlic inclusion in yoghurt production is feasible and has a positive effect on the nutritional qualities and overall acceptability of the product.

Keywords: Physicochemical, Acceptability, Yoghurt, Garlic, Ginger

INTRODUCTION

Yoghurt is a product from lactic acid fermentation of pasteurized milk. It involves the addition of starter culture or yoghurt cultures to milk (Willey *et al.*, 2008). Some of the bacteria are *Streptococcus thermophilus* and *Lactobacillus bulgaricus* which are mostly obtained commercially in sachets (Faladeet *al.*, 2014). Other *Lactobacilli* and *Bifidobacteria*can also be added during or after culturing yoghurt (Adolfssonet *al.*, 2004). Fermentation of milk occurs when the above-mentioned bacteria act on the milk sugar (lactose) converting it to lactic acid which in turn results in the curdling of the milk protein (casein). These chemical changes are responsible for the characteristic flavor and viscosity of yoghurt. Yoghurt is one of the popular fermented milk products known for thousands of years, and has taken much attention in few years with the advent of probiotics in dairy products. Being nutritionally rich in protein, calcium, potassium, riboflavin, vitamin B_6 and vitamin B_{12}, yoghurt is considered to have more nutritional benefits than milk and suitable for the growth of children. It has a long history of medicinal uses, particularly for diarrhea and a variety of gastrointestinal diseases (Muniandy et al., 2016).

Ginger (*Zingiberofficinale*) is a creeping perennial on a thick, tuberous rhizome, which spreads under the ground. In the first year, a green erect reed-like stem, about 60 cm high, grows from this rhizome. The plant has narrow lanceolate to linear-lanceolate, 15-30 cm long leaves which die off each year. The characteristic smell and taste of ginger is aromatic and pungent (Samir and Amrit, 2003). As a spice, it has been used for medicinal, pharmaceutical and cooking purposes. It is used for treating nausea, vomiting, and morning sickness; as a pain reliever (in arthritis), anti-inflammatory agent, as well as in the curing of ulcer and prevention of heart attack and stroke (The Herb Society of America Fact Sheet, 2006).

Garlic, also like ginger, has a long history of medicinal use for a wide variety of conditions, and was once known as 'poor-man's treacle' (or cure-all). In folk medicine, garlic has been used to treat bronchitis and respiratory problems, gastrointestinal problems, flatulence, leprosy, menstrual cramps, high blood pressure and diabetes. It has also

been used externally for warts, corns, arthritis, muscle pain, neuralgia and sciatica. Recently, science has begun to confirm some of garlic's long-standing medicinal uses. It has been shown to lower blood cholesterol, blood pressure and blood sugar in studies and clinical trials and has also demonstrated anti-cancer, antibacterial, anti-fungal and anti-oxidant effects (The Herb Society of America Fact Sheet, 2006).This work was aimed at improving the nutritional quality of yoghurt through the inclusion of garlic and ginger by harnessing the medicinal benefits inherent in the two spices.

MATERIALS AND METHODS

The fresh cow milk, starter culture, flavour, sugar, ginger and garlic used were all obtained from a local market in Ilorin, Kwara State.

Production of yoghurt

The method described by Falade*t al.,* (2014) for yoghurt production was used with slight modification. Raw milk was pasteurized at 85°C for 30 mins. The pasteurized milk was cooled to around 40-45°C, after which it was inoculated with commercial starter culture containing a mixed strain of *Streptococcus thermophilus* and *Lactobacillus bulgaricus* (0.5g of the culture was used to inoculate 1000ml of milk to initiate fermentation). The milk was incubated in a tight-fitted container at room temperature (27 ± 2^0C) for 10 hours, during which the characteristic yoghurt flavor developed. Sugar was added to taste as well as powdered milk flavor. The yoghurt was then filled into sterile plastic bottles, corked and stored in a refrigerator for subsequent analyses. The pH, titratable acidity, microbial stability, and sensory qualities of the yoghurt samples were then monitored, as well as their proximate compositions.

Production of ginger and garlic juices

The method described by Ahammed*et al* (2014) was adopted. Raw tubers of ginger were peeled, washed and blended using a blending machine, then sieved to remove fibrous materials. The garlic juice was prepared the same way

Production of ginger-garlic yoghurt

The ginger and garlic juices were added to the yoghurt in different proportions as outlined in Table 1. A total of twelve (12) samples and

a control were used for the analyses.

Chemical analysis of yoghurt samples

Proximate composition: The proximate compositions comprising moisture, ash, fat, and crude protein of the various yoghurt samples were determined using standard methods of AOAC (2000). Carbohydrate determination was by difference.

Mineral composition: Aqua-ragia method (AOAC, 2000) was used to determine the mineral composition of the yoghurt samples.

pH and Total Titratable Acidity (TTA): AOAC (2000) method was used to determine the pH of the various yoghurt samples while the Total Titratable Acidity was determined using the method described by Agarry*et al.* (2010)

Sensory Evaluation

The sensory qualities of the yoghurt samples were evaluated using a multiple-paired comparism test. The sensory parameters evaluated were colour, taste, aroma, consistency and overall acceptability. A panel comprising 20 semi trained panelists tested the samples using a 9-point hedonic type scale of preference, with 1 representing the least score (dislike extremely) and 9, the highest (like extremely).

Statistical Analysis

The results obtained were subjected to analysis of variance (ANOVA) using statistical package for social sciences (SPSS) Version16.0. Means were separated using Duncan test

Results and discussion

The proximate compositions of the various ginger and garlic fortified yoghurt samples showed significant differences. This significant difference can be attributed to the different variations of ginger and garlic that were added to the yoghurt. The moisture contents ranged between 80.9 and 79.95% with the control (100% yoghurt) having the highest value and sample YGG_4 (99% yoghurt, 0.8% ginger, 0.2% garlic) having the lowest. The reduction in moisture content can be attributed to the incorporation of garlic and ginger juice and means better shelf stability for the product. Ihemeje*et al.*; (2015) recommended that the moisture content of yoghurt should be around 84%. The trends observed in protein content of yoghurt showed increment with increasing percentages of ginger and garlic.

There was a significant difference in protein content among the various yoghurt samples. The protein content increased as the level of ginger and garlic incorporation increased. This observed trend agrees with the findings of Ahammed*et al* (2014) and Odebunmi*et al* (2009) who reported garlic and ginger have a considerable amount of protein and thus might help increase the protein content of yoghurt. On the contrary, the trend observed in the fat content of the yoghurt was found to be different from that of protein, the control sample had the highest (3.30%) fat content. Yoghurt samples with ginger, garlic and the mixture of both declined in fat contents from 3.20 – 2.57%. This variation may be associated with the varying proportions of ginger and garlic used. Ginger and garlic are quite low in fat (Odebunmi*et al.*, 2009). Akande*et al.* (2009) recorded a lower range of fat content when compared with fat content in cow milk. Significantly, fat is important as a source of energy in human body (Onyeka, 2008). The ash content of yoghurt varied significantly ($p<0.05$) and increased among the yoghurt samples with increased addition of ginger, but reverse was the case with increased level of garlic inclusion. This can be attributed to a higher ash content of ginger than garlic as reported by Odebunmi*et al* (2009). Ash content in foodstuffs is a measure of mineral elements present in the foodstuffs. The carbohydrate content increased with increased levels of ginger and garlic. This is attributable to the abundance of carbohydrate in garlic and ginger. There was a progressive increase in the mineral contents of the yoghurt samples as the level of ginger and garlic inclusion increased. This increase can be due to the high mineral contents of ginger and garlic Calcium content ranged between 116.336 and 125.083 mg/100g. Magnesium contents of the yoghurt were relatively low (10.429 – 11.377 mg/100g). The yoghurt samples were also very high in potassium. These ranged between 146.845 and 148.841 mg/100g. Other minerals present were iron (0.041 – 0.069 mg/100g) and phosphorus (89.633 – 94.961 mg/100g). Mineral elements are inorganic matters that play important roles in human nutrition and their inadequacy may result to nutritional disorder (Onyeka, 2008). Calcium helps in regulation of muscle contractions,

transmit nerve impulses and help in bone formation (Balogun and Oyeyiola, 2012). Potassium is an essential nutrient and has an important role in the synthesis of amino acids and proteins (Balogun and Oyeyiola, 2012). Phosphorus is needed for bone growth, kidney function and cell growth; it also plays a major role in maintaining the body's acid-alkaline balance (Fallon, 2001). Magnesium helps the formation of strong bones and teeth while deficiency of magnesium in man is responsible for severe diarrhea, hypertension and stroke. Iron is an important element in the diet of pregnant women, patients and elderly to prevent anaemia and other related diseases (Oluyemi*et al.*, 2006).

The pH values ranged between 4.3 and 4.9. These values fall within the range reported by Tamime*et al.*, (2005).

The results of the sensory evaluation showed that the garlic-ginger yoghurt samples compared favourably with the control (100% yoghurt) in the sensory attributes tested, except in taste and aroma which were scored low by the panelists. There was no significant difference in colour and consistency. Samples GIY_2 and YGG_2 were most preferred in overall acceptability. This means the ginger-garlic yoghurt will be acceptable by consumers. This can be partly attributed to the fact that the colour of the yoghurt samples was not impaired by the addition of ginger and garlic. Colour is described as one of the significant factors that affect acceptability of food products (Lee and Lucey, 2000).

Conclusions

The addition of ginger and garlic improved the nutritional value of yoghurt. Though the taste and aroma were a little impaired, samples GIY_2 (99.6% yoghurt, 0.4% ginger) and YGG_2 (99% yoghurt, 0.4% ginger, 0.6% garlic) had the highest overall preference. Therefore, it can be concluded that the production of ginger-garlic yoghurt is feasible, and also, with a moderate level of ginger and garlic inclusion, would be well accepted by prospective consumers.

References

A.O.A.C. (2000).Official methods of analysis 17th Edition, Association of Official Analytical Chemistry, Washington D.C, U.S.A.

Agarry, O.O. Nkama, and Akoma, O. (2010) "Production of Kunun-

zaki (A Nigerian fermented cereal beverage) using starter culture", *Int. Res. J. Microbiol.* 1 (2): 18-25.

Adolfsson, O., Meydani, S.N. and Russell R.M. (2004). Yoghurt and gut function. *American Journal Clinical Nutrition*. 80:245-256.

Ahammed, S., Talukdar, M., and Kamal, M. (2014). Processing and Preservation of Ginger Juice, *Journal of Environmental Science & Natural Resources*, 7(1):117-120.

Akande, K.E., Abubaka, M.M., Adegbola, T.A, Bagoro, S.E., Doma, U.D., and Fabiyi, E.F. (2009). Nutrient composition and uses of bambara nut (*Vignasubsterranea*). *Journal of Food Science and Technology,* 3: 8 - 13.

Falade, K.O., Ogundele, O.M., Ogunshe, A.O., Fayemi, O.E. and Ocloo, F.C. (2014). Physicochemical, sensory and microbiological characteristics of plain yoghurt from bambara groundnut (Vignasubterrenea) and soybeans (Glycine max). Journal of Food Science and Technology. 1-8

Balogun, M.A. and Oyeyiola, G.P. (2012).Changes in the nutrient composition of Okpehe during fermentation.*Pakistan Journal of Nutrition*, 11 (3): 270-275

Fallon, S. andEnig, M.G. (2001).Nourishing Traditions.The cookbook that challenges politically correct nutrition and the diet dictocrats. Revised 2nd Edtn., pp:40 - 45.

Ihemeje, A., Nwachukwu, C., and Ekwe, C. (2015).Production and quality evaluation of flavoured yoghurts using carrot, pineapple, and spiced yoghurts using ginger and pepper fruit.*African Journal of Food Science*, 9(3) pp. 163-169.

Lee, W. J., and Lucey, J.A (2000). Formation and Physical Properties of Yoghurt, Asian-Aust. J. Anim. Sci. 23(9): 1127 – 1136.

Muniandy, P., Shori, A.B. and Baba, A.S. (2016). Influence of green, white and black tea addition on the antioxidant activity of probiotic yoghurt during refrigerated storage. *Food Packaging and Shelf Life.* 8:1-8

Odebunmi, E.O., Oluwaniyi, O.O., and Bashiru M.O (2009).Comparative Proximate Analysis of Some Food Condiments, *Journal of Applied Sciences Research.* C(): CC-CC

Oluyemi, E.A., Akinlua, A.A., Adenuga, A.A., and Adebayo, M.B. (2006). Mineral contents of some commonly consumed Nigerian Foods Science Focus. 11 (1): 153-157.

Onyeka, E.U. (2008). *Food and Nutrition.* 2nd Edn., Charismatic Forum Publisher, Owerri, Nigeria, 151-184.

Samir, M. and Amrit, P. (2003).Natural Product Radiance, 2(6).

Tamime, A., Sareela, M., Sondergaard A.K., Mistry, V. and Shah, N. (2005). Production and maintenance of viability of probiotic micro-organisms in dairy products, *Priobiotic Dairy Products.*39-72.

The Herb Society of America (2006). Herb Society of America Fact Sheet, 9019 Kirtland Chardon Road, Kirtland, OH http://www. herbsociety.org

Willey, J.M., Sherwood, L.M., and Woolverton, C.J. (2008).Prescott Harley and Kleins Microbiology.7th Edition Mc-Graw Hill, New York p.1038.

SAMPLES	Yoghurt (%)	Starter Culture(g)	Sugar (g)	Flavour (g)	Ginger (%)	Garlic (%)
CONTROL	100	20	70	10	-	-

Table 1: Formulation of Ginger-garlic yoghurt

GIY_1	99.8	20	70	10	0.2	-	**KEYS**
GIY_2	99.6	20	70	10	0.4	-	CONTROL: 100% yoghurt, GIY_1: 99.8% yoghurt, 0.2% ginger, GIY_2: 99.6% yoghurt, 0.4% ginger, GIY_3: 99.4% yoghurt, 0.6% ginger, GIY_4: 99.2% yoghurt, 0.8% ginger, GAY_1: 99.8% yoghurt, 0.2% garlic, GAY_2: 99.6% yoghurt, 0.4% garlic, GAY_3: 99.4% yoghurt, 0.6% garlic, GAY_4: 99.2% yoghurt, 0.8% garlic, YGG_1: 99% yoghurt, 0.2% ginger, 0.8% garlic, YGG_2: 99% yoghurt, 0.4% ginger, 0.6% garlic, YGG_3: 99% yoghurt, 0.6% ginger, 0.4% garlic, YGG_4: 99% yoghurt, 0.8% ginger, 0.2% garlic.
GIY_3	99.4	20	70	10	0.6	-	
GIY_4	99.2	20	70	10	0.8	-	
GAY_1	99.8	20	70	10	-	0.2	
GAY_2	99.6	20	70	10	-	0.4	
GAY_3	99.4	20	70	10	-	0.6	
GAY_4	99.2	20	70	10	-	0.8	
YGG_1	99.0	20	70	10	0.2	0.8	
YGG_2	99.0	20	70	10	0.4	0.6	
YGG_3	99.0	20	70	10	0.6	0.4	
YGG_4	99.0	20	70	10	0.8	0.2	

Table 2: Proximate Composition of Yoghurt Samples

Samples`	Calcium (mg/10)	Magnesium (mg/100g)	Potassium (mg/100g)	Iron (mg/10)	Phosphorous (mg/100g)
CONTROL	116.336	10.429	146.845	0.041	89.633
GIY_1	116.403	10.457	146.845	0.041	89.642
GIY_2	116.432	10.468	146.849	0.044	89.674
GIY_3	116.483	10.516	146.859	0.046	89.746
GIY_4	116.982	10.565	146.872	0.049	89.932
GAY_1	117.562	10.635	146.954	0.052	90.019
GAY_2	118.473	10.663	147.457	0.056	90.424
GAY_3	118.489	10.677	147.559	0.058	90.595
GAY_4	118.537	10.765	147.683	0.058	90.789
YGG_1	119.166	10.857	147.845	0.062	91.564
YGG_2	120.736	10.964	147.849	0.064	91.643
YGG_3	121.137	11.085	147.913	0.068	92.765
YGG_4	125.083	11.377	148.841	0.069	94.961

In each of the columns, any means not followed by the same superscripts are significantly different ($p<0.05$).

