Value Addition among Youth Artisanal Fisher-Folks: Evidence from Ilaje Local Government Area, Ondo State, Nigeria

Abstract

Agriculture has taken a new dimension within the last decades as emphasis is placed on value addition, especially in developing countries like Nigeria. However, extent of involvement of youth artisanal fisher-folks in value addition in fish production is largely unknown in literature. The study was conducted in Ilaje Local Government Area of Ondo State of Nigeria with the view to determining youth artisanal fisher-folks involvement in fish value addition. Specifically, the study identified areas of fish value addition, sources of technical information and analyzed their extent of involvement in fish value addition. One hundred and twenty five respondents were selected with the use of multi-stage sample technique. Data collected were adequately described with frequency, percentages, mean while Chi-square was used to analyse association between variables. The mean age of fisher folks was 26.5 years with male dominance of about 74.4%. Furthermore, all fisher folks had a minimum of primary education. Smoking was the common value addition practiced. Government ADP and Fadama remained the sources of value addition practices and 62.2% of the fisher folks had low extent of involvement in value addition. To boost income was the main reason for engaging in value addition among the youth and sex (γ = 16.12), extension contact (γ = 9.06) and educational status (γ = 9.24) were significantly associated with their extent of involvement in value addition at 0.05 significant level. The study establishes that youth fisher folks predominantly involved in smoking as the value addition to fish production. Adequate education on the importance of other value addition practices should be taught by the stakeholders in food security programme in Nigeria, especially to fish fishers. This will be a strategy to minimum fish importation in Nigeria.

Key words: youth, value addition, artisanal, involvement

INTRODUCTION

Youth involvement in agriculture is an important source of employment, especially in developing countries like Nigeria. This is because as at 2015, over 46% of the Nigerian population was under age 30 (Inter-Agency Network Analysis, 2016). This recorded active mean age could be very useful in agricultural production if the needed supports are provided. Moreo, if these youth are provided with supports, they would be highly beneficial for development and if otherwise and unemployed, the growing number of youth will pose a challenge that influences the social and political stability of the nation thereby distorting the achievement of sustainable development (Urdal, 2012). Moreover, the current high unemployment status of youth impedes their social and economic development even in the future, since youth who experience a delayed start in the labour force tend to continue to lag behind in terms of earnings and income growth once they become employed (Gregg and Tominey, 2005).

In Nigeria, being an agrarian nation, involvement in agriculture seems to be a feasible economic option for youth especially, with the current prospects of agriculture in the dwindling of crude oil price in the international markets and the emphasis on value addition as a strategy to make agriculture attractive (Adeyemo and Okoruwa, 2018). These youths according to the African Youth Carter are persons between the ages of 15 and 32 years with

vigor and capability to think and creative in their ways of performing given tasks. Anderson (2014) listed youth characteristics like love for innovation, risk taking and ability to learn new skill faster. These could be applied to the fishing profession which many youths are involved in the study area.

One of the areas in agriculture where value addition is very necessary is in the fishery sub-sector. Fisheries constitute an important sub-sector of agriculture and have been playing a significant role in nutrition, employment, foreign exchange earnings and food supply (Food and Agriculture Organisation, FAO, 2018).Artisanal fishing is any kind of small-scale, low technology fishing practices, particularly, those of coastal or island ethnic groups with the use of traditional techniques such as rod and arrows and harpoons, throw-nets and drag-nets and traditional fishing boat Olaoye *et al*. (2011).

With high demand for fish all over the world and abundant coastal areas in Nigeria, the needs for youths' involvement in value addition among artisanal fisher folks is needed to revamp the sector in order to bring the necessary development. Fagbenro (2005) advanced that better income, achieving improved processing, better utilization patterns, keeping in-phase with consumers needs and providing variety of products were among the reasons for involving in value addition for products. This is because Nigerians are high fish consumers and offer the largest market for fish and fishery product in Africa (Olaoye and Oloruntoba, 2011). The prospect in fisheries sub-sector continues to increase due to the huge gap between fish demand and supply which leaves a shortfall of about 680,000 metric tons of fish annually necessitating government importation of fish worth N97 billion annually (Olorunfemi *et al.,* 2013). However, over 60% of the total domestic fish output in Nigeria come from artisanal fisher folks (Ibrahim *et al*., 2009) and youths constitute significant proportions of fisher folks, especially in Ondo State, with the longest coastal areas in Nigeria.

