



Importance of Government Supports in Fish Farm Management

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Abstract

Women make about 70 percent of the 8.6 million direct and 19.6 million indirect workers in the fishing industry. This makes the sector important for economic growth and thus worth attention. Unfortunately, the sector has not been living up to expectations. Despite producing somewhat more than 1 million metric tonnes of fish annually, Nigeria still imports more than 800,000. This gap in production needs to be bridged. The public and commercial sectors are investing more in fisheries and aquaculture because of the positive social and economic outcomes that might result from increased access to fish. However, the farmers in this sector lack government support. This study investigated the importance of government support in fish farm management. The study adopted a descriptive survey research involving a sample of 50 fish farmers selected from Epe using random technique. The selected fish farmers were given the questionnaires developed for this purpose. The questionnaires retrieved were subjected to descriptive statistics analysis. The result of the study showed that sustainability and profitability of aquaculture are primarily dependent on government support. This is due to the fact that farmers face a number of obstacles and constraints, such as the high cost of feed, inadequate access to funding, ineffective management of fish policy, lack of trained personnel, inadequate supply of fish feed, the rising cost of fish feed, inadequate technical and commercial knowledge, and acquisition of land for fish farming. These problems could be alleviated through government aids. Which can be achieved through marketing training and assistance to help fish farmers. Government can offer special tax treatment on investment or returns which enable fish farmers to make more profit by paying less tax. The government can offer grant of subsidies on fishing input, offers concessional loans, as well as improve management policies through the

formulation of a policy instrument. The study revealed that this will encourage productivity, ensure sustainable development, lessen environmental impact, as well as subsidized prices of inputs for fish farming that will enable farmers make more profits. The overarching result therefore led to the conclusion that fish farmers in Nigeria need government support for their sustainability and growth.

Key words: Fish farming, government support, fish farm management, importance

I. Introduction

For the vast majority of developing countries, agriculture continues to be the most significant economic activity. At least 53% of Africa's economically active population lives off this sector that supplies foreign exchange, jobs, food, and raw materials for other sectors. In Nigeria, fish farming has grown in popularity as one of the many agricultural practices (Omar, 2011). Fish play a significant role in the health and well-being of the economy and society in many nations. They are a fundamental component of most societies. In recent years, the amount of catch produced globally has generally ranged between 85 and 90 million tonnes. These fisheries produce a wide range of goods that are traded internationally and utilised for everything from subsistence to luxury goods (Charles, 2001).

Fish farming is referred to as a strategy for economic change and poverty alleviation by Mwaijande and Lugendo (2015). Focus is placed on reducing the considerable obstacles that fish farmers, merchants, processors, and other connected actors in the value chain must overcome. This invariably involves a variety of tasks, including as guaranteeing the success of all essential inputs, resources, and technological advancements. Even though it normally only contributes a small amount to national GDP in many countries throughout the world, the fishing industry can be a substantial



driver of regional economic activity, job opportunities, and food, as well as having substantial historical and social importance in many nations (FAO, 2020). As a result, the majority of governments support their fisheries industries in an effort to fulfil goals including preserving coastal jobs, enhancing fishers' welfare, guaranteeing the sector's sustainability, promoting food production, and securing sovereignty over contested waters.

A significant number of small-scale fish farmers and business owners who are involved in fish production have benefited greatly from the enterprise in terms of revenue and dietary stability (Omar et al., 2011). Fish farmers have become more prevalent in Nigeria during the past few years, in part because wild fishing is declining (Sandra, 2014). To fulfil the rising demand for fish, this has put significant strain on fish farming. This implies that fishing is no longer a hobby exclusive to the wild but is now practised in villages, cities, and even residences (Umar, 2019).

The poor application of fish farming practises, insufficient finance, and lack of available technology are frequently blamed for the industry's limited success. Fish breeding is impacted by a number of other variables, including pollution, deforestation, soil erosion, floods, a lack of available land, environmental deterioration, and a lack of freshwater sources. According to Shava and Gunhidzirai (2017), FAO (2009) supports the creation of policies to protect small-scale fisheries, which are essential for enhancing rural livelihoods.

Government support in achieving these goals may occasionally have detrimental effects by changing the economic context in which fishers operate (Henderson & Lankoski, 2019). These unfavourable outcomes include the development of an excess fishing capacity, excessive fishing activity (overfishing), and incentives for illicit, unreported, and unregulated (IUU) fishing, all of which are harmful to the long-term viability of fish resources and ecosystems. As a result of lower stock abundance, lower sustainable yields and greater harvesting costs, which impact the fishing industry's resilience, policies that end up damaging stocks are ultimately economically destructive to people they are intended to serve. When more fishing than is necessary, they have higher impacts on non-target species, ecosystem habitats, and global warming (Hilborn et al., 2020), as well as a sub-optimal contribution to food security and ecosystem services (such as food provisioning to other ecosystem elements).

