Constraints to Artisanal Fishing in Eastern Obolo Local Government Area of Akwa Ibom State, Nigeria

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ABSTRACT

The study investigated the constraints to artisanal fishing in Eastern Obolo LGA of Akwa Ibom State, Nigeria. Data were collected using structured questionnaire, administered on 90 fish farmers, who were selected through purposive random sampling technique from Educwink, Elekpon and Agan-asa fishing depots. Factor analysis was used to analyse the data, while the results were presented in table and charts. Socioeconomic (4.895), institutional/infrastructural (4.368), environmental (3.708), technological (3.063) and human (2.216) factors constrained artisanal fishing in the study. The socioeconomic constraints included lack of credit facilities (0.766), lack of capital (0.680), theft (0.620), high cost of transportation (0.581) and poor income (0.524), while the institutional/infrastructural constraints comprised market inaccessibility (0.695), lack of processing facilities (0.459) and lack of storage facilities (-0.432). Bad weather (0.578), oil spillage and pollution (0.536), and water plants infestation (0.473) were the environmental factors that constrained artisanal fishing. The technological constraints included poor boat-gear design (0.565) and use of obsolete fishing tools (-0.494), while poor maintenance of fishing equipment (0.642), overfishing (-0.471) and conflicts among fishermen (-0.461) characterized the human constraints. The study recommended policies that will enhance financial inclusion and increased access to credit facilities by artisanal fishermen. Also recommended, were policies that will enable the establishment of regulatory frameworks to artisanal fishing, and the provision of adequate infrastructural and processing facilities.

Keywords: Artisanal Fishing, Constraints, Educwink, Elekpon, Agan-asa

1.0   Introduction

Fishery is very important to world economy, as it plays vital role in the provision of food and nutrition, employment opportunities and source of income to millions of livelihoods. According to Food and Agriculture Organization, FAO (2022), about 600 million people were engaged primarily or partially in the sector in 2020 resulting in the production of 214 million tonnes of fish and other aquatic life, of which, 59.8 million tonnes were exported, amounting to USD 151 billion. Fishery involves the rearing and harvesting of fish and other aquatic animals, either in fresh (inland) or marine (salt) water. The fishery sub-sector is made up of three units: artisanal or small scale, industrial (large-scale) and the aquaculture components.

Nigeria is among the leading inland fish producing countries in Africa, with 0.35 million tonnes of produce in 2020, which accounted for about 3% of world production (FAO, 2022), and 3.2% of the country's agricultural GDP (National Bureau of Statistics [NBS], 2020; Oyaniran, 2020). Fish is the cheapest form of protein for the average Nigeria (Oritse, March 2021), and it is widely consumed across ethnic, cultural and religious divides. In the country, artisanal fishing is the most significant component compared to the industrial and aquaculture components, considering its contribution to total fish output and number of people engaged in it (Oladimeji *et al*., 2013a; Bonjoru *et al*., 2019). FAO (2006) and Federal Department of Fisheries, FDF (2007) statistics show that artisanal fishing accounts for about 90% of total fish production in the country.

Artisanal fishing is a small scale fishing activity that involves the use of simple, traditional and hand-operated tools and equipment such as hooks, gills, nets, baskets and wooden boats. It is usually labour-intensive, involving numerous scattered fishing units, with poor infrastructural facilities, and low capital investments, operational costs

and technology (Onuoha, 2009; Ekpo and Essien-Ibok, 2013; Bonjoru et al., 2019). Artisanal fishing entails the operation of small-scale canoes, as well as fishing operating in coastal areas, creeks, lagoons, inshore water and inland rivers (Oladimeji et al., 2013a; Bonjoru et al., 2019).

In Nigeria, the potentials of the fishery sub-sector is enormous because of the country's rich water and land resources. Nigeria has a total land area of 923,768km^2. The country's coastal fishery consists of a water area of 140,000km^2 and about 42,000km^2 continental shelf areas, with an 853km coastline and a 200 nautical miles Exclusive Economic Zone (ECZ), besides a 13,000km^2 of inland water bodies (FAO, 2007; Agbeja, 2010; Essien et al., 2018; Anyanwu et al., 2022). Within the ECZ, the country has exclusive rights to fish and harvest other natural resources. The coastal and brackish waters support artisanal fishing in creeks, estuaries and inshore areas, in waters of less than 40m depth, while industrial fishing operates beyond 5 nautical miles zone (Agbeja, 2010).

