

Contractual Arrangements in Artisanal Fishing in Niger Delta Region of Nigeria

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Abstract

One and the most important determinants of catch level in seining artisanal fishing is availability and cost of credit. Consequently, fishermen find solace in contract fishing and modern theory of contract has been proven to be convenient because it can rationalise “ex-post” contract arrangement so that no party is better or worse off. This study set out to examine, characterise and document the nature, process, degree, strength and weaknesses of the different contracting models in the study area. This study found that indeed, contract fishing is a common feature in the fishing communities of Niger Delta region. A total of four basic types of artisanal contract models were indentified and characterized. There are: Contributory Fishing Input Financing (Co-FIF), Sole Fishing Input Financing (So-FIF), Support Fishing Input Financing (Su-FIF) and Hire Purchase Fishing Input Financing (Hi-PuFIF). In all cases, the different contracts arrangements were outcomes of the fishers’ need to adjust to the different production and market conditions surrounding the artisanal fishery sector. It appears to be a promising institutional arrangement to facilitate fishermen access to an array of fishing inputs which they are typically excluded and it enhances catch level of the poor fishers.

Keywords: Contract Fishing. Contributory Fishing Input Financing (Co-FIF), Sole Fishing Input Financing (So-FIF), Support Fishing Input Financing (Su-FIF), Hire Purchase Fishing Input Financing (Hi-PuFIF), Artisanal Fishing. Niger Delta Nigeria

1. Introduction

The growing world commercialization and liberalization consequence upon globalization is fast changing the peasantry status of our developing economy. The fishery sub-sector which the federal government of Nigeria only became more interested after the 1973-1974 drought that reduced cattle herds in the country (Marine Fishery Review, 1982) is not an exception. It offers employment to well over 10 million Nigerians, contributes 5.4% to the total GDP, caters for 85% of domestic production and provides a rich source of protein to the teeming Nigerian population (Federal Department of

Fisheries, 2005). These empirical contributions need not only be sustained but the pace needs to be stabilized.

Sustainable artisanal fishing involves a system of natural fishery harvest that can maintain high levels of production with minimal environmental impact whereas stability entails the maintenance of high level of productivity over an indefinite period of time. To achieve this, the challenge to surmount is effective and efficient linkage of the resource poor fishermen to the source of accessible and affordable investible capital. This is because availability and cost of credit has been adduced as the bane against optimal production in artisanal fishery (FAO, 2005, Kareem, Idowu, Williams, Ayinde, Bashir, (2013), Carnaje, (2007), Udo and Nyienakuna, (2008)) etc. This (private sector - resource poor fishermen) linkage taps diverse sources of capital from the non-fishery sector and channels it to the fishery sector and this is the most important entrepreneurial function of the private sector (Carnaje, 2007).

The private sector linkage to the resource poor fishermen is in the form of contract. Agricultural contract popularity in recent times is a fall out of the developing economies attempt to revive their export market in the wake of the Structural Adjustment Programme (austerity measures') introduced by the International Monetary Fund's (IMF). Little and Watts (1994) opined that, the World Bank promotion of contract farming was a way of creating dynamic partnerships between private capital and small holders, which would lead to technology transfer, innovation and market growth. Though, Grosh (1994) reported that agricultural contracts were fast spreading in Africa, there were found with different variances. The range varied from verbal "handshake" agreements, seasonal contracts, and growing programmes to formal out-growing schemes.

Contract fishing which entails advancement of credit in the form of fishing inputs or cash to the artisanal fishermen and in turn buying the caught fish is fast growing in the coastland of the Niger delta of Nigeria. It offers opportunities for the fishermen to get the missing or needed fishing gadgets/cash as well as for the fish vendors to get the desired quantity of fish. It is resource-providing and exists in both formal and informal forms, though the informal arrangement is more popular, widely and readily accepted. The informal form exists in diverse forms with participating fishers designing appropriate coping mechanisms. The nature and challenge per model differs equally. In fact, it is the range of drivers in pursuit of different goals or objectives that initiate each form of contractual agreement.

Empirical works on contract farming exist. Specific documentations on artisanal contract fishing are but few. They include, fishery contractual arrangements by W.E. Tilley Limited and local fish buying agents in the fish Trade of Kenya (Howe, 2003) and, artisanal and aquaculture fisheries contract in the Philippines (Carnaje, 2007), artisanal fishing contractual arrangements in Akwa Ibom State, Nigeria (Umoh and Frank, 2011). This work differs in scope and magnitude and presents the fishing models in details with weaknesses and strengths.

1.1 Objectives

This study is aimed at identifying and characterizing the various contractual arrangements in the artisanal fishery sector in the South - South parts of Nigeria. Specifically, the objectives are to: i) identify the various contractual arrangements in the study area. ii) Characterize the nature of the identified contractual arrangements. iii) Draw conclusions on the potentialities of each of the identified contractual arrangements in the study area.