Statement of problem

Communities have turned to fish farming as the only practical and profitable solution to alleviate poverty as a result of the lack of economic alternatives and deteriorating environmental conditions. In the past, people have relied on subsistence farming, livestock management, beekeeping, gold panning, brick moulding, purchasing, and selling, albeit these activities are no longer viable due to the weak economy and climate change (Chazovachii et al. 2013). In light of the loss in agriculture as a source of rural livelihood, fish farming was introduced to help rural people combat poverty and the dependency syndrome. Fish farming does not completely eradicate poverty, but it does lessen the vulnerability of rural communities because of factors such as climate change, which exacerbates droughts, limited finance, and limited access to technology (Mufudza 2015). Certain groups reject fish farming because they see it as an outdated trade for the elderly or less affluent members of society. According to others, implementing fish farming successfully is a novel strategy that can increase food security for poor people while also creating jobs. Fish farming has swiftly acquired popularity in sub-Saharan Africa as a creative and practical method of creating jobs and raising household income.

The economic viability of fish farming as a source of employment is frequently impacted by trends in the global, national, and local environment. This can include legislation, market-discouraging economic downturns, and inflation. To create jobs and strengthen the nation's economy, the government should be in charge of fostering favourable policies that support fish farming. This study examines the significance of government assistance in managing fish farms in this regard.

Research objectives

The study aims to investigate the importance of government supports in fish farm management. Specifically, the study seeks to;

1. Identify the challenges confronting fish farm management in Nigeria.
2. Examine the ways by which government supports Fish Farm management.
3. Ascertain the extent to which government supports improves fish farm management.

Research questions

- 1) What are the challenges confronting fish farm management in Nigeria?
- 2) What are the ways by which government supports fish farm management?



3) To what extent will government support improve fish farm management?

II. Literature Review

Fish farm management

According to Hall et al. (2011), fish farming promotes domestic output through integrated farming by producing several low-value freshwater species. In a 2010 global research, Conservation International and the World Fish Centre evaluated fish farming in 18 different nations. The study's conclusions showed that fish farming is essential for feeding the expanding urban population. Further findings showed that fish farming and the fishery products it produces are beneficial sources of protein and micro-nutrients for diet and well-being. According to FAO (2012), fish provides sustenance for around 3.0 billion people worldwide. In light of these claims, fish aquaculture is creative in enhancing global food security and raising community household income.

In light of these claims, fish aquaculture is creative in enhancing global food security and raising community household income. The main objective of managing fisheries is to produce continuous optimal benefits from the available resources. This is accomplished through a complex and varied collection of duties. The world's fish resources are currently experiencing the combined consequences of extensive over-exploitation and, in some cases, environmental deterioration. This is true despite the fish's tremendous importance and worth, or perhaps more accurately, because of these qualities. There are various causes for this intolerable situation, but the main ones are all related to the fact that most nations lack effective administration over their fisheries. Fishers, fisheries management authorities, fishery scientists, and others responsible for environmental degradation must all take responsibility for dwindling fish stocks, decreased economic returns, and declining employment possibilities in the fishing industry.

Although not all underlying issues are related to fisheries management, the fisheries manager is frequently in the best position to monitor and record what is happening in the fisheries that fall under his or her purview, to identify the root cause or causes of any issues, to address those that fall under their purview, and to bring the others to the attention of both those with an interest in fisheries and those who have responsibility for them. But unfortunately, the fisheries management either fails to take the necessary action as the fisheries descend deeper and deeper into crisis and deterioration, or both. This is frequently due to a

lack of knowledge, an incomplete understanding of the nature of the task of managing fisheries, and a lack of adequate tools, infrastructure, and assistance to deal with issues and make effective use of resources.

Additionally, due to overpopulated coastal areas, the effects of climate change and global warming have major ramifications for fish farming communities both locally and globally (Ababouch & Fipi 2015). Environmental risk is quickly extending to remote regions, resulting in lost income, forced relocation of people, and migration. Additionally, storms and floods disrupt the distribution of fish farms in some areas, which increases unemployment and decreases trade. According to the World Bank (2013), the effects of climate change have the potential to alter people's daily lives in tropical areas and disrupt fisheries, which provide a living for those in vulnerable situations. The paper makes the case that populations' susceptibility to climate change has an impact on fisheries resources and degrades ecosystems, impeding the creation of jobs and threatening food security in tropical and drought-prone areas. Therefore, Ababouch and Fipi (2015) suggest African countries to implement fish stock preservation strategies, which are essential for sustainable development, job creation, and food security. The capacity limitations in Africa should be used to strengthen international collaboration in marine ecology and sustainable fisheries, which are essential for enhancing global food security.