Artisanal fishing is undertaking primarily, in inland waters such as lakes, rivers, freshwaters, reservoirs, dams, and floodplains. However, the country is self-insufficient in fish production, despite its rich water endowments and ranking as the largest fish producer in Africa. According to Nigeria's Minister of Agriculture and Rural Development, the country has an annual deficit of 2.5 million metric tonnes of fish, as its annual consumption is about 3.6 million metric tonnes, while production is about 1.123 million metric tonnes (Oritse, March 2021). This implies that fish demand in the country outweighs both its production and importation. Its implications for food and nutrition security is enormous, and underscores the need for increased fish production and productivity in the country, especially, among artisanal fishing.

Increasing the output of fishermen requires evidence-based policies, on the constraints to artisanal fishing. This has resulted in several studies being undertaking to ascertain the constraints to artisanal fishing (Agbeja, 2010; Thomas, 2010; Ekpo and Essien-Ibok, 2013; Oladimeji *et al.*, 2013a; Alhaji *et al.*, 2015; Ifeanyi-Obi and Iremesuk, 2018; Essien *et al.*, 2018; Bonjoru *et al.*, 2019; George *et al.*, 2021a). However, studies that investigated constraints to artisanal fishing in Akwa Ibom State, particularly, Eastern Obolo LGA, are limited in literature (Ekpo and Essien-Ibok, 2013; Ifeanyi-Obi and Iremesuk, 2018; Essien *et al.*, 2018). This is notwithstanding the high level of fishing activities in the State.

According to Essen (1990) and Ekpo and Essien-Ibok (2013), Akwa Ibom is one of the six (6) maritime states in Nigeria with a coastline of 129km, total effective shelf area of 8,005km and large supplies of rivers, flood plains, estuaries, creeks, and mangrove swamps. Constraining factors to artisanal fishing are dynamic, local and site-specific nature, and as such, a proper understanding of them would increase evidence-based policies. This will result to increased fish output, and increased nutrition and food security in the country. Furthermore, most of those studies utilized descriptive statistics tools such as mean, frequency and percentages. Such tools produce litany of constraints that are not easily discernable, thereby making policy formulation taxing. Inferential statistical tools such as factor analysis, provides a robust analysis and reduction of the constraints into fewer and distinct units. This makes for easier policy formulation and problem solving.

2.0   Research Methodology

The study was carried out in Eastern Obolo Local Government Area (LGA) of Akwa Ibom State (Figure 1). Its headquarters is located at Okoroete town. The LGA is located at the fringe of the Niger Delta between Imo and Qua Iboe rivers' estuaries. Eastern Obolo LGA is located within latitudes 4°28' to 4°53' north of the Equator, and longitudes 7°50' to 7°55' east of the Greenwich Meridian. It has a landmass of 117,008km^2 with about 184km shoreline length and the Obolo River. Eastern Obolo shares boundary with Mkpat Enin LGA in the north, Onna LGA in the north east, Atlantic Ocean in the south, Ibeno LGA in the south east and Ikot Abasi LGA in the west. The population of Eastern Obolo LGA is put at 169,202 inhabitants. The LGA has large forest reserves such as mangrove, iroko, raffia, rubber, kolanut, coconut, peas, and mangos. The average annual temperature of the area is 26°C with a relative humidity of 91%. The dry and the rainy seasons are the two major seasons in the area.
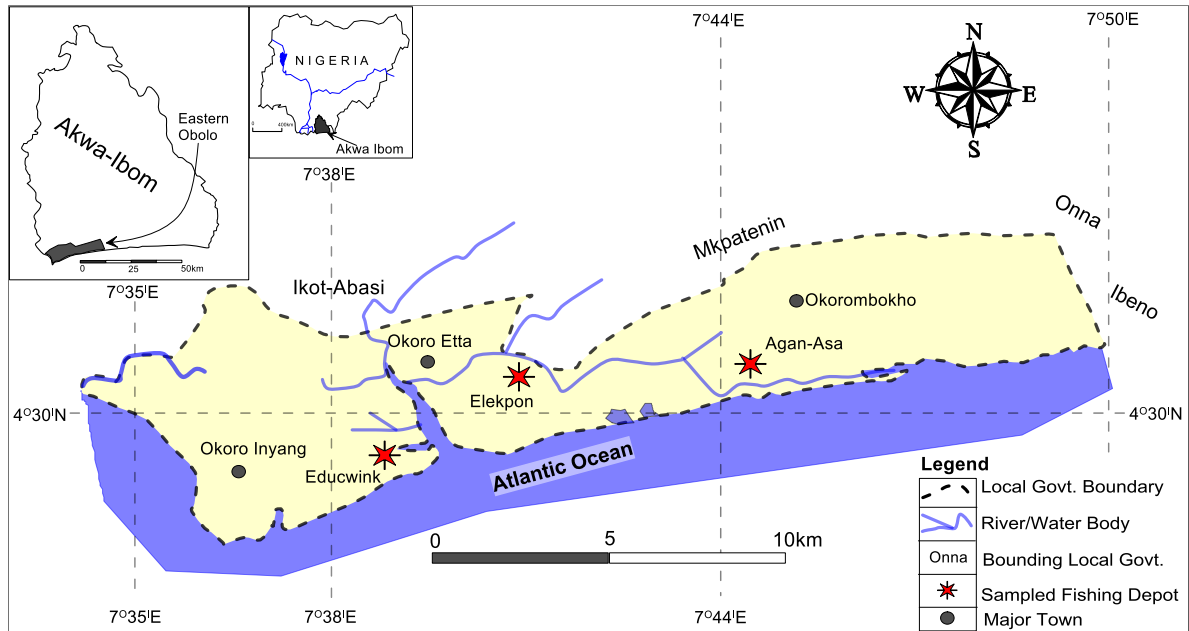
Figure 1: Map of Eastern Obolo LGA of Akwa Ibom State, Nigeria showing sampled fishing depots

