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Strategies for Improving Women's Participation in Fish-Farming Enterprises

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Abstract

The study focused on strategies for improving women's participation in fish-farming enterprises in Abia State. The design was survey. Three research questions and three hypotheses guided the study. The population of the study was 124 respondents, made up of 42 women in fish farming enterprises and 82 Agricultural Extension Agents. Questionnaire was used for data collection. It was validated by three experts and tested for reliability using Cronbach Alpha technique. Data were analyzed using mean and standard deviation to answer the research questions and t-test statistics to test the null hypotheses. Findings revealed nine skills for improving the performance of women in fish farming, nine for easy access to production resources and 12 for protecting fish farming enterprises. It was recommended among other things, that Government should use the result to improve women's education and improve fish industry.

Keywords: Strategy, Women, Participation, Fish, Farming, Enterprise.

Introduction

Fish-farming is popular among the people of Nigeria. According to Alaku (2010), fish-farming is the art and science of controlled rearing of fish in fish pond. Unlike the fish that grows in natural water bodies where there are no human intervention, in fish farming feeding, fertilization, stocking combination, reproduction and harvesting are controlled by the fish farmer. Fish farming has become a lucrative enterprise.

An enterprise or business is an activity organized and carried out to provide goods and services to the society with the aim of earning profits (Orie & Ibekwe 2014). Fish farming enterprises provide food and yield revenue to fish farmers and foreign exchange to countries involved in fish trade (Enechkwu & Obube, 2014). Unfortunately, the business has

continued to be dominated by farmers whose knowledge of various components of the business such as processing, grading, storage and marketing is still rudimentary because of lack of appropriate training and skills in fish farming.

Some of the fish farmers are women who work to earn a living and contribute to family up-keeping (Nwobah, 2009; Sharma, Tiwari & Sharma, 2010). Because of lack of requisite skills in fish production, they produce below standard. Consequently, they obtain low returns for their efforts and sometimes drop out of business. It is hoped that the acquisition of fish production skills could improve their participation in fish farming enterprises. This justifies the need to equip them with the necessary skills to improve their skills of operation.

In the opinion of Adoewu (2008) & Abdullah (2012), women can learn skills through skill acquisition programmes, conferences, seminar and workshops, or as a course of study in educational institutions. They can as well increase their knowledge and skills of fish farming by embarking on field trips to fish production industries or by working in such industries as apprentice (Banerje, 2013). A number of stakeholders are involved in fish farming and training. They include commercial fish farmers and Abia State Agricultural Extension Agents. Their opinions are necessary in determining the skills needs of women interested in fish farming.

Besides lack of skills in fish farming, most peasant farmers do not have easy and free access to money, facilities and materials for farming purposes (Olokor, 2016). Therefore, they need to be empowered economically to enable them provide these resources. Orie & Ibekwe (2014) outlined various ways of empowering people to include donation of cash, equipment and other input to start up their business.

A number of problems that imped private sector participation in business have been noted. According to National Planning Commission (NPC)(2005) & Ejiga (2004), they include: poor state of physical infrastructure which increase high cost of doing business, limited access to appropriate financing, high cost of raw materials, equipment and lack of skilled labour. Government therefore should help fish farmers to have access to these resources. Also commenting on strategies for helping the private sector, NPC (2005) opined that women can form cooperatives to assist themselves and that government should invest heavily in infrastructure, especially electricity, transport and water. It is believe that these efforts could significantly reduce the cost of doing business. Entrepreneurs also

need cheap and easy access to finance (Onuka & Olaitan, 2007). It is important that government should help them to obtain low-cost credit as incentive to private them.

Fish farming is a risky business. Therefore those in the business should be protected by law. The law specifies the behaviourss in business organization that are acceptable or permitted and which other ones are not permitted. Government should therefore assist the private sector to survive. By so doing, they will sustain the interest and participation those in fish farming enterprise. In the view of NPC (2005), government should improve security, the rule of law and timely enforcement of law especially redress. Government should also reduce corruption, barriers to business operation and strengthen her legal system (Allen & Mayer, 2006).

The entrepreneurs can also protect their business by taking care of the legal issues that underpin their business to avoid legal-related problem that may come up later. They should register or incorporate their business with Corporate Affairs Commission and with National Agency for Food, Drug Administration Control (NAFDAC). NAFDAC regulates food products and drugs in Nigeria. (Ukpore, 2006). Regulated products attract higher patronage both locally and internationally.

However, there are institutions that have statutory role of enforcing the law. The Police is one of such institutions. According to Ukpore(2006), the Police catch criminals and protect people and properties. The Police also arrest those who fail to do business in line with the provisions of the law. The law court tries the culprit, while the Prison Services imprison those convicted by the court. Government should ensure that these bodies do their job. They are good strategies to increase the number and productivity of women in fish trade.