Due to resource overuse and resulting decreased fish yields, many developing nations are unable to fully appreciate the advantages of fish farming for enhancing rural livelihoods (FAO 2010). In order to prevent resource misuse, The World Fish Centre (2005) contends that a balance between exploitation and benefits must be maintained. To prevent the extinction of fish species and increase the harvest for fish farmers, precautionary measures and policies must be put in place (Chenje 2011).

Empirical review

Umar (2019) examined access to information among fish farmers in Adamawa State, Nigeria, using thirty (30) fish farmers purposely selected. Structured questionnaire was used in the generation of data and analysed using descriptive statistics. It was found that majority of the farmers were into fish farming for a number of years; and that their needs includes information about feeds, followed by credit facilities and information on marketing. Common information sources among the fish farmers included seminar/workshop and radio,



and the internet. They were mainly challenged by high cost of information access and language barrier. The study came to the conclusion that the information available to fish farmers in the study area was insufficient because the majority exclusively accessed information via radio and seminars/workshops. It is advised that information be formally packaged to cater to the demands of fish growers. In order to minimise the obstacles encountered in boosting production, information transmission should be reliable and appropriate.

Goswami, Noman, Shariful, and Huda (2020) assessed the degree to which fish farmers used fish farming techniques. The three unions of Hapania, Kirtipur, and Tilakpur in NaogaonSadarupazilla, Naogaon district, were the sites of this study. A sample of ninety-two (92) fish farmers was chosen at random from a list of 120 fish farmers. Information was gathered using straightforward questions that employed various suitable scales. The current study included multiple regression analysis and descriptive statistics. According to the study, the vast majority of fish farmers used medium-to-high levels of fish farming techniques. Fish farming practises used by the respondents were shown to be significantly positively influenced by their pond size, fish farming experience, cosmopolitanism, and extension contacts. According to the fish farmers' opinions, the biggest difficulty is a lack of government help, while the smallest one is high labour costs.

Fish producers in Adamawa State, Nigeria, had their management procedures and information requirements examined by Amurtiya, Polycarp, Sanda, and David (2021). The study used a multistage sampling methodology to gather first-hand information from 166 fish growers. The data was analysed using descriptive statistics, Likert Scale, and an Ordinary Least Square regression model. The study's conclusions showed that among farmers, the internet and acquaintances/friends were

the most popular information sources. In a similar vein, the study found that the majority of respondents had information needs for the majority of components of fish farming and that these information needs were influenced by the farmers' socioeconomic factors. Furthermore, the responders' restraints on fish production included high feed costs, a lack of/inadequacy of capital, a lack of accurate market information, and inadequate fish breeds. According to the study's findings, the government and other agricultural development actors need to urgently hire and encourage more agricultural extension agents in the region so that fish farmers can contact them for advice.