KEYS

CONTROL: 100% yoghurt, GIY_1: 99.8% yoghurt, 0.2% ginger, GIY_2: 99.6% yoghurt, 0.4% ginger, GIY_3: 99.4% yoghurt, 0.6% ginger, GIY_4: 99.2% yoghurt, 0.8% ginger, GAY_1: 99.8% yoghurt, 0.2% garlic, GAY_2: 99.6% yoghurt, 0.4% garlic, GAY_3: 99.4% yoghurt, 0.6% garlic, GAY_4: 99.2% yoghurt, 0.8% garlic, YGG_1: 99% yoghurt, 0.2% ginger, 0.8% garlic, YGG_2: 99% yoghurt, 0.4% ginger, 0.6% garlic, YGG_3: 99% yoghurt, 0.6% ginger, 0.4% garlic, YGG_4: 99% yoghurt, 0.8% ginger, 0.2% garlic.

Table 4: pH and Total Titratable Acidity of Yoghurt Samples

Samples'	TTA (g/100 ml)	pH
CONTROL	0.23	4.5
GIY_1	0.24	4.6
GIY_2	0.23	4.6
GIY_3	0.24	4.7
GIY_4	0.22	4.7
GAY_1	0.24	4.7
GAY_2	0.23	4.8
GAY_3	0.24	4.7
GAY_4	0.23	4.8
YGG_1	0.22	4.7
YGG_2	0.24	4.7
YGG_3	0.24	4.8
YGG_4	0.23	4.9

In each of the columns, any means not followed by the same superscripts are significantly different ($p<0.05$).

KEYS

CONTROL: 100% yoghurt, GIY_1: 99.8% yoghurt, 0.2% ginger, GIY_2: 99.6% yoghurt, 0.4% ginger, GIY_3: 99.4% yoghurt, 0.6% ginger, GIY_4: 99.2% yoghurt, 0.8% ginger, GAY_1: 99.8% yoghurt, 0.2% garlic, GAY_2: 99.6% yoghurt, 0.4% garlic, GAY_3: 99.4% yoghurt, 0.6% garlic, GAY_4: 99.2% yoghurt, 0.8% garlic, YGG_1: 99% yoghurt, 0.2% ginger, 0.8% garlic, YGG_2: 99% yoghurt, 0.4% ginger, 0.6% garlic, YGG_3: 99% yoghurt, 0.6% ginger, 0.4% garlic, YGG_4: 99% yoghurt, 0.8% ginger, 0.2% garlic.

Table 5: Sensory Evaluation of Ginger-Garlic Yoghurt

Samples	Colour	Taste	Aroma	Consistency	Overall acceptability
CONTROL	7.60±0.37^{a}	7.00±0.54^{ab}	6.00±0.67^{abc}	5.90±0.46^{a}	6.60±0.69^{ab}
GIY_1	7.30±0.34^{a}	6.60±0.49^{abc}	5.90±0.55^{abcd}	6.10±0.43^{a}	6.50±0.54^{ab}
GIY_2	7.50±0.40^{a}	7.40±0.49^{a}	7.00±0.52^{a}	5.90±0.41^{a}	7.20±0.47^{a}
GIY_3	7.70±0.30^{a}	6.50±0.58^{abcd}	5.70±0.59^{abcd}	6.20±0.65^{a}	6.40±0.37^{ab}
GIY_4	7.60±0.34^{a}	6.90±0.62^{ab}	6.40±0.70^{ab}	6.30±0.39^{a}	6.40±0.67^{ab}
GAY_1	7.20±0.59^{a}	4.90±0.77^{bcde}	4.50±0.64^{bcd}	5.50±0.31^{a}	5.10±0.61^{bc}
GAY_2	7.20±0.29^{a}	4.20±0.73^{e}	3.80±0.76^{d}	5.40±0.37^{a}	5.10±0.61^{bc}
GAY_3	7.10±0.31^{a}	4.50±0.96^{cde}	4.00±0.73^{cd}	4.90±0.53^{a}	4.70±0.68^{bc}
GAY_4	7.00±0.39^{a}	4.40±0.76^{de}	4.30±0.67^{bcd}	5.50±0.60^{a}	4.40±0.54^{c}
YGG_1	7.30±0.45^{a}	4.40±0.77^{de}	4.10±0.71^{cd}	5.20±0.49^{a}	5.00±0.59^{bc}
YGG_2	7.70±0.37^{a}	7.30±0.59^{e}	6.50±0.72^{ab}	6.20±0.42^{a}	7.20±0.51^{a}
YGG_3	7.10±0.51^{a}	4.20±0.71^{e}	4.50±0.69^{bcd}	5.60±0.72^{a}	4.90±0.58^{bc}
YGG_4	7.10±0.37^{a}	4.90±0.64^{bcde}	4.90±0.50^{bcd}	5.50±0.31^{a}	5.00±0.62^{bc}

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AGRICULTURE STUDENTS' ASSESSMENT OF THE FARM INTERNSHIP PROGRAMME OF UNIVERSITIES IN KWARA STATE, NIGERIA

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Abstract
The reluctance of Nigerian agriculture graduates to take up careers in agriculture-related enterprises have been blamed on the theoretical nature of the learning experience in the Universities and Colleges of Agriculture in spite of the student internship programme designed to teach practical agricultural skills. Thisstudy, therefore, assessed the student internship program in Universities in Kwara State, Nigeria. The specific objectives of the study included investigations into the internship experience of the students, their attitude towards the programme, their assessment of the programme and the challenges they face during the programme. A multi-stage sampling technique produced a total of 130 respondents drawn from Universities across the state. Primary data was collected by using a structured questionnaire. Descriptive and inferential statistics were used to analyse the data collected. The result shows that there was slightly more male (54.6%) agriculture students and the mean age was 23years. They were largely cosmopolitan (85.4%), and most (70.0%) had practical agriculture experiences prior to the internship programme (70%). However, only about half (49.2%) of the students chose agriculture when seeking admission into the Universities. Poultry-related skills were the most acquired (Weighted Mean Score =1.95) while skillacquisition in agricultural extension, agricultural marketing (Weighted Mean Score =1.5) and apiary (Weighted Mean Score =1.3) were weak. The students rated nine (9) of the twelve (12) parameters set to assess the programmeas satisfactory. They were, however, unsatisfied with the grading system adopted to rate students' performance (Weighted Mean Score =1.90), the methods of skill delivery by the facilitators (Weighted Mean Score =1.97) and the attitude of the supervisors to the students (Weighted Mean Score =1.97). The poor transportation system was identified as a major challenge to students. The study concluded that the student internship programme was on the average satisfactory but identified room for improvement. The study recommended a review of the grading system, training of facilitators and the provision of adequate transportation for the students as measures to improve the programme.

Keywords: Student Internship Programme, Attitude, Assessment, Skills and Agriculture Students

ıtroduction

he state of the Nigerian agriculture re-erate the need for favourable gricultural policies and improved chnologies that will guarantee fficient production and progressively ansform the nation's agriculture from s current small-scale subsistent levels f production.(Ademola and Agbebaku, 006). The entrance of technically ompetent and vocational skilled layers into the agricultural sector of ıe country will no doubt contribute to ıe realisation of the millennium evelopment goal of reducing hunger ıd poverty in the country. The undreds of agriculture graduates rned out annually by universities in ligeria could be a formidable force for ıis drive.

owever, the subject of the reparedness of these graduates for gricultural entrepreneurship has been ebated. According to Ademola and gbebaku (2006), if the production end will meet the ever increasing emand for food and raw materials, it justifiable to query an educational rogramme which produces graduates f agriculture who can only function ther as researchers or technocrats. ost-independence educational system ı Nigeria placed emphasis strictly on cademic excellence, rather than ıeacquisition of vocational skills hich prepares the individual for a more useful and fulfilling life (Adesina, 1982, Omoruyi and Osunde 2004). This scenariowas permissible until white-collar jobs became so scarce that unemployment became a common phenomenon even among university graduates (Ademola and Agbebaku (2006). Unemployment among youth has attained an embarrassing height and analysts have connected this problem to the high level of vandalism, crime and anti-social acts prevalent in Nigeria (Ladele, 1998). The observed failures of agriculture students to embrace agricultural production related careers led to renewed interest in agricultural education to create agricultural entrepreneurs.

Experiential learning is not a new concept of learning and according to Kolb and Kolb (2005), there is the need to reinforced theory with practice as well as guide all practices with sound theory.Lewis and Williams (1994) noted that, in higher learning situations, experiential learningis conducted in the form of field-based experiences or by crediting of prior learning.Acker (1999) said that students' education should include thedevelopment of broad thinking skills to initiate problem-solving skills; and further asserted that students need to examine agriculture from a systems perspective, including social, biological and physical

systems.Navarro (2004) opined that students should learn about, and experience their environment. This experience expected to prepare them to compete in the dynamic workplace typical of agricultural farms. Bruening and Frick (2004) found thatmostof thetoday's companies are interested in only graduates with cross-cultural experiences.Inculcating field and practical experiences into institutional programmesarewhat all schools should engage in so as to enhance the quality of the programmes they offer.With diminishing opportunities for formal employment, educational institutions are being encouraged to provide relevant forms of education designed to promote self-reliance and responsible entrepreneurial capacity for self-employment (Rao, Wright, and Mukherjee, 1990).

According to Ogunbameru (1986), agricultural students' internship programme also called Farm Practical Year (FPY) programme is a programme aimed at enabling students to gain knowledge and practical skills through observation and by doing. The Nigerian National Universities Commission (NUC), mandates every University to expose its students of agriculture tofarm work in their fourth year(Ademola and Agbebaku, 2006; Odo, 2011). The justification for the training programmeis that it will afford the trainees the opportunity to "learn by doing" by undertaking practical farming activities on both crop and livestock production as well as other aspects of agriculture.Olorunoba, (2008) ascertained that the farm practical programme was an effort to boost the technical know-how of graduates of agriculturein Nigeria. He further stated that it was a unique opportunity to reinforce the application of all the theoretical inputs that have gone the Universities' products. Rather than being theoretical about learning of agriculture, 400 level agriculture students learn through farm practical year programme byactually participating in the agricultural sector at different levels. The provision of theexperience is expected to make undergraduate agriculture students favourably disposed to farming.

Experts believe that these experiences promote ownership of knowledge and translate to critical thinking skills White and Fredericksen, 1998; Bransford*et al.*, 2000).Students participation in farm practicaltraining can also be an effective means of experiential learning and associated skills development (Matter and Steidl, 2000; McCleery*et. al.*,2005).According to Rao*et. al.* (1990), Entrepreneurial Skill Programmes are gaining

rominence in the developing nations s efforts towards solving problems elated to under-utilized human esources and economic decline, esulting from lack of employment pportunities in the formal economy. he Farm Practical Training rogrammeis fashioned within the rinciples of Entrepreneurial Skill evelopment, (Ademola and gbebaku, 2006)

1 the original concept of the student ternship programme in many niversities, it was designed that ainees otherwise known as interns ould be seconded to farms or griculture-related industries for a inimum period of six months during hich university supervisors would isit to evaluate them. The initial iccup in securing placements for all ie students led to the current practice f engaging traineesin the niversityteaching and research farms. nder this programme, agriculture udents determine how to solve ractical farm problems, gather and rganise farm data or information, evelop and formulate technical eports. To this end, the roles of aculties of Agriculture in roducingagricultural graduates for cademic and professional leadership idmanagement are critical to national social progress and economic growth (Amalu, 2006).

Statement of the Research Problem

The National Policies on Education in Nigeria recognises the relevance of vocational courses in the educational curriculum. The National Universities Commission (NUC) is also firm in its belief that agricultural training at the universities should not be geared toward attaining academic knowledge only but should also emphasise practical agriculture capable of developing skills in trainees and leading to self-employment especially now that the white collar jobs are not as available as they used to be (Ademola and Agbebaku, 2006).This is the rationale behind the compulsory internship programme that has been build into the curriculum of Nigerian Universities. One of the desired effects of this programme is that it will stimulate the students' interst in agricultural entreprenueship as a career thereby raising production and contributing to food security.

Unfortunatlyas revealed by various studies, agricultural entrepreneurship has continued to remain unpopular among Nigerian youths including graduates of agriculture many of whom are found in offices with little or no relationship with agriculture. In spite of the high rate of unemployement, they are not readily interested in farming and other agricultural activities. There have also been unfavourable comments from employers about the quality of graduates especially in

the area of practical application of knowledge acquired.

It is possible to blame the poor quality of agriculture graduates and their poor interest in agricultural entrepreneurship on the failure of the student internship programme to produce the expected effect on the students. This failure may also be connected to the attitude of the interns towards the programme. An assessment of the programme will assist in addressing possible causes of failures. Some socio-economic characteristics of the students could influence their attitudes to the programme as well as their assessment of the programmes. Finally, it is possible that interns have to deal with challenges which imped their complete experience of a productive internship programme. It is against this background that this study carried out an analysis of agriculture students' assessment of the internship programme in universities in Kwara State, Nigeria. Specifically, the study aims to:

1. describe the socio-economic characteristics of agriculture students of universities in Kwara State, Nigeria;
2. investigate the internship experience of the students;
3. examine the attitude of students towards the internship programme;
4. analyse agriculture students' perception of the internship programme; and
5. identify the challenges faced by agriculture students during the internship programme.

Hypothesis of the Study

The hypothesisis stated thus;

There is no significant relationship between the socio-economic characteristics of respondents and their perception of farm internship programme

Methodology

The Study Area

The study was undertaken in Kwara State, Nigeria.The State is located within the North Central zone of the country, and it lies between latitudes 7°45'N and 9°30'N and longitudes 2°30'E and 6°25'E.It shares boundaries with Oyo, Ondo and Osun to the south, Kebbi and Niger to the north, Kogi to the east and the Republic of Benin on the west side. With an estimated figure of 203,833 farm family, majority of the farm families live in the rural areas (KWADP, 1996). The State is primarily agrarian and is blessed with vast expanse of arable land and rich fertile soils. Major crops cultivated in the State include yam, cassava, rice, maize, sorghum, cowpeas, groundnut, melon, okra, pepper and some leafy vegetables

he four Universities in Kwara State :e; University of Ilorin, Kwara State niversity, Landmark University and .l-Hikman University. Of the four ıstitutions, Al-Hikman University oes not offer courses in Agriculture. he University of Ilorin is owned by ıe Federal Government of Nigeria hile Kwara State University is an stablishment of the Kwara State overnment. The other two universities ı the State are however private owned.

ampling Procedure and Sample ize

. multi-stage sampling technique was sedin the study. The first stage ıvolved the purposive selection of ıeUniversity of Ilorin and Landmark niversity as Al-Hikman University o not offer courses in fields of .griculture and students of Kwara tate University were on vacation uring the survey. The second stage ıvolved the purposive selection of the 00 level students in both Universities 78 students in Landmark University ıd 182 in University of Ilorin making total of 260). This selection again as based on the fact that they had ncluded the internship programme hile in 400 level and would, ıerefore, be able to respond based on ıeir internship experiences. The final age involved simple random ampling of 50 percent of the 500 level students in the two selected universities to give a total sample size of 130.

Data Collection and Analytical Technique

The instrument for the collection of primary data used for the study was a structured questionnaire which was designed to elicit information on the students' socio-economic characteristics, their internship experience, attitude towards the programme, assessment of the programme and the constraints they faced on the programme. Descriptive statistics involving the use of frequency counts, percentages and means were used to describe the socio-economic characteristics of the respondents and their internship experience. Four-point Likert scale was used to present the results of the respondents' attitude and assessment of the programme while a 3-point Likert type scale was used to assess the level of severity of the constraints faced bythe students duringthe programme. Twenty statements (14 negative and 6positive) were posed to the respondents and they were requested to indicate the extent to which they agreed ar disagreed ith the statements. The scale was graduated as follows for the negative statements;

Strongly agree =1, Agree=2. Disagree= 3 and Strongly disagree= 4. However, the scoring pattern was reversed for the positive statements. A benchmark of 2 was adopted to connote agreement with any statement for ease of discussion.

Chi-square analysis was used to test the hypothesis of the study.

Results and discussion

Socio-economic Characteristics of Respondents

The summary of selected socio-economiccharacteristics of the respondentsis presented in Table 1

As shown in Table 1, the mean age of the students was 23.4 years. Most(54.6%) of the respondents were male,and 85.45% of the students were of the Yoruba ethnic group and from monogamous families (81.5%). About 75% of the respondents have travelled outside their states of origin. Mean cumulative grade point average (CGPA) was 2.84,and more than half (77.7%) of the students were from middle-class families. Majority(85.4%)of the students resided in urban centres while only 14.6% were from rural settings. While 70% of the students had agricultural experience before internship year while 49.2 % of the students choose agriculture as acourse of study when seeking admission.

