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An assessment of Community Based Provided Services on Income of Fish Processors in Kogi State, Nigeria

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Abstract

Fish is highly perishable and needs to be processed immediately, it is caught but the processors lack the capital and other necessities to carry out their processing activities. This study examined the effects of community based organizations (CBO) on income of fish processors in Kogi State, Nigeria. The specific objectives of the study were to describe socio economic characteristics of fish processors; identify areas of intervention of CBOs on fish processors; determine the effect of CBO on the income of fish processors and identify constraints faced by fish processors in the study area. In order to achieve the study's objectives, multi-stage sampling technique was used to select 192 fish processors. Data were collected using questionnaires and interview schedules and were analyzed using trhe descriptive statistics and Ordinary Least Square (OLS). Results revealed that fish processing is a female dominated business in the study area and average household size was 4. Areas of intervention of CBOs in the study area were building of market stalls, maintenance of roads, provision of furniture and equipment to schools. The result further revealed that processing equipment and shops given by the CBOs had huge impact on the income of the respondents while training had a negative relationship with the respondent's income. Some of the limitations stood up to by the respondents were lacking capital (86.5%), inaccessibility of credit (68.8%) and surprising expense of transportation (41.7%).. Based on the findings of the study it was recommended that improved processing equipment should be given to the processors by the organizations so as to help support their individuals business which will thusly help increase their income.

Keywords: Community Based Organizations, Income, Fish Processors
JEL Classification: L23, O15

1. Introduction

Community Based Organization (CBO'S) appeared because of inability of government in meeting the financial needs of its native (Claudia, 2003). They are non-benefit and non-administrative associations since all individuals contribute monetarily towards the satisfaction of their obligations to the immediate condition and not rely upon government exclusively before satisfying these (Claudia, 2003). Wahab (2000) reported that individuals in developing nations have up to this point relied upon their legislature to meet their fundamental needs. Notwithstanding, self-improvement ventures embraced through intentional exertion and full commitment of people and corporate gatherings in networks are the essential nucleus for grassroots advancement.

Community individuals in most provincial settings meet up so as to recognize their requirements, plans, difficulties and style out approaches to address these issues with greatest reliance on their drive and assets with or without the help of government or non-legislative associations. Community Based Organizations in Nigeria incorporate town associations, women affiliation, peer gatherings, credit gatherings, social clubs, and board of trustees of companies (Adamu, Sodiya, Adeogun and Ogunbameru, 2005). The authors likewise reported that network based associations give opportunities to individuals to relate with their condition.

Fish is extremely rich in protein yet it has high rate of decay (Abowei, 2011). Adequate preparation of fish is imperative when brilliant, greatest supplement maintenance and most extreme benefit are to be accomplished (Davis and Davis, 2009). According to Davis *et al.* (2008) prepared fish are still kept away in the customary store rooms while deficient fish taking care of, handling procedures and storage spaces contribute incredibly to low supply of fish to dwellers that form three quarters of the population in developing countries. The vast majority of fishing communities in Nigeria are situated at the Atlantic coastal area of the southern part of the country with various streams found in the inland part where fishing activities take place. These areas are usually far from city centres' where there are ready market for their goods and storage facilities. Notwithstanding, when they are close, there is still high temperature and humidity which leads to fast crumbling of fish (Shitta 1990 in Abowei, 2011). Ibrahim, Kugbu and Mohammed (2011) reported that fish processors help to reduce post-harvest losses and provision of fish throughout the year. However, these are limited by absence of capital and improved fish preparing innovation. Fish processors cooperatives are seen as conceivable answer for the issues of fish preparing and maintaining equity in small scale fishing community. Therefore, this study is aimed at identifying areas of intervention of CBOs on fish processors, determining the effect of the CBOs activities on income of fish processors as well as identify constraints faced by fish processors in the study area.

2. Literature Review

2.1 Interventions of Community Based Organization (CBOs) to their Members

Arua (2004) saw CBOs as a critical apparatus of improving state of farmers. According to Bhuyan (2007) CBOs are extraordinarily observed as huge instruments for creation of jobs and for tackling of assets for income generation. Levis (2007) announced that CBOs engage in excess of 100 million people around the world. In Nigeria, CBOs give privately required

administration, work and contribution to farmers; CBOs additionally give chances to farmers to sort out themselves. Nweze (2002) reported that cooperative societies fill in as a vehicle for input dissemination. Through their activities across the nation structure, they have built up a solid and dependable game plan for dissemination of food crops, manures, agro chemical , credits, seeds and seedlings.