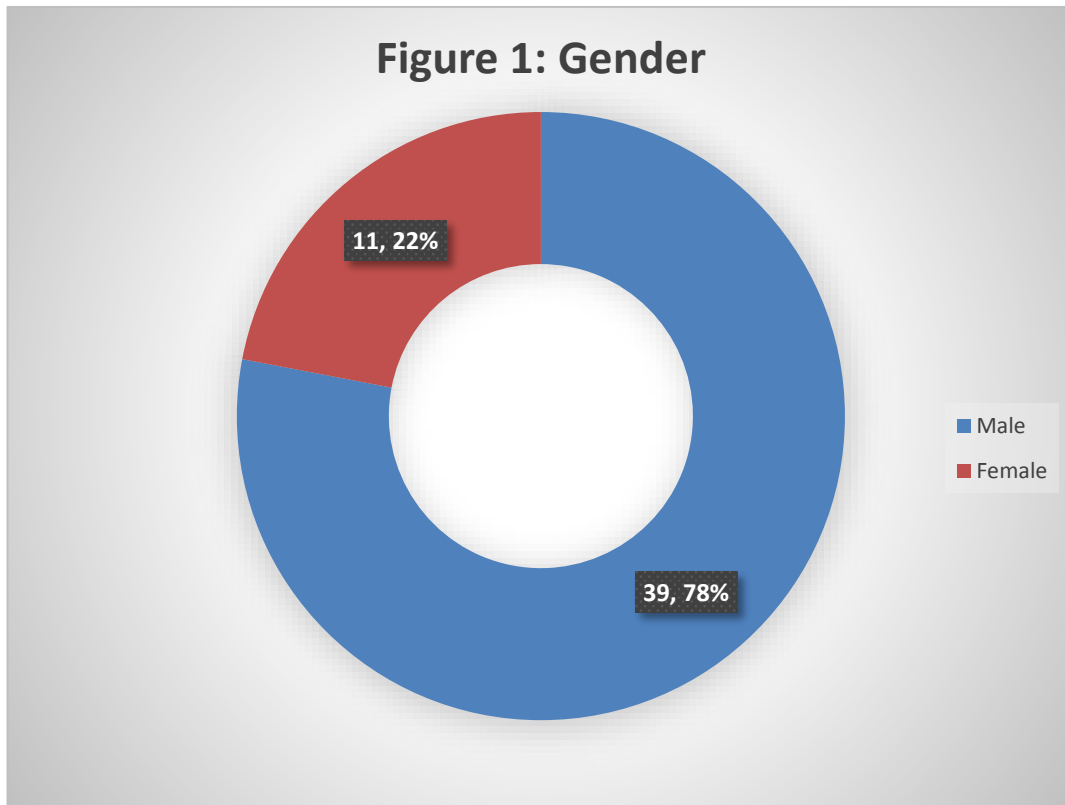
III. Methodology

Multistage sampling procedure comprising of purposive and simple random sampling technique was adopted in this study. The first stage was the purposive selection of the local government, Epe in Ogun State. In the second stage, five areas were randomly chosen from four locations in Epe. The third stage involved the random selection of ten fish farmers from each of the areas. A total of 50 respondents were therefore selected from the four areas of Epe. The selected fish farmers were given the questionnaires developed for this purpose. The structured questionnaire was constructed using the four-point Likert scale was the source of data collection. The aid of research assistants were sought in the distribution and retrieval of the questionnaires. Descriptive statistics was used to summarize and interpret data gathered on socio-economic characteristics.

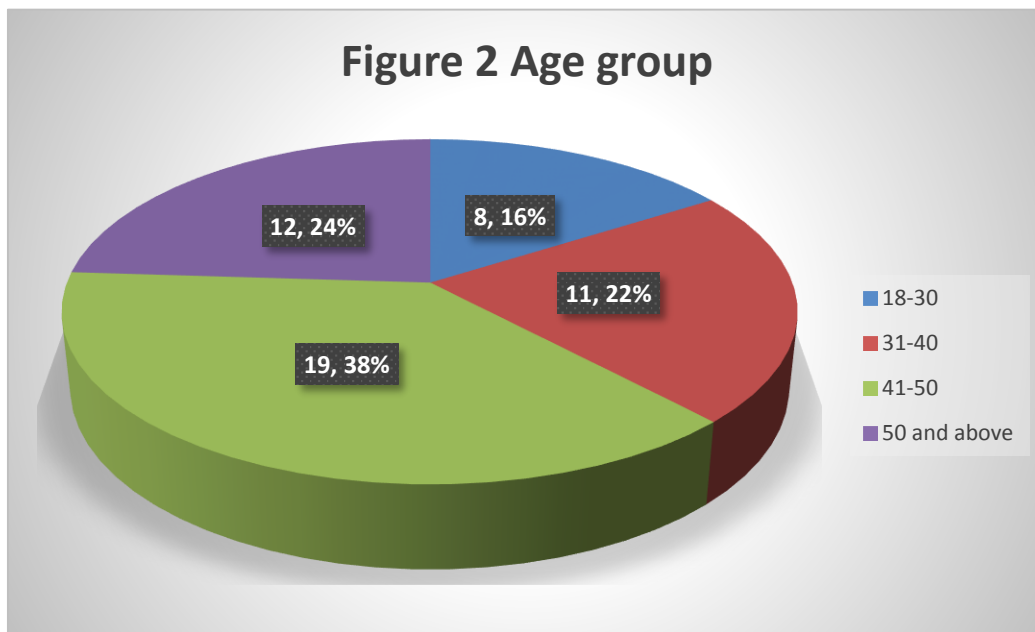
Data Presentation, analysis and discussion

All the questionnaire distributed was duly answered and returned and thus form the basis for this analysis as presented below.

Demographic information



Out of the 50 participants in the study, 39 were male and represented 78% of the total population whereas 11 were female representing 22% of the population. This implies that more males are into fish farming than female in the study area.



