

SOCIO-ECONOMIC DETERMINANTS OF PORK PRODUCTS MARKETING IN SAPELE LOCAL GOVERNMENT AREA OF DELTA STATE.

C.D Nnadi,¹ P.E Kainga¹, F.N Nnadi², R. Abule³, G. C Onubuogu⁴ and L. C. Tabarije¹

¹. Department of Agricultural Economics, Extension and Rural Development, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria.;

². Department of Agricultural Extension Federal University of Technology, Owerri, Imo State, Nigeria.;

³. Department of Animal Science, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria.;

⁴. Department of Agricultural Economics, Extension and Rural Development, Imo State University, Owerri, Imo State, Nigeria.

Correspondence - C.D Nnadi, florentusn@yahoo.co.uk

ABSTRACT

This study on the Socio-economic determinants of pork products marketing was carried out in Sapele Local Government Area of Delta State. The pork products enterprises and the socio-economic characteristics of the marketers were identified and described. Also, the socio-economic factors that determined the marketers' income were analysed. A total of 78 pork products marketers were randomly sampled using a multi-stage sampling method; involving purposeful selection of predominant pork products markets and clustering of marketers according to their product/enterprise. Results indicated three pork products enterprises dominated by the fresh pork enterprise (40%) followed by roasted/dried pork enterprise (33%) and fried pork enterprise (27%). The pork product marketers are mainly literate married young men and women within the active age of about 41 years with a household size of about 6 persons and possessed good experience in the business (10 years). Age, marital status, household size, trading experience and educational level were the socio-economic and marketing factors that determined the pork product marketers' net income. Provision of facilities, training, linkages and institutional and other relevant support in line with world best practices by the government, non-governmental organizations, individuals as well as the marketers themselves, is advocated.

Key words; Socio – economic, Determinants, Pork, Products, Marketing.

1.0 INTRODUCTION

The emphasis on balanced diet remains critical in achieving a healthy society. For growth and repair of worn-out tissues, the consumption of protein remains vital. This is believed to be faster with the consumption of the first class protein (animal protein). Unfortunately however, the high price levels of the food (animal protein) manifests in the irregularity, poor size/ quantity and quality consumed of it by greater population; especially of the developing world. It is estimated that more than 2 billion people in the world are deficient in key vitamins and minerals, particularly vitamin A, iodine, iron and zinc; with deficiencies occurring, when people have limited access to micronutrient-rich foods such as meat, fish, fruit and vegetables (Schonfeldt and Gibson, 2012). These highly nutritious foods such as meat are particularly

required often by HIV/AIDS infected persons/communities, children and also women; most of whom in low income countries are typically deficient in more than one micronutrient (Schonfeldt and Gibson, 2012). This lays credence to the spate of poverty and by extension hunger, malnutrition and food insecurity confronting the common man in the society. This situation tends to be worse, with seeming limited sources of animal protein; the most common sources being domesticated animals. Accordingly, Adesehinwa *et al.* (2007) noted that Nigeria, like many other developing countries is facing the problem of shortage of dietary animal protein (meat), while Ezeibe (2009), observed that with the ever increasing human population in Nigeria and virtually static productivity, the animal protein consumption among Nigerians has worsened in the past few years; with many feeding mostly on carbohydrate because the average man cannot afford the cost of animal protein which is richer in amino acid.

The domestic animals consumed by men are poultry, rabbit, cow, sheep, goat and pig amongst others. Statistics indicated that, Cow (beef and veal) was top of the menu in the early 1960s, accounting for 40% of meat consumption, but by 2007 its share had fallen to 23% and pig became the animal of choice, with around 99m tonnes consumed (Tepper, 2014). The higher percentage intake of pork was earlier in the year 2001 noted; as pork according to (Food and Agriculture Organization (FAO), 2001) was the most popular meat consumed in the world; with forty percent (40%) protein derived from pork and pork products. Recent statistics however, puts world meat consumption at pork (36%), poultry (35%) and beef (22%) (FAO, 2014). Again, Pig production has become increasingly important owing to the changing dietary patterns and growing demand for animal protein (Saka, Adeshinwa and Ajala, 2010). To hold the opinion therefore that meat from pig; pork and various pork products such as bacon, sausage, pork chops and ham; consumed by people of the world, makes pig, stand out in the supply of animal protein, notably, may not be wrong. In corroboration, Ajala, Adesehinwa and Mohammed (2007), observed that animal protein sources in Nigeria include beef, milk, pork, poultry, egg, mutton, chevon and game animals; and of these sources, pork represents one of the fastest ways of

increasing animal protein. Also, Akintunde *et al.* (undated), in a broader view posited that pig production represents the fastest means of correcting animal protein shortage in Africa.