Respondents' Internship Experience

This section discusses the internship experience of the respondents, and this is summarised in Tables 2 and 3.Almost all (97.7%) the respondents had the poultry internship experience and 90% of them worked at the piggery section. A minimum of 60% of the respondents worked at all the other units: rabbitory (81.5%); agronomy (87.7%);agro-processing (76.9%); and soil management (63.1%)except for agricultural engineering and apiary. Only 28.5% of the students worked at Apiary unit. This result shows that the different aspects of agriculture were not accorded equal attention in the programme. The implication of this is that students are likely to be deficient in practical knowledge of some aspects of their discipline and may not be able to function very well as graduate employees in those aspects that appears neglected.

Table 3 reveals that students acquired skill most in raising poultry to table size and vaccination of animals (M=1.946, S.D= 0.227) while they acquire least skills in beekeeping (M= 1.315, S.D= 0.466) and hatching (M= 1.277, S.D= 0.449). It is also important to note that skill acquisition in fields of agricultural extension and marketing were also rated low among the respondents (1.5 for both). Again, this finding reveals a wide variation in the extent to which students acquire practical skills among the different fields of agriculture. It is not surprising that a comparison of the results in Tables 2 and 3 shows that the aspects of agriculture in which the students had the least experiences were largely the ones in which they acquired the least level of skills.

Attitude of Respondents to the Student Internship Programme

The attitude of students towards the student internship programmeis discussed in this section. Tables 4 and 5 presents the results.

As shown in Table 4, students agreed to the following statement; farm intership programme uses students as labourers, students should be allowed to do their internship programme outside the school farm,farm units are too far, students go to the school farm because of attendance and mark, I should be compensated with some of the farm produce I cultivated, the programme is too stressful, I had many first time experiences during the proramme,the programme should be full time practicals and not combined with lectures, farm internship programme should be made compulsory, I enjoyed the farm internship programme, the programme is very relevant to my attainment of B Agriculture Degree, the programme is a form of experiential learning so it should be encouraged. However, students disagree with the following statements; students hire labourers to do their work on the farm, I see the programme as a waste of time, farm internship programme is too tedious, the programme is too costly, I did not learn anything new during the programme, I did not enjoy the farm internship programme, supervisors don't come to the farm. Table 4 reveals the summary of responses to the different statements. It shows that the respondents agreed with all the six positive statement from the WMS which was clearly above 2. Also, the respondents were in disagreement wth 14 negative statements on the programme. However, Eight negative statements had WMS above 2 indicating the students' agreement with those negative statements.

Assessment of the Student Internship Programme

The result of aninvestigation into students' assessment of the internship programme isdiscussed in this section while Table 5 presents a summary of the findings.

From Table 5, students were satisfied with the following; Number of unit of credit attached to the programme (WMS=2.18), level of punctuality of supervisors (WMS=2.02), Level of attendance of supervisors(WMS=2.15), the content of the programme(WMS=2.06), time devoted to the programme i.e duration(WMS=2.14), Supervisors knowledge of skills to be imparted(WMS=2.11), Relevance of knowledge imparted to degree in view (WMS=2.12), Extent to which internship experience positively

influenced students towards agripreneurship (WMS=2.10), Supervisors responses to questions from students (WMS=2.05). However, they were unsatisfied with the grading system adopted for the programme(WMS=1.90), Knowledge and skill delivery methods used by supervisors (WMS=1.97) and Supervisors attitude towards students (WMS=1.97). In all, the students were satisfied with nine of twelve parameters used for the assessment of the programme. This findings show that the dissatifiers of the students had to do with the handling of the programme which if improved upon, could impact positively on the students attitude toward the programme.

Table 6 shows that the most severe of the challenge faced by respondents during student internship programme was transportation to the farm (MS= 3.08). This was followed by inadequacy of amenities such as water and electricity (MS= 2.87) and non-availability of improved technology (MS= 2.86). Other challenges indicated include Inadequacy of fund (MS= 2.6), Inadequacy of farm implements (MS= 2.59), poor soil (MS= 2.27), Poor attitude of students towards the programme (MS= 2.21), Exploitation by instructors (MS= 2.19), Non availability of market for produce (MS= 2.18), Inadequacy of agrochemicals (MS= 2.06), Inadequacy of viable seed (MS= 1.95). The least of the possible challenges indicated was Inexperienced instructors (MS= 1.82)

Hypothesis 1: There is no significant relationship between the socio-economic characteristics of respondents and their assessment of farm internship programme

The result of the chi-square analysis in Table 7 shows the existence of significant relationship between the respondents' age (X^2=70.092, p<0.01), family type (X^2=51.723, p<0.01), ethnicity (X^2=159.892, p<0.01), cosmopoliteness (X^2=126.031, p<0.01), financial background (X^2=122.323, p<0.01), environmental background (X^2=65.108, p<0.01), prior experience in agriculture (X^2=20.800, p<0.01) and their assessment of the student internship programme while the gender was not significant (X^2=1.108, p>0.01).This implies that the students' rating of the student internship programme was significantly influenced by their age, cosmopoliteness, possession of prior experience in farming, environmental and financal backgrounds. These factors can all be linked with level of awareness and exposure.

'onclusion and Recommendation

he study concluded that the griculture students' assessment of the udent internship programme in Kwara tate, Nigeria was on the average, ıtisfactory. The attitude of the udents to the programme was also ɔnsiderably positive. Students' xperience and skill acquisition in ɔiary, agricultural engineering, ɛtension and marketing was however ɔor. The study also concluded that ıere were a number of challenges to ıe students' participation in the rogramme, chief among which was ansportation. Finally, the study ɔncluded that age, family type, hnicity, cosmopoliteness, financial ackground, environmental ackground, and prior experience in griculture were the socio-economic ıaracteristics of students that had gnificant relationship with their ssessment of the student internship rogramme.

ased on the findings of the study, the ollowing recommendations are put ɔrward;

1. Organizers of the student internship programmes in universities in Kwara State should pay particular attention to the identified units in which skill acquisition has been reported to be low. These include; apiary, agricultural engineering, agricultural extension and agricultural marketing
2. Universities should ensure an adequate transport system for students on internship to ensure their prompt attendance in the programme
3. The current system for grading student on internship programme should be revised for possible improvement.
4. Facilitators and supervisors should trained on the various skill delivery methods that could enhance their performances.

References

Acker, D. G., (1999). Improving the quality of higher education in agriculture globally in the 21st century: Constraints and opportunities.*Journal of Int. Agric, Extension Education*, 2: 47-53

Ladele, A. A. and O.M. Agbebaku (2006). Analysis of Entrepreneurial Skills Development through Farm Practical Training Programmes of University of Ibadan and University of Agriculture, Abeokuta. *Journal of Agricultural Extension* Vol. 9, 2006.

Adesina, S. (1982): Planning an Educational Development in Nigeria; *Ibadan Board Publications Ltd.*

Amalu, U.C. (2006). Finding solutions to the problem of low academic and professional standards of graduates of agriculture in Nigeria. *Invited paper at the Roundtable of Deans of Agriculture of Nigerian Universities on Practical Training held at the Senate Chamber, University of Agriculture, Abeokuta.*

Bransford, J.D., Brown, A.L. and R. Cocking (2000). How people learn: Brain, mind experience and school. *National Academy Press, Washington, D.C.*

Bruening, T. H., Frick, M. (2004) Evaluation of selected courses intended to Internationalize the curriculum in the College of Agriculture, Montana State University. *Journal of international Agricultural and Extension Education, 11(1): 17-24.*

Kolb, A. Y., and Kolb, D. A. (2005).Learning styles and learning spaces: Enhancing experiential learning in higher education.*Acad. Manage. Learn. Educ., 4(2): 193-212.*

Ladele, A. A. (1998): Strategies to Integrate Youths in Agricultural development in Nigeria. *Journal of Agricultural and Rural Management.Vols 3&4 No 3 Pp 70-76.*

Lewis, L. H., and Williams, C. J. (1994) in Jackson, L. and Caffarella, R. S. (Eds).Experiental Learning: A New Approach Pp5-16. San Francisca. Jossy-Bass

Matter, W. J. and R.J.Steidl (2000). University undergraduate curricula in wildlife: Beyong 2000. *Wildlife Society Bulletin 28: 503-507.*

McCleery, R.A., R.R. Lopez, L.A. Harveson, N.J.Silvy, and R.D. Slack (2005). Integrating on-campus wildlife research projects into the wildlife curriculum. *Wildlife Society Bulletin 33: 802-809.*

National Universities Commission (1989): Approved Minimum Academic Standards in Agriculture, Forestry, Fisheries and Home Economics for all Nigerian Universities, NUC, Lagos, Nigeria.

Navarro, M. (2004).Faculty perspectives on strategies to internationalize the undergraduate agricultural curriculum.*Proceedings of*

ıe *20th Annual Association of ıternational Agriculture and 'xtension Education Conference, pp. 95-306.*

)do, J. C. (2011), Assessment of Farm 'ear Programme of the University of ligeria, Nsukka and Michael Okpara 'niversity of Agriculture, Umudike, *ɔurnal of Agricultural Extension. Vol. 5 (2), December, 2011.*

)gunbameru, O. B. (1986). xtension internship: A pre-requisite ɔr students' degree. *Journal of 'xtension Systems, June, 2: 69-71. ttp:/www.jesonline.org/1986jun.htm*

)loruntoba, A. (2008) Agricultural tudents' Perceptions of Farm Practical 'ear Programme at University of .beokuta, Nigeria. *Agricultural 'onspectus Scientificus*, 73(4): 245-52.

)moruyi, F.E.O and A.U Osunde, 2004): Evaluating the Effectiveness of lational Youth Employment ıdVocational Skill Acquisition rogramme in Mid-Western Nigeria.

.ao, T.V., Wright, C. and H. lukherjee (1990): Designing ntrepreneurial Skills Development rogramme.London, Commonwealth ecretariat.

White, B.Y. and J.R.Fredericksen (1998). Inquiry, modeling, and metacognition: Making science accessible to all students. Cognition and Instruction 16: 3-118.

Table 1: Socio-economic characteristics of respondents N=130

Variables	Frequency	Percentages	Mean	SD
Age (in years)				
<20	5	3.8		
20-23	71	54.6	23.40	2.85
>23	54	41.5		
Gender				
Male	71	54.6		
Female	59	45.4		
Family type				
Monogamous	106	81.5		
Polygamous	24	18.5		
Ethnic Background				
Yoruba	111	85.4		
Igbo	15	11.5		
Hausa	4	3.1		
Farthest Distance Travelled				
Within the state	19	14.6		
Outside the state	98	75.4		
Outside the country	13	10.0		
Cumulative Grade Point Average				
1.5-2.49	2	1.5		
2.5-3.49	42	32.3	2.84	0.75
3.5-4.49	61	46.9		
4.5 and above	25	19.2		
Financial Background				
Affluent	27	20.8		
Middle class	101	77.7		
Low income	2	1.5		

Geographical Background		
Urban	111	85.4
Rural	19	14.6
Prior farming experience		
Yes	91	70.0
Agricultural science as Course choice		
Yes	64	49.2

Source: Field Survey, 2016

Table 2: Percentage Distribution of Respondents based on Units Worked in during Internship N=130

Variables Frequency		Percentage
Units worked in during internship programme (multiple responses)		
Soil and Land Management	82	63.1
Agronomy	114	87.7
Poultry	127	97.7
Rabbitory	106	81.5
cattle Keeping	104	80.0
Apiary	37	28.5
Piggery	117	90.0
Agric engineering	77	59.2
Agric processing	100	76.9

Source: Field Survey 2016

Table 3: Distribution of Students by Skills Acquired during Student Internship Programme

UNITS	MEAN	S.D	RANK
Raising of poultry to table size	1.946	0.227	1st
Vaccination of animals	1.946	0.227	1st
Weeding	1.939	0.241	2nd
Brooding of poultry	1.908	0.291	3rd

Cultivation of vegetables	1.908		0.291	3rd
Harvesting of agricultural produce	1.900		0.301	4th
Application of fertilizer	1.900		0.301	4th
Watering	1.892	0.311	5th	
Planting depth	1.862		0.347	6th
Intra and inter spacing	1.854	0.355	7th	
Land preparation	1.831	0.376	8th	
Application of manure	1.831	0.376	8th	
Mixed cropping	1.623	0.423	9th	
Processing of agricultural produce	1.739	0.441	10th	
Rabbit rearing	1.669	0.472	11th	
Mixed farming	1.623	0.486	12th	
attle rearing	1.615	0.488	13th	
Marketing	1.523	0.501	14th	
Extension servics	1.500	0.502	15th	
Tractor driving	1.439	0.498	16th	
Apiary	1.315	0.466	17th	
Hatchin	1.277	0.449	18th	

Source: Field Survey, 2016

Table 4: Attitudes of Students towards Farm Internship Programme

S/N	ATTITUDES	S.A F(%)	A F(%)	D F(%)	S.D F(%)	SCORE	WMS	REMARK
1	program used students as labourers	59 (45.4)	37 (28.5)	25 (19.2)	9 (6.9)	244	1.88	AGREED
2	programme should be done outside the school	62 (47.7)	40 (30.8)	21 (16.2)	7 (5.4)	233	1.79	AGREED

	farm							
3	Farm units are too far from academic area	57 (43.8)	42 (32.3)	24 (18.5)	7 (5.4)	241	1.85	AGREED
4	Students attend only for attendance and mark	62(47.7)	38(29.2)	23(17.7)	7(5.4)	235	1.80	AGREED
5	Students should be allowed to hire labourers to do their work on farm	13(10)	39(30)	44(33.8)	34(26.2)	359	2.76	DISAGREED
6	Program is a waste of time	13(10)	10(7.7)	48(36.9)	59(45.4)	413	3.17	DISAGREED
7	It is too tedious	28(21.5)	62(47.7)	32(24.6)	8(6.2)	280	2.15	DISAGREED
8	students should be paid for work done on the farm during the programme	49(37.7)	48(36.9)	21(16.2)	12(9.2)	256	1.97	AGREED
9	students should be compensated with farm produce that I	70(53.8)	44(33.8)	10(7.7)	6(4.6)	212	1.63	AGREED

	cultivated							
10	The programme is too costly	20(15.4)	44(33.8)	53(40.8)	13(10)	319	2.45	DISAGREED
11	The programme is too stressful	44(33.8)	55(42.3)	25(19.2)	6(4.6)	253	1.94	AGREED
12	Students did not learn anything new	8(6.2)	11(8.5)	49(37.7)	62(47.7)	425	3.27	DISAGREED
13	Students did not enjoy the programme	5(3.8)	17(13.1)	53(40.8)	55(42.3)	418	3.21	DISAGREED
14	Supervisors are not regular on farm	7(5.4)	13(10)	60(46.2)	50(38.5)	413	3.18	DISAGREED
15	The student had many first time experiences during the programme	31(23.8)	52(40)	29(22.3)	18(13.8)	356	2.74	AGREED
16	The programme should be full time practical	70(53.8)	29(22.3)	17(13.1)	14(10.8)	415	3.19	AGREED

	and not combined with lecture							
17	It is okay to make the farm internship programme compulsory	53(40.8)	51(39.2)	18(13.8)	8(6.2)	409	3.15	AGREED
18	Students were satisfied with farm internship programme	37(28.5)	63(48.5)	23(17.7)	7(5.4)	390	3.00	AGREED
19	It is relevant to the attainment of B. Agric	69(53.1)	45(34.6)	8(6.2)	8(6.2)	435	3.35	AGREED
20	It is a form of experientia l learning, so it should be encourage d	78(60)	36(27.7)	6(4.6)	10(7.7)	442	3.4	AGREED

Source: Field Survey, 2016

Table 5: Assessment of Agriculture Students Internship Programme

ASSESSMENT	VD F(%)	D F(%)	S F(%)	VS F(%)	SCORE	WMS	REMARK
Number of unit of credit Attached to the programme	20(15.4)	75(57.7)	26(20)	9(6.9)	284	2.18	S
The programme grading system	37(28.5)	73(56.2)	16(12.3)	4(3.1)	247	1.9	U
Level of punctuality of supervisors	25(19.2)	80(61.5)	23(17.7)	2(1.5)	262	2.02	S
Level of attendance of supervisors	19(14.6)	80(61.5)	23(17.7)	8(6.2)	280	2.15	S
The content of the programme	15(11.5)	93(71.5)	21(16.2)	1(0.8)	268	2.06	S
Time devoted to the programmei.e duration	18(13.8)	80(61.5)	28(21.5)	4(3.1)	278	2.14	S
Supervisors knowledge of skills to be imparted	14(10.8)	89(68.5)	25(19.2)	2(1.5)	275	2.11	S
Knowledge and skill delivery methods used by supervisors.	28(21.5)	82(63.1)	16(12.3)	4(3.1)	256	1.97	U
Relevance of knowledge imparted to degree in view	16(12.3)	86(66.2)	24(18.5)	4(3.1)	276	2.12	S