Cooperatives in Nigeria perform multipurpose functions. They are involved in production, processing, marketing, distribution and financing of agricultural product. The most popular agricultural cooperative societies in Kogi State of Nigeria include; group farming cooperative, marketing cooperatives, agricultural thrift and credit cooperatives and agricultural processing cooperative, consumer protective, fisheries cooperatives and farmers multipurpose cooperative. Agriculture is mostly practised in Kogi State by peasant farmers producing the bulk of food, fuel and fiber needs of the population. Rural farmers in Kogi State like their counterpart in other part of Nigeria, are trapped in perpetual poverty, malnutrition, unemployment and mass drift from rural to urban area (Ibitoye, 2013).

Onyeozu (2010) reported that CBOs in Rivers State assisted in construction of town halls, drilling of bore holes, construction of market stall which has help the inhabitants to keep their wares away from flood and other adverse weather condition. Increase in farm income, improvement in general living condition, improved farm output, easy access to agricultural credits from banks, education and training and easy access to farm output are some of the benefits derived by members of CBO (Ibitoye, 2013). A study conducted by Abegunde (2004) on the activities of the CBOs in Atiba Local Government Area of Oyo State, Nigeria revealed that there were about 160 CBOs in the area. About 40% of these CBOs provided social facilities worth 17.56 million naira to their direct community. In the same light, CBOs in the state were said to be cautiously buoyant enough to have constructed access roads within their neighborhoods, built schools and health centres, provide potable water and see to the general welfare of their members without government's assistance (Adejumobi, 1991).

3. Methodology

The research was carried out in Kogi State, Nigeria. Farming is the predominant occupation of the people in this area. The study employed a multi-stage sampling technique. In the first stage, one Local Government Area (LGA) was purposively selected from each of the four agricultural zones (A, B, C and D) due to their high level of participation in fish processing activities and the list was obtained from Kogi State Agricultural Development Project. In the second stage, four communities were randomly selected from each of the selected LGAs, giving a total of 16 communities. The communities included Aguda, Lokoja, Ajakuta and Abuyim from Zone A, Shintaku, Ikende, Bagana and Kanga from Zone B, Koton-Karfe, Girya, Edeha and Gemata from Zone C and Idah, Odeke afam, Alloma and Itobe from Zone D. In the third stage, from a sample frame of 370 processors, a sample size of 192 fish processors was determined proportionately using Yamane's formula (1997):

$$n = \frac{N}{1+N(e)^2} \qquad \text{.......} 1$$

Where:
n = sample size
N = finite population
e = limit of tolerable error (level of significance = (0.05)
1 = constant

Data for this study were collected through primary sources. The primary data were obtained using questionnaire and interview schedules. The data collected were on socio-economic characteristics of the respondents which included age, sex, level of education, size of family, years of processing knowledge, membership of co-operative society and limitations faced by the fish processors. Data were evaluated using descriptive statistics and Ordinary Least Square (OLS).

3.1 Model Specification

The Ordinary least squares (OLS) model was used to determine the relationship between a dependent variable and a collection of independent variables. The value of a dependent variable was defined as a linear combination of the independent variables plus error terms, application of regression analysis existed in almost every field.

$Z= f(X_1,X_2,X_3,X_4,X_5,X_6,X_7,e_i)$ 2

Explicitly the model is specified as;

$Z = b_o + b_1X_1+b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + u$ ……..3

Z= income (₦)
The independent variables include;
X_1=Training (1 if yes, 0 otherwise)
X_2=Credit (₦)
X_3=Marketing information (number)
X_4=Processing equipment (1 if yes, 0 otherwise)
X_5= Extension services (number of contacts)
X_6=Provision of shops (1 if yes, 0 otherwise)
X_7=Storage facilities (number)
bo = constant
b_1- b_7 = coefficient to be estimated
u = error term

4. Results and Discussion

4.1 Descriptive Statistics

The result of socio – economic characteristics of fish processors in Table 1 indicates that the mean age of all fish processors was 40 years implying that fish processors were in their most active and useful age. This suggests probability of active involvement in their various organizations. The outcome is in consonance with the results of Komolafe (2012) who stated that majority of the fish processors in Obatoko were within the age of 30-40 years while entirely the sampled fish processors in the study area were female. The greater proportion of female in fish processing activities in the study area showed that the business was gender subjective and sensitive. The female supremacy of this means of livelihood

might be due to the various activities involved in the processing activities while their male equals are mostly involved in fishing activities. The result is in line with the outcomes of Komolafe (2012) who described that all the fish processors in Obatoko were female. Greater part (81.3%) of the fish processors was found to be married, 13.5% were widow, 3.6% were single, and 1.6% was separated. The high percentage of the married fish processors could be as a result of the active age range of between 41-50 years of the majority of the respondents. The result is in agreement with the results of Olapade (2012) who discovered that bulks of fish processors in Asejire were married. All the fish processors sampled had one type of education or the other (i.e informal and formal). Bulk (58.9%) of the fish processors had Quranic education, 20.8% had primary education while 20.3% had secondary education. This suggests that bulk of the fish processors had no formal education. This finding concurs with Ibrahim *et al.* (2011) who revealed low dimension of education among the fish processors. The finding is additionally upheld by Aqeela, Tanuir and Muhammed (2005) who detailed that two third of the one billion ignorant people on the planet are women and girls.