In Delta State and Sapele LGA. in particular, the case may not be different as UNDP (2012), observed that even though artisanal fishing is an important economic livelihood in Delta State, fish stocks are declining, largely due to environmental degradation. Sequel to this, Utomakili and Oyibu (1995) noted the popularity of pork amongst the people of Benin City, Sapele, Warri and Ughelli in their study in Edo and Delta states. Evident enough therefore is the fact that amongst the people of Sapele Local Government Area of Delta State is the use of pork. The popularity of this meat variety amongst the people in the area manifests in its wide usage for a variety of local cuisines. This has offered opportunity for the emergence of pork product marketing/enterprises within the area. By this, rural employment is generated and local economy stimulated. Marketers of these products apparently however, possess diverse socio-economic qualities which in one way or the other affects their businesses.

Unfortunately studies in the past for example Utomakili and Oyibu (1995), Adeshinwa, Ajala and Yakubu (2007), and Ajieh and Okwuolu (2015), have considered various issues in the production and marketing of pig/pork with no empirical evidence of research on pork products marketing; especially in Sapele Local Government Area of Delta State. A hiatus in knowledge therefore exists. This was the basis upon which this study on the socio-economic determinants of pork products marketing in Sapele Local Government Area of Delta State was initiated to specifically identify the pork product enterprises in the area, identify and describe the socio-economic characteristics of the marketers and to analyse the socio-economic factors that determine income from pork product marketing in Sapele Local Government Area of Delta State.

2.0 METHODOLOGY

This study was carried out in Sapele Local Government Area of Delta State. Delta State was created in 1991 alongside a few other states in Nigeria. Although her population of 2.5 million people grew by an estimated 1.2 million people to 3.7 million people in 2005 based on a nationwide annual population growth rate of 2% (IMF, 2005), the National Population Commission (NPC) population census figure for the state is 4,098,291 people (NPC, 2006). The climate of Delta State varies from hot equatorial in the southern lowlands to humid tropical in the northern highlands, and cool montane in the Plateau area (Okoh *et al.*, 2010). Delta State is predominantly agrarian and covers an area of 17,698 km² (UNDP, 2012).

A multi-stage sampling procedure was used to select the pork product marketers for this study. A purposeful sampling of the major pork markets of Sapele and Amukpe markets was made because of the prevalence of pork product marketing in the areas, and the popularity of pork in the area following the criteria used by (Utomakili and Oyibu, 1995). A cluster sampling of the pork product enterprises was done; from where (13) marketers were randomly drawn from each enterprise. This gave a total of 78 marketers from 3 enterprises; that were interviewed using structured questionnaire that was complemented with interview schedule. Data collected for this study was presented and analysed by means of descriptive and inferential statistics of pie charts, frequency distribution tables, percentages, means and multiple regression technique.

The four functional forms of the regression model; linear, semi- logarithmic, double- logarithmic and exponential, were tried and the best fitted model was selected and used. Thus the t-ratios produced by the Regression analysis established the socio-economic factors that determine the net income from pork products marketing.

The model for the regression analysis was specified as follows:

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6)$$

Where:

Y is the dependent variable = Total revenue (₦)

X₁ = Age (Years)

X₂ = Sex (Dummy; male =1, female = 0)

X₃ = Marital Status (Dummy; married =1, single = 0)

X₄ = Household Size (Number of persons in the household)

X₅ = Experience (Number of years in pork product marketing)

X₆ = Educational Level (Number of years spent in school)

3.0 RESULTS AND DISCUSSION

3.1 Pork Products Enterprises in Sapele LGA, Delta State.

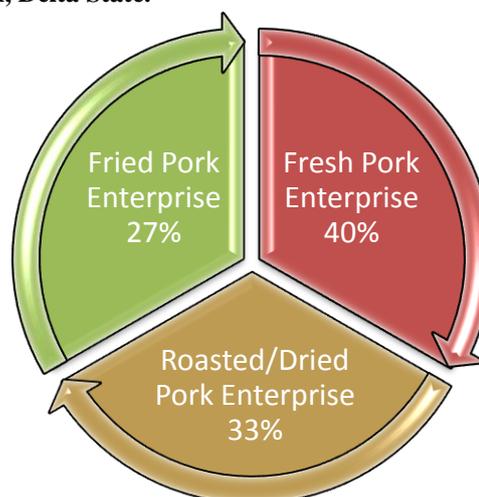


Figure1. Pork Products Enterprises in Sapele LGA, Delta State.

