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SOCIO-ECONOMIC CHARACTERISTICS OF FISH FARMERS IN ANAMBRA STATE

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ABSTRACT

The study assessed the socio and economic dynamics of fish farmers. Anambra State served as the study area, the population for the study comprised of all the fish farmers in the state 120 fish farmers were selected through the random sample method to obtain the sample size. Data was obtained from the respondents through the questionnaire techniques and the questionnaire items border on issues relating to socio economic such as age, gender, educational qualification, farm size, farming experiences among others. The data obtained were analysed through the descriptive statistics the study recommend among other things that youths and men should be encouraged into the fish farming industry to enhance sustainable fish production.

Keywords: Socio-Economic; Characteristics; Fish Farmers.

Introduction

In the recent times, Nigeria has become one of the fastest and highest aquaculture producing Countries in sub Saharan Africa and second to Egypt in Africa due to present pace of growth in Fish farming production (fejika, Uzokwe and Oladosu, 2013). Fish and fish products are Known widely as a very important diet because of their high nutritive quality and significant in improving human health (Olaoye, Ashley-Dejo and Adekoya, 2014). Fish plays a vital role in feeding the world's population and contributing significantly to the dietary protein intake of Hundreds of millions of the populace (Amao, Oluwatayo, and Osuntope, 2006). According to Nidhi (2015), fisheries sector has a significant strategic role in food security, international trade and employment generation Olaoye, Ezeri, Akegbejo-Samsons, Awotunde and Ojebiyi (2016) noted that fishery Sector has continued to maintain its crucial position through its contribution to agriculture's Share of Gross Domestic Product (GDP) in Nigeria. Fish is relatively cheap and easily available source of protein in dietary supplement for the poor, who cannot afford animal protein and depend mainly on food of low nutritional value (Ume, Ebeniro, Ochiaka and Uche, 2016). Apart from dietary source, fish is source of fish oil, a raw material for pharmaceutical Companies, provision of livestock feeds, and provision of employment for different categories of people in the area of fisheries production, processing, packaging and marketing (Fleuren, 2006). According to Folayan and Folayan (2017), trials have shown that fish oil

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Supplementation is effective in the treatment of many disorders including rheumatoid, arthritis, Diabetes, ulcerative colitis and Reynard's disease. According to Food and Agriculture Organization (FAO) (2018), strong evidence underlines How consumption of fish and in particular oily fish. Lowers the risk of Coronary Heart Disease (CHD) mortality. Similarly, it has been estimated that fish consumption reduces the risk of Dying of coronary heart diseases by up to 36 percent due to the long-chain omega3 fatty acids Found in fish and fishery products (FAO, 2019a). Fish farming has become an enviable Subsector which provides employment to a large proportion of the nation's population (about 65-70%), especially those in riverside areas (Olaoye, 2010; Shettima, Mohammed, Ghide and Zindam, 2014). Olaoye and Oluruntoba (2011) recorded that Nigerians are high fish consumers and offers the largest market for fish and fishery products in Africa. According to Federal Department of Fisheries (2014), the contribution of fishery subsector to agriculture Gross Domestic Product was estimated at 0.48% in the year 2014, out of the total estimate of 20.24% being contributed by agriculture to the GDP.

Asiru and Ahmed (2016) noted that among the different food production systems around the World, fish farming is widely seen as an essential weapon in the global fight against poverty, Nutritional disorder and food insecurity, particularly within a developing country like Nigeria and Anambra State in particular. Fish farming is regarded as a vital domestic provider of much Needed high-quality animal protein and other important nutrients. Okoronkwo and Ume (2013) Noted that Anambra State is crisscrossed by numerous rivers, swamps, abundant rainfall, Effective harvesting and storage surface water, run off undoubtedly favour fish farming. It is Pertinent to note that the bulk of fish production is in the hands of numerous landless, marginal and small farmers in the state. To most of them, fishing is only a supplementary or Complimentary enterprise. Hence, next to crop production, fish production has the largest employment capacity and income generating potential for the poor. This aligns with Nidhi (2015) who opined that the most important feature of fish production process is that it provides Subsidiary occupation, offer gainful employment at the location itself and make better Utilization of family labour.