1.2 Theoretical Framework

This study will utilise the Agency theory in assessing the issues of fishermen contract. The choice of Agency theory is informed by the fact that assessment of "party's interest in an asset" is the principle behind this research work. The Principal – Agent relationship, apart from being the oldest form of social/economic interaction, deals with risk transfer (insurance) and incentive alignment which raises two problems (adverse selection and moral hazard) and when this two are viewed in respect to capital

ownership right, it makes the agent compensation dependent on their performance. Every theory of firm is an abstraction of the real world business phenomenon, designed to address sets of characteristics and behaviours. Before now, economists had viewed and focused exclusively on the behaviour of the market with the Adams Smith “invisible hand” as a reference point. However, when it became clear that perfect competition was not a “mantra” in the study of firm’s theory, contract as a sandwiched theory between direct production and spot market purchase mechanism was recognised and accommodated. This study is based on the agency theory of contract.

Agency theory is a branch of financial economic which looks at conflict of interest between people with different interest in an asset(s). Adams Smith’s “Wealth of Nation” of 1776 is said to be the driving force to this concept. Smith stated that if an economic firm is controlled by a group of person or persons other than the firm’s owner, the objectives of the owners are more likely to be diluted than ideally fulfilled. However, this concept became magnified by Adolf and Means (1932) and reshaped by Jensen and Meckling in the 1960s and 1970s in the context of risk-sharing. The fine-tuning of these work by Jensen and Meckling (1976) culminated to what is called “the Modern Agency theory”.

The primary reasons for contracting in agency literature are risk transfer (insurance) and incentive alignment. Basically, agency theory explains how best to organize relationships in which one party (the principal) determines the work, which another party (the agent) undertakes (Eisenhardt, 1989). The fundamental feature of this relationship is a contract under which the principal engages the agent to perform some service on his behalf with the delegation of some decision making authority from the principal to agent. The starting point is the different objectives for both the principal and the agent. The principal tries to devise a contract that will most maximise his utility given the incentives he dangles for the agent (incentives constraints). The agent equally is not obliged to accepting given a better option (participation constraints). Thus, the real problem is choosing a contract that will maximize the objective function of the principal subject to the purported incentives and participation constraints. Given the principal’s bargain, the agents would have a “reservation utility”. This implies that, the agent’s utility for accepting or rejecting the contract is the same.

Jensen and Meckling, (1976) concluded that, because both parties are utility maximizers, the agent might not always act in the best interest of the principal. Based on these relationships and assumptions, two principal problems evolved: (a) adverse selection as the agent may exaggerate on his skills and experiences. (b) Moral hazard as the principal cannot determine the effort of the agent. The problem of adverse selection arises because of imperfect observation of the agent’s abilities and intensions before the contract is agreed upon i.e. the agent may be tempted to exaggerate his competence, ability etc. and the principal cannot ascertain if the agent accurately represent his ability to perform the contracted work whereas moral hazard problem arises because the principal has imperfect information about the agent’s action i.e. the principal cannot determine the effort level employed by the agent and cannot be sure if the agent has put forth maximal effort (Eisenhardt, 1989). This problem suggests that the principal will have to re-strategize in order to limit the agent’s diverging behaviour. The first suggestion is that, the principal will have to expend additional resources to monitor the agent. This invariably suggests that “fixed remuneration contract” is not always the optimal solution to organize the principal-agent relationship (Jensen and Meckling, 1976). A fixed wage might create an incentive for the agent to shirk since his compensation will be the same regardless of the quality of his work or his effort level (Eisenhardt, 1989). The theory opines that, when agents have the opportunity to shirk, it is often more efficient to replace “fixed wage” with compensation based on “residual claimancy” on the profit of the firm (Alchian and Demsetz, 1972). This is so because the provision of ownership rights reduces the incentive for agent’s adverse selection and moral hazard since it makes the compensation dependent on their performance (Jensen, 1983). Contract itself, though a function of several factors has the desire to participate, rooted in the principal/agents and task’s characteristics amongst others (Akerberg and Botticini, 2002). Equally, discharge of contract may occur in a number of ways but, naturally, “discharge by party’s performance” is the first thought because “performance”

is the purpose of the contract. This makes the agency theory the most relevant to our study because the study is interested in the various models of contract fishing.

2. Methodology

2.1 Study Area

The Niger Delta with the largest wetlands in Africa (Onosode 2003) is made up of nine states - Akwa Ibom, Abia, Bayelsa, Cross River, Delta, Edo, Imo, Ondo and Rivers States. Fresh water swamp forest alone is about 11700km², lowland equatorial moon soon is about 7400km², brackish water is about 5400 km² and sand barrier land is about 11400 km² (Onosode, 2003). Presently, it has the most diverse, sensitive and fragile ecosystem in Nigeria with complex bio-diversity and other biological and ecological features (Onosode, 2003). It has a population of about 30 million people with over 20 different ethnic groups, including those of Yoruba, Edo, Igbo, Izon (Ijaw), Ibibio and Cross River stock (Constitutional Rights Project (CRP) 1999). However, the major ethnic groups in the region are the Ogoni, Urhobo and Itsekiri, the Ijaws. Major occupation includes: fishing, hunting, trading, farming and salt-making, the secondary occupation include gin distillation, textiles making, boat carving while tertiary occupation include trade, commerce and transportation etc. The three distinct ecological zones in this region are the thick mangrove forests bordering the sandy coastal areas that in turn border the Atlantic Coast, the fresh-water swamps, and the dry land (CRP, 1999). With over 800 oil-bearing communities, the Niger Delta is synonymous with government definition of Oil mineral Producing Areas Development commission (OMPADEC) and oil exploration by multinationals companies is the major production activity in the area.