Source: Field survey data, 2015.

The pork product market in Sapele LGA of Delta State is made up of three (3) enterprises. The fresh pork enterprise, is dominated by 40% of the pork product marketers, and closely followed by the roasted/dried pork enterprise with 33% and lastly by

fried pork enterprise with 27%. The dominance of fresh pork enterprise may be because of the dependence of other products on it. Also there seem to be narrow margin existing in the percentage of marketers involved in the various enterprises; thus suggesting that monopoly in any enterprise segment barely exists.

3.2. Socio-Economic and Marketing Characteristics of Pork Product Marketers

Table 1: Socio-economic and marketing characteristics of pork product marketers in Sapele Local Government Area of Delta State (N = 78).

Socio-Economic Characteristics	Enterprise Type									Mean of Means
	A) Fresh pork			B) Fried pork			C) Roasted/ Dried pork			
	Frequency	Percentage (%)	Average	Frequency	Percentage (%)	Average	Frequency	Percentage (%)	Average	
Age			42.60			38.36			42.04	41
21 – 30	10	32.26		6	28.57		8	30.77		
31 – 40	4	12.90		5	23.81		4	15.38		
41 – 50	7	22.58		5	23.81		6	23.08		
51 – 60	5	16.13		3	14.29		5	19.23		
61 – 70	5	16.13		2	09.52		3	11.54		
Total	31	100.00		21	100.00		26	100.00		
Sex			-			-			-	-
Male	10	32.26		13	54.17		-	-		
Female	21	67.74		11	45.83		26	100.00		
Total	31	100.00		21	100.00		26	100.00		
Marital Status			-			-			-	-
Single	7	22.58		8	38.10		5	19.23		
Married	24	77.42		17	61.90		25	80.77		
Total	31	100.00		21	100.00		26	100.00		
Household Size			5.73			6.12			6.04	5.96
1 – 4	11	35.48		7	33.33		9	34.62		
5 – 8	15	48.39		9	42.86		11	42.31		
9 – 12	5	16.13		5	23.81		6	23.07		
Total	31	100.00		21	100.00		26	100.00		
Trading Experience			10.77			9.12			9.75	9.88
< 5years	4	12.90		3	14.29		9	34.62		
6 – 10 years	13	41.94		12	57.14		6	23.08		
11 – 15 years	7	22.58		4	19.05		3	11.53		
16 – 20 years	7	22.58		2	09.52		8	30.77		
Total	31	100.00		21	100.00		26	100.00		
Educational Level (years)			8.34			8.64			8.12	8.37
1 – 6	9	29.03		7	33.33		9	34.62		
7 – 12	19	61.29		10	47.62		14	53.85		
13 and above	3	09.77		4	19.05		3	11.53		
Total	31	100.00		21	100.00		26	100.00		
Grand Total	78 = 100%									-

Source: Field survey, 2015.

Results in table 1 above, showed that pork product marketers within the age range of 21-30 years, consisted of 32.26% of the fresh pork product enterprise, 28.57% of the fried pork product enterprise and 30.77% of the roasted/dried pork product enterprise. Another 12.90%, 23.81% and 15.38% respectively of the fresh, fried and roasted/dried pork product enterprises, fell between 31-40 years. Again, 22.58%, 23.81% of the fresh, fried and roasted/dried pork product enterprises respectively were between 41-50 years; 16.13%, 14.29% and 19.23% of the fresh, fried and roasted/dried pork product enterprises respectively fell between 51- 60 years while 16.13%, 9.52% and 11.54% of the fresh, fried and roasted/dried pork product enterprises respectively were within the age range of 61-70 years. An average age of 42.60 years, 38.36 years and 42.04 years respectively were recorded for the fresh pork product marketers, fried pork product marketers and roasted/dried pork product marketers; with a grand mean age of 41 years for the entire pork product marketers. This result shows that most of the pork product marketers are at their active and productive/economic ages. This indeed is plausible, as the industry seemingly provides employment for the active workforce. Meaningful employment for an active workforce reduces the dependency ratio which invariably could reduce the level of viciousness in the society. Indeed the engagement of an active workforce is vital for the growth and stability of any economy. The pork industry should therefore be targeted and strengthened for unemployment reduction.

The results on sex in Table 1 above, shows that 32.26% of the fresh pork marketers were males while 67.74% were females; 54.17% of the fried pork marketers were males, while the remaining 45.83% were females. Again, while no male deals on roasted/dried pork, the enterprise is dominated by females (100%). This result implies that pork marketing is not gender sensitive with the exception of the roasted/dried pork product enterprise. This is plausible, as both men and women can be meaningfully employed in this business. However, the greater percentage of men involved in fried pork marketing could be as a result of the product being used mostly as snack; its distribution and sales require a lot of itinerancy to reach customers.