Extent to which internship experience positively influenced students towards agripreneurship	21(16.2)	79(60.8)	25(19.2)	5(3.8)	274	2.10	S
Supervisors attitude towards students	26(20)	85(65.4)	16(12.3)	3(2.3)	256	1.97	U
Supervisors responses to questions from students	18(13.8)	90(69.2)	19(14.6)	3(2.3)	267	2.05	S

Source: Field Survey, 2016. **VD = Very Dissatisfied, D= Dissatisfied, S= Satisfied, VS= Very Satisfied, U=Unssatisfied, WMS= Weighted Mean Score (Benchmark: WMS below 2 = Unssatisfied, WMS above 2 = Satisfied)**

Table 6: Challenges Faced by Respondents during the Student Internship Programme

Challenges	V.S F(%)	S F(%)	L.S F(%)	N F(%)	Score	MS	Rank
Transportation to farm	65(50)	31(23.8)	14(10.8)	20(15.4)	401	3.08	1st
Inadequacy of amenities	52(40)	34(26.2)	19(14.6)	25(19.2)	373	2.87	2nd
Non availability of improved technology	43(33.1)	39(30)	35(26.9)	13(10)	372	2.86	3rd

Inadequacy of fund	34(26.2)	41(31.5)	24(18.5)	31(23.8)	338	2.6	4th
Inadequacy of farm implements	31(23.8)	37(28.5)	40(30.8)	22(16.9)	337	2.59	5th
Poor soil	22(16.9)	23(17.7)	53(40.8)	32(24.6)	295	2.27	6th
Poor attitude of students towards the programme	13(10)	30(23.1)	58(44.6)	29(22.3)	287	2.21	7th
Exploitation by instructors	25(19.2)	21(16.2)	38(29.2)	46(35.4)	285	2.19	8th
Non availability of market for produce	21(16.2)	25(19.2)	41(31.5)	43(33.1)	284	2.18	9th
Inadequacy of agrochemicals	16(12.3)	25(19.2)	40(30.8)	49(37.7)	268	2.06	10th
Inadequacy of viable seed	15(11.5)	18(13.8)	43(33.1)	54(41.5)	254	1.95	11th
Inexperienced instructors	12(9.2)	14(10.8)	43(33.1)	61(46.9)	237	1.82	12th

Source: Field Survey, 2016 **V.S= Very Severe, S= Severe, L.S= Less Severe, N= Not a challenge, MS=Mean Score**

Table 7: Relationship between Selected Socio-economic Characteristics and Assessment of the Student Internship Programme

Variable	X^2 (chi-square)	Df	p-value	Decision
Age	70.092	2	0.001	Significant
Gender	1.108	1	0.293	Not significant
Family type	51.723	1	0.000	Significant
Ethnicity	159.892	3	0.000	Significant
Cosmopoliteness	126.031	1	0.000	Significant
Financial background	122.323	2	0.001	Significant
Environmental background	65.108	1	0.000	Significant
Prior experience in agriculture	20.800	1	0.000	Significant

Source: Field Survey, 2016

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Stress Factors Affecting Agricultural Students' Academic Performance in Federal University of Agriculture, Abeokuta

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Abstract

The study assessed the effect of stress on the academic performance of 100 level agriculture students of the Federal University of Agriculture, Abeokuta (FUNAAB). A total of 120 respondents were selected for the research using stratified random sampling technique. Primary data were collected through the use of questionnaire while secondary data were collected from the Federal University of Agriculture, Abeokuta Information Communication Technology Resource Centre (FUNAAB ICTREC) and examination and records unit on the CGPA of the students. Both descriptive and inferential statistics were employed. The results showed that more than half (54.2%) of the respondents were male and the mean age is 20.96. Majority (85.0%) of them reside off-campus, while few (15%) of the respondents reside in the school hostel. The results also showed that only few (3.3%) of the students obtained first class grade point which range from (4.50-5.0), 40.8% and 40.0% of the them obtained second class upper and second class lower respectively while 10.8% of them were with third class results and few (5.0%) of them completed the class with a pass result. The result of the study showed that unconducive class environment ($\overline{X}$ = 1.41) and distance from one lecture hall to another ($\overline{X}$= 1.41) ranked highest among the stress factors. The results further revealed that feeling nervous and stressed up ($\overline{X}$= 3.12) and depression/inability to sleep as a result of stress ($\overline{X}$= 2.92) were the greatest effect of stress factors among the respondents. Study also revealed that most commonly adopted coping strategies by the respondents was seeking diversions like listening to music ($\overline{X}$= 1.78), watching movies or playing games. Pearson Product Moment Correlation (PPMC) test revealed a significant relationship between academic performance and accommodation (r = 0.201), transportation (r = 0.207), unconducive class environment (r = 0.201), academic workload (r = 0.195) and distance from one lecture hall to another (r = 0.197). The study concluded that students perceived different stress due to academic and psychological factors which affected their academic performance.

Key words: Stress Factors, Agricultural Students, Federal University of Agriculture, Abeokuta ICTREC and academic Performance

Introduction

Stress is seen to be an integral aspect of students' life and can affect the students' ability to cope with the demands of academic life. This is so because academic work is always accomplished with stressful activities (Agolla & Angori, 2009). Stress is the term often used to describe distress, fatigue and feelings of not being able to cope. The term stress has been derived from the Latin word *stringer* which means to draw tight. The term was used to refer to the hardship, strain, adversity or affliction. Stress is an integral part of natural fabric of life. Although the adverse effects of stress on physical health and emotional wellbeing are increasingly recognized, there is little agreement among experts on the definition of stress. Stress is the non-specific response of the body to any demand. It is an integral part of growth and development that only becomes a predominantly negative factor in a person's life, eroding the abilities to function when it takes on a destructive meaning. Stress is an unavoidable characteristic of life and work (Adeyemo & Oguinyemi, 2005). According to Wiley (2000), it is a biological phenomenon that is experienced by all students regardless of their socio-economic status, level or age.

Academic stress has been studied extensively as an important factor in university student's adjustment (Gall, Evan, & Bellerose, 2000). There are many other factors that researchers do not take in deep consideration; such factors include health-related factors, which can contribute to a student's academic performance. The amount of exercise and nutritional routines also affect student's academic performance (Hammer *et al.*, 1998). University students might experience high stress due to academic commitments, financial pressures and lack of time management skills. When stress is perceived negatively or become excessive, it can affect both health and academic performance (Campbell & Stevenson, 1992) and can have an adverse effect on students (Amirkhan, 1998; Covington, 1997). Moreover, if the pressure is prolonged and perceived as unimaginable, these experiences have been shown to elicit helplessness, depression and stress (Carver & Scheier, 1994), thereby placing the academic futures of some students in jeopardy (Marcos& Tillema, 2006). Since students' academic performance plays key role in producing quality graduates who will become great leader and manpower for the country thus responsible for the country's economic and social development (Ali *et.al*, 2009), stress factor in academic environment can not be over emphasised.

A considerable number of studies have been conducted to investigate the effect of stress factors on the grade point average (GPA) of university students (Calderon *et al.*, 2001; Quaye *et al.*, 2005). The correlation between hours worked in a week and GPA seems obvious. The more time spent at work, the less time a student spends studying. Having to hold down a job and still be a college student is a constant source of stress (Calderon *et al.*, 2001). Evidence that peer group support may also contribute to student's academic achievement because of its profound

influence on their daily behavior in school was also reported by Hymel *et al.*, (1996). Psychological state, self- efficacy, family factors such as parental response to grades, autonomy-supporting family styles have been found to be associated with higher academic performance. (Ginsburg and Bronstein, 1993).

Academic performance is continuously falling among students in Nigerian education system and as against the aim of student acquiring knowledge and skill. Academic performance is measured through the ordinal scale of grade point average (GPA) (Womble, 2003). Several researches have been done looking at the correlation of many stress factors that college students experience and the effects of stress on their GPA. Hatcher and Prus (1991) referred to these stress factors as academic situational constraints. This study seeks to determine the effects of stress on the academic performance of 100 level agriculture students of the Federal University of Agriculture, Abeokuta (FUNAAB). This research work looked critically at the stress factors and their effects on the academic performance of agricultural students. The specific objectives are to identify the stress factors affecting the students, assess the effects of stress factors on students' academic performance, investigate agricultural students' academic performance and determine the coping strategies for the stress factors by the agricultural students. Understanding the causes of students stress will make the educational administrator know how to monitor and control the stress factors that are responsible for the students' stress.

Methodology

The study was carried out in the Federal University of Agriculture, Abeokuta (FUNAAB) located in Abeokuta, Ogun state, Nigeria. The University is one of the third generation Universities in Nigeria which aim is to imbibe agricultural knowledge and skills, to improve the agricultural sector in the country. The University was established on January 1, 1988 by the Federal Government when four Universities of technology earlier merged in 1984 were demerged. This led to the creation of the first two Universities of Agriculture in Abeokuta and Makurdi.

The population for this study was the 200 level agricultural undergraduate students of the Federal University of Agriculture, Abeokuta in 2013/2014 academic session. The study covered the entire population of previous 100 level agricultural undergraduate students currently in their 2nd year of the programme. Winter and Yaffe (2000) reported that high level of stress during the first year of college forecast lower level of overall adjustment and can make the students more susceptible to many social and psychological problems, thus leading to a lower grade point average (GPA) in the final year. Zajacova *et al* (2005) also measured academic success in terms of first-year cumulative grades, number of credits, and retention in the second year. Bayram and Bilgel, (2008) found that first year students experienced considerable stress than students in other levels.

As at 2012/2013 academic session, the population of the 100 level agricultural undergraduate students was 1,348 (FUNAAB ICTREC, 2014). Data on the total population of students in each Department were collected and they were grouped according to their colleges using stratified random sampling as shown in Table 1. Thereafter, simple random sampling technique was used to select nine percent of the total number of respondents from each stratum. Thus, a total of 120 respondents were used for the research.

The study involved collection of both primary and secondary data. Primary data were collected through the use of questionnaire which was administered to respondents to give exhaustive answers to questions that were applicable to them. Secondary data on the total number of 100 level agriculture undergraduates as at the 2012/2013 academic session were collected from FUNAB ICTREC while information on students' CGPA were collected from the examination and records unit of the University. Both descriptive and inferential analyses were employed in the analyses of the data.

Results and Discussion

Personal characteristics of respondents

The results in Table 2 showed that more than half (54.2%) of the students were male. This implies that majority of the students sampled for this study were male. The sex of an individual determines to an extent his/her response to stress. Misra and Castillo (2004) revealed variations between men and women in their perceptions and reactions to stress. Similarly, Sulaiman *et al.* (2009) found that female students have experienced different stress compared to male students because they tend to be extra emotional and sensitive towards what is happening in their surroundings. According to Cahir & Morris (1991), women rate their stress much higher than men and experience more stress compared to their male counterparts (Gadzella, 1991).

The results showed that 46.7% of the students sampled for this study were less than or equal to 20 years of age, while 51.7% of the students were between age range of 21-25 years and 1.6% were 25 years and above. This implies that majority of the respondents were still in their active age with mean age of 20.96 (SD = ±1.93). With regards to the effect of age on academic performance, there has not been a consensus on the role of age on academic performance. Although, Clark and Ramsay (1990) reported a negative relationship between age and academic performance.

The results also showed that majority (81.7%) of the respondents were Yoruba, 14.2% of them were Igbo, 1.7% were Hausa and 2.5% of them do not belong to the three tribes. This implies that majority of the respondents considered for this research work were Yorubas. This is expected because of the state in which the University is situated. This result can also be connected to the fact that the University is surrounded by Yoruba speaking states which include Lagos, Oyo, Ondo and Osun States.

The results also showed that most (70.0%) of the students were Christians while 27.5% were Muslims and 2.5% of them practice traditional religion. This implies

that majority of respondents sampled for this study were Christians. The results further showed that majority (85.0%) of the students reside off-campus, while few (15%) of the students reside on-campus in the University hostels. This implies that students who live off-campus are likely to be more susceptible to stress than those residing in the school hostel because on a daily basis, they engage in seeking transportation to and from the campus, they also experience other challenges such as electricity problems and insecurity of life and properties. Also, the results showed that majority (90.8%) of the students were sponsored by their parents, few (7.5%) of the students were sponsored by members of their extended families while 1.7% were self-sponsored. This implies that majority of the students sponsored by their parents are likely not to have financial problems and will experience less stress compared to those sponsored by members of their extended families or the self-sponsored students.
The results further showed that majority (80.8%) of the students were from nuclear family while few (19.2%) of them came from extended family.

Stress factors affecting students' academic performance

The result of the study showed that unconducive class environment ($\overline{X}$ = 1.41) ranked highest among the stress factors. This implies that the class room environment contributes greatly to the well-being of students and as a result was considered one of the major stress factors affecting student's academic performance. This condition may be due to excessive noise making by other students, lack of proper ventilation in the lecture halls or over-crowdedness, poor visibility of the board due to its distance from the students. The result further revealed that distance from one lecture hall to another ($\overline{X}$ = 1.41) is another major stress factor affection the respondents. This implies that respondents suffer stress as a result of long distance from one lecture hall to another. The study also revealed that timing of lecture hours ($\overline{X}$ = 1.39) was a stress factor to the respondents. This implies that the timing of lectures as viewed by the respondents are strenuous to them and may arise as a result of having early morning lectures and having late evening lectures the day before may in-turn affect the students' academic performance as some of the physically weak students may fail to attend the early morning lectures after having a late evening lecture the previous day. The result further showed that academic workload ($\overline{X}$ = 1.36) was a stress factor to the respondents. This implies that academic workload is also regarded as one of the major causes of stress to students which may as a result, affect their academic performance. According to Phinney and Haas (2003), academic workload was one of the major causes of stress experienced by fresh college students. The results showed that the students were always stressed up as a

result of hectic transportation system to and from the campus ($\overline{X}$ = 1.25) and lack of access to lecture materials ($\overline{X}$ = 1.11).

Effects of stress factors on student's academic performance

The results in Table 4 revealed that feeling nervous and tensed up ($\overline{X}$ = 3.12) was one of the effect of stress factors among the respondents. The results further showed that respondents suffered depression and inability to sleep as a result of stress ($\overline{X}$ = 2.92). This implies that majority of the respondents suffered depression and inability to sleep when stressed up and this may in-turn affect their academic performance. According to Kelly *et al.*, (2001), sleeping for short duration of time has shown to increase factors such as anxiety and stress, which has been associated with poor academic performance as these factors causes shortened attention span in students leading to an increase in the number of errors students make in examinations and continuous assessment tests. It also shows that reduced level of assimilation when reading ($\overline{X}$ = 2.85) was also as a result of stress.

Stevenson & Harper (2006) concluded that stress in academic institutions can have either positive or negative consequences if not well managed. The result of stress may be physical or psychological (Campbell & Stevenson, 1992), reduced self-esteem (Bressler & Bressler, 2007) and could also affect the academic performance of students (Watering & Rijt, 2006). Cohen (1980) also reported that a person with higher stressors would show negative emotions and lower work performance.

Academic performance of respondents

Table 5 below showed the distribution of respondents by their academic performance in the last two semesters which was measured through the indication of Cumulative Grade Point Average (CGPA). The result showed that only few (3.3%) of the students obtained first class grade point which range from (4.50-5.0), 40.8% and 40.0% of the students obtained second class upper and second class lower respectively while 10.8% of them were with third class result and few (5.0%) of them completed the class with a pass result. This implies that majority of the respondents belong to the second class category with an average of 3.28 CGPA at the end of the academic session. This showed that despite the stress experienced by the students in their academic performance, few (3.3%) of the students still maintained their brilliant level of obtaining first class grade while the majority (40.8% and 40.0%) obtained second class upper and lower respectively

Coping strategies adopted by respondents to ease the stress factors affecting their academic performance.

Result from Table 6 below showed that the most commonly adopted coping strategies by the respondents was seeking diversions like listening to music, watching movies or playing games ($\overline{X}$ = 1.78). This implies that majority of the respondents engage themselves in watching movies, listening

to music or playing games as a way of easing their stressors. However, this strategy could turn out to be an unhealthy way of coping with stress because when the respondents spend several hours with the television or the computer, it could cause more damage in the long run. The result further shows that making fun and cracking jokes ($\overline{X}$ = 1.78) is another strategy adopted by the students for easing off their stress. Respondents also engaged themselves in exercising and relaxing ($\overline{X}$ = 1.72) as another strategy to cope with stress. The strategy could be a healthy and unhealthy way of coping with stress depending on hours spent by individuals because according to a study by Trockel, *et al.* (2000) which found out that students who exercised seven or more hours a week obtained significantly lower grades than students who exercised six or fewer hours weekly or not at all. While Kelly *et al* (2001) established that individuals who slept nine or more hours per day reported higher GPA(s). The result also shows that seeking spiritual support ($\overline{X}$ = 1.58) was also adopted as a way to cope with stress. The study also reveals that respondents spend more time in the library as a way of easing their stressors ($\overline{X}$ = 1.56).

