

**IDENTIFYING ENTREPRENEURIAL ACTIVITIES, SKILLS AND ABILITIES FOR PROMOTION OF AGRICULTURAL EXTENSION EDUCATION IN SOUTHEAST, NIGERIA.**

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**ABSTRACT**

The study aimed at identifying the entrepreneurial activities, skills and abilities available for promoting Agricultural Extension in South- East Nigeria. Data were collected from 250 Agricultural extension education students in five (5) institutions of higher learning in South-East Nigeria. Questionnaire was used to elicit information from the respondents and data were analysed using descriptive tools such as percentages, mean and standard deviation. Results showed that numerous opportunities exist in extension education entrepreneurial course. Such opportunities included crop production (100%), fish rearing (96.4%), poultry production (100%), film making, photography, agro- processing among other. Skills needed in extension entrepreneurial activities included communication skill with mean of 2.66, decision-making (M=2.60), ability to teach (M= 2.35), write scripts (M=2.30) among others. Qualities such as flexibility, creativity, ability to learn, problem solving are needed to build strong enterprise. Also, training and education, facilitating link, advisory services were among the roles extension play for entrepreneurship development. It was recommended that extension pre-service training curriculum be reviewed to provide for an all inclusive development in activities, skills and abilities of the graduates as well as de-emphasizing public sector employment on graduation among prospective graduates in the cause of their programme.

**Keywords:** extension, education, entrepreneurial activities, skills, abilities, agriculture.

**INTRODUCTION**

Agriculture is the predominant economic activity in most of the geo-political zones of Nigeria, with percentage of persons engaged ranging from 24.4 to 85.1 percent. With respect to states, the activity ranges from 2.4 to 91.7 per cent, with majority of the states having over 50 percent (Ogen, 2007). Increases in agricultural output brought about by increasing land and labour

productivity, will make food cheaper; benefit both rural and urban poor who spend much of their income on food. Under favourable conditions, increase in agricultural production stimulates increase in incomes of both small and large scale farmers and this consequently increase their level of investment and the attendant expansion in farm size and employment generation.

The Nigerian economy, like that of Brazil during the first decade after independence, could reasonably be described as an agricultural economy because agriculture served as the engine of growth of the overall economy (Ogen, 2007). From the standpoint of occupational distribution and contribution to the GDP, agriculture was the leading sector. During this period Nigeria was the world's second largest producer of cocoa, largest exporter of palm kernel and largest producer and exporter of palm oil. Nigeria was also a leading exporter of other major commodities such as cotton, groundnut, rubber and hides and skins (Alkali, 1997). The agricultural sector contributed over 60% of the GDP in the 1960s and despite the reliance of Nigerian peasant farmers on traditional tools and indigenous farming methods, these farmers produced 70% of Nigeria's exports and 95% of its food needs (Matthew and Adegboye, 2008). However, the agricultural sector suffered neglect during the hey-days of the oil boom in the 1970s. Since then, Nigeria has been witnessing extreme poverty and the insufficiency of basic food items.

At independence in 1960, agriculture accounted for well over half of the nation's Gross Domestic Product (GDP), and was the main source of export earnings and public revenue, with the agricultural marketing boards playing a leading role, but today this leading role in the economy has been taken over by the national oil company, the Nigerian National Petroleum Company (NNPC). According to the Central Bank of Nigeria's data (2003), Oil still accounts for the major revenue (gearing towards 80%) and almost 100% of the export earnings. Although Agriculture (particularly forestry, livestock and fishery) is shown to serve as the major activity of the majority of Nigerians; it is clear that it is indulged in purely as a personal survival strategy rather than as a calculated effort to put the economy on course has been the bane of the economy.

The gospel of economic salvation cannot be preached without due regard to agricultural development. Agriculture is the major and most certain path to economic growth and sustainability. It encompasses all aspect of human activities - being the art, act, a cultural necessity and science of production of goods through cultivation of land and management of plants and animals which create an activity web-chain that satisfies social and economic needs of the people.