Strategy is a well-planned service or action for achieving an aim (Olokor & Ibrahim, 2017).It is in the context of this study, a plan or activity intended to improve the participation of women in fish farming enterprises. Women participation is the engagement of women in responsible challenging needs of the people.

In Abia State, many women engage in fish farming and allied trades as a means of making a living. But some of them lack basic knowledge and skills for the business. For instance, Onuka & Olaitan (2007) in their study found that many peasant farmers in broiler production lack relevant skills and resources for the enterprise. Those in fish farming may have a similar experience. They are also ignorance of the law regulating their business.

Consequently, they produce low quality products and suffer loses and various levels of punishments including short down. It is therefore necessary for women to acquire skills in fish farming as well as have access to production inputs. The study therefore sought to identify skill needs of women in fish farming, how to assist them to access production inputs and protect the fish farming business. It is believed that the outcome of these efforts will increase the participation of women in fish trade and improve the economy of the state and those of individuals. It could also reduce unemployment and social ills arising from unemployment.

Purpose of study

The overall purpose of the study was to evolve strategies for improving the participation of women in fish farming enterprises. Specifically the study sought to:

1. identify skills required for improving the performance of women in fish farming enterprises,
2. find out what stakeholders will do to assist women in fish farming, and
3. determine ways regulatory agencies could protect fish farming enterprises of women.

Research questions

1. What are the skills required for improving the performance of women in fish farming enterprises?
2. What will stake holders do to assist women in fish farming?
3. In what ways would regulatory agencies protect fish farming enterprises of women?

Hypothesis

There is no significant difference in the mean ratings of the responses of registered fish farmers (women) and extension agents on: skills required for improving the performance of women in fish farming, what stakeholders will do assist women in fish farming and ways regulatory agencies could protect fish farming enterprises of women.

Methodology

Area of the study: The study was carried out in Abia State of Nigeria. Fish is in great demand in the state, but most of the fish supplies came from the neighboring riverine states of Akwa Ibom, Cross River and River States. The situation provides great opportunity for the women in the state to increase their fish supplies.

Design of the study: The study adopted descriptive survey research design. The design is interested in gathering the opinions of respondents in a given population using questionnaire.

Population of the study: The population of the study is 124 made of 42 women in commercial fish farming and 82 agricultural extension agents

both from Agricultural Development Programme (ADP) in the state.

Sample and sampling techniques: The entire population of 124 was involved in the study. There was no sampling.

Instrument for data collection: The instrument for data collection was the questionnaire. The questionnaire consisted of section A and B. Section A was used to obtain information on the personal data of the respondents. Part B is made up of questionnaire items. The response scale for each questionnaire items are Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) with corresponding value 4, 3, 2, and 1.The questionnaire was validated by three experts from Agricultural Education unit of the Department of Agricultural and Home Economics Education as well as Department of Measurement and Evaluation all from Michael Okpara University of Agriculture, Umudike. The opinions of these experts were incorporated into the final questionnaire developed. Cronbach alpha method was used to determine the reliability of the instrument. A coefficient of 0.87 was obtained for the questionnaire items.

Method of data collection: Copies of the questionnaire were administered on 124 respondents using trained research assistance who also retrieved them after administration.

Method of analysis: The data were analyzed using the mean and standard deviation to answer the research questions and t-test to test the null hypothesis. The bench mark for acceptance was mean value of 2.50 and above, while below was rejected. The hypothesis of no significance difference was upheld for any item whose t-calculated value is less than t-table value and rejected if otherwise.

Result: The results of the study were presented in the table below.

Table 1: Mean and t-test results of fish farmers and agricultural extension agents on skills required for improving the performance of women in fish farming enterprises (N=124)

S/N	Skill items	X_1	SD_1	X_2	SD_2	t-cal	t-tab	Remark
1.	Fish farmers can train in skills acquisition centres to increase their skills of fish farm construction.	2.93	0.46	3.06	0.50	-0.46	1.92	A/NS
2.	Women can attend conferences on fish farming to learn better ways of stocking fingerlings.	2.83	0.57	2.80	0.58	0.10	1.92	A/NS
3.	Women can apprentice in reputable							