A preliminary survey conducted revealed that large tones of fishes from artisanal fishing were displayed for sales at the local markets of Igbokoda, Paare, Mahin, Ayetoro and other fish markets in Ondo State and studies showed that many of the fisher folks were youths of less than 45 years. However, extent of involvement of these youths in the value addition of fishes caught through artisanal fishing is largely unknown in literature. To document this, the study was conducted to investigate youth involvement in value addition in artisanal fish production in Ondo State, Nigeria. Specifically, the study described the personal socio-economic characteristics of artisanal fisher folks, identified areas of value addition and sources of technical information and examined their extent of involvement in fish value addition practices among respondents in the study area.

METHODOLOGY

The study was carried out in Ilaje Local Government Area, Ondo State (ILGA) lying between latitude 4 ° 50' and 5 ° 15' E and longitude6 ° 00' and 6° 25' N of the Greenwich Meridian. The area is situated at the southern part of state with the longest coastal region in Nigeria. This local government (LGA) comprises of several fishing communities located within the river tributaries discharging into the Atlantic and those along the coastline. ILGA has the longest coastline in Nigeria (about 78km) with long history in fishing dating back to the pre-colonial days (FAO, 2000). The communities along the coastline are the major fish producers. The inhabitants (natives) are the Ilajes.

Communities located in the eastern side of the coast line are: Idiogba, Alagbon, Odofado, Bijimi, Oroto, Ikorigho and Oghoye while to the western side are Eruna Ero, Asisa, Ori oke Iwamimo, Ereke, Ogogoro, Majofadun, Zion pepe, Araromi sea-side and lgbokoda. These locations were chosen for their valuable fish resources in Nigeria according to FAO (2000). Multi-stage sampling techniques were employed in the selection of respondents. In the first stage, purposive sampling technique was used to select five (5) communities based on the predominance of fish production and marketing. The second stage involved a simple random selection of five wards within the local government area. At the third stage, snow ball sampling technique to select major youth artisanal fishers. In order to have equal number of respondents across the five (5) communities, twenty-five (25) artisanal fishers were selected across the five (5) communities. Thus, a total of 125 respondents were used for the study. Data were collected with the use of validated questionnaire and interview schedule. We summarized the data obtained using descriptive statistics while Gamma statistics was used to make inferential deductions. Extent of youth involvement was analysed using Equal Interval Approach as used by Ajayi (2008). Involvement index was used with the minimum and maximum involvement scores.

Results and Discussion

Personal characteristics of respondents

Table 1 shows that about 64.0% of the fisher folks were between 20 and 25 years while 25.6% were between 15 and 20 years and only 10.4% were above 25 years of age with a mean age of 26.5 years. Table 1 also revealed that 74.4% were males while female accounted for only 25.6%. This showed that many of the fisher folks were still very active and male dominated the fishing folks in the study area. This reason for the male dominance may be due to the tedious nature of artisanal fishing where fisher folks operate on the Atlantic Ocean with sophisticated fishing gears and boats. Female naturally play supportive roles in receiving the delivery of fishes and further processing them based on the recommendations of the male fisher folks. This means that the type of value addition that would be added is predetermined by the male. Although, women may also be useful in suggesting the best value addition practices. Adkins (2010) submission on the high gender differential in fishing would be useful to explain the role of male and female in fish production and value addition. Though, sex can never be a barrier to involvement in agricultural productivity, including fishing activities. This findings support the work of Oladoja *et al.* (2006) which stated that both male and female have been found to actively engage in agriculture. However, their involvement may be segregated along gender line.

More so, about 91.2% of the fisher folks were Christians 87.2% and only fractional percentage (12.8%) were Muslims. About 70.0% of the fisher folks attended and finished secondary school education. This should place them at good educational pedestrian to promote value addition in fishing as education has been a veritable tool to sustainable development (Adeyemo and Okoruwa, 2018) and value addition is key to achieving sustainable development in food production in Nigeria, especially at this critical period where there is an urgent need to ensure that agriculture contributes to the nation's internally generated revenue with the falling in the crude oil price in the global market. This finding supports the study of Okeowo *et al* (2014) that showed the positive relationship between

literacy level and access to information which is germane to value addition in agricultural production.