2.2 Sampling Procedures

Multi-stage sampling technique was used in selecting samples for the study. The states in the Niger delta are: Akwa Ibom, Abia, Bayelsa, Cross River, Delta, Edo, Imo, Ondo and Rivers States. First, six coastal states were purposively selected. The selection was based on the commercial fishing status of the states and the intensity of fishing activities. Information on the fishing intensity in the States were obtained from and Moses (1990), FAO (2005) and reconnaissance survey. The states are; Akwa Ibom, Bayelsa, Cross River, Delta, Edo and Rivers States. Secondly, sample frame of fishing settlements in each selected state was collected from the Fishery Department of each State Ministry of Agriculture. From the sample frame, five (5) fishing settlements were randomly selected from each selected coastal state. The last stage of sampling was the random selection of ten fishermen each from the selected five fishing settlements. A total of three hundred (300) respondents were sampled. Three hundred (300) questionnaires were administered, out of which 295 were retrieved, giving a response rate of 98.3%.

2.3 Data Collection Procedures

Administration of a set of structured questionnaire: The structured questionnaire was used to obtain information about the thoughts, feelings, attitudes, belief, values, perception, personality and behavioural intention of the research participants. Close and open ended questions were asked bordering on their socio-demographic characteristics, institutional and environmental factors. The questionnaires were pre-tested for validation of the construct and contents. It was later administered by trained and resident enumerators who are familiar with the language and customs in the study areas. The fishermen were interviewed and the responses filled into the questionnaires. Other data collection processes were: Focus Group Discussions, Key informants Interview, Observation, Analysis of Grey Records and Follow-up-Interviews/Discussions.

3. Results and Discussions

3.1 Contract Fishing Models in Akwa Ibom State

This study found that indeed, contract fishing is a common feature in the fishing communities of the Niger Delta. From the fishing communities studied, a total of four basic types of artisanal contract fishing models were indentified and characterized. There are: Contributory Fishing Input Financing (Co-FIF), Sole Fishing Input Financing (So-FIF), Support Fishing Input Financing (Su-FIF) and Hire Purchase Fishing Input Financing (Hi-PuFIF).

3.1.1 Contributory Fishing Inputs Financing Model (Co-FIF)

This is a contractual fishing arrangement whereby two fishermen having different fishing inputs liaise with each other to pool their fishing inputs together for mutual fishing business. Under the contributory fishing inputs contract model, the fisherman who owns the boat and another who owns the other fishing gears co-join for fishing business. The boat owner may decide to hire out the boat for a stipulated amount or join in the actual fishing. If he goes with the net-owner or sent a representative, the sharing ratio is 1:1 after deduction of expenses, but if otherwise, the boat owner will only be paid an agreed rent for the boat.

Participants: This contractual arrangement is mostly associated with beginners who have just finished fishing apprenticeship, boat mishap fishermen or fishermen with insufficient fishing inputs.

Common Features: The common features are that the fishing inputs are separately owned, output /income is shared at 1:1 ratio after deductions of all operational incurred expenses and there is no formal agreement or guarantor.

Contractual Obligations: The contractual obligation of each fisherman in the model is to release the affordable input(s) in his possession (boat or fishing gears) and labour to complement the other in the daily fishing business. The caught fishes are sold as agreed by the parties.

Discussion: Contributory Fishing Input Financing (CoFIF) participants are set of artisanal fishermen who cannot afford complete fishing gears. The study reveals that, for starters in the artisanal fishing profession, the first input they go for is the fishing net and paddle. This is because it is easy to rent a boat for fishing than to rent fishing net. Field survey reveals that rentage of a hand–dugged canoe goes for an average of three thousand (₦5,000 – ₦8,000) Naira per week depending on the size and location. Thus, it is not surprising to have fishermen who own fishing gears but have no canoe.

Strengths: The strengths of this model stems from the fact that, there is no formal agreement or guarantor in this contractual model except for migrant fishermen (who specialises in fishing of *ecomog* and comes around the peak fishing season between June –July of every year). Secondly, the 1:1 sharing arrangement induces the fishermen to produce at optimal level of output where the marginal product of the fishermen’s effort equals the marginal cost of applying that effort. This is confirmed by Marshallian theory of share contract which posits that; contract based on efficient incentive system (i.e. contract holder being the residual claimant to the output) will lead to pareto-efficient allocation of labour and would rationally increase work effort (Garret and Xu, 2003). A common explanation of this sharing phenomenon is that it expresses a relationship of fairness between boat owner and net owner, and fairness is of fundamental importance in traditional cultures where market psychology is weak (Young and Burke, 2000)

Weaknesses: Default in this contract model is very minimal or rare, even with the migrant fishermen. This is not unconnected with the vertical social relationship that exists between the boat owners and the net owners. According to Carnaje (2007), this system of personalized vertical reciprocity approximate the brotherly relationship and so characterized the life of rural fishing community. One of the principal conclusions drawn from the experience of Co-FIF is that, contracting is likely to prevent social differentiation as it is to promote it. The reason is that contracting can act as a leveller by creating access to inputs, technology and market. The only fear is that, it may encourage dependency or spoon feeding, finding an appropriate complementary fishing partner with the needed fishing gear could be a big challenge and fishing activities could be hindered if a partner is indisposed.