According to Gerster-Bentaya and Hoffmann (2011), training need assessment is a gap between the present and the desired future. Benefits of training need assessment include determining Telt need, categorization of trainees, identification of adequate training methodology and knowing the appropriate time to deliver. Whereas, Famuyiwa, Adesoji and Lawal (2012) opined that training programmes in agriculture are aimed at developing farmers to make them better entrepreneurs and decision makers. Similarly, Sajeev, Singha and Venkatasubramanian (2012) highlighted that training plays an important role in the advancement of human Performance in a given situation. In order words, training provides a systematic improvement of knowledge and skills, which in turn helps the trainees to function effectively and efficient in their given task on completion of the training. According to Osei, Bakang and Nimoh (2013), Farmers' training is conducted with view to changing their behavior and improving their performance through the acquisition of increased knowledge, improved skills and positive changes

in attitude and aspirations. However, Iwuchukwu, Udoye and Onwubuya .(2013) observed that it is counterproductive to offer training to individuals who do not need it or to offer the wrong kind of training to farmers.

Farmers' competency in fish production depends on the effectiveness of the training they received. According to Aphunu and Ajayi (2010), an effective training on fish productive confers new knowledge, better skills and effective performance in farmer's productivity. As fisheries technology is continuously changing, the fish farmers in increasing production, needs many skills for the use of these technologies. For this reason, it is necessary to arrange timely training programmes for farmers, in order to acquire necessary knowledge and skills in different aspects of improved fish farming. Since training in agriculture is necessary to support the adoption of emerging aquaculture innovations and technologies for positive impact on wellbeing (Shava and Gunhidzirai, 201 7). More so, Hempel (2010) advocated for training of fish farmers and extension agents to get the desired result among end users in order to sustain present tempo of the booming enterprise in fish farming. The global fishing industry has nearly exhausted fish stocks and catches are declining. The United Nations and major fishery countries have placed significant mp on the Development of the aquaculture industry (Patrick and Kagiri. 2016). Fish farmers Maximize fish productivity can be attributed to lack of adequate knowledge and training towards integrated fish farming. However, there are other numerous challenges confronting fish farming practices, among which are poor management, inadequate supply of good quality Seed, lack of capital, and high cost of feed. Availability of extension services and the products (Yeasmin, Hoque and Zulfikar-Rahman (2014). In addition, increased popuiaoe encouraged the drastic changes in livestock consumption and production patters, paving the way for what can be referred to as food reyolution". This implies that other sources of protein intake have to be looked into. Of which fish is a common one (Zilberman, Ote, Roland-Holst and Pfeiffer, 2011).

With the efforts of research and extension services, there are improved packages on fish production. However, farmers are not adequately utilizing them and this may be as a result of lack of information on those improved production packages or there is no adequate training on them (Ofuoke, Emah and Itedjere, 2008). In addition, research by Adinya, Cffem and Ikpi (2011) stated that fish farming projects fail because of limited skills to use modern technology.

The results of the study reflected that there was a huge skills gap, which inhibited fish farming to expand which calls for education provision for fish farmers to enhance food security and employment creation. Based on these Findings, it Temans a challenge to both the government and non-governmental organizations to impalement effective fish farming in Anambra state that can enhance production and increase income and food security among the farmers. Hence in view of this development, fish farmers need training to remove barriers, improve technical competency and efficiency for better resource utilization, increase productivity and performance. Therefore, there is need to assess training needs among fish farmers in Anambra State, Nigeria. In view of the foregoing, the study provided seeks determine the socio-

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economic dynamic of those involve in fish farming.

Purpose of this study

The purpose of this study is to ascertain the socio-economic characteristics of fish farmers with regards to regards to age, gender, marital status, educational qualification and house hold size of the fish farmers

Research Question

The study seeks to answer this question

i. What are the socio-economic characteristics of the fish farmers with regards to age, gender, marital status, educational qualification and house hold size of the fish farmers?

Population of the study

The population of the study comprise all the 120 fish pond farmer in the state.

Sampling technique

Multi-stage involving purposive and random sampling techniques was used to select one hundred and twenty respondents that were used for the study.

Method of data collection

Data for the study was collected from a primary source using a well-structured questionnaire. The questionnaire contained relevant questions and was divided into sections according to the number of objectives in the study. The information collected from the fish farmers bordered on their socio-economic characteristics such as age, gender, marital status, educational level, farm size, household size and farming experience.

Method of data analysis

Descriptive statistics such as frequently count, percentage and mean score were used analysis the data collected.

