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# **ENTREPRENEURIAL INTEREST AND SELF-EFFICACY AS CORRELATES TO TECHNICAL KNOWLEDGE IN POULTRY FARMING AMONG YOUNG ADULTS IN AKWA IBOM STATE**

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## **Asbtract**

*Experience has shown that young people are often more open to new ideas and practices than adult farmers. Any attempt to enhance the knowledge, skills and experience of young people in agricultural production will have an immediate impact on food security. We investigated the influence that entrepreneurial interest and self-efficacy has on technical knowledge in poultry farming among young adults in Akwa Ibom State. We used data collected in 2012 from 300 senior secondary two (SS2) students. We sampled two schools from each of the three senatorial districts of the state using multi-stage sampling and intact class. Descriptive statistics (frequencies, percentages), Pearson Product Moment Correlation (PPMC) and Independent*

*T-test were the statistical tools used to analysed collected data. Results showed that 51.3% of the respondents possessed high knowledge of poultry farming while 48.7% had low knowledge of poultry farming. The study found a positive relationship between self-efficacy in poultry farming and technical knowledge in poultry farming. Males were also found to be significantly ( $P<0.05$ ) more knowledgeable than females. Implication on effective agricultural education for entrepreneurial skills acquisition were discussed.*

Livestock development initiatives have shown potentials as poverty reduction tools. Poultry business of course does not only reduce poverty but nutritional insecurity. Poultry enterprise is an outstanding venture capable of reducing unemployment and serving as essential ingredient in the economic development of any nation. During FAO World Food Day (1999), the theme *Youth against Hunger*, was given considerable attention together with the significant role that youth can play in food security. An important message of this event is that given adequate training, education and support, young people can become active partners in helping to meet the World Food Summit goals of halving the number of hungry by the year 2015. For Africa and Nigeria in particular, there is the looming threat of food insecurity. Arable lands are dwindling, the farming population is aging and going extinct, famine is ravaging the Horn of Africa (Umoh, 2012). This should be of urgent concern to all stakeholders and getting young persons to invest in or practice agriculture is a way of translating the threats to opportunities.

Young adults in Akwa Ibom State are reached in two ways. One is through community-based rural youth programmes, which target out-of-school rural young people. The other is using the rural schools by incorporating agricultural topics as an integral part of the regular curriculum or as extracurricular activities. These school and community-based rural youth programmes dealing with poultry production, exposes the youths to knowledge and skills related to sanitation, vaccination, housing made of low-cost naturally available materials, predator control, adequate nutrition, improved breeds of chickens and alternative marketing strategies etc., with the aim of making them to be productive today, as well as, to become better farmers for the future. Where proper facilities are available, small scale poultry projects are carried out on the school grounds. Students are made to learn many of the practical aspects of raising chickens. Apart from schools, in recent years, some organisations (mainly NGOs) have created educational materials to inform students and the general public about modern agricultural production techniques (including poultry production). In view of the aforementioned, how knowledgeable are these youths on the techniques of poultry farming? Have they really acquired the expected knowledge in line with the objectives of their training? There is need to examined the technical knowledge of these youths on poultry farming.

However, research findings have shown that individual characteristics such as gender, interest, self-efficacy, peer group influence, self concept and attitude of farmers towards agricultural enterprise and agricultural occupation generally are important factors influencing acquisition of knowledge and participation in agricultural programmes and policy implementation (Sam, 2006, Udoh 2006, Zimmerman & Schunk, 2003). Udoh (2006) describes interest as the desire or willingness to learn or hear more about something, ideas, innovation, event, work concept, people, places and situation around one's environment. It is one of the core determinants of farmers' participation in farming programmes or take parts in any of the agricultural programmes. Ukpong (2001) describes that lack of interest is capable of retarding effort, motivation and even the desire to participate in any productive venture vis-avis hampering productivity and vocational progress. He also showed that positive interest is a fertile land for the survival and achievement of vocational or professional objectives. The researchers believe that interest in poultry farming would influence young adult's acquisition of technical knowledge in poultry farming in the study area.

Self-efficacy in poultry farming is another individual characteristic that the researchers believe can influence young adult's acquisition of technical knowledge in poultry farming in the study area. Bandura (1994) explains that Self-efficacy determine how people think, feel, motivate themselves and even how they behave. He further explains that people with high interest view challenging problems as tasks to be mastered, develop deeper interest in the activities in which they participate, form a stronger sense of commitment to their interest and activities, and recover quickly from setbacks and disappointment. People with low Self-efficacy avoid challenging tasks, believe that difficult tasks and situations are beyond their capabilities, focus on personal failures and negative outcomes and quickly lose confidence in personal abilities. Pajares and Schunk (2001) justifies that self-enhancement scholars believe that self-efficacy and other self-belief measures are a primary cause of students' achievement (we do well because we feel good about ourselves). Educational researchers recognize that, because skills and self efficacy beliefs are so intertwined, one way of improving students' performance is to improve student self efficacy (Wiedenbeck, Labelle & Kain, 2004).