	fish farms to learn how to rear fingerlings to market age.	3.17	0.57	3.50	0.26	1.35	1.92	A/NS
4.	Women can attend workshops to learn how to make good business plans or decisions on fish farms.	3.00	0.80	3.13	0.60	-0.38	1.92	A/NS
5.	Regular training sessions with agricultural extension agents increase women's skills on how to harvest fish.	3.33	0.27	3.20	0.58	0.41	1.92	A/NS
6.	Women can learn better ways of processing fishes as a course/programme in universities or colleges of agriculture.	2.50	0.30	2.90	0.37	-1.49	1.92	A/NS
7.	Women can learn how to register fish farm business through field trips to fish production industries.	3.50	0.70	2.73	0.48	2.40	1.92	A/NS
8.	Fish farmers who attend meetings of their professional association(s) learn better ways of preserving fish.	3.03	3.00	3.00	0.45	0.16	1.92	A/NS
9.	Women can learn better ways of packaging fish by attending conferences.	3.83	3.73	3.73	0.20	0.50	1.92	A/NS

X=mean of fish farmers, SD=standard deviation of extension agents, t-tab=1.92, A=Accept, NS=Not Significant, N=Sample Size

Table1reveals that all the nine skill items were above the cut-off point of 2.50. This shows that they were necessary for the improvement of women in fish farming. The table also shows that the nine items had their t-calculated values less than t-table values of1.92. Therefore there were no significant difference in the mean ratings of the responses of registered fish farmers and extension agents on skills required for improving the performance of women in fish farming enterprises.(N=I24)

Table 2: Mean and t-test results of fish farmers and agricultural extension agents on what stakeholders in fish farming will do to assist women access production resources(N=124)

S/N	Items Statement	X_1^1	SD_1	X_2^2	SD_2	t-cal	t-tab	Remark
1	Communities should invest heavily in the provision of pipe-borne water to increase their availability to fish farmers.	3.50	0.30	3.40	0.25	0.44	1.92	A/NS
2	Banks should make lending conditions attractive to farmers.	3.17	0.53	3.00	0.55	0.50	1.92	A/NS
3	Women themselves can form co-operative societies to enable them access bank loan with relative ease.	2.67	1.07	2.60	0.32	0.23	1.92	A/NS
4	Government should enforce policies that will reduce high cost of electricity.	3.33	0.67	2.80	0.51	1.63	1.92	A/NS
5	Non-Governmental agencies (NGO) promoting small and medium enterprises could donate cash and materials to fish farmers to encourage them.	3.17	0.57	3.43	0.25	1.09	1.92	A/NS
6	Banks can increase access to bank credit through low interest rate.	3.33	0.67	2.83	0.49	1.56	1.92	A/NS
7	Women co-operative agencies may subsidize the price of fingerlings and feeds to enable members buy them with ease.	3.83	0.17	3.58	0.26	1.51	1.92	A/NS
8	Women in fish co-operative societies can improve sales through market promotion.	3.17	0.57	3.63	0.24	1.94	1.92	A/NS
9	Government should enforce policies that enhance local fish production	3.33	0.45	2.91	0.33	0.42	1.92	A/NS

Key: X mean of fish farmers, SD standard deviation of extension agents, t-tab 1.92
A accept, NS Not Significant, N Sample Size.

Table 2, indicates that all the nine items were above the cut-off point of 2.50. This means that they were all necessary for assisting fish farmers to access

production inputs. The table also reveals that they all had their t-calculated values less than t-table value of 1.92. Therefore, there was no significant difference in the mean ratings of the opinions of registered fish farmers and extension agents. Therefore, the null hypothesis of no significance difference is upheld.

Table 3: Mean and t-test results of fish farmers and agricultural extension agents on how regulatory agencies could protect fish farming enterprises (N = 124).

S/N	Education items	X_1	SD_1	X_2	SD_2	t-cal	t-tab	Remarks
1	Government need to improve the process of granting land use rights to farmers.	3.83	0.17	2.87	0.67	2.80	1.92	A/NS
2	Regulatory agencies should strictly control the activities of fish farmers to reduce fraudulent activities among them.	2.67	0.27	2.80	0.30	-0.55	1.92	A/NS
3	Government agencies should ensure timely enforcement of laws on food hygiene to promote the safety of fish products .	3.33	0.27	3.27	0.27	0.29	1.92	A/NS
4	Government should ensure that fish farmers have cheap and easy access to bank credit as stipulated by law.	3.30	0.36	3.04	0.36	0.90	1.92	A/NS
5	The regulatory agencies need to ban illegal importation of fish products to promote fish production industries locally.	3.00	0.80	2.87	0.67	0.36	1.92	A/NS
6	There should be increased publicity of the roles of the regulatory agencies.	2.67	0.27	3.03	0.52	-0.18	1.92	A/NS
7	Law courts ensure that dissatisfied consumers of fish and fish products have redress.	2.67	0.67	2.96	0.59	-1.87	1.92	A/NS
8	The regulatory agencies may withdraw licenses of offending fish farmers to sanitize fish business.	3.60	0.27	3.47	0.39	0.77	1.92	A/NS
9	NAFDAC must ensure that fish farmers operate their enterprise in line with	2.50	0.29	2.90	0.56	1.25	1.92	A/NS