The ages of the participants ranges between 18-30years through 50years and above as indicated in figure two above. According to the result, 16% were youngster within the age 18-30years; 11% were individual



within the ages 31-40years. Those within the age group 41-50years constitute 38% of the study population whereas those within the age group 50and above made up 24% of the study. This implies that fish farming is not limited by age group, the young as well as the elderly can venture into fish farming and succeed.

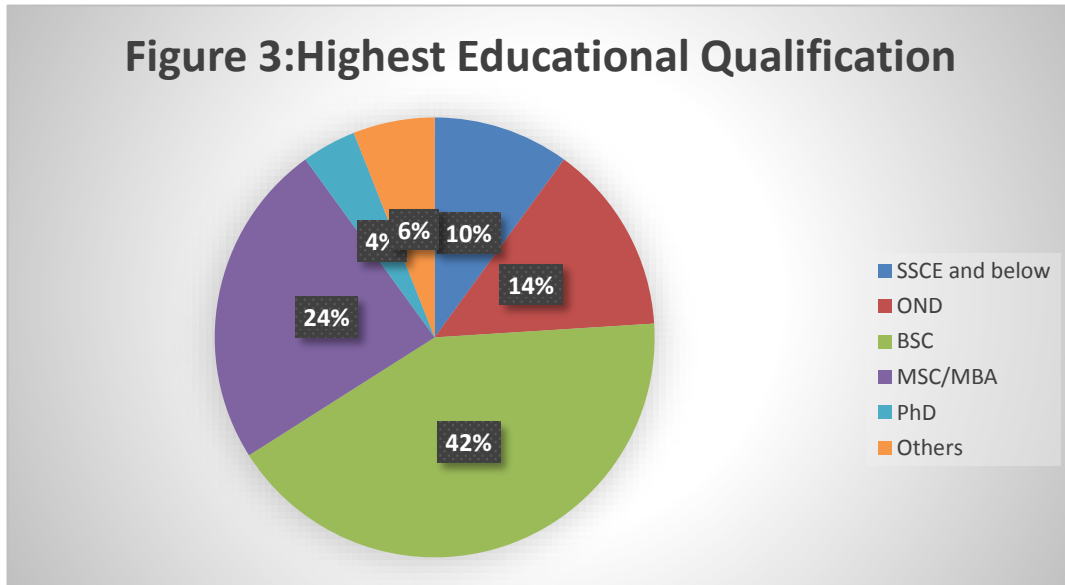
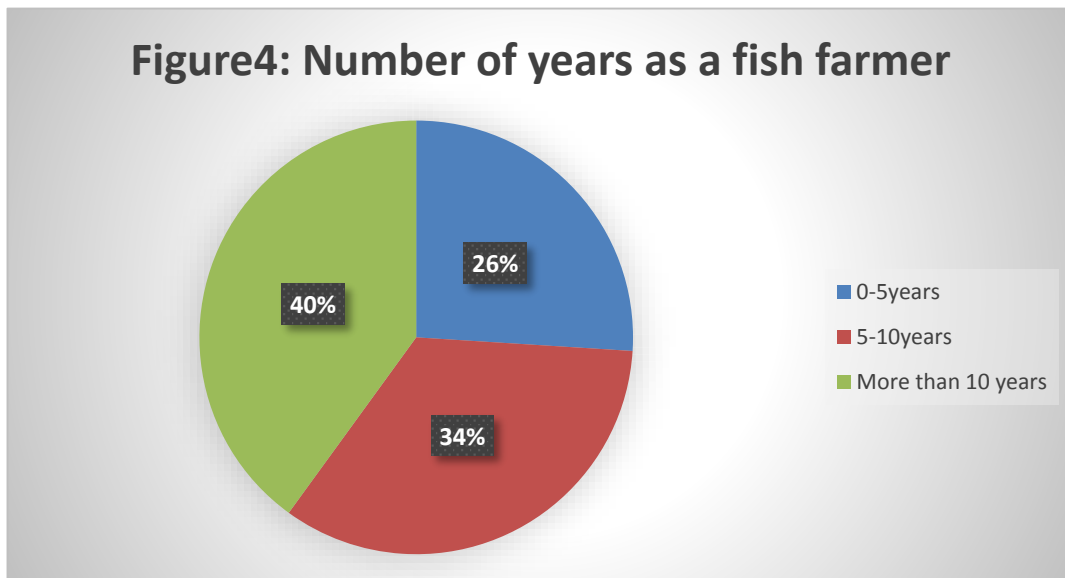