Fishing is the predominant livelihood activity in Eastern Obolo LGA, especially, with its many rivers and tributaries being rich in seafood. About 65% of the populace are involved actively in fishing. It is usually carried out at fishing depots. There are about six (6) fishing depots in the area. They include Educwink, Elekpon, Agan-asa, Iwoachang, Upenekang and Mkpanak fishing depots. Also, a number of crops are cultivated in the area such as cassava, maize, plantain, yam, citrus, and pineapple. The area has rich deposits of mineral resources such as crude oil and natural gas, with onshore and offshore oil wells at Elekpon, Iko, Otunene, Emere-oke1, and Iko-Nta/Obianga.

Purposive random sampling technique was utilized in the study. Firstly, three (3) fishing depots were purposively selected for the study because of their high functionality. They included Educwink, Elekpon and Agan-asa fishing depots. Subsequently, from a list of fish farmers in the depots, 30 fish farmers were randomly selected from each of the fishing depots, to give a total of 90 respondents (fish farmers). Data were collected with the aid of a structured questionnaire and analysed using descriptive statistics and factor analysis. The factor analysis model is specified in equation 1 following Koutsoyiannis (1977) in Oti (2017).

$$Y_1 = a_{11}X_1 + a_{12}X_2 + a_{13}X_3 + *** + a_{1n}X_n$$

(1)

$$Y_2 = a_{21}X_1 + a_{22}X_2 + a_{23}X_3 + *** + a_{2n}X_n$$

$$Y_3 = a_{31}X_1 + a_{32}X_2 + a_{33}X_3 + *** + a_{3n}X_n$$

$$* = *$$
$$* = *$$
$$* = *$$

$$Y_n = a_{n1}X_1 + a_{n2}X_2 + a_{n3}X_3 + *** + a_{nn}X_n$$

Where:

$Y_1, Y_2, Y_3, ..., Y_n$ = observed constraining variables

$X_1, X_2, X_3, ..., X_n$ = unobserved underlying constraining factors

$a_1 - a_n$ = factor loadings or correlation coefficients

Key: Unobserved underlying factors with Eigenvalues > 1.00 were extracted, while observed variables with factor loadings $\geq \pm 0.40$ were used in naming the underlying factors.

3.0   Results and Discussion

Constraints of Artisanal Fishing

The constraints to artisanal fishing is shown in Table 1. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.683, which implied that the constraining variables in the model can be effectively grouped into a smaller number of underlying factors. This was reinforced by the Bartlett's Test of Sphericity (BTS). The test was highly significant (0.000), an indication that the variables in the model correlated with one another, but their correlation matrix was not an identity matrix of close to zero correlations.