Relationship between stressors and Academic performance

Pearson Product Moment Correlation (PPMC) tests showed that there was a significant relationship between academic performance and stressors. The results specifically revealed a significant relationship between academic performance and accommodation (r = 0.201), transportation (r = 0.207), unconducive class room environment (r = 0.201), academic workload (r = 0.195) and distance from one lecture hall to another (r = 0.197). Awino and Agolla (2008) in support of this study revealed that institutional level stressors include overcrowded lecture halls, semester system, and inadequate resources to perform academic work. This implies that students whose house is far away from the class may be stressed when covering long distances before getting to classes. Four causes of students' low academic achievement were insufficient basic knowledge and parents' inadequate income (Sommai, 2008). According to Murff (2005), stress may be caused by financial responsibilities, changes in family dynamics, and maintaining one or more jobs while in school which may have a direct impact on academic success.

Blimling (1989) revealed that a student's living environment impacted on his or her academic performance and consequently, the CGPA. Macan *et al.* (1990) maintained that inadequate available resources to adjust to new learning environments and the pressure to develop adequate skills necessary for academic success are major stress factors affecting students' performance.

Workload to Kahn *et al.* (1964) implies that if a person, within the limited time, faces many problems and cannot solve them, he/she will feel role overload. Load affects a person's health and work quality (Kirmeyer and Dougherty, 1988). Cobb

and Rose (1973) argued that load has a positive relationship with tobacco addiction, cholesterol, excessive nervousness, and heart rate which could result in poor performance among college students. Yang (2004) reported that if students perceived a heavy course load, they would have a high burnout rate and low academic achievement and therefore concluded that the higher the course load, the higher the burnout and the lower the academic achievement. Dusselier *et al.* (2006) reported academic workload as a major academic stress affecting students' performance. Misra *et al.* (2000) found that factors contributing to student stress include academic commitments; financial pressures; and lack of time management skills. Cutrona *et al.* (1994) reported that the social support of parents positively affected students' CGPA. Orpen (1996) confirms that external social support from friends and family members, but not from peers, reduced poor examination results of students.

Financial burdens could be a potential stress factor for students which contribute to low academic performance (Although not significant in this study). Pfeiffer (2001) highlights that there are many students who have to work while they are attending school in order to pay for their fees. There are many times when students have to work late at night and then do not have the time to sleep and also study. This can be hazardous for students as worrying about their financial issues and grades can be an immense stressor in their academic life.

Conclusion and Recommendations

The study has addressed various stress factors and their relationships with academic performance of university students. It thus concluded that students perceived that stress is caused by environmental and psychological factors such as distance from one lecture hall to another, unconducive class room environment, lecture hour timing, and academic workload, lecturer style of lecturing, transportation, attendance and access to lecture materials. Also, the respondents use a variety of coping strategies to overcome the stress the experience so as to maintain a balance on their academic and social life. The study further concluded that academic performance of the students may be improved if the challenges posed by accommodation, transportation, unconducive class room environment, academic workload and distance from one lecture hall to another are significantly reduced.

Based on the findings of this study, the recommendations have been made:

1. The study can be used as a basis for further exploration on the influence of stress on academic performance of students at higher levels in various Universities.
2. The result from the study can be used by relevant authorities in planning and conducting necessary programs for students in ensuring that they continue to produce excellent graduates from the university.
3. The results would also benefit the parents by knowing and acknowledging

the causes of stress to their wards as they are in better positions to give advice, motivate and or provide moral support to reduce the stress factors affecting the students.

4. The study can also serve as a platform to lecturers on issues of how to make learning appealing to the students.
5. Finally, students should cultivate a healthy coping strategy rather than unhealthy ones to ease the likely perceived stress affecting them physically and psychologically which also have effect on their academic performance.

References

Adeyemo, D.A. & Ogunyemi, B. (2005) Emotional intelligence and self-efficacy as predictor of ccupational stress among academic staff in a Nigeria university. Retrieved from www.weleadnlearning.org

Agolla, J.E. & Angori, H. (2009) An assessment of academic stress among undergraduate students: The case of University of Botswana. *Educational Research and Review,* 4 (2): 63-70.

Ali, N., Kamaruzaman, J., Syukriah, A., Najah M. & Salamt, A.S.A. (2009) The factors influencing students' performance at Universiti Teknologi MARA Kedah, Malaysia. *Management Science and Engineering,* 3 (4): 81-90.

Amirkhan, J.H. (1998) Attributions as predictors of coping and distress. *Personality and Social Psychology Bulletin,* 24 (9): 1006-1018.

Awino, J.O. & Agolla, J.E. (2008) A quest for sustainable quality assurance measurement for universities: case of study of the University of Botswana. *Educational Research Review,* 3 (6): 213-218.

Bayram, N. & Bilgel, N. (2008) The prevalence and socio-demographic correlations of depression, anxiety and stress amonga group of University students. *Social Psychiatry and Psychiatric Epidemiology,* 43(8): 667-672

Blimling, G.S. (1989) A meta-analysis of the influence of college residence halls on academic performance. *Journal of College Student Development,* 30(4): 298-308.

Bressler, L.A. & Bressler, M.E. (2007) The relationship between self-esteem and self-efficacy among distance learning students in accounting information systems online classes. *International Journal of Innovation and Learning,* 4 (3): 274-289.

Cahir, N. & Morris, R. (1991) The psychology student stress questionnaire. *Journal of Clinical Psychology,* 47 (3): 414-417.

Calderon, K.S., Hey, W., & Seabert, D. (2001) Perceived stress and locus of control, differences between employed and non-employed college students: Implications for increasing internal locus of control. *Student Affairs Journal Online.* http://sajo.org.

Campbell, R.L. & Stevenson, L.W. (1992) Perceived level of stress among university undergraduate students in Edmonton,

Canada. *Perceptual and Motor Skills,* 75(2): 552-554.

Carver, C.S. & Scheier, M.F. (1994) Situational coping and coping dispositions in a stressful transaction. *Journal of Personality and Social Psychology,* 66(1): 184-195.

Clark, E. E. & Ramsay, W. (1990) Problems of retention in tertiary education. *Education Research and Perspectives*, 17: 47-57.

Cobb, S., Rose, R.M. (1973) Hypertension, peptic ulcer, and diabetes in air traffic controllers. *Journal of the American Medical Association*, 224: 489–492.

Cohen, S. (1980) After effect of stress on human performance and social behaviour: a review of research and theory. *Psychological Bulletin*, 88: 82-108.

Covington, M.V. (1997) A Motivational Analysis of Academic life in College, Effective Teaching in Higher Education: Research and Practice. New York. pp. 61-100

Cutrona, C.E., Cole, V., Colangelo, N., Assouline, S.G. & Russel, D.W. (1994) Perceived parental social supportand academic achievement: An attachment theory perspective. *Personality and Social Psychology*, 66 (2): 369-378.

Dusselier, L., Dunn, B., Yongyi, W., Shelley I. M. & Whalen, D. (2006) Personal, health, academic, and environmental predictors of stress for residence hall students. *Journal of American College Health,* 54 (1): 15-24.

Gadzella, B.M. (1991) *Student Life Stress Inventory*. Paper presented at the Texas Psychological Convention, San Antonio, TX. (pp350)

Gall, T.L., Evans, D.R., & Bellerose, S. (2000) Transition to first-year University: patterns of change in adjustment across life domains and time. *Journal of Social and Clinical Psychology,* 19 (4): 544-567

Ginsburg, G.S., & Bronstein, P. (1993). Family factors related to children's intrinsic/extrinsic motivational orientation and academic performance. *Child Development*, 64: 1461–1474.

Hatcher, L., & Prus J.S. (1991) A measure of academic situational constraints: Out of class circumstances that inhibit college student development (Electronic Version). *Educartional and Psychological Measurement,* 51 (4): 953-963.

Hymel, S., Comfort, C., Schonert-Reichl, K. & McDougall, P. (1996) Academic failure and school dropout: the influence of peers. In: Juvonen, J., Wentzel, K.R. (Eds.), Social Motivation: understanding Children's School Adjustment. Cambridge University Press, New York, pp. 313–345.

Kahn, R.L., Wolfe, D.M., Quinn, R.P., Snoek, J.D. & Rosenthal, R.A. (1964) Organizational stress: studies in role conflict and ambiguity. Wiley, New York.

Kelly, W.E., Kelly, K.E. & Clanton, R.C. (2001) The relationship between sleep length and grade-point average among

college students (Electonic Version). *College Student Journal,* 35: 84-88

Kirmeyer, S.L., Dougherty, T.W., (1988) Workload, tension, and coping: moderating effects of supervisor support. *Personnel Psychology,* 41: 125–139.

Maçan, T.H., Shahani, C., Dipboye, R.L. & Phillips, A.P. (1990) College student' time management: Correlations with academic performance and stress. *Journal of Educational Psychology,* 82 (4): 760-768.

Marcos, J.M. & Tillema, H. (2006) Studying studies on teacher reflection and action: An appraisal of research contribution. *Educational Research Review,* 1(2): 112-132.

Misra, R. & Castillo, L. (2004) Academic stress among college students: comparison of American and international students. *International Journal of Stress Management,* 11(2): 132-148.

Misra, R., McKean, M., West, S. & Russo, T. (2000) Academic stress of college students: comparison of student and faculty perceptions. *College Student Journal,* 34 (2): 236-245.

Murff, S.H. (2005) The impact of stress on academic success in college students. *ABNF Journal*, 16 (5): 102-104.

Orpen, C. (1996) The interactive effects of social support and text anxiety on student academic performance. *Education*, 116: 464-466.

Pfeiffer, D. (2001) Academic and environmental stress among undergraduate and graduate college students: a literature review. [online] http://www.uwstout.edu/lib/thesis/2001/2001pfeifferd.pdf.

Quaye, K.M., Eyob, E. & Ikem, F. (2005) Reengineering higher education: The case of an African institution. *International Journal of Innovation and Learning,* 2 (2): 111-122.

Stevenson, A & Harper S. (2006) Workplace stress and the student learning experience. *Qual. Assur. Educ.*, 14 (2): 167-178.

Sulaiman, T., Hassan, A., Sapianand, V.M. & Abdullah, S.K. (2009) The level of stress among students in urban and rural secondary schools in Malaysia. *European Journal of Social Sciences*, 10 (2): 179-184.

Trockel, M.T, Barnes, M.D, & Egget, D.L. (2000) Health-related variables and academic performance among first year college students: implications for sleep and other behaviours. *Journal of America College of Health,* 49 (3): 126-138.

Watering, G.V.D. & Rijt, J.V.D. (2006) Teachers' and students' perceptions of assessments: a review and a study into the ability and accuracy of estimating the difficulty levels of assessment items. *Educational Research Review*, 1 (2):133-147.

Wiley, C. (2000) A synthesis of research on the causes, effects and reduction strategies of teacher stress. *Journal of Instructional Psychology,* 27: 1-9.

Winter, M.G. & Yaffe, M. (2000) First year student's adjustment to university life as a function of relationship with parents. *Journal of Adolescent Research*, 5 (1): 9 - 37.

Womble, L.P. (2003) Impact of Stress Factors on College Students Academic Performance. (Online) http://www.psych.uncc.edu/womble.pdf

Yang, H. J. (2004) Factors affecting student burnout and academic achievement in multiple enrollment programs in Taiwan's technical–vocational colleges. *International Journal of Educational Development*, 24: 283–301.

Zajacova, A., Lynchand, S.M. & Espenshade, T.J. (2005) Self-efficacy, stress, and academic success in college. *Research in Higher Education*, 46 (6): 677-706.

Table 1: Distribution of students in various colleges

Colleges	Total number of students	Selected %	Number selected
COLAMRUD	300	9%	27
COLANIM	552	9%	49
COPLANT	449	9%	44
TOTAL	**1,348**		**120**

Source: FUNAAB ICTREC (2014)

Table 2: Distribution of respondents based on personal characteristics n=120

Variables	Frequency	%	Mean	SD
Sex				
Male	65	54.2		
Female	55	45.8		
College				
COLAMRUD	27	22.5		
COPLANT	44	36.7		
COLANIM	49	40.8		
Age (years)				
Less than 20	56	46.7		
21-25	62	51.7	20.96	1.933
Above 25	2	1.6		
Tribe				
Yoruba	98	81.7		
Igbo	17	14.2		
Hausa	2	1.7		
Others	3	2.5		
Religion				
Christianity	84	70.0		
Islam	33	27.5		
Traditional	3	2.5		
Student residential area				
School hostel	18	15.0		
Off-campus	102	85.0		
Sponsor				
Parents	109	90.8		
Relative	9	7.5		
Self	2	1.7		
Type of family				
Nuclear	97	80.8		
Extended	23	19.2		

Table 5: Distribution of respondents based on academic performance n = 120

Source: Field survey, 2014

Table 3: Distribution of respondents based on stress factors n=120

Stress factors	A (%)	OC (%)	N (%)	Mean	
Conducive class room environment	58(48.3)	53(44.2)	9(7.5)	1.41	1st
Distance from one lecture hall to another	60(50.0)	49(40.8)	11(9.2)	1.41	1st
Lecture hour timing	52(43.3)	59(49.2)	9(7.5)	1.39	3rd
Academic workload	54(45.0)	55(45.8)	11(9.2)	1.36	4th
Lecturer style of lecturing	41(34.2)	71(59.2)	8(6.7)	1.28	5th
Transportation	53(44.2)	44(36.7)	23(19.2)	1.25	6th
Attendance	43(35.8)	49(40.8)	29(23.3)	1.12	7th
Access to lecture materials	33(27.5)	67(55.8)	20(16.7)	1.11	8th
Financial issues	22(18.3)	75(62.5)	23(19.2)	0.99	9th
Sleep deprivation	27(22.5)	64(53.3)	29(24.2)	0.98	10th
Accommodation	40(23.3)	36(30.0)	44(36.7)	0.97	11th
Self-efficacy	20(16.7)	64(53.3)	36(30.0)	0.87	12th
Nutrition and exercise	18(15.0)	65(54.2)	37(30.8)	0.84	13th
Course registration	27(22.5)	45(37.5)	48(40.0)	0.83	14th
Family and environmental pressure	11(9.2)	56(46.7)	53(44.2)	0.65	15th
Conflicts in personal relationships	15(12.5)	30(25.0)	75(62.5)	0.5	16th

Source: Field survey, 2014

NB: (A) = always, (OC) = occasionally and (N) = never

Table 4: Distribution of respondents based on effect of stress factors on student's academic performance n= 120

Effects of Stress factors	S.A (%)	A (%)	D (%)	S.D (%)	Mean	Ranking
Feeling nervous and tensed up	37(30.8)	65(54.2)	14(11.7)	4(3.3)	3.12	1st
Depression and inability to sleep	30(25.0)	54(45.0)	32(26.7)	4(3.3)	2.92	2nd
Able to control the way of spending time	26(21.7)	58(48.3)	31(25.8)	5(4.2)	2.88	3rd
Reduces level of assimilation when reading	26(21.7)	63(52.5)	18(15.0)	13(10.8)	2.85	4th
Feeling unable to cope with all things that should be done	18(15.0)	70(58.3)	27(22.5)	5(4.2)	2.84	5th
Shows lack of concentration	26(21.7)	54(45.0)	33(27.5)	7(5.8)	2.82	6th
Results to health disorderliness	29(24.2)	51(42.5)	26(21.7)	14(11.7)	2.79	7th
Absenteeism from lecture classes	23(19.2)	58(48.3)	28(23.3)	11(9.2)	2.77	8th
Feeling confident about ability to handle personal problems	15(12.5)	59(49.2)	39(32.5)	7(5.8)	2.68	9th
Make students physically strong and competitive	23(19.2)	34(28.3)	44(36.7)	19(15.8)	2.51	10th
Serves as a motivation	18(15.0)	38(31.7)	42(35.0)	22(18.3)	2.43	11th
Able to control irritation in life	12(10.0)	47(39.2)	39(32.5)	22(18.3)	2.41	12th

Source: Field survey, 2014

NB: (S.A) = strongly agreed, (A) = agreed, (D) = disagreed and (S.D) = strongly disagreed.