The outcome additionally uncovers that the mean family size of the fish processors was 4 individuals. The outcome recommends that the fish processors have little family sizes. This outcome is in accordance with Komolafe (2012) who detailed that 80% of fish processors in Obatoko had family unit size of between 4-6 people. The outcome further uncovered that the mean years of experience for the fish processors was about 18years. The outcome infers that fish processors in the study area were very much experienced in this way they have sufficient information of fish handling exercises to mitigate their destitute conditions. This outcome is in concurrence with that of Olapede (2012) who announced that fish processors have experience of between 6-15 years.

Table 4.1: Socio-economic characteristics of fish processors in the study area

Variables	Frequency	Percentage	Mean
Age			
11-20	3	1.60	40.
21-30	34	17.70	
31-40	59	30.70	
41-50	75	39.10	
>50	21	10.90	
Sex			
Female	192	100	
Total	192	100	
Marital status			
Single	7	3.60	
Married	156	81.30	
Widow/Widower	26	13.50	
Separated	3	1.30	
Total	192	100	
Level of Education			
Quranic	113	58.90	

Variables	Frequency	Percentage	Mean
Primary	40	20.80	
Secondary	39	20.30	
Total	192	100	
Household size			
0-5	148	77.10	4
6-10	44	22.90	
Years of Experience			
1-5	10	5.20	18
6-10	40	20.80	
11-15	47	24.50	
16-20	37	19.30	
>20	58	30.20	
Total	192	100	
Sources of capital			
Friends	52	27.10	
Personal saving	123	64.10	
CBOs	17	8.90	
Total	192	100	
Amount of Credit Received			
0-25000	80	41.70	30177.08
26000-50000	112	58.30	
Total	192	100	

Source: Field survey, 2015

Furthermore, the table demonstrates that larger part (64.1%) of the fish processors had their capital through personal saving. About 27.1% said they got their capital through friends while 8.9% got theirs through CBOs. This might be because of the way that a large portion of them began their fish processing business before the coming of the various CBOs. The outcome is bolstered by Olaolu et al. (2013) who revealed that individual saving and cooperatives were the predominant sources of funding for food crop and livestock farmers. Akinleye (2013) likewise announced that fish processors had no entrance to bank credit. The inability of fish processors to access loan cash from banks might be linked to the issue of guarantee security and different bottlenecks. The mean amount of credit accessed by fish processors was ₦30, 177.08. This suggests that respondents got low credit from associations and deficient measure of loan granted to the respondents can prompt advance divertion or limit their capacity to fund their marketable strategies along these lines thereby influencing their yield and profitability adversely. This result is in accordance with the findings of Victor and Ineye (2011) who reported that farmers who received less than ₦40, 000 as credit tended to divert the fund for other purposes while International Fund for Agricultural Development (IFAD) (2010) reported that women received less than a tenth of the credit received by men.

4.2 Areas of interventions of Community Based Organizations (CBOs).

Table 4.2 demonstrates the distribution of fish processors as per the regions of mediation of CBO in the study zone. The fish processors concurred that there was one type of mediation or the other from the CBOs. In Table 4.3, 74.5% of the fish processors indicated that market stalls were built by the CBOs. Some current CBOs in the study zone were Atoku-ojoo Multipurpose Co-operative Society, Oruwagi Multipurpose Cooperative Society, Enemona Fish Processors Cooperative Society, Ogonegbecha Women Fish Processors Association, Adagbatokuli Multipurpose Cooperative Society and Okpareke Women Fish Processors Association.

Correspondingly, 54.7% of the fish processors announced that CBOs completed support of activity of streets in their locale to deal with transportation needs. Moreover, 30.2% of fish processors stressed that CBOs embarked on provision of furniture and learning materials for schools in their localities. Different areas of mediation of CBOs were arrangement of health care centers (9.9%), upkeep and redesign of town corridor (9.9%) and arrangement of drill openings (4.7%).The outcome is in accordance with Onyeozu (2010) who announced that CBOs in Rivers State aided the development of town corridors, penetrating of bore holes and building of market stall which has help the occupants ward off their products from flood and other antagonistic climate condition. Abegunde (2004) likewise reported on the activities of the CBOs in Atiba Local Government Area of Oyo State and revealed that 40% of the CBOs in the investigation territory gave social facilities to their immediate community.