Table 1: Result of principal component analysis on constraints to artisanal fish farming

Constraining Variables	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
			Components		
1. Lack of processing facilities	0.259	0.459*	-0.014	-0.113	0.422
2. Lack of storage facilities	-0.168	-0.432*	0.143	0.319	0.304
3. Market inaccessibility	0.313	0.695*	0.345	0.225	0.093
4. Bad weather	-0.057	0.165	0.578*	-0.240	-0.284
5. Water weeds infestation	0.296	-0.430	0.473*	0.433	0.144
6. Oil spillage and pollution	-0.034	0.426	0.536*	-0.345	0.004
7. Poor income	0.524*	0.277	-0.109	0.352	-0.158
8. Lack of capital	0.743*	0.103	-0.356	0.256	0.032
9. Lack of access to credit facilities	0.766*	0.256	0.096	-0.200	-0.122
10. High cost of labour	-0.120	0.404	-0.619	0.071	-0.054
11. High cost of transportation	-0.610*	-0.267	-0.002	-0.476	-0.054
12. Theft	-0.695*	-0.062	-0.356	-0.113	-0.072
13. Use of obsolete fishing tools	0.102	0.219	-0.196	-0.494*	0.180
14. Poor boat-gear design	0.238	0.265	0.148	0.565*	0.400
15. Overfishing	-0.196	-0.078	-0.076	0.303	-0.471*
16. Conflicts among fish farmers	0.300	-0.225	0.029	0.146	-0.461*
17. Poor maintenance of fishing equipment	-0.412	-0.037	0.096	0.059	0.642*
18. High cost of fishing equipment	0.341	0.244	-0.207	0.149	-0.002
19. Sea piracy	0.311	0.318	-0.450	0.165	0.412
20. Militants' attack	0.041	0.187	-0.402	0.486	-0.312
21. Use of obnoxious chemicals	0.235	0.219	-0.095	0.100	-0.162
22. Poor public relations	0.327	-0.377	-0.163	0.033	0.071
23. Inadequate extension services	0.258	-0.508	0.160	0.037	-0.260
24. Poor knowledge on current fishing skills	-0.145	0.049	0.770	-0.162	0.131
Eigenvalues (Total variance)	4.895	4.368	3.708	3.063	2.216
% of variance	20.40	18.20	15.45	12.76	9.23
Cumulative %	20.40	38.60	54.05	66.81	76.04
Kaiser-Meyer-Olkin measure of sampling adequacy			0.683		
Bartlett's test of sphericity	χ^2		833.700		
	Df		276		
	Sig		0.000		

Key: Factor 1 – Socioeconomic factor; Factor 2 – Institutional/Infrastructural factor; Factor 3 – Environmental factor; Factor 4 – Technological factor; Factor 5 – Human factor

* - factor loadings > 0.44; Source: Computed from field survey, 2021.

Further results revealed that five (5) factors constrained artisanal fishing in the study. They included socioeconomic (4.895), institutional/infrastructural (4.368), environmental (3.708), technological (3.063) and human (2.216) factors, and cumulatively, accounted for about 76% of the variations in the relationship between the constraining variables in the model.

Socioeconomic Factors Constraining Artisanal Fishing

The socioeconomic factors constraining artisanal fishing is shown in Figure 1. The socioeconomic factors were the most significant constraints to artisanal fishing, accounting for about 20% of the variations in the relationship between the constraining variables (Table 1).
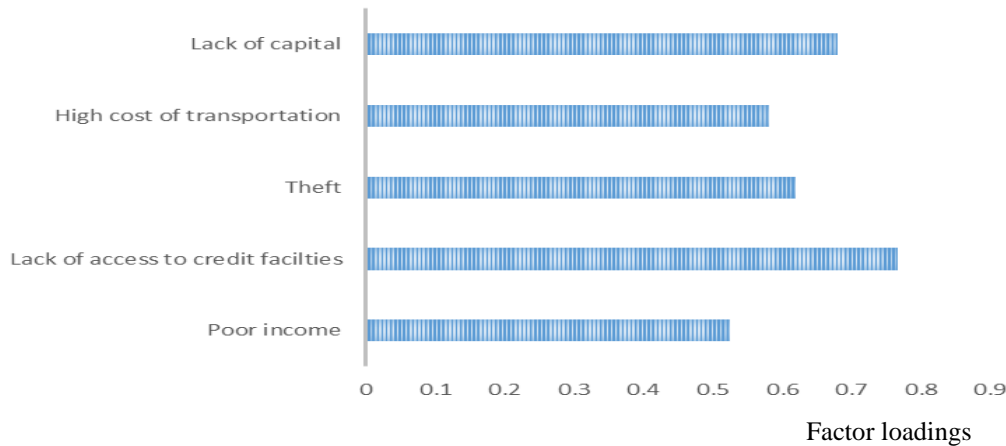

Figure 1: Socioeconomic constraints to artisanal fishing
Source: Computed from field survey, 2021.