Grades (CGPA)	Frequency	Percentage	Mean	S D
First class (4.50-5.00)	4	3.3		
Second class upper (3.50-4.49)	49	40.8		
Second class lower (2.50-3.49)	48	40.0	3.28	0.68
Third class (1.50-2.49)	13	10.8		
Pass (1.00-1.49)	6	5.0		

Source: Field survey, 2014

Table 6: Distribution of respondents based on coping strategies to ease stress factors affecting their academic performance
Source: Field survey, 2014

Coping strategies	A (%)	O (%)	OC (%)	N (%)	Mean	Ranking
Seeking diversions like listening to music, watching movies or playing games	36(30.0)	35(29.2)	35(29.2)	14(11.7)	1.78	1st
Trying to be funny and cracking jokes	33(27.5)	34(28.3)	47(39.2)	6(5.0)	1.78	2nd
Engaging in exercise and relaxing	33(27.5)	31(25.8)	45(37.5)	11(9.2)	1.72	3rd
Seeking spiritual support	32(26.7)	32(26.7)	30(25.0)	26(21.7)	1.58	4th
Spending more time in the library	26(21.7)	31(25.8)	47(39.2)	16(13.3)	1.56	5th
Getting more involved in school activities	22(18.3)	34(28.3)	47(39.2)	17(14.2)	1.51	6th
Spending time with boyfriend/girlfriend	11(9.2)	12(10.0)	49(40.8)	48(40.0)	0.88	7th
Talking to school counselor	11(9.2)	12(10.0)	42(35.0)	55(45.8)	0.83	8th
Getting angry and yelling at people	8(6.7)	13(10.8)	32(26.7)	67(55.8)	0.68	9th
Withdrawing from friends, families and activities	5(4.2)	11(9.2)	41(34.2)	63(52.5)	0.65	10th
Blaming others for what is going on	4(3.3)	10(8.3)	26(21.7)	80(66.7)	0.48	11th

NB: A= always, O= often, OC= occasionally and N= never

Table 7: Pearson's Product Moment Correlation (PPMC) result showing the relationship between stress factors and academic performance of the respondents

Stress factors* CGPA	R	p	Decision
Attendance	0.033	0.721	NS
Lecture hour timing	-0.060	0.515	NS
Accommodation	0.201	0.037	S
Transportation	0.207	0.012	S
Financial issues	-0.111	0.230	NS
Sleep deprivation	-0.098	0.287	NS
Course registration	0.099	0.282	NS
Family and environmental pressure	0.089	0.332	NS
Conflicts in personal relationships	-0.038	0.682	NS
Nutrition and exercise	0.023	0.799	NS
Self-efficacy	0.020	0.827	NS
Lecturer style of lecturing	-0.120	0.190	NS
Unconducive class environment	0.201	0.036	S
Access to lecture materials	0.015	0.870	NS
Academic workload	0.195	0.041	S
Distance from one lecture hall to another	0.197	0.032	S

Source: Field survey, 2014

NB: S = significant at 0.05 level. NS = Not significant at 0.05 level.

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ORIENTATION AND SOCIALIZATION OF THE YOUTH FOR SUSTAINABLE AGRICULTURE: THE ROLE OF FOLKSONGS

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Abstract

This paper examined the role of folksongs in orientating and socializing the Nigerian youths for sustainable agriculture in Nigeria. We used the descriptive method and participant-observation tool in collecting our data of folksongs in our research for this paper. It was found out that when people sing folksongs as they get engaged in farm work, they get sustained in working harder without being fagged out. it was also observed that some of the folksongs used in days gone-by by our forefathers are being forgotten and so, many of our youths are no longer motivated to get engaged in agriculture. It is the view of this paper that farming folksongs be revived in schools to get the students more orientated and socialized for sustainable agriculture.

Key words: Orientation, Socialization, youth, agriculture, folksongs

Introduction

Sustainable agriculture is what Nigeria needs to resuscitate her economy. If this must be done then they teeming energetic youths must be carried along, encouraged and motivated in whichever way, in whichever form and by whatever means. It is reported in the Nigerian punch newspaper of July 2015 that Nigeria spends one trillion naira annually on food importation. Specifically, between 2005 and 2015, Nigerian spent ten trillion Naira on the importation of Rice, Sugar, Wheat and fish alone. While the punch Newspaper of March 19, 2016 reports the governor of kwara state, Fatai Ahmed as having said that Nigeria spends $ 11billion on food importation. when considered that much of this importations is done outside normal exchange rate, the dollar now being about N350, then Nigeria would have spent about N3.85 trillion on food importation. The variation between the two figures might have been that of 2015 is on only 4 food items while that of 2016 encompasses all other food items suchas beverages which the elite group imports. What a colossal waste. The Governor is quoted to have advised the federal government to "Embark on rapid agricultural support programs must be with orientation and socialization of the youths through music too. This would be unnecessary if our youths are galvanized into the large expanse of arable land and water for massive food production. We have the land where these crops could be planted and harvested annually.

Nigeria has thewaters-the Atlantic Ocean, gulf of Biafra, Gulf of Benin, Bight of Benin, River Niger, River Benue, Lake Chad and many streams and lagoons across the country where fishes are naturally dwelling before we talk of various man-made ponds that fishes are reared. The problem is people are not well orientated on the feasibility and importance of these agricultural opportunities and endowments that God has benevolently provided in Nigeria. it is high time we make used of songs right form the primary schools to start orientating the children and students in Junior secondary schools as the as the teachers are made to practically take them to the farms for physical labour. Ikibe (2010, p.371) articulates songs used during harvest seasons known as harvest song in Europe. Ikibe (2012,p.24) also uses many Isoko folk songs to portray the synergy between folktales and agricultural practice among the Isoko people of delta state. Asked if there were times that food was in short supply in the rural areas in days gone bu. we were told "NO" because everyone, including the children boys and girls, youths boys and girl the adult men and women, were motivated, orientated and social on farming for everyone.

daysgone by, children were asked you satisfied with what you have eaten?" now the question is "have you eaten anything today?" we hope that Nigeria would go back to the days when the people would have enough food to eat and be satisfied.

Harvest Songs

Harvest times are happy times. However, harvest times come after cultivation or planting time. There would be no harvests if cultivation and sowing or planting is not done. Hence among the Isoko people, they celebrate the planting season of cassava instead of its harvest. All over the world people celebrate more of harvest period than cultivation periods. Thus there are new yam festivals among the Igbo and some Yoruba people of Nigeria. Ayeni (1975m p 2) affirms that "most festivals are celebrated around harvest of major crops in Bendel state". According to Ikibe (2000,p.23,) there is the new guinea-corn festival (Among the Ebira people of Kogi state).

The famous Ekuechi festival in Ebiraland is associated and Linked with the harvest of guinea-corn, being the staple food of the people. Of course, there are fishing festivals of the Aregungu people of Kebbistate and among the Isoko people of Delta state. Different Folksongs of the people are used to celebrate these festivals that are "are
celebrated around major crops of the people.

Inspiring work songs were prevalent among the slaves in the American plantations during the 19th century slave trade era. Most of this slave traffic originated in West Africa, where the predominant traditional musical style is "hot drumming, characterized by stirring and complex polyrhythmic patterns produced by drum ensembles. Although drums were prohibited on American slave plantations, displaced Africans kept certain elements of West African music alive by incorporating them into inspiring work songs and adapting them to Christian celebrations.

Just as we celebrate around the major crops being harvested at various periods of the year, the Bible records that the Jews were instructed to celebrate some festivals centredon harvest periods. For instance, in Exodus chapter 34 verse 22, it is written thus: "And thou shalt observe the feast of weeks, of the **first-fruits of wheat harvest,** and the **feast of ingathering** at the year's end".

The World English Version of the Bible puts it this way: "You shall observe the **feast of weeks with the first fruits of wheat harvest,** and the **feast of harvest** at the year's end"

Whereas the Bible in Basic English writes it thus:" And you are to keep the **feast of weeks when you get in the first-fruits of the grain,** and the **feast at the turn of the year** when you take in the **produce of your fields".**

The feast used here can be interpreted to mean festival. Specifically, feast of harvest of first-fruit of wheat is mentioned here just as some communities celebrate or dedicated a particular feast to the new or first yams harvested.

Moreover, it is on record that even in Europe and America, just as this is done in Asia, some festivals are celebrated at harvest seasons. Ikibe (2010, p.371) makes mention of a song by Europeans during a particular harvest period thus:

Merry, merry, merry; cheary, cheary, cheary
Trowel the black bowle to me;
Hey derryderry, with a poupe and a lerry;
Ile trowel it againe to thee;
Hooky, hooky we have shorne;
And we have bound,
And we have brought harvest
Home to towne.

Ikibe (2010, p. 371) quoting Wikipedia (2010) comments in the song above thusalso, in 1555 in archbishop Parker's translation of Psalm 126 occur the lines: The home returnees with hocky cry, with sheaves full lade abundantly; and that in some parts of England the word Hocky or Hawkie became the accepted name of the actual festival itself.

Selected Folksongs for Orientation and Socialization of the Youths

Here we have a collection of simple short folk songs across the country which can be taught children in both the primary and junior secondary schools as they are taken to various agricultural centres for work.

Call:*Ozogbu*
Response:*Enyinbaenyi*
Call:*Ozogbu*
Response:*Enyinbaenyi*
Call:*OzogbuOzogbu*
Response:*enyinbaenyi*
Call:*OzogbuOzogbu*
Response:*enyinbaenyi*
Call:*OzogbuOzogbu*
Response:*enyinbaenyi*

This common Igbo folksong is normally used when people are carrying some load or doing some other manual work communally. As the song is song, the youths would feel energized and even the very lazy ones among them would feel motivated to join in the communal farm-work.

Iseagbe, niiseilewa
Enikosise, yo ma jale
Iwekikolaisiokoatiada,
koipe o; koipe o

Meaning

Farming is the occupation of our land
He that does not farm (or work) would steal
Learning to read and write without farming
Is not complete, is not complete

This is a Yoruba folksong used in teaching the children and inculcating the essence of agriculture on them that although education is good, farming should not be jettisoned. No wonder in Yoruba land, in spite of the educational level of the people, farming is still upheld but they still need to do more. It is said that there is a professor in every family in Ekiti state hence their nickname is Fountain of Knowledge. Even at this, Ekiti people are known for farming, especially in yam cultivation. In fact, Ekiti state can also be known as the food basket of the Yoruba people with all kings of foods such as maize, yam, cocoa, cassava, coco-yam, banana, plantain palm-oil, etc.

Call:*Ethe do*
Response:*Inyeerie*
Call:*Ethe do*
Response:*Inyeerie*
Call:*Ma no Ethe do*
Response:*Inyeerie*
Call:*Awa do*
Response:*Inyeerie*
Call:*Owe do*
Response:*Inyeerie*

Meaning
Call: River thank you
Response: Fishes are here
Call: River thank you
Response: Fishes are here
Call: I say River thank you
Response: Fishes are here
Call: Lake thank you
Response: Fishes are here
Call: Pond thank you
Response: Fishes are here

This is an Isoko folksong of Delta State used when pounds are being bailed to harvest fishes especially in the dry season. among the Isoko people, once this song is raised by an individual in a compound, children and youths would start coming out with their buckets and bowls ready to follow whoever that has made the call for the bailing of the pond.
At the beginning of the raining season when the first rains descend in Isoko area, children in Isoko always come out to welcome the season with a song. The song is:

Call:*Okakoso no be tha*
Response:*Oro rie*
Call:*Okakoso no be tha*
Response:*Oro rie*
Call:*Onuchokokulogbo*
Response:*Oro rie*
Call:*Okakoso no be tha*
Response:*Oro rie*
Call:*Okakoso no be tha*
Response:*Oro rie*
Call:*Onuchokokulogbo*

Response: *Oro rie*
Meaning
Call: Little rain that comes now
Response: Fruitfulness is therein
Call: Little rain that comes now
Response: Fruitfulness is therein
Call: The next rain shall be heavy
Response: Fruitfulness is therein
Call: Little rain that comes now
Response: Fruitfulness is therein
Call: Little rain that comes now
Response: Fruitfulness is therein
Call: Little rain that comes now
Response: The next rain shall be heavy

The song in call and response structure assures the people who are mainly farmers that at this raining season, there would be fruitfulness and bumper harvest as all crops would produce well. With songs of hope like this, farmers would joyfully go and cultivate the farmlands in expectation that at the end they would be recipients of bumper harvests. The song thus acts as a catalyst to farmers, orientation and motivating them on the need to go and cultivate their farmlands as rains that bring good harvest have come eventually.
Another Isoko folksong commonly used in farmland cultivation is:

Uzouureno r'udhu
Kenomak'ewhe, r'ewhekporo

Meaning
Wooden-stump in the farm
Give ways to hoe, for hoe to make heaps

This Isoko folksong is sung when farmers are in the farm cultivating heaps for either cassava or yams to be planted. The farmers are actually using the song to pray to God for accident-free farming season as wooden stumps are causes of farm accidents.

Operation feed the nation
Na my bele be number one

This song was used to advertise the operation feed the nation (OFN) agenda of the military regime of the then General Obasanjo from 1975. The song was heard on radios but no action followed it in schools where the children could have been orientated and socialized by being led by their teachers the farm. Moreover, the children should have been made to have a taste of their products while the excesses are stored or sold to the needy populace. This song can be revived in schools are the youths of the sold to the needy populace. This song can be revived in schools as the youths of the present generation are orientated and socialized to making practical agriculture a reality.
Another folk song from Isoko is:

OnwaKpeEdhere
Call: *OnwaKpeEdhere*

Response: *Adigboloja, ghegheAdigboloja*
Call: *Kpe 'Dhere*
Response: *Adigboloja, ghegheAdigboloja*
Call: *Kpe 'Dhere*
Response: *Adigboloja, ghegheAdigboloja*

This song is about a fisherman who killed a crocodile after a tussle. When he opened up the crocodile's stomach he saw that a fish with three thorns had been hooked on throat of the crocodile. He now sang to praise the three-thorn fish that the fish actually killed the crocodile for him. This song encourages young fishermen not to be afraid of going to the stream for fishing because of the fear of crocodiles that are habitat and prevalent in the streams.

Another version of the Isoko folk song on crocodile and three-thorn fish is:

Onwa 've 'dherenaimavagberourie
Edheretemeunuanurienauriero
'dhere
Onwatezayunuanuria nuriemaikpobi
Koeva no dhaEdhere
Otelo'nwaliroro.
Onwate ta keimorie no wha vie he
Emo me wha vie hayo
Me riwhuhu
Onwa me vuowhe de nu rienauriemaikpobi
Who verie no
Ewhuwhorona.

This folkstory-song is still about the Crocodile that swallowed the three-thorn fish claiming that the stream belonged to only crocodiles. The fish said *'NO'* that the stream belong to all aquatic animals including fishes. The crocodile in annoyance swallowed the fish for challenging its authority on ownership of the stream. The fish spread its three thorns and thereby, killed the crocodile and consequently gave freedom to other aquatic animals in the streams.

Another folk song on farming is:
Call: *Otie me nadhedhedhe*
Response: *Otie*
Call: *Me numewo se he*
Response: *Otie*
Call: *Aye Ose me layo me*
Response: *Otie*
Call: *Numejebe vie*
Response: *Otie*
Call: *Otie me namomɔmo*
Response: *Otie*
Call: *Me numewo se he*
Response: *Otie*
Call: *Aye Ose me layo me*
Response: *Otie*
Call: *Numejebe vie*
Response: *Otie*
Call: *Otie me nawawawa*
Response: *Otie*
Call: *Me numewo se he*
Response: *Otie*
Call: *Aye Ose me layo me*
Response: *Otie*
Call: *Numejebe vie*
Response: *Otie*

Call: *Otie me nakiekiekie*
Response: *Otie*
Call: *Me numewo se he*
Response: *Otie*
Call: *Aye Ose me layo me*
Response: *Otie*
Call: *Numejebe vie*
Response: *Otie*

This folk story song is about a youth who lost his mother at an early age and was kept in the care of her step-mother. The step-mother maltreated him and this made him to plant a cherry seed on the mother's grave. The mother had appeared to her to do so and sing at her grave side whenever he was suffering and that the cherry would bring forth fruits that he could sell to get money. The lesson from this is that youths should not be indolent but hardworking especially in cultivation and harvest of farm products. The child planted what the mother told her to plant and consequently was able to fend for himself. There is dignity in labour and agriculture is self-sustaining.