Although some studies have been carried out on the issues surrounding interest, self-efficacy and agricultural practices/production, studies that looked at these variables among secondary schools agricultural science students, who are the future farmers, and how these variables affect their acquisition of technical knowledge in poultry production were scarce especially in the African region. Therefore this study was carried out to fill in the gap by examining the influence of entrepreneurial interest and self-efficacy in poultry farming on the technical knowledge in poultry farming among young adults in Nsit Ibom local Government Area of Akwa Ibom State.

To actualize the objective of the study, the following research questions were answered in the study:

1. What is the knowledge level of the respondents on poultry farming?
2. Is there any significant relationship between entrepreneurial interest in poultry farming and technical knowledge in poultry farming?
3. Is there any significant relationship between self-efficacy in poultry farming and technical knowledge in poultry farming?
4. Could the knowledge level of respondents on poultry farming differ significantly by gender?

## **Materials and Methods**

### **Area of the Study**

Akwa Ibom State, with a total landmass of 8,412km<sup>2</sup> (AKS, 1989) is Nigeria's 21st State in the Niger Delta region with 31 Local Government Areas (LGAs). It is situated between latitudes 4° 32' and 5° 53' North and longitudes 7° 30' and 8° 25' East, and lies in between Cross River, Rivers and Abia States in the south-eastern Nigeria (AKS, 1989). According to FRN (2004), Akwa Ibom State has a population of about 3.92 million people and its divided in to three Senatorial Districts namely, Akwa Ibom North East (Uyo), Akwa Ibom South (Eket) and Akwa Ibom North West (Ikot Ekpene) senatorial districts.

### **Population**

All the Senior Secondary School 2 (SS2) Agricultural science students in the 239 public secondary schools in Akwa Ibom State constituted the population for the study.

### **Sample and Sampling Techniques**

The population was stratified into three strata based on the three senatorial districts. One Local Government Area was randomly selected from each senatorial district. Two schools were randomly selected from the selected Local Government Area. Fifty respondents were selected from each of the selected school using intact class. A total of three hundred (300) respondents were obtained from the three senatorial districts.

### **Instrumentation and Validation**

Two pretested instruments were developed and used in the study. One was **Poultry Farming Achievement Test**. The test was developed to test the knowledge level of the respondents on Poultry Farming activities. The test had twenty (20) multiple choice items focusing on seven different areas of poultry farming such as poultry concepts and terms, housing, reproduction, lighting, sanitation, feeding and vaccination.

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The test, which was vetted by Animal science Lectures and experts for face and content validity, was also subjected to item analysis and Kuder Richardson 20(KR20) formula reliability analysis. It had a difficulty index range of 0.4 to 0.6 and KR20 reliability coefficient of 0.82. The second was a two sectioned **Inventory** designed to measure the interest and self-efficacy of the respondents in poultry farming. The interest scale contained 18 items while the self-efficacy scale contained 15 items. Cronbach alpha formula was adopted to establish the internal consistency and construct validity of the interest scale and the self-efficacy scale. The interest scale had a Cronbach alpha of 0.815 while the self-efficacy scale had a Cronbach alpha of 0.850. This figures confirmed that the scales were reliable in achieving the study objectives.

### **Data Collection Procedure and Analysis**

The researchers went to the schools and upon introduction administered the instruments on the respondents. The instruments were administered and retrieved the same day in each school. Descriptive statistics (frequencies, percentages), Pearson Product Moment Correlation (PPMC) and Independent T-test were the statistical tools used to analyse collected data. PPMC was used to test the relationship between two variables while the t-test was used to examine differences between means.

### **Results and Discussion**

#### **Knowledge Level of the Respondents on Poultry Farming**

Following the administration of the valid test instrument on the respondents to examine their technical knowledge on poultry farming, the knowledge scores were subjected to percentile ranking and was further categorized into low and high Knowledge of poultry farming (KPF) based on the criteria that respondents whose scores fell on the 50<sup>th</sup> percentile and above are highly knowledgeable, while those that whose scores fell below the 50<sup>th</sup> percentile are classed as lowly knowledgeable about poultry farming. The analysis revealed that a little more than half of the respondents (51.3%) possessed high knowledge of poultry farming. A sizeable number of them (48.7%) also had low knowledge of poultry farming.