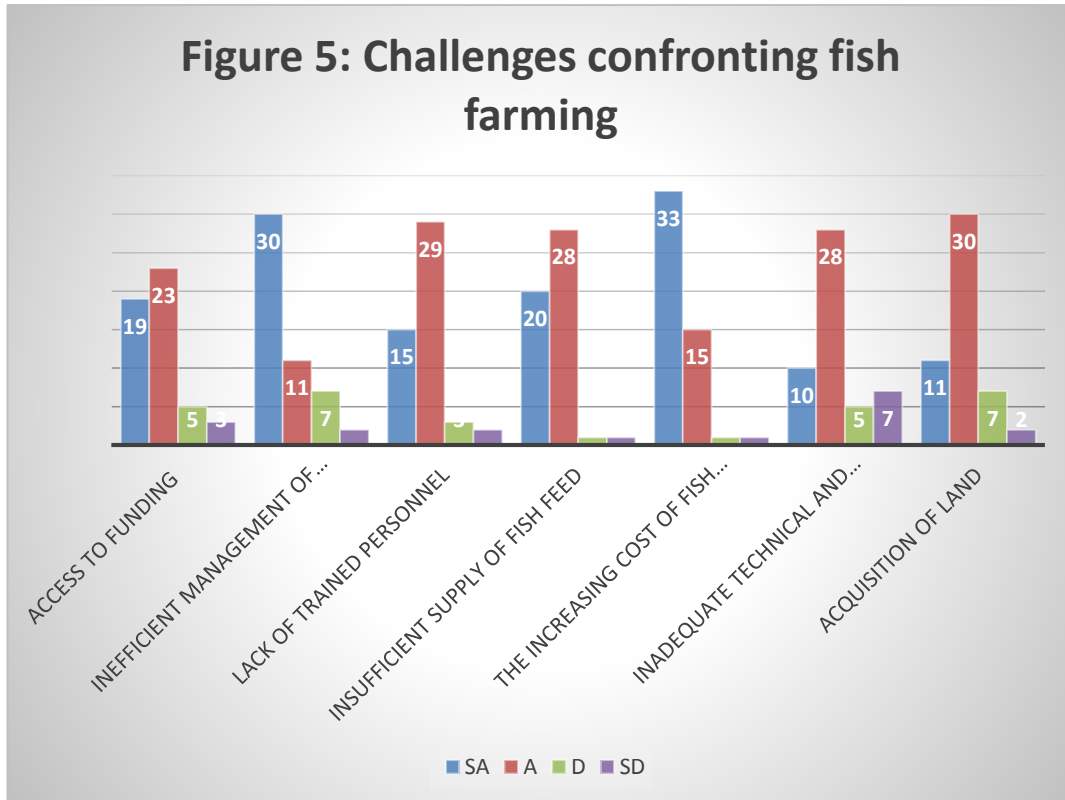
Figure three presents the different level of educational attainment of the participants. The result indicated that fish farmers can have as low as SSCE or as high as PhD degree. It is not limited to educational qualification as indicated in figure 3 above.



The figure above shows the duration in which the participants have different years of experience in fish farming. About 26% were new in the business and have below five years of experience. 34% have been into fish farming between 5 to 10 years. whereas 40% had been into fish farming for more than 10 years.



What are the challenges confronting fish farm management in Nigeria?