Yet another song that connects different aspects of agriculture among the Isoko people is:

Newewosaowa me kome
Call: *Oka ewe wosa awe me kome*
Response: *Wosaewe me kome*
Call: *Awe no ogbedherekome*
Response: *Ogbedherekome*
Call: *Ogbedhereriechecha me no*
Response: *Riechecha me no*
Call: *Echecha no oruechechakome*
Response: *Oruechechakome*
Call: *Oruechecharieewri me no*
Response: *Rieewri me no*
Call: *Ewri no oruedikome*
Response: *OruediKome*
Call: *Oruedikpeagba me no*
Response: *Kpeagba me no*
Call: *Inenerioowa me no*
Response: *Rio wa me no*
Response: *Owani baba komeai baba kome.*

This song is about how a boy got a squirrelfrom his hunter-father.He gave the squirrel to his mother who was frying garri to have a taste. The mother consumed the whole squirrel and gave the boy a calabash pan. The boy saw a palm-oil producer without an instrument to scoop his oil from the oil boat. The boy gave him the pan but the man broke it before came back. The man gave the boy a container of oil the boy gave to bean-cake producer who had no oil to work with. The bean-cake maker finished the oil and compensated the boy with some bean-cake. The boy left and saw a roadside worker who was hungry and had no food to eat having worked the whole day. The boy gave him the bean-cake but the man finished the entire bean cake and compensated the boy with his go-to-hell instrument. The boy went to ahead to meet a kola-nut harvester without an instrument and the kola-nut harvester broke the go-to-hell. The demanded for compensation for his broken go-to-hell. And the

mancould not give him some kola-nuts because it is not meant for children.

The kola-nuts were so respected and protected by Isoko people that no one could misuse them. Moreover kola-nuts are not supposed to be eaten by one person as they are well respected by the Isoko people. It is believed among the Isoko that kola-nut is the king of plant fruits hence it has so much honour. Someone said that kola-nut is the symbol of Nigerian unity because it is cultivated in western Nigerians, respected by eastern Nigerians and eaten much by northern Nigerians.

Call to Go-Back to- Farm

The call to go back to farm has been on for years. Nigeria has had program such as the Operation Feed the Nation (OFN), Green Revolution, Directorate of Foods Roads and Rural Infrastructure (DFRRI) but people never went beyond propagandas on pages of newspapers, radio and television sets. People have not been well orientated and made socialized on the essence of these program. The Nigerian governments at whatever levels should be more pragmatic and try the concept of using the folksongs that our ancestors used all over our various communities and deemphasize depended on crude-oil. These songs have a spirit behind their usage. Once the songs are sung at the right time and in the right places, the positive responses would be received and Nigeria would be up at it again on excess food production.

There has been no organic links between various regimes thereby leading to policy summersaults. Succeeding government do not want to continue with the good of previous governments. This is not good for a country that wants to move forward and make progress in food production and food sufficiency. Let the government revive the river basins scattered all over the country and let there be an all-year-round production of various food items such as rice, bean, cocoa, cassava, wheat, maize, guinea-corn, plantain, banana, yam potato, palm-oil and fishes through proper irrigation works.

Conclusion

While we support the local production of food items in the country, the youths must also be carried along, motivated, orientated and socialized with the use of the folksongs that would inculcate in them the essence of agriculture in all its facets. With the ban on food items from overseas in order to make Nigerians patronize home made foods, the governments is considering the importation of grasses for animals. Is this not part of the policy-summersault of the

government? If we can be encouraged to grow more and enough food for the people of the nation, can't the government encourage farmers to grow grasses for their livestock? Nigeria should get beyond eye-services and be more pragmatic. The same orientation and socialization being used to encourage people to grow our own food should also be used to motivate people to grow grass or our lives tock. Just as we have harvest festivals and harvest song, there should be cultivation festivals and songs because, as noted above, without cultivation, there would be no harvests.

Meanwhile let us join to sing there songs at our various schools and homes in order to orientate and socialize the youths for sustainable agriculture in Nigeria.

Call:*Ozogbu*
Response:*Enyinbaenyi*
Call:*Ozogbu*
Response:*Enyinabaenyi*
Iseagbe
Ethe do
Inyeerie

References

Ahmed, F. (2016)."Nigeria spent $11bn annually on food" in: The punch Newspaper march 19, 2916, p.55.

AuthorisedKing James Version (2013). The Holy Bible power Bible CD CD-ROM

Ayeni, P.M. (1975). Festivals of bendel sate of Nigeria Ministry of Home Affairs and information, Benin-city, Nigeria

Bible in Basic English (2013). The Holy Bible power Bible CD CD-ROM

Ikibe, S.O. (2000). "Ekuechi festival in Ebiraland" unpublished MA dissertation, institute of African Studies, University of Ibadan, Nigeria

Ikibe, S.O (2010). "Traditional African music performances as catalytic to rural agriculture: Isoko people of Nigeria in focus" in: *theatre, culture and reimaging* Nigeria (Editors: Emmanuel SamuDandaura and Alex ChinwubaAsigbo) Proceedings of the 23rd conference of the society of Nigeria theatre artists (SONTA) held at the nassarawa state university, keffi June 2nd -6th, 2010. Pp.370-376.

Ikibe, S.O. (2012). " songs and agricultural practices among the Isoko people" in: Nigerian Music Journal Publish by the Nigerian Music Initiative, Department of Music, Delta university, Abraka, Nigeria. Pp.22-29.

Microsoft Encarta (2009). Ethnomusicology Microsoft Encarta 2009. 1993-2008 Microsoft Corporation. All rights reserved

World English Version (2013). The Holy Bible Power BibleCD CD-ROM

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ASSESSMENT OF HEALTH RELATED HAZARDS ENCOUNTERED BY CHILDREN AMONG COCOA FARM FAMILIES IN ONDO STATE, NIGERIA.

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Abstract
The focus of this study was on the assessment of health related hazards, encountered by children among cocoa farm in Ondo State. Multistage sampling procedures were used for the selection of 120 farmers for the study. Data were collected through the use of structured interview schedule was used to elicit information from farmers. The data were analysed using descriptive statistics such as frequency counts, mean standard deviation and percentages; while the inferential statistics used was Pearson Product Moment Correlation, to test the hypotheses. The results showed that the majority of farmers(67.50%) were between the ages 31-50 with mean age of (x=42.32 ±8.04). Married (89.16%), 69.16% were males and (65.83%) had completed both primary and secondary schools. Polygamy accounted for (65.83%), percentage of 67.50 farmers employed children between 5-17 years as labourers and 72.50% with cocoa farm size between 1-5 hectares. Out of seven types of work children engaged on cocoa farms, majority of the respondents affirmed that mostly, children were employed on the packing of cocoa pods (97.50%), carrying loads (92.50%) and extracting cocoa beans(89.17%). Respondents had awareness and knowledgeable on health hazards encountered by children workers but the practice was high on cocoa farms in the study areas.Furthermore, there was inverse and significant relationship between educational level of cocoa farmers and identified health hazards encountered by children $r = -0.685$, $P \leq 0.05$.Labourers' age $r = 0.501$, $P \leq 0.01$ and school level (children workers) $r = 0.645$, $P \leq 0.05$ were positively and significant related. The study concluded that all stakeholder along cocoa value chain should share responsibility in the eradication of child labour. It was recommended that, awareness should be created to educate farmers in the study areas, on consequences of health related hazards on children, enforcement of legislation against child labourand sustainable free education programme for children in the rural areas.

Keywords: Children, Cocoa, Farm families, Health related hazards, Ondo State, Nigeria

Introduction

Agriculture is the most common child occupation worldwide, and employs more working children than any other sector. This activity is consistently ranked among the most hazardous industry for mortality and morbidity (Cooper and Rothstein, 1995).Sturrock and Hodes (2016) reported that children work the longest hours and are the worst paid of all labourers. They endure work conditions including health hazards and potential abuse. ILO, (2012) declared that, children as young as six years old work on cocoa farms are under extremely hazardous conditions. Despite the hazards, agriculture is one of the less-regulated sectors and it is among the sectors where the existent laws are very difficult to enforce (Committee on the Health and Safety Implications of Child Labor 1998). International Labour Organization-International Programme on Elimination of Child Labour (2013) opined that, Agriculture remains by far the most important sector, where child labourers can be found. Agriculture had the highest incidence for fatal accidents among European workers, followed by construction and transport over 30 percent of accidents on farms involved children and adolescent (Institute for Occupational Safety and Health at work 2006).ILO, (1993) stated that Africa has highest number of children between 10-14 years working as labour force among participation rates of children in the World.

One of the reason, we do not feel the full brunt of hazardous work of children is, because of lack of data and reports on the accident of injuries that result from the work. Unlike developed countries, which have data on injuries and illnesses on children in hazardous work. Young workers are at least, 50% more likely to be hurt at work than older people and more likely to suffer from occupational illness (Morbidity Weekly Report 2010). Children labourers are susceptible biologically due to many reasons: The brain of the child is not fully developed. Exposure to certain toxins present on the chemical used on the farm can retain heavy metals (lead, mercury), less able to detoxify hazardous substances and hinder the process of brain maturation. In the same vein,

children have higher metabolic rate and oxygen consumption than adults; an increased energy requirement for growthraises susceptibility to toxic- exposure to chemicals can occur through skin absorption, inhalation and ingestion (Mull and Kirkhorn 2005), they can inhale more airborne pathogens and dusts. Particularly, concerning growth and development, orthopaedic and musculo-skeletal disorders, poisoning intoxication and premature deaths.

Child labourers are susceptible to all dangers faced by adult workers, when placed in the same situation. It can result in more fatal and non-fatal accidents, permanent disabilities, ill-health, psychological and emotional damage.

The extent to which, agriculture work is harmful to children depends on type of work they do, number of hours they work, their age and access to education. However, children are physiologically immature, they have risk-taking behavior with greater willingness to go extra mile without realizing the impact of hazards. Children are often mentioned as the most important target group when it comes to child labour issues, however, their docility, lack of right and status were often capitalized on by employers recognizing the fact that they cannot legally claim their rights to change the conditions. There is general consensus that work can help a child in terms of socialization, building self-esteem and training (Collins 1983). The problem may not be child labour itself, but the condition under which it operates (Boyden 1991). In addition, the perception of Nigerian farmers appears to be that, many aspects of child labour are described as part of equipping children to assume eventual adult roles and to take over properties, including farms of their parents, Williams,Famuyiwa and Abdul-karim(2016) opined that 50.8% Nigerian cocoa farmers still perceived child labour as part of socialization while 52.5% saw the act as a way of building children up for the future.

The International Labour Organization (ILO), declaration on fundamental principle and rights at work, shows that child labour continues to decline worldwide, but, at a much slower pace than before. There are clear signs of progress, but also disconcerting gaps in the

global response (ILO, 2010 a).Although, the incidence of child labour in the world decreased from 25% to 10% between 1960 and 2003 according to the World Bank, nevertheless, the total number of child labourers is indeed on the increase as it was estimated that over 168 million children aged 5-17 years worldwide, were involved in child labour in (ILO and UNESCO, 2013). ILO governing body set 2016, as the target for when its 183 members state in which Nigeria is among, should have freed themselves from the worst forms of child's labor (ILO, 2010 b). In addition, the US Department of Labour in its 2010 Report, claimed that Nigeria is witnessing the worst forms of child labor, particularly in agriculture and domestic service. Farm children typically work long hours and for little pay, with their families (United States Department of Labour, 2010). Furthermore, the Director, UNICEF-Nigeria, recently declared in 2015 that, about 10.5 million Nigeria children are out of school (Nigerian Observer, 2015). It is difficult to come up with a common definition of child labour globally, due to the fact that, countries had different culture and minimum age work restrictions.In view of the above-mentioned, there is need for a concise evaluation of health hazards, that, children working on cocoa farms are being faced with, which can deprive them of the joy of childhood and relegate them to a life of drudgery.Often than not, the residual effect of health problems acquired while working as child labourer, may not show up until they become adults.

Objectives

1. Identify socio-economic characteristics of cocoa farmers in the study area.
2. To identify types of works children are engaged in on the farm.
3. Ascertain farmers' awareness, knowledge and experience on farm hazards.

Hypotheses

Ho: There is no significant relationship between farmers' socio-economic characteristics and types of work children workers engaged with on cocoa farms in the study areas.

Methodology

Multistage random sampling methods was used in selecting

respondents:The study was purposely carried out in Ondo which is the highest cocoa producing state in Nigeria(CRIN cocoa survey, 2007). In each state, 3 cocoa producing Local Government Areas were purposively selected based on (high, medium and low production), the following local government areas were selected: Idanre, Ondo East and Akoko South – West,respectively. In each local government area, one cocoa producing community was randomly selected: Idanre (Owena), Ondo-East (Oluwaranmilowo) and Akoko South-West (Oba- Akoko). In each community, 40 respondents were randomly selected and interviewed. Thus, giving rise to, the total number of 120 cocoa farmers. (i.e. 3 communities and 40 respondents from each community).

The data collected were analysed with both descriptive and inferential statistics. The descriptive statistics used are frequency counts, mean, standard deviation while the inferential statistics used for testing the hypotheses was correlation analysis.

Results and Discussion

The results in table 1 bared that, majority (67.50%)of the respondents between the ages 31and 50 with mean age of (x=42.32 ±8.04). This revealed that, the middle age group of farmers dominated farming occupation in the study area, active on the farms and can still perform farming activities effectively. Majority (69.16%) were male while female were (30.83%), Cocoa is a crash crop dominated by men, but women who are involved are seen as wives of cocoa growers, cocoa farm owners, daily labour and cooperative workers (Adeola and Olawoye, 2014). Most of the respondents were married (89.16%), and (65.83%) into polygamy. This is in line with the study of Omoyibo, (2010) that men often show off their wealth and have more hands in farm labour, by number of wives and children they have. In addition, 67.50% of the farmers employed children between 5-17 years as labourers and this is supported by the International Labour Organization, which estimated that 215 million children between the ages of 5-17, out of which 65million (30%) live in sub-Sahara Africa,

currently work under condition that are considered illegal, hazardous, or extremely exploitative (ILO, 2010). However, majority of the respondents (65.83%) had between both primary and secondary school education, while only 6.66% have attended tertiary institution. It can be deduced here that, they had a moderately high literacy level.

Majority of these children (70%) were attending secondary schools and almost half of the respondents (56.66%) indicated that, they could call upon these children to come and work at any time on their cocoa farms.This is in line with UNESCO, 2010, which stated that, under age children work all sorts of jobs around the world, usually because they and their parents are extremely poor. Cooper and Rothstein, (1995) opined that, agriculture is the most common child occupation worldwide, where more children were employed and the activity is consistently ranked among the most hazardous industry, for mortality and morbidity. In this study area, 72.50% of the cocoa farmers' farm sizes were of the range between 1-5 hectares and Adeola and Olawoye (2014) affirmed that, cocoa is produced by some 400,000 small holder farmers in South-West and South-South region of Nigeria. Most cocoa is grown on small farms, cocoa bean production is labour intensive and overwhelming a family enterprise (ILO, 2001).

The study revealed that, more than half (51.66%) of the cocoa farmers affirmed that children clears land on farms, land clearing involves handling of machetes, which can be hazardous to these children and in terms of laceration; it can lead to bacterial or viral infections, such as HIV/AIDS or even death, when left untreated or wrongly treated. Abenyega and Gockowski, (2003) declared that, clearing vegetation and harvesting pods can be hazardous, because, these tasks involves using machetes, which can cause lacerations. likewise, Gockowski and Oduwole, (2003) observed that,land clearing is a skill considered as normal development in children between 15 to 17 years old, but is a higher risk in younger children. Many have wounds on their legs where they have cut themselves. Anti-Slavery International, (2010) disclosed

that, children do "difficult" work, for example, land clearing which usually implies using machetes and was without doubt, the most hazardous activity, without any form of protection.

Respondents (84.17%), allowed these children to break cocoa pods, this involves using of heavy sticks. During the course of breaking cocoa pods, the children may be injured by these heavy sticks, which can be hazardous to their health. Cocoa farmers in the study areas (45.83%) disclosed that, the children working on their cocoa farms engaged spaying with chemicals, with no protective equipment, even if they are given, the equipment are designed for adults. They work at times with little or no supervision and instruction, mostly, children who are involved in this type of work, are usually below 18 years. This finding is supported by the study ofGockowski (2006 a) that,mixing and applying chemicals can be hazardous, due to pesticide contamination, especially, because no protective clothing is worn during application. The study of Max (2002) disclosed that, long-term pesticide exposure at low levels, has been associated with chronic health problems in children, such as cancer and reproductive health problems.