3.1.2 Sole Fishing Inputs Financing (So-FIF) Model

This type of contract model is commonly referred to as “kill and divide” by the fisher folks. It is a contractual arrangement in which the financier or fellow fishermen owns all fishing inputs but is constrained by circumstances that he can not go to sea for fishing. He then obliges a fellow fisherman the use of the inputs for fishing on condition that that output is divided between them at an agreed ratio.

Participants: This contractual model is usually associated with elderly fishermen who due to age or other commitments cannot go to fish regularly. Others are those whose boat or other fishing equipment were lost, confiscated or those who have new jobs but will not give up fishing.

Common Features: Though the canoe and gears are owned by one person, the So-FIF model has certain peculiar features. However, there are slight variations in this contractual model depending on the type of boat, its capacity and duration of fishing expedition at sea. For an ordinary hand-dug boat with fishing gears, no formal agreement is required as the fisherman is bound to return to shore the same day or a day after. The remuneration for this arrangement is either by sharing the catch or income. The fish or revenue realised from the fish sales is shared at a ratio of 3:1. The financier has three parts (one part for boat maintenance and two parts for financing the business) and the fisherman has only a part of either the fish or the net income from catch. No deduction is made for locally induced expenses as all are shouldered by the financier. In this type of arrangement, vertical social ties and economic bond usually exist between the financier and the fisherman. For bigger boats powered by out-board engines, where the fisherman is expected to stay off-shore for at least one-two weeks before returning to shore, there are usually formal agreements. The fisherman is usually required to produce a guarantor and the remuneration for bigger boats with outboard engines is usually based on formal written agreements. The agreements usually have all the conditions, including the stipulated date of landing. The fisherman in this contractual arrangement may not have any other relationship with the financier except economic bond, but the guarantor (the linchpin – insulating the financier and strengthening his position) is bound to have vertical social ties and economic bond with both the financier and the fisherman.

Contractual Obligations: The contractual obligations is that the boat owner provides the needed fishing inputs and maintain them while the fisherman performs the fishing, delivers the fish or income which is shared on agreed ratio with the boat owner.

Discussion: Sole Fishing Inputs Financing (So-FIF) model is a situation where the owner of the fishing input gives out the inputs to a fisherman to go to fish with it and the output is shared usually at 3:1 ratio. This model varies depending on the type and capacity of boat. This variation affects the contract form and the output sharing ratio. Corroborating this variation assertion, Alston and Higgs (1982) and Carnaje (2007) stated that the shares allocated to labour and capital varies by the type of contract activities and are fairly complex. In general, the largest share accrues to the owner of capital and in artisanal fishing without outboard engine; the “net” often comprises the most important capital item. This contract arrangement is synonymous with tenancy in farming and according to Cruz (2007), trust is a distinguishing feature of the tenancy relation, not personalised social inequality.

Strengths: Survey reveals that, this model provides employment and inputs for capital stricken fishermen, engender trust, vertical ties and economic bond between financier and fisherman and; increase fish production. However, it is adjudged, the most fraudulence.

Weaknesses: Fishermen were reported to be selling fish off-shore only to return on shore and claim they had little catch or they lost caught fish to either sea pirates or any other calamity. This is expected because the sharing ratio of 3:1 is not marginally attractive to the fishermen. Extant literature opined that, labourers have incentive to shirk and any contract arrangement that does not guarantee a remuneration that exceed a labourer’s opportunity income may not elicit loyalty and will call for extra supervision (Eswaran and Kotwal, 1985). Howe, (2003), puts it this way; contract must be sufficiently attractive to the smallholder so that the costs of default exceed the benefits from default (such as being able to pocket forward payments). He concluded that, if a contract is only marginally attractive in

terms of profit then default risk is higher and will amount to smallholders collateralising future income rather than assets to secure upfront transfers from contracts.

Carnaje (2007) reported that most boat owners in the Philippines pursued a combination of strategies to reduce these fraudulent challenges of small-scale cheating. These strategies included the practice of becoming “godparents” to their crew members, feeding and housing crew members where necessary, drinking with their crew, performing rituals together to increase the luck of the boat in fishing, offering secret bonuses to their long-term crew members, and offering no interest loans to crew. Captains of fishing boats were not absolved from crew’s cheating and to instil loyalty, crews were given their share of fish to sell at sea. She stated that, for boat owners who were also captains, instilling crew loyalty was easier owing to their participation in the work process and general conviviality on board the canoe, while sickly or too old boat owners generally rely on their captains to perform these forms of social control.