Agriculture is the mainstay of mankind; therefore successful nations all over the globe give it a priority by developing and exploiting this sector for the upkeep of their teeming populations through the earning of revenue for development purposes as well as employment for

the stemming down crimes, corruption and other forms of indiscipline which work against all factors of life, living and most of all economic production. While many nations in the world are working hard and reaping their harvests in this direction, Nigeria happens to belong among the few that have greatly retarded from their past glorious heights in agriculture, down to a near zero scale of agricultural production. Surely, this neglect is because of irresponsible and ill-purposeful leadership (Matthew and Adegboye, 2008).

Nigeria is blessed with a wide variety of agricultural potentials, ranging from varieties of crops to varieties of animals and plants and natural agricultural-supportive factors like forests, waters, sands and most of all human resources that are being under-utilised. Nigeria has it all, yet lacks it all; and that is why hunger persists in the face of plenty to eat. Nigeria's economic development can only be realistic through the total resuscitation of the agricultural sector. This will propel the sector to produce food and fibres to feed the people and the industry at a rate faster than the birth-rate; yet reducing the death rate. The injection of vigour into the agricultural sector will also fasten the creation of self-reliance, self-contentment and self-sufficiency (which will be translated to National sufficiency). Adequate supply of raw materials for industries, increased foreign reserve; and increase in the export of non-oil commodities and improvement in the standard of living of the masses are issues that a revitalized agricultural system can provide. This will encourage the growth of a physically fit and mentally alert population. Succinctly put, the development of the agricultural sector will generally improve the revenue generation of our nation and discourage over-reliance on oil and gas, which has created a 'Dutch disease' for the Nigerian economy. The economic independence, which the agricultural sector can offer, this nation (if developed) will undoubtedly propel the nation to political and economic independence, which she cannot truly boast of today as a debtor and borrower nation. Rural and urban development, rural and urban employment; and of course the control of urban migration and general development of other sectors of the economy will be the positive chain reactions of an improved agricultural sector.

Despite Nigeria's rich agricultural resource endowment, however, the agricultural sector has been growing at a very low rate. Less than 50% of the country's cultivable agricultural land is under cultivation. Even then, smallholder and traditional farmers who use rudimentary production techniques, with resultant low yields, cultivate most of this land. The smallholder farmers are constrained by many problems including those of poor access to modern inputs and credit, poor infrastructure, inadequate access to markets, land and environmental degradation, and inadequate research and extension services (Manyong, Ikpi, Olayemi, Yusuf, Omonona, Okoruwa, and Idachaba. 2005). Since the collapse of the oil boom of the 1970s, there has been a dramatic increase in the incidence and severity of poverty in Nigeria, arising in part from the dwindling performance of the agricultural sector where a preponderant majority of the poor are

employed. Furthermore, poverty in Nigeria has been assuming wider dimensions including household income poverty, food poverty/insecurity, poor access to public services and infrastructure, unsanitary environment, illiteracy and ignorance, insecurity of life and property, and poor governance. In response to the dwindling performance of agriculture in the country, governments have, over the decades, initiated numerous policies and programs aimed at restoring the agricultural sector to its pride of place in the economy. No significant success has been achieved due to the several persistent constraints inhibiting the performance of the sector.

One of these persistent constraints is dearth of skilled people in the agricultural sector. The agricultural sector requires skilled people who are capable of all aspects of work in agricultural and rural centers, including producing, processing and marketing agricultural products (FAO, 1997). Skilled and trained workers would be able to increase production, qualitatively and quantitatively, in each sector, thus enhancing the overall national standard of living (Zamanipour, 2007). On the other hand, employment situation of agricultural graduates in Nigeria has been pathetic as unemployment rate roars. One of the reasons for graduates' unemployment seems to be lack of adaptability between graduates abilities and skills needed by labor and productive units (Shahbazi and Alibeigi, 2007). Lack of entrepreneurship skills among the agricultural students and graduates is another reason for unemployment in developing countries (Sabouhi, 2000). According to Zamani (2001), poor practical abilities of agricultural graduates, irrelevancy of university subjects and curricula with labor market needs, are issues facing both government and private sectors. As a result; it is becoming increasingly difficult for agricultural graduates to find jobs in the public sector. Consequently, graduates need to find employment in the private sector or be self-employed (Movahedi et al., 2011). It therefore becomes imperative that students' education must become more purposive and selective, since it now must relate to their area of work and to employment opportunities in the labor market.