These factors included lack of access to credit facilities (0.766), lack of capital (0.680), theft (0.620), high cost of transportation (0.581) and poor income (0.524). Lack of access to credit facilities was the most significant socioeconomic constraints of the fishermen.

The position of finance, capital and credit facilties, as the life-wire of every business activity cannot be over-emphasized. Librello and Catalla (1987) in Oladimeji *et al*. (2013b) noted that credit is an important policy instrument that facilitates technology transfer, stimulate productivity, create employment opportunities and increase income. Artisanal fishing, is highly capital intensive, and also, vulnerable to weather and time. Regrettably, artisanal fish farmers do not have the required capital to make meaningful investment in agriculture and also, to cope with the uncertainties thereof. Most fishermen are highly resource-poor. FAO (2023) report indicated that the incidence of poverty is highest among agricultural households. According to the report, most of the 2.1 billion poor people and other 767 million people living in extreme poverty, live in rural areas, most of whom are smallholder farm families, depending on agriculture for food, income and livelihood.

Also, the level of financial inclusion in the country is low, affecting mostly people in the informal sector such as artisanal fishermen. This limit their ability to access financial services, including credit facilities. For instance, financial institutions deliberately scheme out agricultural production in their lending priorities, due to inherent risks in the sector. As such, only small amounts of loans are appropriated to the sector, relative to other sectors of the economy, cumulating in continuous under-funding of the agricultural sector. This is worsened by deep bureaucratic bottlenecks associated such as demand for collateral, high interest rate, and delay in loan advancement, which make it difficult for fishermen to access the facilities. These conundrums have continued unabated, regardless that credit is an integral part of the policy of Nigeria's Federal Government to reduce poverty and stimulate rural development in the country. It therefore underscores the need for increased financial inclusion and access to credit facilities for fishermen.

These results are in line with the findings of Thomas (2010), which reported that artisanal fishing in Guma LGA of Benue State was constrained by lack of credit facilities (90.70%), low income from poor catch (78.30%) and pilfering of set nets/traps (26.70%). Also, lack of sufficient capital $(\bar{x} = 3.72)$, was the second most important constraining factors to artisanal fishing in selected communities of Delta State, Nigeria (Onemolease and Oriakhi, 2011). Similarly, Oladimeji *et al*. (2013b), identified inaccessibility of credit as the most serious constraint (19.20%) of artisanal fishermen in North Central Nigeria, while Aminu *et al*. (2017) study showed that inadequate finance and credit facilities was a serious constraint (87.50%) to artisanal fishing in Lower Ogun River Basin Areas of Lagos State, Nigeria.

Furthermore, inadequacy of funds and high cost of transportation were identified by Essien *et al.* (2018) as problems of artisanal fish marketing in Akwa Ibom State, Nigeria. These were reinforced by the findings of Ifeanyi-Obi (2018) in Eastern Obolo of the state. The study reported that artisanal fishermen were constrained by inadequate finance $(\bar{x} = 4.60)$. In the same light, Bonjoru *et al.* (2019), reported that the most important constraints to artisanal fishing in the Upper Benue River Basin, Nigeria were difficulties in accessing credit (32.10%) and transporting fresh catch (26.40%). The finding was similar to George *et al.* (2021a), where inaccessibility to credit facilities $(\bar{x} = 3.21)$ was identified as the most serious constraint to artisanal fishing in Some Local Government Areas of Rivers State, Nigeria.

Institutional/Infrastructural Factors Constraining Artisanal Fishing
The institutional/infrastructural factors constraining artisanal fishing is shown in Figure 2. These factors were the second most important constraints to the fishermen, accounting for about 18% of the variations in the relationship between the constraining variables (Table 1). These constraints were market inaccessibility (0.695), and lack of processing (0.459) and storage (-0.432) facilities.
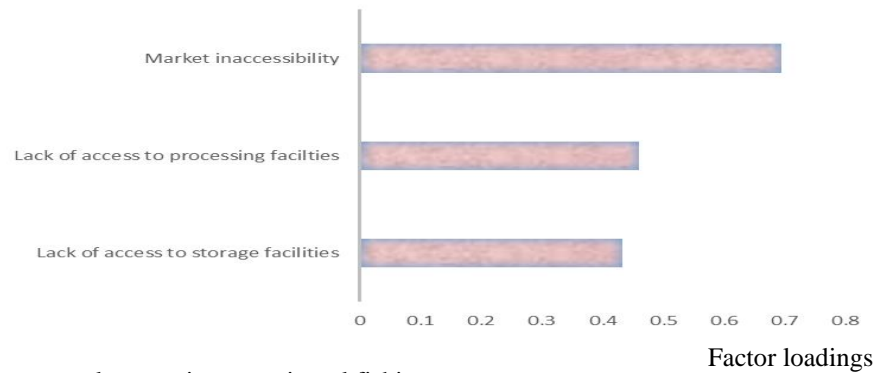

Figure 2: Infrastructural constraints to artisanal fishing
Source: Computed from field survey, 2021.

