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CONTRIBUTION OF PALM OIL PROCESSING ENTERPRISE TO HOUSEHOLD WELFARE IN ODIGBO LOCAL GOVERNMENT AREA ONDO STATE NIGERIA

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BSRACT

This study was carried out in Odigbo Local Government Area of Ondo state to assess the contribution of palm oil processing enterprise to household welfare. A multistage sampling procedure was used for sample selection with a 30% purposive selection of wards from 11 wards in Odigbo LGA. Random sampling was used to select 50% of palm oil processors from 240 processors from 10 communities in the 3 selected wards respectively making a total of 120 respondents. A well-structured questionnaire was used for data collection and data was analyzed with descriptive and inferential statistics. The findings of the study revealed that most of the respondents (66.7%) were male, majority of respondents (38.3%) within the age range of 31 and 40, and 82.5% were married. Based on the findings, the result revealed that respondents' involvement in palm oil enterprise does not correlate with household welfare (r = 0.390, p>0.05). The result further revealed that other livelihood activities have correlation with household welfare (r = 0.263, p<0.05). In conclusion, most of the respondents diversified into other livelihood activities which are invariably responsible for their household welfare. Also paucity of funds and credit facility were major challenges encountered by the processors. Therefore, the input of extension services is needed to motivate and encourage the palm oil entrepreneurs to visit relevant research institutes for latest innovation on processing methods and they should also be assisted in sourcing credits facility from relevant agencies to improve their production for better welfare system.

Keywords: Contribution, Palm-oil, Enterprise, Household, Welfare

INTRODUCTION

Oil palm (*Elaeis guineensis* Jacq.) is a perennial crop believed and accepted to have originated from West Africa (Obahiagbon, 2012). It spreads to South America in the 16th century and to Asia in the 19th century (Olagunju, 2008). In the recent decades, the domestic consumption of palm oil in West Africa has increased rapidly than its production, and has now become a net importer of palm oil (Olagunju, 2008). Oil palm is deemed to be of great economic importance especially when considering household welfare issues. There are many enterprises being derived from oil palm due to involvement of rural dwellers in its production, processing, palm kernel extraction, broom making, palm kernel oil business, palm kernel cake and sales/marketing. However, Nigeria was one of the leading exporters of crude palm oil in the 1960s but has now become a net importer to bridge the increasing domestic demand gap (Yusuf, 2018).Thus Nigeria's expedient goal is to meet the domestic demand, and if possible seeks to become competitive in the export markets. Nigerian palm oil production is potentially competitive in domestic markets to enhance the overall economic development through income and employment effects in rural and urban economics. Palm oil has many uses. It is used as a source of energy in livestock feed, manufacturing of detergents, cosmetics, shoe polish, candle sticks and for other domestic/ nutritive purposes (Abdeltawab and Khattab, 2018). According to Hartley (1998) Nigeria used to produce a large proportion of palm oil for sale in the world market. It was a dominant

source of foreign exchange for Nigeria before Indonesia and Malaysia took over (Omoti, 2003). The fortunes of Nigeria plunged as a result of the discovery of crude oil and this has caused a major decline in the processing of palm oil in Nigeria. There are indications that promotion of private sector participation in oil plantation holds the ace in effective revival of the produce business in the country. Despite several research efforts on improved processing methods for palm oil over the years, there are still myriads of challenges like inadequate finance, insufficient oil palm kernel fruits, and lack of effective processing techniques among rural processors (Ajani *et al*., 2012). These challenges encountered among others are major factors that affect production, supply of palm oil and poor welfare of the rural processors. Therefore, this study seeks to evaluate contribution of palm oil processing enterprise to household welfare in Odigbo Local Government Area, Ondo State. The specific objectives were to examine the socio-economic characteristics of respondents, ascertain the extent of involvement of the respondents in palm oil enterprise, identify other livelihood activities of respondents apart from palm oil enterprise, and assess the constraints encountered by respondents in the study area to assess the contribution palm oil business to welfare of the people. The hypotheses for the study are as follows; $H_0$1: there is no significant relationship between the extent of involvement in palm oil enterprise and household welfare and $H_0$2: there is no significant relationship between other livelihood activities of respondents and household welfare.