Table 4.2: Distribution of fish processors according to areas of intervention by CBOs

Areas of intervention	Frequency	Percentage
Building market stall	143	74.5
Provision and searching for bore hole	9	4.7
Building and renovation of town hall	19	9.9
Maintenance of community roads	105	54.7
Provision of health centers	19	9.9
Provision of furniture and equipment to schools	58	30.2

Source: Field survey, 2015

Multiple responses recorded

4.3 Effect of Community Based Organizations on income of fish processors

The Ordinary Least Square regression (OLS) was used to analyze the effect of CBOs on income of fish processors. The outcome in Table 4.3 demonstrates that fish preparing equipment was positive and noteworthy at 5%. This suggests an expansion in the arrangement of processing equipment will prompt increment in the respondents' income. Processing equipment given by the CBOs to fish processors will in general increase the quality and amount of prepared fish which therefore increase their income. The result is consonance with the findings of Woelcke (2006) who detailed that selection of new advances expands the efficiency of fish processors. Moreover, shops given by the CBOs were likewise positive and significantly affected the income of fish processors. This

suggested that the arrangement of shops for fish processors empowered them to showcase their products well, which procured them more income. Training then again was negative and positive at 5%. This suggested that an expansion in training of fish processors would prompt decline in their income. This may be credited to the way that the fish processor didn't get subjective training on the best way to go about their business from CBOs

Table 4.3: OLS Regression of effect of CBOs activities on income of fish processors

Variable	Coefficients	Standard error	t-value	p-value
Training	-36257.68**	14993.81	-2.418	0.0166
Credit	-0730053	0.57	-1.280	0.2021
Market information	11449.50	17310.42	0.661	0.5095
Processing equipment	30320.81*	15846.23	1.913	0.0572
Extension contact	783.91	14872.75	0.053	0.9580
Shops	31214.34**	16543.77	1.887	0.068
Storage facilities	5512.06	14296.25	-0.386	0.7003
Constant	252044.23***	29210.19	8.629	0.000

*Source: Field survey, 2015; Number of obs = 192; * Significant at 10%, ** Significant at 5% Prob> F = 0.0000, *** Significant at 1% , R-square = 0.6469, Adjusted R^2 = 0.2912*

4.4 Distribution of respondents according constraints faced by fish processors

Table 4.4 uncovers the dispersion of fish processors as indicated by constraints faced by them.The challenges experienced by fish processors among others were insufficient capital (86.5%), mind-boggling expense of transportation (41.7%), time spent in preparing (34.9%) and sufficient consideration required amid fish handling (30.2%). In positioning request, deficient capital positioned first which propose that bulk (86.5%) of the fish processor in the study zone need satisfactory adequate capital to complete or extend their business. Besides, inaccessibility of credit positioned second and this may be ascribed to the reluctance of money related organization to give advance to fish processors because of lack of collateral. The outcome is in accordance with the discoveries of Ibrahim et al. (2011) who announced that absence of guarantee to acquire bank loans was one of the issues of fish processors in the study area. Furthermore, mind-boggling expense of transportation positioned third. This was likely because large portion of the fish processors in the investigation area lived in rural areas and had to transport themselves to major road sides or town ship market in order to sell their products. Smoke contamination positioned fourth in the positioning of challenges faced by the fish processors. Smoke contamination as per fish processing frequently caused redness and swelling of the eyes. Time spent in handling fish is positioned fifth. This may be ascribed to the way that most fish processors still utilized the customary technique in preparing their fish. The recognized challenges were in accordance with the discoveries of Oluwatoyin et al. (2010) who announced that processors in South-Western Nigeria distinguished inaccessibility of capital, transportation issue, and smoke contamination as a portion of the requirements going up against them. Different limitations recognized were

strict consideration required in fish preparing (30.2%), high perishability nature of fish (25.5%), and mind-boggling expense of fish (5.2%).

5. Conclusion and Recommendation

5.1 Conclusion

Thiis study assessed services provided by CBOs on income of fish processors in Kogi State of Nigeria. Taking everything into account, areas of intervention of CBOs in the studyzone were building of market stalls, maintenance of roads, arrangement of furniture and equipment for schools. The outcome further uncovered that processing equipment and shops given by the CBOs had huge impact on the income of the respondents while training had a negative association with the respondent's income. However, some challenges faced by fish processor were lack of capital and mind-boggling expense of transportation.

5.2 Recommendations

i. Since it is women overwhelmed business, CBOs ought to be bolstered and reinforced by government and cash loaning foundations by providing them with advances which will help in empowering them.
ii. Improved processing equipment ought to be given by association in order to help support their individuals business.
iii. The measure of credit given to individuals ought to be expanded by the associations so as to prevent the incidence of loan divert.

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