Feedback to schools has shown that agricultural graduates have difficulties finding jobs that reflect their educational knowledge and skills (Shao, 2004). The structures of the labor market and working life are continuously changing (Chong et al. 2008). Problems of relevance and responsiveness of education and training to changing work tasks and employment structures are of particular concern in many countries (Saarnivaara and Sarja, 2007). Education has been the instrument in the development of man to enable him live an effective and meaningful life and to be able to contribute towards the development of society in which he finds himself. Many colleges and universities, various government and non-government agencies, provide entrepreneurial programs and training for the development of entrepreneurship (Dionco-Adetayo, 2004). Fostering entrepreneurship among students has become an important topic in universities and governments' as well as in research. The positive role of universities in developing entrepreneurial intention and to explore the factors influencing entrepreneurial behavior of

students are confirmed by a number of studies (Gibb, 1994; Hannan et al. 2004; Hannon 2005). These have helped to explain the emergence of entrepreneurial intention among target groups as well as suggest the stimulation of entrepreneurship education that can influence the students' attitudes and intentions towards entrepreneurship. The introduction of entrepreneurship programs to the college students would enhance students' attributes and further develop awareness of entrepreneurial opportunities and skills to form entrepreneurial ventures. The impact of entrepreneurship education has been recognized as one of the crucial factors that help youths understand and foster an entrepreneurial attitude (Gorman et al., 1997). It was against this background that the study centered on identifying entrepreneurial activities, skills and abilities for promoting Agricultural Extension Education in South-East Nigeria with a view to stimulating policy. Specifically, the objectives include to:

- (1) investigate the entrepreneurial agricultural activities of undergraduates,
- (2) ascertain the entrepreneurial agricultural skills/abilities,
- (3) investigate the extension education entrepreneurial qualities and
- (4) ascertain extension roles in entrepreneurial development

## **METHODOLOGY**

The study was carried out in South-East, Nigeria. South-East is one of the geopolitical zone of Nigeria. It lies within latitude  $5^{\circ}$  N to  $6^{\circ}$  N of the equator and longitudes of  $6^{\circ}$  E and  $8^{\circ}$  E of the Greenwich meridian. The zone is made up of five (5) states – Abia, Anambra, Ebonyi, Enugu and Imo. The zone occupies a land mass of about 10,952, 400 hectares with a projected population of about 16,381,729 persons (NPC, 2006). The economy is agro-based. The crops grown include cassava, yam, maize, plantain, banana, pineapple, oil palm among others. Animals like sheep, goats, pigs poultry etc abound. There exist pockets of fish ponds. The zone is also acclaimed for crude oil deposit in Imo and Abia and recently Anambra. Multi-stage sampling technique was used to select respondents for the study. A total of 3 states were sampled from the existing 5 states (60%) giving rise to the use of Imo, Abia and Enugu. From each of the states 2 universities, Federal and State offering Agricultural Extension were sampled to give total of 6: Imo State University Owerri, Federal University of Technology, Owerri, Abia State University Uturu, Michael Okpara University of Agriculture, Umudike, University of Nigeria, Nsukka and Enugu State University of Science and Technology, Uli. Proportionate sampling was used to get 250 graduating students of Agricultural Extension as the sample size. Data were collected with the aid of structured questionnaire. These were analysed using descriptive statistics of frequency table, percentage, mean and standard deviation. For the mean, a discriminating index of 2.00 was established as the cut-off mark for accepting an item statement as needed or not (objective 2)

while for the four point likert –type scale of agreement a mean index of 2.5 was used as the discriminating index. The deviation from the mean was also computed. For objective 1 and 4, frequency table and percentages were computed.