	regulations.							
10	Fish farmers must register with NAFDAC which regulates food products	3.67	0.26	3.47	0.27	0.88	1.92	A/NS
11	Regulatory agencies must ensure that fish farmers incorporate their business	3.33	0.66	3.40	0.24	-0.27	1.92	A/NS
12	Women in fish business who fail to operate in line with the law should be punished appropriately.	2.83	0.56	2.70	0.52	0.20	1.92	A/NS

Key: X mean of fish farmers, SD standard deviation of extension agents, t-tab 1.92
A accept, NS Not Significant, N Sample Size

Table 3 shows that all the 12 items were above had the cut-off point of 2.50. This implies that they were strategies regulatory agencies will used to protect fish farming enterprises. The table also reveals that they all had their t-calculated values less than t-table value of 1.92. This implies that there was no significant difference in the mean ratings of the opinions of the two groups of the respondents on how regulatory agencies could protect fish farming enterprises. Therefore, the null hypothesis of no significance difference is upheld.

Discussion of findings

The result of the data on Table 1 showed that nine skill items were agreed to be skills for improving the performance of women in fish farming enterprises. The items are: fish farmers can train in skill acquisition centres to increase their skills of fish farm construction, women who attend conferences on fish farming learn better ways of stocking fingerlings, women can apprentice in reputable fish farms to learn how to rear fingerlings to market age, women can attend workshops to learn how to make good business plans or decisions, regular training sessions with agricultural extension agents will improve women's skills on how to harvest fish and four other items. The findings are in line with Abullah (2012) who outlined skill acquisition programmes to include conferences, seminar and workshops. The finding is also in consonant with Banerje (2013) who mentioned field trips to fish production industries, or apprentice programmes in such industries as educational activities that will impart competence in people as well as help entrepreneurs to acquire skills to start-up fish farming enterprises.

Table 2: The result of the data on Table 2, revealed that nine items were accepted to be useful in assisting fish farmers' access production resources.

They include communities should invest heavily on the provision of pipe-borne water to increase their availability to farmers, banks should make lending conditions attractive to fish farmers, duties on fish farming equipment should be reduced to encourage women to procure them, government should enforce policies that will reduce high cost of electricity, government agencies promoting small and medium enterprises could donate cash to fish farmers to encourage them. These findings validate the submissions of NPC (2005), that entrepreneurs do not have easy access to infrastructure and this increases high cost of doing business. It adds that they have limited access to financing and government should help fish farmers to have these resources.

The result of the data on Table 3 also revealed that 10 items were agreed to be ways regulatory agencies could protect fish farming enterprises. They are government should improve the process of granting land use rights to farmers, regulatory agencies should strictly control the activities of fish farmers to reduce fraudulent activities among them, government agencies should ensure timely enforcement of laws in food hygiene to promote the safety of fish products and consumers, government should ensure that fish farmers have cheap and easy access to bank credit as stipulated by law, regulatory agencies need to ban illegal importation for fish products to promote fish production industries locally and seven other items. These findings are in consonance with the views of NPC (2005), that government should improve security, the rule of law and timely enforcement of consumers redress. It is also in line with the submissions of Orie & Ibekwe (2014) that government should reduce corruption, barriers to business operation and strengthen her legal system.

It was also found out that there was no significant difference in the mean ratings of the opinions of fish farmers and agricultural extension agents on skills for improving the performance of women in fish farming, what stakeholders will do in assisting fish farmers to access production resources and how regulatory agencies could protect fish farming enterprises. Therefore, the null hypotheses were upheld. The findings are hereby sustained by the information obtained from literature reviewed as necessary for improving women's participation in fish farming enterprises.

Conclusion

The study was carried out to find out empirically, the comments of stakeholders on skills for improving the performance of women in fish farming enterprises, what stakeholders in fish

industries will to assist women access production resources and how regulatory agencies could protect fish production enterprises. The study had therefore, provided information on strategies for improving women's participation in fish farming.

Recommendations

Based on the findings of the study, the following recommendations were made by the researcher:

1. Government at all levels should adopt the findings of the study to improve her Skill Acquisition Programme.
2. Government and philanthropist can help fish farmers to access production resources based on the information provided by the study.
3. The findings of the study can help regulatory agencies to protect fish farmers and their businesses.

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