MATERIALS AND METHODS

Study area

The study was carried out in Odigbo Local Government Area, Ondo state. Ondo state is geographically located in the Southwestern Nigeria with $7^{o}5'$ N $5^{o}5'$E coordinates. The state comprises 18 Local Government Areas of which Odigbo is one. However, the state has the total land area of 15,500 km² and population of about 3,460,877 (NPC, 2010). It falls in the tropical climate and belongs to equatorial rainforest vegetation belt. It has an average rainfall of 1,524 mm annually with the rainy season lasting for 8 months from April to November, and the temperature range between 24^{o} C and 31^{o} C with average of 27^{o} C, and average humidity of 73% annually (Adeleke and Olabode, 2017). Odigbo Local Government selected for the study has land area of about 1,836.878 km² and population of 232,287 (NPC, 2010). There are eleven (11) wards in the study area, which are Ago-Alaye, Oniparaga, Ayesan, Araromi-Obu, Koserun, Ore, Ejija, Agbabu, Odigbo,Ajue, and Onisere. The major occupation of the people in the state is cultivation of permanent crops such as cocoa, kolanut and also practices of agroforestry whereby plantain and oil-palm are interplanted with arable crops.

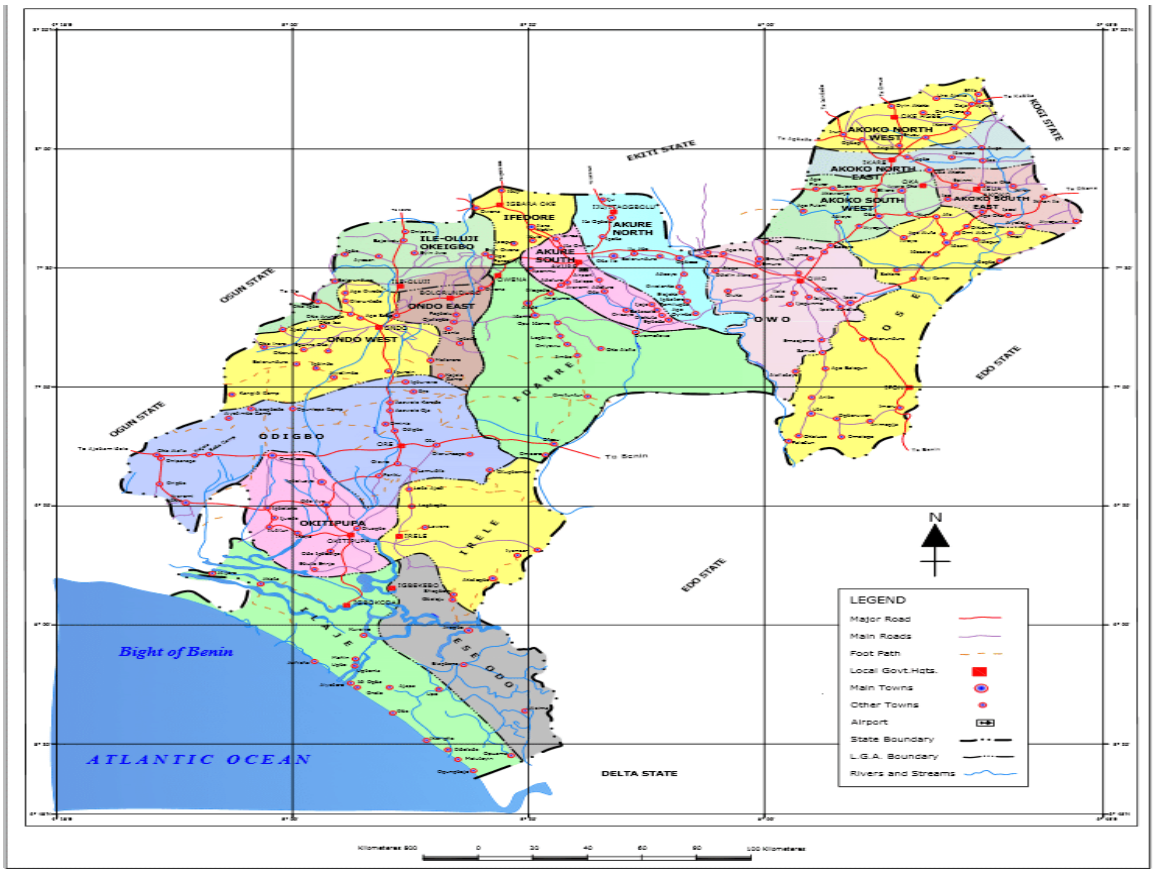

Figure 1: Map of Ondo State Showing Odigbo Local Government Area
Source: Owolabi and Aderinola (2014).