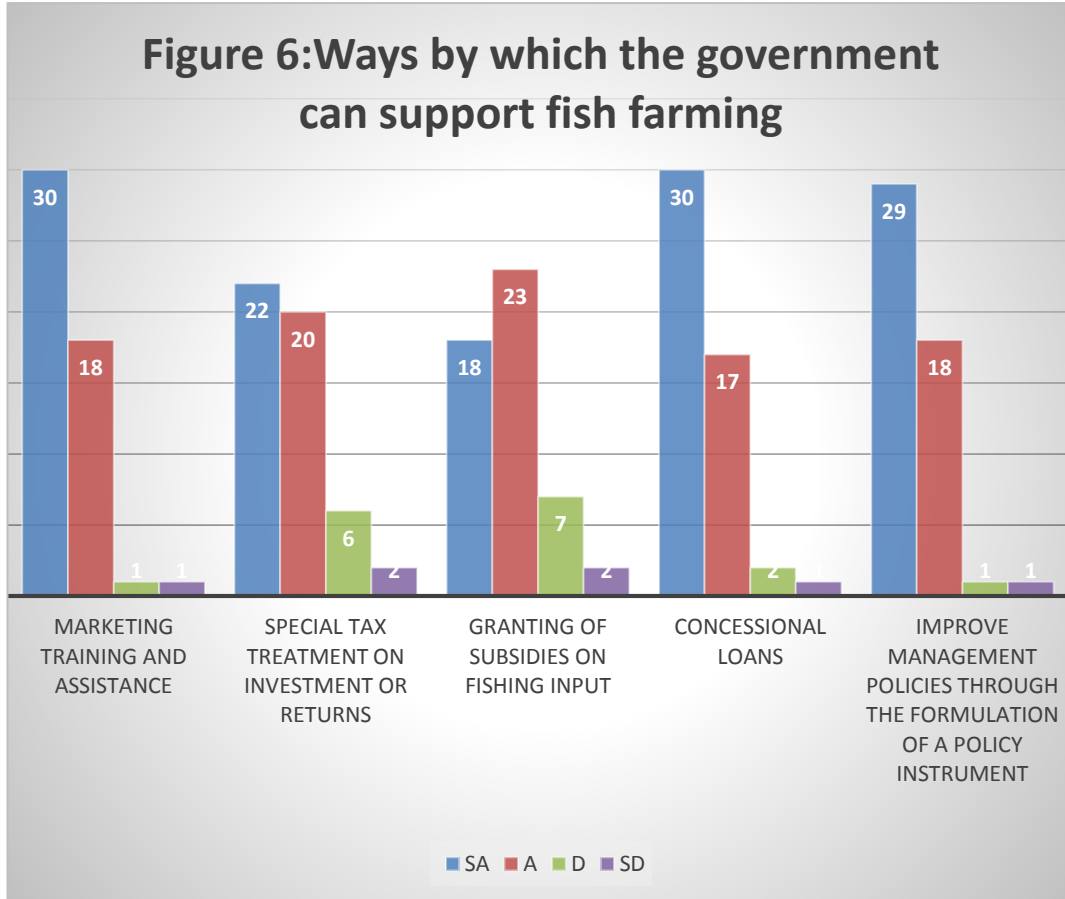


The first research question was formulated to investigate the challenges confronting fish farming in Nigeria generally, but specifically in Lagos state where the study took place. The result retrieved from the field survey indicated that most fish farmers lack access to funding which according to Umar (2019) is the primary challenge confronting fish farming. Umar (2019) pointed out that high cost of feed as the primary challenge facing fish farmers. Other challenges elicited from

this study include inefficient management of fish policy, lack of trained personnel, insufficient supply of fish feed, the increasing cost of fish feed, inadequate technical and commercial knowledge as well as acquisition of land for fish farming. This result is in support of an earlier study by Chinedu, Chika, and Oboroh (2014) and Adeoye, Akegbejo-Samsons, Omoniyi, and Dipeolu (2012) respectively.



What are the ways by which government supports fish farm management?