3.1.3 Support Fishing Inputs Financing (Su-FIF) Model

Another model of contract fishing found in the study area was Su-FIF. It is a fishing contract between the fish mammies and fishermen in the different fish settlements in Niger Delta States. In this model, the fishing inputs are owned by the fishermen, the fish mammies only provide essential fishing and fishermen’s consumables like drugs, money for fuel, cigarette, kerosene, granulated pepper, salt, matches, soap, batteries, garri etc. for each fishing trip. In return, the fishermen sell all the catch to the mammies. These arrangements prevent the fishermen from selling fish to any other buyer but the mammy who has been supporting him with the above named items. Su-FIF creates a strong social and economic relationship between the fishermen and the mammy involved in the deal.

Participants: The survey shows that those involved are artisanal fishermen and fish mammies. The fish mammies stake the fishermen’s consumables for caught fishes of the fishermen. The fisherman-mammy’s choice has to be considered with care and often strong extra-social relation pre-exists between them or is encouraged to evolve. The fisherman described the mammy as “Eka Ufok”- literally meaning the mother of the house or mistress while the mammy refers to them as “Ete Ufok”- father of the house or master.

Common Features: This model is a resource–providing contract, usually associated with fishermen who are working for themselves. It involves mostly informal or verbal agreement. Mammies supply consumables like money for fuel, cooking oil, kerosene; salt etc. Another common feature is the existence of strong social ties or nurtured to evolve by the contract. Deferred payment on fish by the fish mammies is another common feature of this contract model and usually the fishers obliges provided there is provision for the next fishing trip.

Contractual Obligations: The contractual obligations of mammies are to provide the needed fishermen’s consumables per fishing trip and purchase all caught fishes of the supported fisherman while the fishermen obliges to fish and sell the caught fishes to the mammies.

Discussion. Field survey reveals that, the fish mammies supply consumables and perhaps money for fuel for each fishing trip, while the fisherman obliges to sell the caught fish to the fish mammy. The fisherman is referred to as “Ete Ufok” literally meaning the father of the house and the mammy is referred to as “Eka Ufok” meaning the mother of the house. The fisherman-mammy’s choice is considered with care and often, strong extra-social relation pre-exists between them or is encouraged to evolve. The relationship is so personalised that, an attempt to subvert by fishermen on-shore would be reported to the concerned mammies and if the particular mammy has not put up appearance when the fisherman has landed, the fishes are removed and kept for the said mammy by the “cartel” members. The fishes could only be sold after due consultation between members of the cartel and money kept for the said mammy. Sometimes, fishes are given on loan to the fish mammies, payable when able. This finding is corroborated by Ben-Yami (2000), Udong (2011). They reported that sometimes fishermen lend money from their mammies to finance fishing trips with an obligation for the fishermen to deliver them their catches.

Strengths: The strengths of the model includes amongst others: Encouragement of strong social ties and economic bond between mummies and fisherman, provision of market to readily sell fish and fishery products for capital lacking fishermen, provision of the needed variable inputs for daily fishing and encouraged free flow of information amongst the fishermen and mummies of the fishing settlement.

Weaknesses: The weaknesses include: encouragement of opportunistic buying of fish by mummies, encouragement of dependence on mummies by fishermen and engender impoverishment of fishermen. Finding reveals that most of the fishermen under Su-FIF contract arrangements are impoverished, not because they have not been making catches but because of the extra-social relationships with both the fish off-loaders and the fish mummies. This often leads to opportunistic buying/under-pricing of their wares by the mummies. Toh (1982) captured it this way, “fish traders associations consisting of only women exist, prescribing trading rules and controlling their enforcement”. FAO (2007a) opines that, this system leads to prolonged and increasing indebtedness of fishermen to their wives and other fish mummies. This finding has contradicted many studies on contract in agriculture which reported positive income benefit on participants (Bijman, 2008, Cruz, 2007) but has corroborated Singh (2005 a) assertion that “contract per se is not harmful but how it is practiced in a given context makes it inequitable, short-termed, ambiguous and harmful”. This is expected because Su-FIF is a “social” contract and traditional social contract implies “consent of free man” – a normative power to bind oneself with an upshot of obligation (Standford Encyclopedia of Philosophy, 2011). Even when the contemporary social contract theory is employed (social contract as an agreement), - agreement which is a “test” or a heuristic, indicates the reasons they have to stick together (Freeman, 2007). Equally, Novib (2008) noted that lots of critiques about contract in agriculture do not only refer to its negative impacts, but also to the fact that its format and workings have inherent failures or imperfections. Since this research is assessing contract in the context of a possible campaign and advocacy, it is important to note that the impoverished status of the fishermen is as a result of the imperfections of the scheme and not its actual negative impacts. Default in this contractual model is rare, except in cases of a break down in the extra-social relationship with the mummies. Secondly, the cartel members are well known to each other and will vouchsafe information on one another.