**Table 1: Distribution of Respondents based on Knowledge Level of Poultry Farming (KLPF)**

<b>KLPF</b>	<b>Respondents</b>	<b>Percentages (%)</b>
Low	146	48.7
High	154	51.3
<b>Total</b>	<b>300</b>	<b>100</b>

Source: Computed from field survey, 2012

#### **Analysis on Relationship between Entrepreneurial Interest in Poultry Farming and Technical Knowledge in Poultry Farming**

Table 2 shows the results of the correlation analysis that was adopted to determine if there is any significant relationship between entrepreneurial interest in poultry farming and technical knowledge in poultry farming. The table reveals that there is a negative relationship between entrepreneurial interest in poultry farming and technical knowledge in poultry farming. This means that as entrepreneurial interest in poultry farming is going up (M= 14.140), technical knowledge in poultry farming is going down (M=13.620) as indicated by the means. The table also showed that this relationship is not statistically significant  $r = -0.17$ ,  $N= 300$ ,  $P>0.05$ ,  $R^2 = 0.34$ , explaining that only 34% of the variation in the students' technical knowledge in poultry farming can be attributed to entrepreneurial interest in poultry farming.

**Table2: Summary of Correlation Analysis on the Relationship between Entrepreneurial Interest in Poultry Farming and Technical Knowledge in Poultry Farming**

Variables	N	Mean	Std. Deviation	R	Sig(2-tailed)	Remark
Interest	300	14.140	5.55	-	0.768	Not significant
Knowledge	300	13.620	3.34	0.17		

Source: Computed from field survey, 2012

**Analysis on Relationship between self-efficacy in Poultry Farming and Technical Knowledge in Poultry Farming**

Table 3 shows the results of the correlation analysis that was adopted to determine if there is any significant relationship between self-efficacy in poultry farming and technical knowledge in poultry farming. The table reveals that there is a positive relationship between self-efficacy in poultry farming and technical knowledge in poultry farming. This means that as self-efficacy in poultry farming is going up (M=18.563), technical knowledge in poultry farming is going up (M=13.620). However, table showed that this relationship is not statistically significant  $r = 0.100$ ,  $N= 300$ ,  $P>0.05$ ,  $R^2 = 0.20$ , explaining that only 20% of the variation in the students' technical knowledge in poultry farming can be attributed to their self-efficacy in poultry farming.

**Table 3: Summary of Correlation Analysis on the Relationship between self-efficacy in Poultry Farming and Technical Knowledge in Poultry Farming**

Variables	N	Mean	Std. Deviation	R	Sig(2-tailed)	Remark
Self-efficacy	300	18.563	3.34	0.100	0.085	Not significant
Knowledge	300	13.620	6.13			

Source: Computed from field survey, 2012

**Analysis on Variation in Technical Knowledge of Young Adult on Poultry Farming (PE) By Gender**

Table 4 shows that there is significant difference in the technical knowledge of male and female on poultry farming. The mean response of male (M = 14.088) is higher than that of female (M = 13.221). The mean difference of 0.86673 observed, was statistically significant at  $t_{(298)} = 2.256, P < 0.05$ .

**Table 4: Analysis on Variation in Technical Knowledge of the Respondents by Gender**

Gender	N	Mean	df	t-value	Sig (2-tailed)	Remark
Male	137	14.088	298	2.256	0.025	Significant
Female	163	13.221				

Source: Computed from field survey, 2012

\* Significant at  $P < 0.05$

**Discussion**

**Knowledge Level of the Respondents on Poultry Farming**

Results on the Knowledge Level of the Respondents on Poultry Farming had shown that more than half of the respondents (51.3%) possessed high knowledge of poultry farming. A sizeable number of them (48.7%) also had low knowledge of poultry farming. It means that more than half of the respondents for example, knew that after hatching, Sexing of chicks into male and female should be done, they knew that the optimum temperature condition needed for successful incubation is 37 – 39°C, they knew that it is necessary to medicate feed or water with coccidiostat or anti-coccidiosis at three weeks of age, they also knew that it is important to debeak the chicks during the first four weeks if they are pullets. Hence, venturing into actual poultry production upon graduation might not be a difficult task. The high knowledge level of the young adults as found in this study tends to affirm the views of Umoh, 2012 who was of the opinion that the SS2 agricultural science students are relatively young; this category of people

ought to be active, inquisitive and willing to learn to add to their knowledge. However, much effort needs to be inserted by stake holders in the agricultural and education sector of the economy in raising the knowledge of those future farmers who were not highly knowledgeable about poultry farming so as to encourage them to take to agricultural enterprise (poultry farming) as a means of livelihood.