Table 1: Socio-economic characteristics of fisher-folks

Variable	Frequency	Percentage	Mean
Age (years)			
15- 20 years	32	25.6	
20- 25	80	64,0	26.5
26-30	13	10.4	
Sex			
Male	93	74.4	
Female	32	25.6	
Religion			
Christianity	109	87.2	
Islam	16	12.8	
Education			
Primary	23	18.4	
Secondary	100	70.0	
Other	2	1.6	

Source: Field survey, 2019.

Fish Value Addition Practices

Results in Table 2show that a little below half (48.0) of the fisher folks were involved in smoking, about 16.0% involved in packaging, 12.0% involved in degutting, 9.6% practiced salting, 8.0% involved in sorting while 6.4% turned fish into powder. The study revealed that the most popular value addition done to fish by the youth is smoking. This has been an age long method of preservation which adds values to products and prolonged the shelf life of the processed fish. The findings further revealed that value addition practices like degutting and turning fish into powder which can prolong the shelf life of fish were not popularly practiced. Properly done value addition of any form would not only improve the shelf life of a product but would also retain its quality and nutritional characteristics (Datta, 2015). Apart from prolonging the shelf life of fish, it is also a strategy to improve profitability. This is the primary goal of any farmer. Youth should be able to practice value addition that will improve the quality of fish and fish products for better income.

Table 2: Fish Value Addition Practiced by Youth

Areas of fish value addition	Frequency	Percentage
Sorting	10	8
Degutting	15	12
Smoking	60	48
Salting	12	9.6
Turning dried fish into powder	8	6.4
Packaging	20	16

Source: Field survey, 2019

Sources of technical information to fish value addition

The results in Table 3 shows the various sources of information utilized by the youth fisher folks in fish value addition practices. Results revealed that about 40.0% of the respondents indicated government extension agency by the Agricultural Development Programme (ADP) as their source of technical information to value addition they practiced, while 36.0% of the respondents reported Fadama, and radio/ television was reported by about 15.2% of the youth. In addition, 4.0% and 3.2% reported NGOs and Fishery Research Institute as the information sources to value addition, respectively. The findings showed that an agricultural extension agent was the major information source utilize by the youth in the process of adding values to fish. This finding is consistent with the findings of Olaniyi (2010) which reported extension agent as the most accessible communication outlet utilized by farmers for processing agricultural produce in Southwest, Nigeria.

Table 3: Sources of technical information utilized by youth in fish value addition

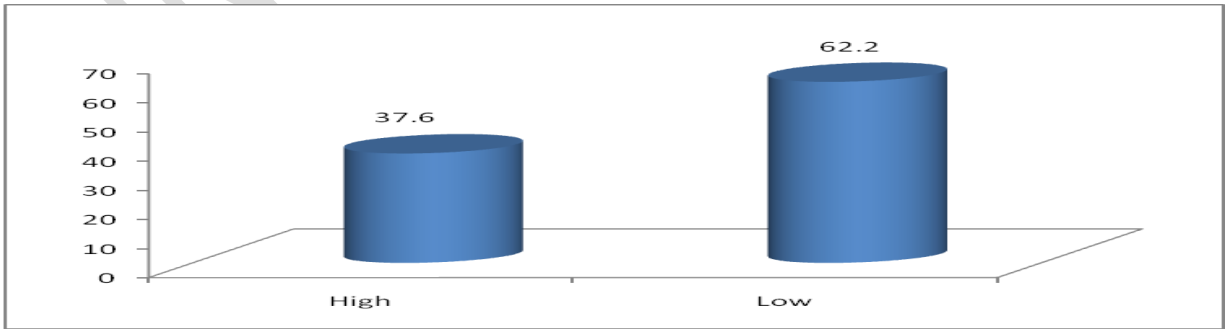
Sources of technical information	Frequency	Percentage
Government Extension Agency (ADP)	51	40.8
Fadama	45	36.0
Radio / television	19	15.2
NGOs	5	4.0
Fishery Research Institute	4	3.2

Source: Field survey, 2019

Extent of Youth Involvement in Fish Value Addition

Evidence in Figure 1 shows the extent of youth involvement in Fish Value Addition (FVA) using Fish Value Addition Index (FVAI). It was revealed that about 62.2% of the artisanal youth fisher folks recorded low level of involvement while only 37.6% had high extent of involvement in fish value addition. The finding suggests that many of the youth artisanal fisher folks, though involved in value addition but their extent of involvement were low. This low extent of involvement might be felt on their income. This is because value added agricultural products have been said to command high price in the markets as reported by Adkins (2010). This may not be far from the reality as fish is one of the highly perishable agricultural products that need proper handling in order to improve on the quality and nutritional composition (Datta, 2015). This will definitely have positive effects on the price.