Table of data analysis Socio-economic characteristics of the respondents

Socio-economic variable	Frequency (n= 120)	Percentage (%)	Mean (x)
Age (years)			41 years
20-29	24	20.0	
30-39	60	50.0	
40-49	27	22.5	
50 and above	09	07.5	
Gender			
Male	36	30.0	
Female	84	70.0	
Marital status			
Single	42	35.0	
Married	72	60.0	
Widower	06	05.0	
Educational attainment			
No formal education	12	10.0	8.3 years
Primary education	63	55.5	
Secondary education	30	25.0	
Tertiary education	15	12.5	
Household size			
1-5	21	17.5	6 persons
6-10	93	77.5	
11 and above	06	05.0	
Farming experience (in years)			
1-5	36	30.0	7.4 years

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6-10	75	62.5	
11-15	06	05.0	
16 and above	03	02.5	
Types of fish kept			
Catfish	96	80.0	
Catfish and tilapia	24	20.0	
Sources of fund			
Personal savings	33	27.5	
Friends and relatives	77	64.2	
Commercial bank/isusu	10	08.3	
Farm size (no of fingerlings)			
Less than 1,000	16	13.3	3,861
1000-5000	98	81.7	
5001-10000	04	03.3	
Above 10,000	02	01.7	
Extension visits (per annum)			
No visit	104	86.7	1.01
1-5 times	10	08.3	
6-10 times	06	05.0	

Discussion of Results

The distribution of the respondents according to age is presented in as indicated in greater proportion (50.0%) of the respondents were between the ages of 30 and 39 years, 22.5% fell within the age range of 40 -49 years. 20% were between the age of 20 – 29 years of age; whereas, the remaining 7.5% of the fish farmers were above 50 years with a mean age value of 41 years. As evidenced in the result, it is obvious that a greater proportion of the fish farmers fell between the active productive ages. This implies that many of them are able bodied youths who are adequately energetic, active and agile in disposing their daily responsibilities in fish farming. The dominance of this group of people in any agricultural activity should be considered paramount since age has a significant influence on production output. The finding is in agreement with Mvodo, Mbulle and Likowo (2018) who revealed that majority of their respondents fell between the ages of 2 l and 40 years of age.

The results of the study as shown in indicates that 84 respondents representing 70% of the total sample size were females while 36 of them (30.0%) were males. The finding is an indication that fish farming in the study area has hind ratio of female when compared to male counterparts. The high level of female involvement indicate in the result of the analysis may be attributed to the fact that women play a central role in food production, processing and marketing and equally have bargaining power than men. Also, the result is evidence that certain activities and farming enterprises are considered gender specific and this aligns with the general belief that certain enterprises are suited to a particular gender. The finding of the study corroborates Okeke and Nwoye (2019) who indicated in the analysis of fresh catfish marketing among natural fishpond users that majority of their respondents were females; but however, disagrees with the finding of Olorunfemi, Adekunle, Oladipo, Oladele and Oladele (2017) who revealed in their study that majority of their respondents whom were involved in Fish farming were males.

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The marital status of the rural fresh catfish farmers is presented in as indicated in the table, 72 out of the total sample size of the respondents representing 60.0% were married as against 42 (35.0%) and 6 (05.0%) fish farmers who were single and widows respectively. The finding clearly indicates that fish farming in the study area was mainly done by married people who harness the advantages of family labour in undertaking various fish farming activities such as feeding, washing of ponds, construction of fishing gears, sorting and liming of fish pond. The dominance of married people in fish farming in the study area may be as a result of their responsibilities which are conferred unto them by virtue of being married. As such, they actively participate in fresh catfish farming so as to support and provide food for their dependents. Whereas, the low involvement of the singles, divorced and widows in fresh catfish farming is an indication that they own little or no responsibilities to carter for. The result is in agreement with and Olorunfemi, et al., (2017) who reported that majority of the samples respondents were married.

The distribution of respondents according to their level of education is shown in from the result, a greater proportion (52.5%) of the respondents attained primary education. 25.0% attended secondary school, and 12.5% had tertiary education while 10.0% had no formal Education. The average educational level attained was 8.3 years. This implies that most of the fresh catfish farmers were opportune to attain one form of educational level.

Most of the fresh catfish farmers were literate and as such can adopt any kind of improved production technology introduced to them. It is important to note that one's level of education is of significant importance in his or her decision-making process. Hence, the fresh catfish farmers who are relatively educated will find it easy to learn and adopt technologies and practices introduced to them by experts, The finding agrees with the findings of Hafzur, Jabed, Amir, Abdulla-Al-Asif, Emdadul, Palas and Mizanur (2017) and Kassali, Baruwa and Mariama (2011) who revealed that fewer proportion of the respondents had masters' degree level of education and majority had one form of education respectively.