The key factor responsible for low productivity, low income, high unemployment and pervasive poverty in developing economies is because such economies depend primarily on primary production which is highly seasonal, with little or value-additions to the primary products. These produce are highly perishable and therefore, command low prices, even far lower than costs of production. That is the case in artisanal fishing, where there are no access to perfect markets, and adequate processing and storage facilities. Access to perfect markets implies that the fishermen know with certainty where, when and how to buy their fishing inputs to maximize utility, and also, where, when, and how to sell their fish in order to maximize profit. Maximizing profits for the fishermen besides knowledge of where, when and how to sell, entails access to efficient processing, storage and transportation systems and facilities. However, Oladimeji *et al.* (2013b) reported that modern storage facilities such as ware house, frozen equipment, and canning and processing machines are non-existence in the country. Regrettably, these facilities and systems are yet to be established. As a result, fishermen have created local means to preserve and process fish to reduce post-harvest losses. These include protecting catch fish from direct sun and rain, covering the fish with leaves and immediate traditional processing of the fishes. Smoking, sorting, drying and filleting are some of these traditional processing methods. Nonetheless, these methods are labourious, cumbersome and does not preserve fish for long time.
Under these circumstances, artisanal fishing is highly seasonal, as the fishermen sell off their catch immediately, often, at giveaway prices, not factoring the entire costs of production. This immensely constrain their productivity, wellbeing and livelihood. It also undermines Nigeria's quest for food and nutrition security, and self-sufficiency in fish production. The country spends huge chunk of its foreign exchange earnings and reserves, on the importation of fish and fish products. Consequently, the capacity of the country to invest in the economy becomes very limited, thereby worsening the bite of hunger, mal-nutrition, poverty, and insecurity. Reversing these trends, requires perfect market systems where fish and fish products are distinctly graded, and their prices and locations known with certainty. Also, establishing modern storage and processing facilities will be very apt.

The results are in agreement with Oladimeji *et al*. (2013b) and Bonjoru *et al*. (2019) reports that inadequate storage and processing facilities was the third most important constraint to artisanal fishing in North Central Nigeria and the Upper Benue River Basin Nigeria, respectively. Also, Essien et al. (2018) noted that the lack of market facilities such as water supplies, sanitation facilities, and storage facilities, constrains artisanal fishing in Akwa Ibom State.

Environmental Factors Constraining Artisanal Fishing
The environmental factors constraining artisanal fishing in the study were presented in Figure 3. These factors accounted for about 15% of the variations in the relationship between the constraining variables (Table 1). They include bad weather (0.578), oil spillage and pollution (0.536), and water plants infestation (0.473) were the factors that defined the environmental constraints of the fishermen.
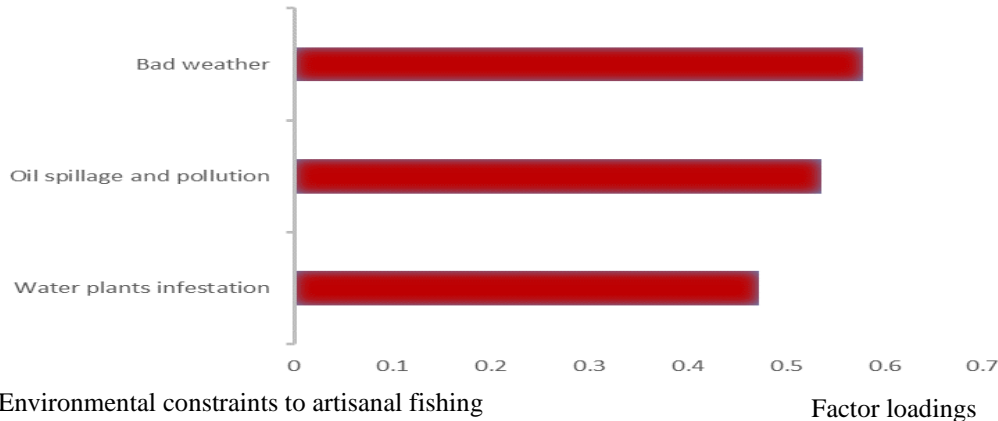

Figure 3: Environmental constraints to artisanal fishing   Factor loadings
Source: Computed from field survey, 2021.