**RESULTS AND DISCUSSION**

**1. ENTREPRENEURIAL AGRICULTURAL ACTIVITIES**

**Table 1: Entrepreneurial agricultural activities**

<b>Entrepreneurial Activity</b>	<b>*Frequency</b>	<b>Percentage</b>
Crop production	250	100
Fish Rearing	241	96.4
Forestry management	197	78.8
Poultry farming	250	100
Rabbit rearing	120	48.0
Grass cutler domestication	175	70.0
Soy milk preparation	169	67.6
Soy – corn milk making	184	73.6
Kunu preparation	148	59.2
Extension film production /Development	217	86.8
Agricultural video coverage	187	74.8
Photo graphing	210	84.0
Teaching aid design / graphics	243	98.0
Farm input supply	184	73.6
Agro-processing	174	69.6
Farm produce distribution/ marketing	168	67.2

**\* Multiple response**

Table 1 shows the numerous entrepreneurship activities related to agriculture and extension education. The table revealed that crop production & poultry farming with 100 percent each were entrepreneurship activities common to all the respondents. Other activities were fish rearing (96.4%), forest management (78.8%), soy corn and soy milk making (73. 6% and 67. 6%) respectively. Extension film production (86. 8%), agricultural video coverage (74.8%), teaching

aid design (98%), farm input supply (73.6%), agro-processing (69.6%), farm produce marketing/distribution (67.7%). Other entrepreneurial activities included grass cutter domestication (70%), rabbit rearing (48%), Kunu preparation (59.2%) and photography (84%). The result implies that the myriad of entrepreneurship activities portend avalanche of opportunities for choice making. Thus, within the ambits of the available opportunities, a graduate of Agricultural Extension would definitely identify atleast one area that meets with his career goals and disposition. Thus, the prospective graduate knows where his future lies. In this bid, Extension trainers therefore have to be proactive in its preparation of graduates for self-reliance and development of entrepreneurial skills, qualities and abilities. The above result agrees with Onyebinama and Onyebinama (2010) that entrepreneurship is associated with several activities, deals with the establishment and operation of a business enterprise. These activities include the identification of investment opportunities, selection of particular opportunities for exploitation, promotion and establishment of the business enterprise.

## 2. ENTREPRENEURIAL AGRICULTURAL SKILLS / ABILITIES

**Table 2: Entrepreneurial Skills / Abilities**

<b>Skills / Abilities</b>	<b>MEAN</b>	<b>SD</b>
Market and customer orientation	2.33	0.716
Skill to realize business opportunities	2.40	0.516
Risk management skill	2.63	0.530
Innovation skill	2.29	0.538
Business development skill	2.41	0.576
Business evaluation skill	2.38	0.709
Monitoring skill	2.53	0.567
Planning skill	2.20	0.490
Decision making skill	2.60	0.566
Communication skill	2.66	0.506
Leadership skill	2.44	0.638
Sales skill	2.35	0.697
Ability to teach informal course	2.35	0.772
Ability to collect data via internet	2.52	0.575
Ability to use computer software	2.30	0.626

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Ability to produce videos for farmers	2.26	0.733
Ability to produce radio programme	2.32	0.615
Ability to develop and write scripts	2.30	0.756
Ability to produce posters/ pamphlets	2.43	0.650
Ability to organize and carry out surveys	2.17	0.677

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The result in table 2 shows the entrepreneurial skills / abilities expected of the extension education graduate to be self reliant. Based on a discriminating index of 2.0, the following skills/ abilities were identified; market and customer orientation with mean of 2.33, realization of business opportunities with mean of 2.40, risk management skill, (2.63) innovation skill (2.29), business development skill (2.41), business evaluation skill (2.33), planning skill (2.20), decision-making (2.60), communication skill (2.66), and leadership skill) 2.44). Other entrepreneurship skills were ability to teach informal courses (2.35), data collection via the internet (2.52), use of computer software (2.30), video production (2.26), radio and television programme production with 2.32 and 2.48 mean scores respectively. The ability to develop and write scripts, produce posters /pamphlets and organize and carry out surveys, had mean score of 2.30, 2.43 and 2.17 respectively.