### **Relationship between Entrepreneurial Interest in Poultry Farming and Technical Knowledge in Poultry Farming**

Udoh (2006) had described interest as the desire or willingness to learn or hear more about something, ideas, innovation, event, work concept, people, places and situation around one's environment. Ukpogon (2001) also showed that positive interest is a fertile land for the survival and achievement of vocational or professional objectives. This study showed that there was a negative and insignificant relationship between entrepreneurial interest and technical knowledge of the young adult in poultry farming.

This may be attributed to the fact that these students view Agricultural science (under which poultry farming is taught) as one of the subjects that they must pass in order to make good grade whether they are interested or not. All they need to do is to cram the content and pour out in the examination hall without proper understanding and imagination of how what they have learnt could be put into practice. Also most of the schools do not organize practical sessions for the students, especially on animal husbandry, so as to expose the student to the possibility of putting the theories into practice. This could positively boost their moral and enthusiasm in poultry farming since they would have been enjoying some aspects of the practical session and would be having the believe that they can actually raise chickens till they grow big (ready for consumption), produce eggs and/or young once.

### **Relationship between Self-concept in Poultry Farming and Technical Knowledge in Poultry Farming**

When relationship between self-concept in poultry farming and technical knowledge in poultry farming was analysed, the results revealed that there is a positive relationship between self-efficacy in poultry farming and technical knowledge in poultry farming, although the relationship was not significant. Self-efficacy is a self-belief construct that deals with the perception that one is capable of doing what is necessary to reach one's goals in terms of knowing what to do and being emotionally able to do it (Pagares & Schunk, 2001). It influences how students approach a task such as problem-solving, the amount of effort they exert and their levels of persistence-all of which influences students' performance (Copper & Earl, 2007; Dalgety, Coll & Jones, 2003). The findings of this study tend to indicate that self-efficacy of the students can substantially influence their achievement if properly harnessed. As noted by Fencl & Scheel (2005) 'teaching strategies used in the classroom can and do make the difference to students' self-efficacy'. Therefore, as mentioned earlier, if the students are always



exposed to practical sessions, especially on poultry farming, and appropriate teaching methods used [e.g Guided demonstration, project and field trip methods,( Nsa, Akpan & William, 2012; Olatunji, 2005)], it may improve their perception and involvement in poultry farming as a means of livelihood upon their graduation.

### **Variation in Technical Knowledge of Young Adults on Poultry Farming By Gender**

When the technical knowledge of the respondents were analysed according to gender, it was found that there was significant difference in the technical knowledge of the respondents and that this difference was in favour of the males. It can be suggested that males had higher technical knowledge in poultry enterprise than female. There might be numerous factors affecting this result. Even when there was more female than male in the sample, male may have been more knowledgeable because they feel they have more strength and could endure the stress or hurdles associated with the enterprise than female. It could also be understood from the point of view that males see themselves as being capable of performing a given task and are likely to work harder to attain an acceptable level of performance in their vocation.

### **Conclusion/Recommendation**

Africa total consumption of meat and milk is expected to double between 1997 and 2020 to reach 11.3 and 35.4 million tons (Holloway, 2002). This expected increase in demand for animal products has profound implications for food security and poverty alleviation among rural people in Akwa Ibom State. In particular, the expected demand for livestock products presents expanding market opportunities for poultry producers. Therefore, improving the management techniques of poultry producers can help them benefit from the rapidly growing demand for livestock products. Interestingly, the respondents in this study showed high knowledge of the poultry farming techniques. It is expected that these students upon the acquisition of knowledge and skills would more likely indulge in livestock enterprises (especially poultry farming) after their graduation. This would make them more self-reliant and functional in the society in which they are living in.

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

1. Teaching for skill acquisition is a very essential in educational process. Agriculture teachers should be more practical than theoretical in teaching Agricultural science. They should always adopt tested and recommended instructional strategies e.g guided demonstration (Nsa, Akpan & William, 2012), project and field trip methods (Olatunji, 2005) for effective teaching of the subject. This may promote the interest and self-efficacy of the students in poultry farming.

## Academic Excellence

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2. Conferences, seminars and workshops should be organized by the government for in-service Agriculture teachers to retrain and keep them abreast of measures aimed at skill learning and acquisition.
3. Agricultural facilities in schools should be repaired, new ones should be provided in adequate numbers to enhance agricultural skill teaching and learning. These should be provided by the government (Ministry of Education) at all levels, Parents Teachers Association (PTA) and other stakeholders.

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