Weather is a natural phenomenon, and human beings do not have control over it. Weather conditions such as temperature, rainfall, humidity, haze, storms, wind, currents/tides and cloud, affect artisanal fishing. Inclement weather conditions (e.g. heavy rains and wind storms, and cloudy atmosphere) make artificial fishing difficult. This greatly constrains artisanal fishing thereby hindering their livelihood outcomes. These finding is in agreement with Oladimeji *et al*. (2013b), Bonjoru *et al*. (2019) and George *et al.* (2021a) who reported limited challenges arising from unfavourable climatic conditions. Also, oil spillage and pollution destroys aquatic life and makes the waters unsafe for human usage. In this light, increased oil spillage and water pollution endangers the fortunes of the fishermen, who depend primarily on fishing for their livelihood. The result is similar to those of Ifeanyi-Obi (2018) and George *et al.* (2021a).

Similarly, water plants infestation, particularly, water hyacinth (*Eichhornia crassipes*), is another factor that constrains artisanal fishing. The hyacinths is an aquatic macrophyte and is often adjudged as world's most troublesome weeds due to its high rate of multiplication (Ndimele, 2011; Oladimeji *et al*., 2013b). They grow on and cover the water bodies preventing adequate gaseous (oxygen and carbon [iv] oxide) exchange between the water and the atmosphere. This greatly affects the aquatic life. Also, the growth of these hyacinths hinders movements on water, as navigation and transportation becomes taxing, thereby constraining artisanal fishing. This is evident as fishing tools and equipment are lost, and fish catches reduce, especially, those of tilapia, mud fish and river reef, while the costs of fishing expedition increases due to additional labour requirements for the removal of hyacinths. Oladimeji *et al*. (2013b), Bonjoru *et al*. (2019) and George *et al.* (2021a) also reported the constraining role of water plants in their studies.

Technological Factors Constraining Artisanal Fishing
Figure 4 shows that use of poor boat-gear design (0.565) and obsolete fishing technologies (-0.494) were the factors that defined the technological constraints of the fishermen, and accounted for about 13% of the variations in the relationship between the constraining variables (Table 1).
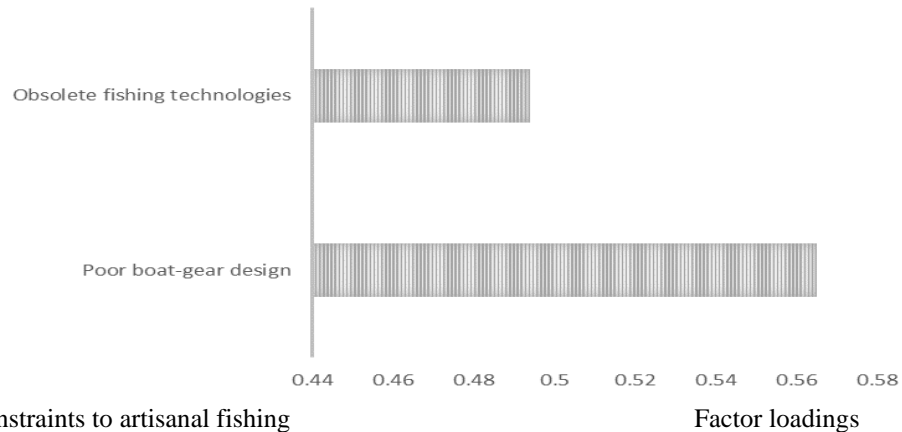
Figure 4: Technological constraints to artisanal fishing   Factor loadings
Source: Computed from field survey, 2021.

Boats are the vehicles for water transportation (movement). For boats with engine, the design of their gears are instrumental to their balance, speed and length of time spent on water. When the design of the gears are poor, it will affect the ability of the boat to navigate on water, easily. Also, most gears with poor designs are obsolete, as most times, it is difficult to correct them. The use of obsolete fishing technologies such as hooks and nets, and poorly designed boat engines are highly labourious, yielding less to productivity. These pose serious threats to artisanal fishing, thereby constraining its activities. The result is similar to George *et al.* (2021a) which identified poor boat-gear design as an important constraint to artisanal fishing in Some LGAs of Rivers State, Nigeria, but was not same for Bonjoru *et al.* (2019).