3.1.4 Hire Purchase Fishing Inputs financing (Hi-PuFIF) Model

In this model, the financier obliges all the fishing inputs of the fisherman with a repayment arrangement of either cash or daily caught fish. The inputs become the bonafide property of the fisherman after full repayment of the agreed amount.

Participants: Participants of this model are fish vendors (mostly Igbo) and fishermen with proven reputation and fishing prowess. The choice of the fisherman for the loan is based on reputation and recommendation by a close confidant of the fish vendor. Where the fish vendor approaches the fish fisherman on his own, thorough investigation of his person must have been done and in most cases Hi-PuFIF contractual arrangements needs a guarantor. This is dependent on who makes the first approach. If the fisherman is the one who approaches the financier, a guarantor is demanded but if otherwise, no guarantor is demanded since, in most cases, it must have been after thorough investigation.

Common Features: The common features of the Hi-PuFIF contract model are:

1. It is a resource providing contract arrangement.
2. It is common between the fisherman and the fish vendors.
3. The inputs given are with mark-up. The survey reveals an interest range of 25-40% on these inputs depending on the market value and the fishing settlements.
4. There is usually no initial deposit. This is in contrast to a normal Hire Purchase principle, where an initial deposit is made and repayment of the balance with interest is spread over an agreed period of time.

5. Only at full repayment does the fishing gadget become bonafide property of the purchaser.
6. Most of the contracts are without documentation and agreement. Where formal agreement is involved, the guarantor is usually a personnel outside the fishing profession e.g. Civil Servant.
7. In most cases, the collaterals are the original buying receipts and the sale of daily catch to the fish vendor.
8. Repayment regime and period are usually at the discretion of the fisherman. The fisherman is allowed to choose a repayment regime that, by experience is convenience to him. If “catch repayment” terms is employed, fifty percent (50%) of the price of daily catch is paid to the fisherman and fifty (50%) is used to defray the loan on the fishing inputs supplied. This is done until the debt (loan) is completely defrayed. Some financiers prefer weekly or monthly “cash” repayment while some ask that the money for the loan repayment be used for rotatory contribution “*etibe*” and payable when their turn was due. This is not unconnected with the cumbersome challenges of having to do daily calculation for the debt defrayment from fish sales. In all cases, Hi-PuFIF contractual arrangements are based mostly on the reputation of the fisherman.
9. Default is punishable after assessment of the degree of fisherman’s carelessness. This was due to the fact that artisanal fishing process is subject to multiple uncontrollable factors of natural disaster, high uncertainty and risk. If the default, after investigation was found to be that of the fisherman, the penalties ranges from outright confiscation of fishing inputs to forcing the guarantor to pay for the inputs. However, if the default was due to factors beyond the fisherman’s ability, e.g. destruction of net by fishing trawler, the financier will have to re-supply the inputs, but the cost of the lost gadget will still be borne by the fisherman i.e. built into the repayment plan for the new inputs.

Contractual Obligation: The fish vendor has the obligation to provide the fishing inputs to the fisherman and buy-back the fisherman’s daily catch. The fisherman on the other hand has the obligation of fishing, maintenance of the fishing inputs and selling of all his catch to the fish-vendor. However, cases of financier’s failure to show up for collection of fish were reported. In such cases, “life fishes” were sorted, caged and kept inside the water for days awaiting the arrival of the financier. However, to facilitate the fisherman’s continuous fishing, dead fishes and part of the life ones are sold to any other fish mammy for cash.

Discussion: The fourth artisanal contract model used in the region is the Hire Purchased Fishing Inputs Financing (Hi-PuFIF) model. The term, hire-purchase, aka “HP”, was said to have originated from the United Kingdom, and is similar to "rent-to-own" arrangements in the United States. It is a common way for paying for one-off expensive items. It has the following features:

- The goods are not legally the buyers’ until he/she has made full payments.
- The finance company owns the goods until the buyer has made the full payment.
- If the buyer fails to keep up the payments terms, the financier can seize the goods.
- The buyer/user is liable for any repairs to the goods until final and full payment is made.

Exception of making initial deposit, Hi-PuFiF shares all these characteristics with Hire Purchase as enumerated above. Survey reveals that, original receipts of fishing inputs were kept till after full loan repayment and repairs of the inputs was the sole responsibility of the fisherman. However, lost of inputs though, will be borne by the fisherman, the financier may consider giving another input only to build in the cost into the bill of the fisherman, depending on the agreement. This is in line with Zhenqing, (2007) opinion that, once the market witnesses relatively large fluctuations which may cause profit to exceed bearing capacity of another party, contracting parties re-negotiate, conclude new contract but this may result in great increase of contract dispute-resolving cost. This tends to exact negatively on the income of the fishermen. However, it has been stated that, this

unfavourable situation can have positive effect if the fishermen have the freedom to apply their knowledge of the situation in another circumstance (Clover, 1987).