As shown in majority (93.0%) of the fresh catfish farmers have household size of between 6 and 10 persons, followed by 21% of those with household size of 1 – 5 persons while 6% had household size of 11 and above with household size mean value of 6 person. This implies that the fresh catfish farmers have adequate family members that can provide cheap labour, which is the major characteristic of farmers in the study area. Just like marital status, household size plays an important role in farm production output in most developing countries where human labour is the major source of laboure force. The finding signifies the importance of household size and family labour in fresh catfish farming in the study area corroborates Asa, Et al., (2016) who reported mean household size of 6 persons in training needs assessment of rural fisher folks in Akwa Ibom State, Nigeria.

Data in is the distribution of the fresh catfish farmers according their years of farming experience. From the result, the respondents recorded 7.4 years as the average years of farming experience with majority (62.5%) of the

respondents having 6-10 years of farming experience. whereas, 30.0% fell between 1- 5 years, followed by 5.0% who had 11 -15 years of farming experience while the remaining 2.5% had between 16 and above years of farming experience. The result indicates that most of the fresh catfish farmers have been into fish farming for a very long time. As such, it is expected that such significant years of farming experience would translate into increase in output and return on investment since majority of the fresh catfish farmers can identify challenges and proffer solutions. In other words, the more the experience, the more meticulous they become in taking up risks relating to decision making and adoption of relevant technologies. This finding is in disagreement with the finding of Akangbe, Ajiboye and Komolafe (2015) who reported that majority of the respondents had 1 – 5 years of farming experience.

Out of the 120 respondents used in the study, majority (96%) of the fresh catfish farmers kept catfish while others (24%) stocked both catfish and tilapia. This implies that catfish farming was predominant in the study area. Probably because the Nigeria government have placed an outright ban on frozen fish in order to boost local production of fish. The local production includes fishes caught within or local territory, fish reared by local farmers like Tilapia and catfish. As such, catfish is in high demand as an alternative to fresh fish, meat and chicken. The fish is regarded as a delicacy and greatly favored by Nigerians as the fish is used as added condiments in the preparation of certain Nigeria delicacies in the form of smoked or dried fish. The result is in agreement with the finding of Ideba, Out, Essien, Iniobong and Ekaette (2013) who reported that majority of the fish farmers' stocked catfish.

Sources of fund identified by the respondents in the study area are presented in generally speaking, commercial fresh catfish farmers can get capital through own savings, borrowing or through a combination of both. The various sources of fund as shown in the result of the study were personal savings, friend and relatives and commercial banks/issues. From the result of the analysis, majority (64.29%) of the fresh catfish farmers funded their business with the fund generated through friends and relatives and 27.5% through personal savings while the remaining 8.3% obtained loan from commercial banks and co-operatives. The result implies that majority of the catfish farmers financed their business by borrowing from friends and relatives other than utilizing personal savings. The lack of personal savings utilization suggests that most of the farmers depends on external funding to start fish farming business and the most common external source of funding to provide capital for commercial fish farming is borrowing, mainly from banks and cooperative societies. It is worthy to note that fish farming as a business requires adequate capital since capital is necessary in creating and sustaining expansion of the business.

Distribution of the respondents according to their farm size indicates that majority (81.7%) of the respondents had between 1,000 – 5,000 fingerlings, 13.3% had less than 1,000 and 3.3% had between 5,001 and 10,000 while 1.7% had above 10,000 fingerlings with mean score of fish farm size of 3,861 fingerlings. This suggests that most of the catfish farmers in the area operates

within subsistence level. Hence, the result indicates that the fresh catfish farmers are generally small-holder farmers.

The distribution of the respondents according to their contact with the extension workers is presented in the result revealed that majority (86.7%) of the respondents indicated that they were not visited by the extension agents, 8.3% were visited between 1-5 times and 5.0% were visited between 6-10 times. The annual mean number of extension visits to fresh fish farmers in the study area was 1.01, which was very low considering their important in the dissemination of information on fish production technologies. The low involvement of extension workers could be as a result of inadequate planning on the part of the extension organization and lack of information about` innovation from the research institutes (Fasakin, 2008) as cite in (Akangbe, Ajiboye, and komalafe, 2015). Hence, this will lead to inadequate transfers of knowledge and skills to the fresh catfish farmers and their families.

Conclusion

In order to achieve sustainable fish production, there is need for youths and female encourage into the fish farming industry. There is need for extension agents to intensity efforts by spending more time to teach fish farmers on the indicated training needs such as techniques of improving water quality, pond management and fertilization, feed formulation and preparation, prevention and control of fish disease and disease diagnoses.

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