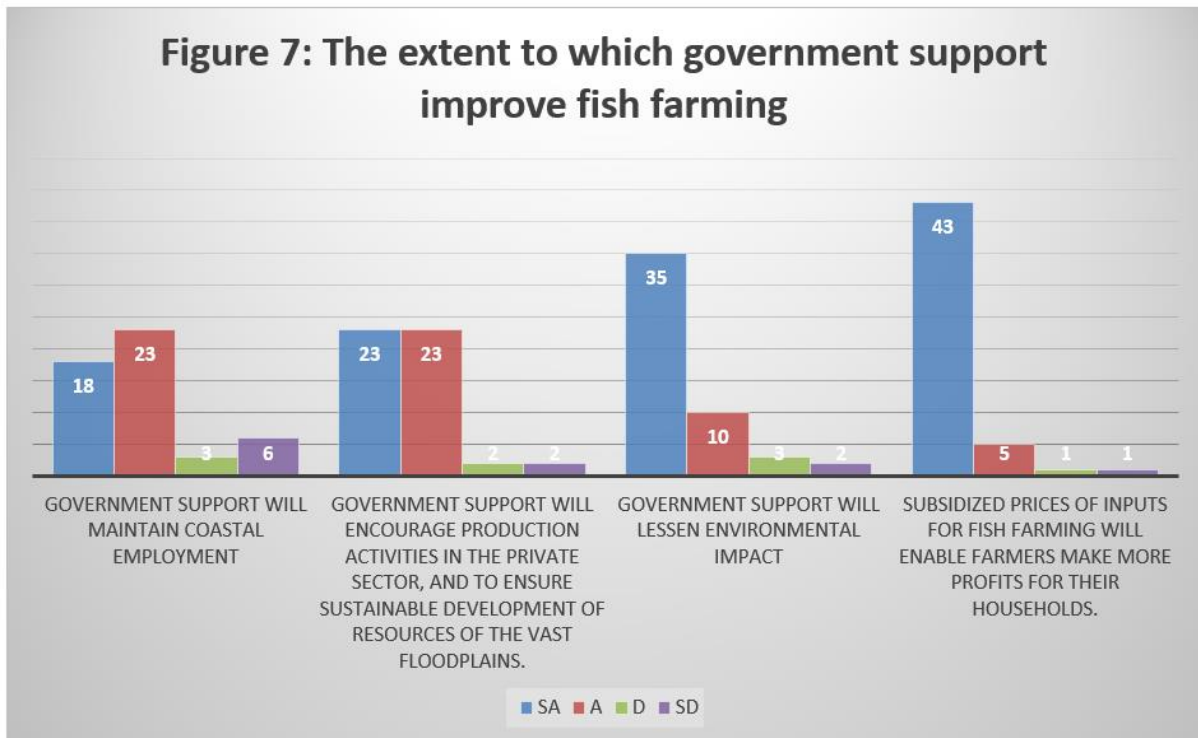


The second research question investigated ways by which government can supports fish farming. The result of this study suggested that the government can arrange marketing training and assistance to help fish farmers. They can offer special tax treatment on investment or returns which enable fish farmers to make more profit by paying less tax. The government can offer grant of

subsidies on fishing input, offers concessional loans, as well as improve management policies through the formulation of a policy instrument. Thus, the government of the country can do a lot to promote fish farming. This result is in consonance with the proposition made by some earlier studies such as OECD(2020) and Margoluis and Salafsky (1998) respectively.



To what extent will government support improve fish farm management?



The final research question investigated the extent to which government support will improve fish farming. The result of the study shows that government support will maintain coastal employment; encourage production activities in the private sector, and to ensure sustainable development of resources of the vast floodplains; will lessen environmental impact, as well as subsidized prices of inputs for fish farming which will enable farmers make more profits for their households. This implies that government support is highly needed for sustainability in fish farming in Nigeria. The study supports OECD (2020) proposition that governments regulatory roles are essential in fish farming.

IV. Conclusion and recommendations

The outcome of this study have clearly review that fishing farming's sustainability and profitability depends largely on government supports. This is because the farmers are confronted with several challenges and limitations such as high cost of feed, inadequate access to funding, inefficient management of fish policy, lack of trained personnel, insufficient supply of fish feed, the increasing cost of fish feed, inadequate technical and commercial knowledge as well as acquisition of

land for fish farming. This may be the reason why most fish farmers in Nigeria are subsistence farmers, focusing solely on catfish rearing. Meanwhile, there is prospects for large scale fish farming. For this reason, this study recommends government collaboration with fish farmers by providing relevant aids such as sources of loan, grant, free training, land and the rest in order to promote the sector.

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APPENDIX QUESTIONNAIRE ON IMPORTANCE OF GOVERNMENT SUPPORTS IN FISH FARM MANAGEMENT

Dear Respondent,

I am carrying out a study on “Importance of Government Supports in Fish Farm management”, and you have been chosen to be part of the study. This questionnaire is only for academic purpose; it will not be used for any other purpose not otherwise stated. Kindly select the response which applies to you. All information will be kept confidential

SECTION A

Please tick () where appropriate

1. Gender: Female () Male ()
2. Age group: 18-30 () 31-40 () 41-50 () 50 and above ()
3. Highest Educational Qualification: SSCE/GCE () OND/ND () B.SC. () M.SC/MBA () PHD () Others ()
4. Number of years as a fish farmer: 1-5 () , 5-10 () , more than 10 years ()

SECTION B:

Instructions: Please tick (√) as appropriate where



Key: Strongly agree (4), Agree (3), Disagree (2), and strongly disagree (1).

S/N	ITEMS	SA	A	D	SD
RQ1	What are the challenges confronting fish farm management in Nigeria?				
1	Access to funding				
2	Inefficient management of fishing policy				
3	Lack of trained personnel				
4	Insufficient supply of fish feed				
5	The increasing cost of fish feed				
6	Inadequate technical and commercial knowledge				
7	Acquisition of land				
RQ2	What are the ways by which government supports fish farm management?				
8	marketing training and assistance				
9	Special tax treatment on investment or returns				
10	Granting of subsidies on fishing input				
11	Concessional loans				
12	Improve management policies through the formulation of a policy instrument				
RQ3	To what extent will government support improve fish farm management?				
13	Government support will maintain coastal employment				
14	Government support will encourage production activities in the private sector, and to ensure sustainable development of resources of the vast floodplains.				
15	Government support will lessen environmental impact				
17	Subsidized prices of inputs for fish farming will enable farmers make more profits for their households.				