The model provided flexible repayment regimes. The fishermen were at liberty to select the repayment regimes which, from experience, could make for ease repayment. Secondly, the promise of owning the inputs on completion of payment was sufficient incentives for the fisherman to work hard enough to pay back the financier's investment and take ownership of the inputs/equipment. The model has the potential to tap diverse sources of capital from non-agric sector, channel it into capitalization of fishing units; increased the assets base of the fisherman, raise his income and reduce poverty (Carnaje, 2007, World Bank, 2008). This is true because, through time, most initial capital required for progressively more expensive fishing gears is drawn from non-fishing sectors of the economy. The model, apart from being pro-poor, is good for community-based agricultural development; provide the basis and experiences for future development of fishermen and field survey showed that it is the most preferred of all the four types of artisanal contract fishing models.

Be that as it may, the relatively vulnerable poor position of the fisherman, reflected in a high shadow value of credit, makes him more desirable partner for the financier. This, of course, may suggest a relation of exploitation. Most financiers take advantage of the limited alternative of the poor fisherman in order to increase their profit, both by increase in the percentage mark-up on inputs and under pricing of the fisherman's wares. This finding is in line with Fullbrook, (2007). Ben-Yami (2000) stated thus:

“..... the whole artisanal fishery depends on the traditional credit system. Although, it is exploitive and sometimes chokes fisherfolks's take home earnings to a bare minimum, it has longed played a dominant role in the fishery's existence and development. It represents a socio-economic factor that the fisherfolk cannot live without, and yet at the same time that they struggle to live with. It role is overwhelming in maintaining fisherfolk's food security, although hardly at a satisfactory level.”

Of course, it is natural that financiers should place more weight on their own profits than on the welfare of the fisherman when designing the contracts. However, if we assume the fisherman to be choice-rational, the exploitative motive of the financier may be of little consequence to the fisherman. Therefore, it may have little relevance in determining the impact of the scheme on the performance of the fisherman and even on their welfare. Indeed, the attempt to exploit the relatively vulnerable position of the fishermen with lowest “reservation utility” may result in an improvement in the performance of the fisherman. After all, it has been ascertained that, modern fishing do not depend so much on new fishing techniques, but on higher levels of capitalization, though, this has resulted in a shift away from fishermen control of the means of production (Carnaje, 2007).

Weaknesses: From investigation, few cases of selling and or exchange of wares off shore were reported. This is expected because the contractual framework is weak and contractual arrangements are not only unsupervised, unwritten, but are enforceably impossible. The consequences are an opportunistic attitude by parties (especially those with no respect to the contractual engagements) when market conditions change or when alternative markets develop (Patrick, 2004). Bijman (2008), puts it this way, *“the producer may renege when prices are perceived to be higher outside the contractual bond especially for product with high local demand and contractors may force renegotiation or may just reject product delivered if market prices at product delivery time are substantially different from prices agreed in the contract.”*

Another issue reported were cases of absconding with Hi-PuFIF fishing inputs to another fishing settlement by some fishermen. This cases were however very negligible. This was attributed to higher percentage interest charged by the financiers. Findings from the research showed that contractors (financiers) distort fishing inputs and fish markets with higher mark up on inputs and under pricing of fishes respectively. A 25hp outboard engine which goes for two hundred thousand (₦200,000) in the secular market was given at N275,000 – N300,000) i.e. 38% – 50% interest charge. Equally fish haggling between supporting financier and fishermen was not without influence by the

financier and the latter usually have their way. This finding is shared by Sriboonchitta and Wiboonpoongse (2008) who stated that, “prices paid for contracted crops are usually lower than market price”. These higher interests charged and influence on haggling sometimes elicits the feelings of exploitation by fishermen who at times, contemplate on ways to even up. Some of them abscond with fishing inputs to other creeks to continue fishing. This is synonymous with “input diversion” in crop production (Patrick, 2004). Simmons (2003) and Pearce (2003), were of the opinion that avoidance of action(s) that could distort the markets by donors agencies should be a rule when seeking partnerships with private entrepreneurs. It is the violation of this rule that has engendered the said issue of absconding with fishing inputs. The latter case of absconding with fishing inputs by fishermen had but a “jungle judgment” solution – confiscation of fishing inputs. This amounted to a lost chance of owning fishing assets and the lost of already paid cost of the inputs by the fisherman. It was reported that, the recovered fishing inputs were resold or re-contracted to another fisherman with no recourse to the already paid price for it or renegotiation with the former fisherman. This confirmed the fears of Alston and Higgs (1982), who stated that, if a large investment funds is allowed in the hands of a tenant without appropriate supervision, the contract will be abandoned, with the slightest attractive opportunity opened to him. Consequently, the equipment and work stock in the hands of the tenants must be watched closely. They noted that, “if operating capital must be advanced, the advancer must consider it desirable to maintain more supervision over the business”. This is not to say that, supervision is a guarantee to total loan recovery. It is not, neither is high loan recovery rate synonymous with profitability. Rather, high loan recovery rates according to Howe (2003), normally indicate good agricultural production results and a strong appreciation by farmer towards the partnership between him/her and the financial institution in the agricultural credit operations. However, the assessment of the performance of a firm’s credit schemes under interlocked arrangements (input providing and produce receiving) has to follow partly different principles than is the case in standard financial sector operations. This is because a financier’s profitability is not directly proportional to credit input delivered, rather, financier’s profitability is directly proportional to the quantity/quality of product supplied to him. If the financier secures adequate quantity of product, he is bound to make profit even in the face of high transaction costs and relatively high default rate.