Human Factors Constraining Artisanal Fishing
The human factors accounted for about 9% of the variations in the relationship between the constraining variables (Table 1). These factors as shown in Figure 5 included, poor maintenance of fishing equipment (0.642), overfishing (-0.471) and conflicts among fishermen (-0.461).
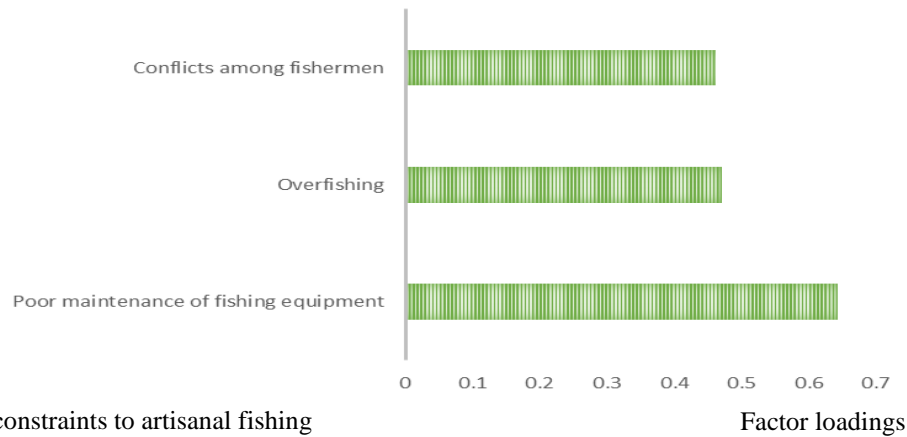

Figure 5: Human constraints to artisanal fishing   Factor loadings
Source: Computed from field survey, 2021.

Poor maintenance of fishing equipment was the most important human factor constraining artisanal fishing in the study. Fishing equipment just like other tools and machinery, undergo wears and tears, and as such, require regular care and maintenance for optimal production. When fishing equipment such as nets, boats, hooks and engines are not well maintained, they perform sub-optimally, thereby constraining the production and productivity of the fishermen. Unfortunately, Nigeria is characterized with poor maintenance culture. This may have been the case of the fishermen, resulting in their non-maintenance of their fishing tools. Also, maintaining fishing equipment has financial and technical implications, which may be beyond the means of the fishermen. A proper education and

reorientation of the mind sets of the fishermen, as well as increasing their financial and technical capacity is therefore necessary, to stem the tide, and increase their productivity.

Furthermore, artisanal fishermen in the study were constrained by their overfishing activities. Overfishing involves the harvesting of fish beyond their natural reproductive capacity. Not all sizes of fish should be harvested. Also, not all species of fish are to be harvested. There should be controlled harvesting of fish species that are facing extinction, to ensure they are preserved. When overfishing occurs, there will be little or no fishes available for the fishermen to harvest. As such, their production and productivity are severely affected.

Conflicts among the fishermen was another human factor that constrained artisanal fishing in the study. Such conflicts could arise from demands for rights of fishing way, theft/pilfering and envy/jealousy. This results to lack of cooperation, thereby enthroning stiff and unhealthy competition and rivalry among them. Under these circumstances, their production levels and productivity are constrained. This findings reinforces the study of Ifeanyi-Obi and Iremesuk (2018).

Conclusion and Recommendations

The study investigated the constraints to artisanal fishing in Eastern Obolo Local Government Area of Akwa Ibom State, Nigeria. The factors constraining artisanal fishing were socioeconomic, institutional/infrastructural, environmental, technological and human in nature. Lack of access to credit facilities, lack of capital, theft, high cost of transportation and poor income were the socioeconomic constraints. The institutional constraints consisted of market inaccessibility, and lack of processing and storage facilities, while bad weather, oil spillage and pollution, and water plants infestation made up the environmental constraints. Poor gear-design engines and obsolete fishing equipment were the technological constraints of the fishermen, while their human constraints included poor maintenance of fishing equipment, overfishing, and conflicts.

The study recommends policies that enhance financial inclusion and increased credit accessibility for artisanal fishermen. Also, such policies should ensure increased provision of institutional and infrastructural facilities, introduction of regulatory frameworks to artisanal fishing, and adequate training and education of fishermen on the use and maintenance of modern fishing equipment.

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