Research Design

A multistage sampling procedure was used for sample size selection. Purposive sampling was used to select 30% of the wards from Odigbo LGA. These were Oniparaga, Ago-Alaye and Araromo-Obu comprising 10 communities notable for palm oil production respectively. A random sampling was used to select 50% of 240 processors from the communities making a total of 120 respondents as sample size. A well-structured questionnaire was used for data collection.

Data Analysis

Data from the study were analyzed with both descriptive (frequencies and percentages) and inferential statistics (Pearson Product Moment Correlation).

RESULTS

Socio-economic characteristics of the Respondents

Table 1 reveals that majority of the respondents (66.7%) were males. The table also shows that majority of the respondents (38.4%) are between the ages of 31-40 years. The table reveals that 82.5% of the respondents are married signifying the majority. The table reveals that 53.3% of the respondents have secondary education. The table further reveals that most of the respondents (43.3%) have farming as the primary occupation. The table shows that the majority (71.7%) of respondents were producing palm oil below 1000 kg.

Table 2 reveals that majority of the respondents (65.0%) were into oil palm plantation while 49.2% of the respondents were involved in harvesting of oil palm fruits from the plantation. Furthermore the table reveals that 53.3% of the respondents were involved in the sales of oil palm products.

Table 3 reveals that majority of the respondents (72.5%) were into trading. The categorization of respondents based on their involvement in other livelihood activities reveals that most of the respondents (66.7%) were highly involved other livelihood activities.

Table 1: Respondents distribution of personal characteristics (N= 120)

Variable	Frequency	Percentage
Gender		
Male	80	66.7
Female	40	33.3
Total	**120**	**100**
Age		
21-30	5	4.2
31-40	46	38.3
41-50	30	25.0
51-60	20	16.7
>60	19	15.8
Total	**120**	**100**
Marital status		
Single	13	10.8
Married	99	82.5
Divorced	4	3.3
Widow(er)	4	3.3
Total	**120**	**100**
Education		
Non-formal	24	20
Primary	18	15
Secondary	64	53.3
Tertiary	14	11.7
Total	**120**	**100**
Primary occupation		
Farming	52	43.3
Artisan	22	18.3
Civil servant	21	17.5
Trading	25	20.9
Total	**120**	**100**
Tonnage capacity (kg)		
≤1000	86	71.7
1001-2500	24	20.0
>2500	10	8.3
Total	**120**	**100**

Source: Field survey, 2015

Table 2: The Extent of involvement of respondents in palm oil enterprise (N= 120)

Statements	Always Frequency (%)	Sometimes Frequency (%)	Never Frequency (%)
Oil palm plantation	65 (54.2)	51 (42.5)	4 (3.3)
Harvesting palm fruits	59 (49.2)	49 (40.8)	12 (10.0)
Sales of oil palm products	64 (53.3)	53 (44.2)	3 (2.5)
Sorting of palm fruits for sales	53 (44.20)	36 (30.0)	31 (25.8)
Farm labour and processing	53 (44.2)	33 (27.5)	34 (28.3)
Possess local processing facility palm oil production	42 (35.0)	37 (30.8)	41 (34.2)

Table 3: Other livelihood activities of the respondents (N= 120)

Other livelihood activities	Yes Frequency (%)	No Frequency (%)
Arable crop farming	82 (68.3)	38 (31.7)
Livestock rearing	48 (40.0)	72 (60.0)
Trading	87 (72.5)	33 (27.5)
Hired labour	30 (25.0)	90 (75.0)
Food vendor	12 (10.0)	108 (90.0)
Civil service	45 (37.5)	75 (62.5)
Transport business	17 (14.2)	103 (85.8)

Note: Percentages in parentheses

Table 4 reveals that 48.3% of the respondents identified inadequate finance as a very severe constraint to the processing of palm oil. The result further showed that54.2% of the respondents signified that inadequate credit facility was a serious challenge in the processing of palm oil in the study area.