In all the field investigated operations, the target of the financiers was to buy sizeable quantity of fish, not to make money out of the input credit scheme. They financiers accepted reasonable “credit losses” if the targeted fish quantity is reached. This explains why most of the financiers resorted to financing more than one fisherman per landing site, allow for 3-6 years or more loan repayment period (as long as the fisherman was still faithful in the sale of caught fish to him), provide refrigerators for storing fishes and intensified (extra services) financing of bigger-sea sailing canoes, inspite of recorded huge financial commitment involved. This discovery corroborate the remarks by the Managing Director of W.E. Tilley Limited: “the small losses in input credits though regrettable is bearable as it is a part of the business we can afford since it increases fishermen’s willingness to sell to our firm and with increased business volumes”. Similarly, Howe, (2003), reported that, the 57% recovery rate of JFS/SODAN in tobacco input loans did not discourage the company from increasing its credit volumes as the manager reiterated “the profits in tobacco marketing are good”.

On the other hand, full recovery of input credit does not guarantee that the whole contract fishing operation is a success and that the financier would want to continue to implement it if he lands on a more lucrative opportunity. However, the general picture for contract farming input credit according to Olomola (2010) is; if production fails and/or farmers do not see the benefits from the scheme, they often do not repay their loans in full. The situation may not be different with contract fishing, coupled with the fact that fish is a common resource and the fishermen are highly risked. These factors have to be taken into consideration in the assessment of success of fishing credit scheme and its sustainability.

Indeed, it has been established that various forms of contract fishing exist in the State. This great diversity in contract form and character is shared by Alston and Higgs, (1982). Young and Burke

(2000) stated that, the nature of contract does not allow for perfect uniformity or sharp changes within any region but an occasional departure from custom due to idiosyncratic influences”.

Jonathan Knutson of *Ag Week* (Dec. 11, 1989) stated thus: “*It is a common scene in U.S. agriculture: A landowner and a tenant talk for a few minutes over a cup of coffee, then shake hands to clinch a one-year deal to rent a farm or piece of land. No fuss, no bother, no paperwork.*”

Industrial Commission of the United States opined that, the details of the variations in landlord and tenant dealings are practically endless and that to describe all forms of these contractual arrangements is practically impossible. They concluded that, contractual mix is a function of time, space, relative resource endowments of the contracting parties, the prevailing risk conditions, and the transactions costs of alternative contractual arrangements.

Field survey reveals that informal or verbal contracts rather than formal contracts are the norms in all the fishing settlements in the State. Only fishermen are held liable or penalized if they fail to keep the contract terms. Like any other informal contract, its existence and persistence, signals its acceptability even in the absence of a well-functioning legal institutional framework to enforce it. This has caused it to be based mainly on social capital, trust and reputation. This is congruent with the finding of Carnaje, (2007) in Philippines artisanal fisheries.

Conclusion and Recommendations

From the study conducted, it is evident that different contractual fishing models exist in the region. The study identified and characterised four basic contractual fishing models. The contract fishing models are resource-providing – addressing failures arising from imperfections in credit markets, inputs and outputs. It involves the highest degree of market intermediary control of the production process at the fishing level with proprietary rights over inputs and outputs. The main differences between these contractual models are in the, mode of fishermen remuneration, nature of inputs, terms of financing/repayment agreement, shouldering of responsibility and provision for defaults. If the importance of financing artisanal fisheries commends the result for careful consideration, the acceptability of contract fishing underscores the importance of agricultural credit for increase in production in the fishery sub-sector of the region and indeed Nigeria. Contract fishing appears to be a promising institutional arrangement to facilitate fishermen access to an array of fishing inputs which they are typically excluded. Although, credit is used as produce-securing device, it enhances agricultural productivity, income and efficiency of the poor fishers.

One major finding emanating from this study is that out of the four identified contract models; Hire Purchase Fishing Inputs Financing (Hi-PuFIF) was the most preferred because of the inherent incentives and flexible repayment schedule. Therefore, factors that constraint the smooth implementation of this readily accepted credit model need to be addressed. Such constraints include higher mark up on the fishing inputs, price distortion, financier’s influence on pricing of fish and lack of guarantors. This could be done by regulating the price of fishing inputs, standardization of the price of caught fish and group guarantee of fishing input loans. Equally, all prevailing quasi-formal credit arrangements need to be modified and encouraged to continue providing credit to small artisanal fishermen. However, suitable mechanisms should be explored to provide coordination of various fragmented credit schemes. This is because any attempt at replacing the familiarised contract and personalised credit arrangements with new mechanisms and institutions may not give primary attention to the “insurance function” which the old artisanal credit is known for. Therefore public quasi-credit policies and equity schemes must play a role for contract fishing to become suitable, with implications on terms of equity, efficiency and suitability.

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