Majority, (88.33%) engaged these under age children for cocoa beans drying, this is done by sun-drying and keeping watch over cocoa beans under sunlight. The children are employed to stay with the cocoa beans to prevent disease-carrying insect and other pests from attacking the beans. These children are being exposed to sunrays (UVA/UVB). Lucas,Repachoh and McMichael, (2006) stated that, long-term sunlight exposure is known to be associated with the development of skin cancer, skin aging, immune suppression and eye diseases such as cataracts and macular degeneration.

Respondents (89.17%) confirmed that, children extract cocoa seeds on their farms, extraction of seeds was considered as a basic activity of cocoa production and was carried out often by children who are too young to hold machetes for land clearing. ILO/IPEC, (2012) stated that about 78% of children aged 7-

10 years extracted seeds, a task that typically requires the use of sharp objects that cause injuries and the potential for bacterial and viral infections such as HIV/AIDS and even death. Majority (97.50%) of respondents employed children for the packing of cocoa pods, this task entails bending frequently in repetitive ways which can be injurious to the backbones of these children. ILO (2005) stated that children picked pods and opened them to get the beans; 64% of the children were younger than 14 and 40% of the children were girls.

Cocoa farmers in the study area (92.50%) engaged children in carrying of loads (cocoa pods/beans). This is often done irrespective of their age, most especially, the females. The findings is supported by Hawksley (2007) that transport of the wet beans can also be hazardous, due to long transport distances and heavy loads; Gockowski (2006 b) reiterated that, hernias and physical injuries can occur. Hawksley (2001) disclosed that young children carrying 6 kilograms (13 lb.) of cocoa sacks, so heavy that they have wounds all over their shoulders. Furthermore, ILO(1998) orated that, children are also exposed to strenuous labour like carrying heavy loads and working in uncomfortable posture, such as stooping in the same position or bending very frequently repetitive-motion trauma, which could affect the musculo-skeletal development of the children

It may be adduced that, the gap between the awareness, knowledge and practiced may be explained by subjective norms; which may include economic, domestic, and social deprivation embedded in the culture. Results in Table 3 showed that, respondents admitted having some form of awareness and knowledge, these could be attributed to the relentless effort of extension and other concerned agents on campaign against child labour. Despite their high awareness and knowledge on the above mentioned hazards: majority 65.73% attested that, children labourers have been affected by one form of farm accidents or another (such as falls, trips, wounds and fracture). This implies that, these are common practices in the study area. This is supported by the study ofRivara (1985) thatfarm

accidents claim as many as 300 children's lives per year and 23,500 suffer nonfatal injuries. The findings of Hoskin (1988) corroborated that, these injuries generally result in bruise and fracture.

Respondents (56.21%) disclosed that, children are being exposed to using inappropriate tools, exposure to chemicals and infections (as a result of some poisonous animals). This findings supports the study of Save the Children Canada, (2003) which stated, that workers use primitive tools, travel great distances and are exposed to pesticide and chemicals fertilizers, poisonous and disease-carrying insects and reptiles. Max (2002) observed that, long-term pesticides exposure at low levels, has been associated with chronic health problems, in children such as cancer, skin and respiratory problems. Children are exposed to these hazards, with little or no provision for protective equipment, first aid and general hygiene (ILO, 2007).

The study further illustrated that, about 68% of cocoa farmers, have awareness and knowledge on dangers associated with bacterial and viral infections, children may be exposed to, while working on the farm as labourers. More than half of the farmers (58.84%), disclosed that, the children labourers have handled sharp objects on cocoa farms. This practice can predispose them to having lacerations, if not treated immediately, it can predisposed them to bacterial and viral infections which may resultto HIV/AIDS infection. ILO-IPEC (2013) stated that, about 78% of children aged 7 – 10years extracted seeds, a task that typically requires the use of sharp objects that cause injury and potential for bacterial and viral infections, such as HIV/AIDS. Furthermore, 60.57% of respondents revealed that female children labourers have been molested

There or raped on farms, which was capable of leaving the victims with physical and psychological trauma for the rest of their lives, as well as HIV/AIDS and eventually, death. This was supported by the study of Osinowo, (1996) and UNICEF, (2008)) that, 15.4% female in child labour had committed induced abortion at least twice, had been pregnant without knowing who is responsible, had experienced and suffered rape and also

contacted sexually transmitted diseases (STDs) including AIDS.unicef

About 59.77% ofrespondents, reported that, children were saddled with heavy loads, bended for long time on farm. Majority (61.13%) of cocoa farmers attested that children woke up earlier to work on farms (inadequate sleep). This could impact negatively on the children's growth. Childhood is a part of human life, in which, a child enjoys pampering and parents love. Max (2002b) associated slower growth, immaturity of sex organs and reproductive health problems to early exposure of a child to hazardous labour. Children do strenuous work like carrying load and working in an uncomfortable posture, such as stooping in the same position or bending very frequently and repetitive–motion trauma, which could affect the musculoskeletal development of the children,Berlan (2009). UNICEF, (2010b) observed that, children in child labourmay suffer long term injuries to their skeleton and muscles.

The results from table 4 revealed that there is significant relationship between the socio-economic characteristics and the type of work children workerswere engaged in the study area. Respondents' level of education was inversely related, though significant with the strength of the relationship of 68% at < 0.05% level of significance. This has an inverse relationship with types of work the children engaged in on cocoa farms, implying that, the higher the educational level of a farmer the lesser he exposes the children to some hazardous work on farm. Hill and Craft 2003, opined that parents involvement in child's education is constitently found to be posively associated with a child's academic performance. Parents who are well ducated understand the importance of schooling from personal experience. As a result parental education plays a large role in determining child schooling and employment.

Labourers' agewas highly significant and has a direct relationship with the strength of the relationship of 50% < 0.01% level of significance, by implication, the more a child advanced in age, the more hazardous work he was exposed in cocoa farms. In the same

vein, the higher the school level of the working children, the more risky farm work they were engaged with.

Conclusion

Based on the findings of the study, there is exigent need of intensive focus and research to improve the conditions of working children on farms. All stakeholders, along cocoa value chain must share the responsibility for controlling the psychological risk factors that a child face in the farm.This study demonstrated that, majority of the farmers are still active and capable of performing farm activities, with moderately high literacy level, but the habitual practice of employing under aged children as labourers is dominant in the study area despite the fact that they were aware and knowledgeable.

The types of work carried out by these children, include packing of cocoa pods, carrying loads and extraction of cocoa bean respectively, the types of work that are considered hazardous for children. Furthermore, children are tomorrow's leaders, conversely, they cannot be true leaders and future champions if they are denied their right to quality education, which predisposed them into child labourers. Based on these findings it was recommended that:

- Farmers should handle a variety of agricultural chemicals and other toxic or irritating substances, which are hazardous and can be fatal, especially with children they employed.
- Make accident prevention a management as well as a personal goal. There should be awareness creation on farm related hazards among farmers.
- The universal basic education should be made compulsory for children especially in the rural areas, with curricula relevant to farming communities.
- Introduce school feeding programmes or other incentives to attract children to school.
- Promote training and awareness raising activities on child

labour issues, in agriculture, to farmers.

- Engage in awareness raising campaigns on the dangers associated with farm hazards and its impact on children.
- Nigerian Agricultural sector should have a legalized regulating body, under the auspices of Federal Ministry of Agriculture of Nigeria. In which frequent visiting and proper monitoring by extension officers,in collaboration with law enforcement agents, to provide information for farmers on child labour farm related hazards; andpossible penalties for disobeying such legislation.

References

Abenyega, Olivia and Gockowski, James.(2003). *Labour practices in the cocoa sector of Ghana with a special focus on the role of children.*International Institute of Tropical Agriculture. pp. 10–11. ISBN 978-131-218-1.

Adeola, O.O and Olawoye, J.E., (2014). Market access for small cocoa farmers in Nigeria: what options? University of Ibadan. Ibadan. (Practical Publication) pp: 4.

Anti-Slavery International. (2010). Ending Child Trafficking in West Africa. Lesson from the Ivorian cocoa sector by P. Robson. London: Anti-Slavery International

Berlan, A. 2009. Child Labour in Cocoa: whose voices prevail? *The international Journal of Sociology and Social Policy*, 29(3/4), pp.141-151.Cambridge.

Boyden J. 1991. "Working Children in Lima, Peru."In W.E. Myers, ed., Protecting Working Children. London: Zed Books Ltd in association with UNICEF (United Nations Children's Fund).

Collins, J.L 1983 "Fertility Determinant in a High Andes Community." Population and Development Review 9, 1:61-75.

Cooper, S.P. and Rothstein, M.A. (1995). Health Hazards among working children in Texas. South Medical Journal. 8 (5):550-554.

Gockowski, J and Oduwole, S. (2003). *Labour practices in the cocoa sector of southwest Nigeria with a focus on the role of children.* International Institute of Tropical Agriculture. pp. 11–15. ISBN 978-131-215-7.

Gockowski, J. (2006). Child Labour investigations and interventions in the cocoa sector (6). International institute of tropical agriculture.Retrieved 11 December 2011.

Hawksley, H. (2001). "Mali's children in chocolate slavery". BBC News. Retrieved 2 January 2010.

Hawksley, H. (2007). "Child cocoa workers still 'exploited'". BBC News. Retrieved 4 August 2010.

Hill, N.E, and Craft S.A. (2003). Parent-school involvement and school performance: mediated pathway among socio-economically comparable African, America and Euro-America families. Journal of educational psychology. Vol. 97: 74-83

Hoskin, A.F, Miller T.A, Hanford W.D and Lander, S.R. (1988). Occupational Injuries in Agriculture: A35 State Summary. NIOSH Contract Report No.DSR-87-0942. Morgantown. WV: National Institute for Occupational Safety Health.

Nippierd, A, Gros-Louis, S and Vandenberg, P. (2007).Employers and Child Labour. Guide 1: Introduction to the Issue of Child Labour (Geneva). International Labour Office,

Institute for Occupational Safety and Health at work.(2006). OSH in figures young workers-facts and figures.

International labor organization.

(2005)."combating child Labour in cocoa growing"

International Labour Office.Recommendation HIV and AIDS and the World of Work. (No. 200) ISBN: 978-92-2-123819-5, Geneva; 2010.

International Labour Office.(1998). Declaration on Fundamental Principles and Right at Work and its follow-up. International Labour Conference, 86th Session, Geneva.

International Labour Office. (2001). A Future without Child Labour .Geneva: ILO.2002.

International Labour Office.(2010). Recommendation HIV and AIDS and the World of Work. (No. 200) ISBN: 978-92-2-123819-5, Geneva; 2010

International Labour Office. (2012). Hard to see, harder to count: survey guidelines to estimate forced labour of adults and children. Geneva.

International Labour Office. (2013). *World report on child Labour: Economic Vulnerability, Social Protection and Fight against Child Labour.* ISBN 978-92-2-126234-3.International Labour Office. Geneva.

International Labour Office.(1993).Bulletin of Labour Statistics 1992-3.Geneva.

International Labour Organization-International Programme on Elimination of Child Labour (ILO/IPEC). (2013) Making progress against child labour-global estimates and trends 2000-2012. Accessed on 5th July 2012; Available: http//www.ilo.org/public//English//standards/ipec/themes/cocoa/dowmload/2005_02_cl_cocoa.pdf.

Lucas, R.M, Repachoh, M.H and McMichael, A.J. (2006). Is the current public health message on UV exposure correct? Bulletin of the World Health Organization 84(6): 485-491. DOI: 10. 2471/BLT 05.026559 PMC 2627377 PMID 16799733.

Max, J.E. (2002). Putamen Lesion and the Development of attention-deficit/hyperactivity symptomatology. Journal of the American Academy of Child and Adolescent Psychiatry, 41: 563-571.

Morbidity Weekly Report.(2010). "Occupational injuries and younger workers-united states.1998-2007".vol 59, no.15, pp 449-445.

Mull, L.D and Kirkhorn S.R (2005). Child labour in Ghana Cocoa Production: Focus upon Agricultural Tasks, Ergonomic Exposure and Associated injuries. Public Health Report. Vol., 20: (6) pp 649-656.

Nigerian Observer (2015). Child Labour in Nigeria; Spreading the Word, Saving the Child

Omoyibo, K.U., Egharevba, E.M and Iyanda, O.E. (2010). The Position and Empowerment of Women in Rural Nigeria: The Gender Implication. *Journal of Gender and Behavioural:* vol. 8.2pp 31-25.

Rivara, F.P. (1985). Fatal and Nonfatal Injuries to Children and Adolescents in the United State: America Academy of Pediatrics. 76 (4): 567-573.

Sturrock S. and Hodes M. (2016). Child labour in low and middle-income countries and its consequences for mental health: a systematic literature review of epidemiologic studies. European child and adolescent psychiatry. Vol., 269 (12) pp 1273-1286.

Save the Children Canada. (2003). Children Still in the Chocolate Trade: The Buying, Selling and Toiling of West African Child Workers in the Multibillion Dollar Industry (Toronto: Save the Children Canada): pp 19-22.

United Nation Educational and Scientific Cultural Organization (UNESCO). (2010). Reaching the Marginalized. UNESCO EFA Global Monitoring Report.United Nations

Children's Education Fund (2008).

United Nations Children's Education Fund. Cote d'Ivore. (2010). Protecting children against the worst forms of child labour and trafficking. Abidjan: UNICEF (provided by UNICEF).

Williams, O.A., Famuyiwa, B.S and Abdul-Karim, I.F. (2016). Perception of Nigerian Cocoa Farmers on Child Labour: Implication for Hazardous Child Labour. Asian Journal of Agricultural Extension Economics and Sociology. 10(3):1-11, 2016. Article no. AJEES.21644 ISSN: 2320-7027.sciencedomain international www.sciencedomain.org.

Table 1: Respondents socio-economic characteristics

S/N	Variable	Frequency	Percentage	Mean	Std. Dev
1.	**Age**				
	21-30	10	8.17	42.32	8.04
	31-40	29	24.17		
	41-50	52	43.33		
	51-60	29	24.17		
2.	**Sex**				
	Male	83	69.16		
	Female	37	30.83		
3.	**Educational level (farmers)**				
	None	33	27.5		
	Primary	35	29.16		
	Secondary	44	36.67		
	Tertiary	8	6.66		
4.	**Ethnic group**				
	Yoruba	83	69.17		
	Ibo	10	8.33		
	Hausa	5	4.16		
	Others	22	18.33		
5.	**Marital status**				
	Married	107	89.16		
	Divorced	5	4.16		
	Widowed	8	6.66		
6.	**Family system**				
	Monogamy	41	34.16		
	Polygamy	79	65.83		
7.	**Farm size (Hectare)**				
	1 – 5	87	72.50	3.26	1.47
	5 – 10	33	27.50		
8.	**Labourers' age**				
	5-17	81	67.50		
	18 & above	39	32.50		
9.	**School levels of children**				
	Primary	25	20.83		
	Secondary	84	70.00		
	Tertiary	11	9.16		
10.	**Time of work**				
	Before school	20	16.66		
	After school	32	26.66		

	Anytime	68	56.66

Source: Field study, 2015

Table 2: Distribution of respondents on types of work children are engaged with on the farms

S/N	Types of work	Frequency	Percentage
1	Clearing of land	62	51.66
2	Pod breaking	101	84.17
3	Spraying with chemicals	55	45.83
4	Drying	106	88.33
5	Extracting seeds	107	89.17
6	Packing of cocoa pods	117	97.50
7	Carrying of loads	111	92.50

Source: Field study, 2015

Table 3: Distribution of respondents' scores of Awareness, Knowledge and Practice on types of farm hazards encountered by children

SN	Variables	Awareness%	Knowledge%	Experience %
1	Accidents , falls, trip, fracture and deformities	53.41	56.50	65.73
2	Chemicals and pesticides	43.67	41.41	56.21
3	Bacteria/viral infections from animals and sharp objects	68.91	67.17	58.34
4	Impaired growth (inadequate sleep/heavy loads)	50.11	56.08	61.13
5	Inappropriate tools	59.67	54.00	71.56
6	Rape/molestation of children especially females	66.11	64.00	60.57
7	Minimum age requirement	60.21	55.16	66.67
8	Awkward posture	57.66	54.19	59.77

9	Poor academic performance	50.15	45.14	49.58

Source: Field study, 2015.

Table 4: Correlation analysis between socio-economic characteristics and types of work children working on cocoa farms engaged with.

S/N	Variable	r value
1.	Educational level	-0.685*
2.	Labourers' age	0.501**
3.	School level	0.645*

Source: Field study, 2015

****Correlation significant at 0.01 level**

***correlation significant at the 0.05 level**

NOTE FOR CONTRIBUTORS

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