Table 4: Constraints associated with palm oil processing enterprise

Constraints	Not severe Frequency (%)	Severe Frequency (%)	Very severe Frequency (%)
Inadequate finance	21(17.5)	41 (34.2)	56 (48.3)
Inadequate credit facility	7 (5.8)	48 (40.0)	65 (54.2)
Shortage of labour	8 (6.7)	50 (41.7)	62 (51.7)
Lack of agricultural inputs	20 (16.7)	26 (21.7)	74 (61.7)
Poor power supply	19 (15.8)	13 (10.8)	88 (73.3)
Poor access to poverty alleviation program	7 (5.8)	31 (25.8)	82 (68.3)
Buyers who buy on credit	24 (20.0)	26 (21.7)	70 (58.3)
Low patronage by buyers	21 (17.5)	43 (35.8)	56 (46.7)

Note: Percentages in parentheses

Table 5 revealed that there is no significant relationship level of involvement in palm oil enterprise and household welfare ($r = 390$, $p>0.05$). Table 6 revealed that there is a significant relationship between other livelihood activities of respondents and their household welfare ($r = 0.263$, $p< 0.05$).

Table 5: Pearson product moment correlation (PPMC) analysis distribution

Variable	r-value	p-value	Decision
Level of involvement in palm oil enterprise Vs Household welfare	0.390	0.254	Not significant
Other livelihood activities Vs Household welfare	0.263	0.004	Significant

DISCUSSION

Socio-Economic Characteristics of the Respondents in the Study Area

The socio-economic characteristics of the respondents indicate that males were more involved in palm oil processing than females in the study area. This result does not corroborate with the submission of Nwankwo (2016) that women are more involved in palm oil processing in South-East Nigeria. This finding also contradicts the submission of Ali *et al*. (2009) that food processing is mostly practiced by women. The high number of respondents within the age bracket of 31 and 40 could be an indication that youth who are active and are in their productive years dominate the business. This finding corroborates with the work of Anzanku *et al*. (2006) that oil palm processors are in the active youthful age. The distribution also shows that majority of the respondents are married. This corroborates with the submission of Atibioke *et al*. (2012) that most rural dwellers are married with high sense of responsibility. The table reveals that

majority of respondents have secondary education. This implies that palm oil processing exclusion business of the illiterates but the involvement of educated people could influence their level of production. This is in agreement with the view of Erhabor and Emokaro (2007) that the output of educated processors tends to be higher than if than if they are not educated. The table shows that the majority of respondents were producing palm oil below 1000kg. This implies that majority of the processors lack necessary machines for large volumes of production.

Extent of Involvement of Respondents in Palm Oil Enterprise

The result of the study revealed that respondents were involved in different aspect of oil palm production processes. Some were into oil palm plantation, some were involved in harvesting of fruits from plantation, and others in processing. Furthermore the result reveals that most of the respondents were also involved in the sales of oil palm products. This implies that most respondents were involved in various aspects of oil palm production activities which are profitable in all ramifications. This finding is in line with the submission of Nwalieji and Ojike (2018) that most respondents in Anambra State were involved in different aspects of palm oil production processes.

Other Livelihood Activities of the Respondents

The result in table 3 revealed that majority of the respondents was into trading. This implies that many of the respondents are into other livelihood activities other than palm oil processing business. The study further reveals that most of the respondents were highly involved other livelihood activities such as arable crop farming and trading. This is an indication that the respondents diversified into other means of livelihood due to paucity of funds and poor access to credit facility for the palm oil processing business. This corroborates with the submission of Reardon *et al*. (2001) that occupational diversification is associated with higher and stable income for sustainable welfare throughout the year.

Constraints Associated with Palm Oil Processing Enterprise

The result of the study showed that most of the respondents identified inadequate finance as a very severe constraint to the processing of palm oil. It further revealed that poor power supply, poor access to poverty alleviation program, lack of agricultural input probably have great consequence on processing of palm oil. The distribution also reveals that majority of the respondents signify that they experienced serious challenges in the processing palm oil. This implies that palm oil processing business among the household encountered high severity of constraints. This finding corroborates with the submission of Nwalieji and Ojike (2018) that insufficient funds and poor incentives were severe constraint encountered by the processors in Anambra State.

CONCLUSION

The findings showed that palm oil processing enterprise was dominated by male. The respondents were active and productive middle aged young people with production capacity below 1000kg. They were involved in various aspects of production processes. The respondents also diversified into other livelihood activities like crop farming and trading due to paucity of funds and poor access to credit facility.

Recommendation

The input of extension services is needed to motivate and encourage the palm oil processors to visit relevant research institutes for latest innovation on processing methods and they should also be assisted in sourcing for credit facility from government and other relevant credit agencies to improve their production for sustainable welfare system.

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