The development of the entrepreneurial capacity of the prospective graduates will enable them to make significant contributions to agricultural development by identifying and exploiting investment opportunities in mainstreaming agricultural production, providing investment capital for the establishment and promotion of agro and allied enterprise. The organization of production along business lines requires entrepreneurship, that is the ability to identify and select enterprises that ensure a continuous flow of income and generate the greatest margin between benefits and costs, allocate and combine production factors effectively and efficiently co-ordinate the production process. The above result makes case for close liaison between schools and industries to shape and sharpen the graduates for meaningful and efficient employment on graduation. An opportunity for this could be the Industrial Training Programme (ITF) in the course of the programme.

### **3. EXTENSION EDUCATION ENTREPRENEURIAL QUALITIES**

**Table 3: Entrepreneurial Qualities**

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<b>QUALITIES</b>	<b>MEAN</b>	<b>SD</b>
Self – motivation	2.98	1.038

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Perseverance	2.96	0.960
Confidence	3.12	0.803
Knowledge	3.16	0.920
Problem solving	3.15	0.730
Adaptability	2.84	1.085
Flexibility	2.29	0.888
Competence	3.25	0.942
Focus	3.24	0.919
Creativity	3.24	0.987
Willingness to learn	3.38	0.794

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**Field survey data, 2015**

For a successful business enterprise development, growth and sustainability, the entrepreneur has to possess certain qualities. Table 3 shows the qualities a graduate entrepreneur should possess to pass and survive the business environment. These qualities included self – motivation with mean 2.28, perseverance (2.96), confidence (3.12), knowledge (3.16), problem-solving (3.15), adaptable to the changing business environment (2.84), flexibility (2.92), competence (3.25), creativity (3.24), and willingness to learn with mean of 3.38.

Consequently farmers and graduates of extension education require two levels of competence: technical and managerial. Technical training competence is indicated when a farmer is able to select and combine profitable enterprises, advocate and utilize production factors efficiently (Onyebinama, 2004). Management training or compliance enable farmers to administer the farm firm effectively. A farmer is competent managerially, when he is able to determine the rules and procedures of the organization, determine the line of command, train staff and allocate responsibilities. The successful performance of the above entrepreneurial functions requires a certain level of knowledge, skills and attitudes acquired through training.

**4. EXTENSION ROLE IN ENTREPRENEURSHIP DEVELOPMENT**

**Table 4: Role of Extension In Entrepreneurial Development**

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<b>Extension Role</b>	<b>*Frequency</b>	<b>Percentage</b>
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Training/education	220	88.0
Facilitating links with banks	180	72.0
Advisory Services Provision	180	75.6
Marketing information provision	153	61.2
Facilitating Links with buyers	177	70.8
Supporting Partnerships	138	55.2
Developing Networks	143	57.2
Encourages Co-operative/groups formation	168	67.2

**\*Multiple Response**

Extension service provides the physical framework for disseminating information on agriculture and introducing, explaining, new technologies to farmers and to teach them how to adopt and adapt improved production practices in order to increase their productivity and income. Table 4 shows the roles extension play in entrepreneurship development. The major role here is training and education of students with a response of 88%, facilitation of links with banks (72%), Advisory services (75.6%), facilitation of links with buyers (70.8%), provision of information on marketing (61.2%), supporting partnerships (55.2%), developing networks (57.2%) and encouraging cooperation/group formation (67.2%). The traditional function of extension service is education. According to Anyanwu, (1998) and Unamma et al., (2004) extensions most effective and efficient operational strategy is to provide or act as a link between sources of knowledge, idea or information and end users of the knowledge, after the knowledge has been processed by extension professionals into forms usable and adaptable to appropriate local condition.

**CONCLUSION**

Numerous entrepreneurship activities are available for extension education graduates. Entrepreneurship skills and abilities are highly needed for sustainable business development and

wealth creation. Again, perseverance, creativity and other qualities are needed to continue to appreciate extension education as a tool for development of business opportunities. It was therefore recommended that extension pre-service curriculum should be reviewed for proper inclusion and coverage of the salient areas to develop the skills and abilities of potential graduates. Also training in extension should de-emphasize public sector employment. The graduates should be prepared for self-employment and job creation through exposure to adequate learning experiences. There should be a close liaison between the school and the industries for smooth transition to the world of work.

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