Figure 1 : Extent of youth involvement in Fish Value Addition (FVA) using Fish Value Addition Index



Source: Field survey, 2019.

Reasons for Fish Value Addition

The reasons for youth involvement in fish value addition are presented in Table 4. It was revealed that the desire to boost income (41.3%) was adjudged as the very strong reason why youth were involved value addition. This will in a way help them to have a strong economic base in future business establishment. Moreover, opportunity to help parents (40.0%) was considered by the youth as the strong reason for their involvement in fish value addition. Means of skill acquisition was considered by (38.7 %) of the respondents. Since empowerment is a tool to sustainable development. Also, 41.3% showed that it is a way of boosting income, 27.2% indicated that parental influence was a major reason while passion for fishing was reported by 9.6% of the youth. The findings showed that youth had varying reasons why they needed to involve in fish value addition. These reasons vary from peer group influence to income generation and parental influence. This result conform with the earlier report of Ajayi and Torimiro (2004) that farmers' children in the rural Nigeria serves as additional farm labour and in the process have some skills transferred from their parents and many of their actions would based on the experience they had acquired while working as farm labour with their parents.

Table 4: Reasons for Fish Value Addition

Reasons	Very strong F (%)	Strong F (%)	Slightly strong F (%)	Not strong F (%)
Opportunity to help parents	45(36.0)	60(40.0)	34 (27.2)	53 (35.3)
Peer group influence	32(25.6)	39 (26.0)	25(16.7)	47(31.3)
Means of skill acquisition	47(37.6)	58 (38.7)	28 (18.7)	25 (16.7)
To boost income	62(41.3)	53(35.5)	41(27.3)	13(8.6)
Parental influence	34(27.2)	28(18.7)	29(19.3)	31 (20.7)
Passion for the job	12(9.6)	32(21.3)	19 (12.7)	8 (5.3)

Source: Field survey, 2019.
* Multiple Responses
Figures in parentheses represent percentages

Relationship between personal characteristics and extent of involvement in fish value addition

Results in Table 5 show that significant association exists between sex (γ = 16.12), functional extension contact (γ = 9.06) and educational status (γ = 9.24) and extent of involvement of youth in fish value addition at 0.05 significant level. This implies that sex has strong association with involvement in fish value addition because fish value work involved more male than the female due to the stress involve in the production. This is similar to other agricultural practices. The result also revealed that functional extension contact would significantly increase the youth involvement in fish value addition practices. This implies that to increase youth level of involvement in value addition practices, respondents should be reached with adequate information on fish value addition. Functional contact with extension agents might probably increase the knowledge of respondents on fish value addition. This finding is in line with Bamigboye (2015) who reported that functional contact with extension agents under extension information dissemination brings about remarkable increase in farmers' knowledge about improved farm technologies and practices.

Table 5 : Association between selected personal characteristics of youth and extent of involvement in fish value addition

Personal Characteristics	γ -Value	CC	P-Value	Remark
Sex	16.12		0.000*	Sig
Religion	3.686	0.549	0.056	NS
Functional Extension contact	9.06	0.516	0.017*	Sig
Educational level	9.24	0.444	0.013*	Sig
Marital status	3.05	0.524	0.088	NS

Source: Data analysis 2019

Conclusions and Recommendations

Consumption of fish may be greatly increased by making better use of value addition. Many of these value addition practices were all in use in the past but the recent development in agricultural production in Nigeria where value addition is popularized across all agricultural sectors should promote youth involvement in value addition, especially among fisher folks in Ikale local government area, Ondo State. Based on the findings of this study, it was revealed that smoking was a major value addition practice used among youth while other value addition practices such as salting, turning fishes into powder, degutting among others were not popular among the respondents. Agricultural Development Programme and Fadama were the platforms to receive technical advice by the youths. Though, extent of youth involvement in value addition (62.2%) was generally low while boosting one income was the major reason for their involvement in value addition in fish production. Sex of respondents, extension contact and education were the variables that could be used to explain the youth extent of involvement in value addition practices in fish production. It is therefore, recorded that youth artisanal fisher folks should be trained on the fish value addition practices by the extension agents with a view to increasing fish production and discourages fish importation.

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