Results in Table 1 above, showed that 22.58%, 38.10% and 19.23% of the fresh pork product marketers, fried pork product marketers and roasted/dried pork product marketers respectively were single while 77.42% (fresh pork product marketers), 61.90% (fried pork product marketers) and 80.77% (roasted/dried pork product marketers) were married. This implies that most of the pork marketers are married. Marriage is a mark of responsibility. Thus, pork marketers in the area could

be said to be responsible people. Responsibility is a virtue, the society requires it to create enabling environments for further developments. The result of the finding of Ajieh and Okwuolu (2015) on pig production was in consonance with the above.

A total of 35.48% (fresh pork marketers), 33.33% (fried pork marketers) and 34.62% (roasted/dried pork marketers), indicated household size of less than five (5) persons. Another 48.39% (fresh pork marketers), 42.86% (fried pork marketers) and 42.31% (roasted/dried pork marketers), indicated household size of between 5-8 persons while 16.13% (fresh pork marketers), 23.81% (fried pork marketers) and 23.07% (roasted/dried pork marketers), indicated household size of between 9-12 persons. An average household size and grand mean of 6 persons was obtained for the pork product marketers respectively. This implies that the pork marketers in the study area perhaps operate nuclear families. There could be strong desires for privacy and strong emotional attachments between spouses and between parents and children. Again, the economic crunch and untold hardships that has persisted globally and locally due to natural/environmental hazards such as flood and erosion, food crises, insurgency, crude oil price falls amongst others, may have curtailed the rate of child bearing and accommodating dependents amongst the poor resource marketers. This could further mean that the marketers probably are aware of the obvious implications of keeping large households with limited resources.

In Table 1 above, the results obtained indicated that 12.90% (fresh pork marketers), 14.29% (fried pork marketers) and 34.62% (roasted/dried pork marketers), had 5 years or below trading experience, while 6-10 years recorded 41.94% (fresh pork marketers), 57.14% (fried pork marketers) and 23.08% (roasted/dried pork marketers). Again, 22.58% (fresh pork marketers), 19.05% (fried pork marketers) and 11.53% (roasted/dried pork marketers), had 11-15 years trading experience. For 16-20 years, 22.58% (fresh pork marketers), 9.52% (fried pork marketers) and 30.77% (roasted/dried pork marketers), were recorded. The average trading experience were approximately 11 years, 9 years and 10 years respectively, while a grand mean of about 10 years was obtained for the entire pork product marketers. This implies that majority of the pork marketers have a somewhat good level of experience in their business. Experience is vital and necessary for any activity. It enhances good decision making. This result therefore suggests that the pork marketers in the area are at vantage positions based on trading experience and as such are likely to take good decisions for their businesses.

Table 1 presents pork marketers distribution in terms of numbers of years spent in school, Results obtained reveals that pork marketers who spent 1-6years in school (primary education) are 29.03% (fresh pork marketers), 33.33% (fried pork marketers) and 34.62% (roasted/dried pork marketers). Whereas 61.29%, 47.62% and 53.85% of fresh pork marketers, fried pork marketers and roasted/dried pork marketers respectively, had secondary education (7-12years), 9.77%, 19.05% and 11.53% respectively of fresh pork marketers, fried pork marketers and roasted/dried pork marketers, spent 13years and more in school (tertiary education). With average numbers of 8.34, 8.64 and 8.12 years spent in school respectively by the fresh, fried and

dried/roasted pork product enterprises; and a grand mean of 8.37years (secondary education), it can be said that the marketers are lettered. Their tendency to access information orally or written therefore seems high; which implies that the pork marketers would have greater tendency of adopting new technologies and strategies for their business growth. Madukwe (1995), Ajieh and Okwuolu (2015) made similar findings.

3.3 Socio-Economic Determinants of Pork Marketers’ Net Income

The regression estimates of the socio-economic determinants of pork marketers net income is presented in Table 2.

Table 2. Regression result of the socio-economic determinants of pork marketers’ net income

Variables	Coefficients	Standard Error	T-Ratio
Constant	196.3006	0.0273	7190.4982
Age (X_1)	- 0.0822	0.0266	- 3.0902*
Gender (X_2)	0.0739	0.0604	1.2235 ^{NS}
Marital Status (X_3)	0.0749	0.0304	2.4638*
Household Size (X_4)	- 0.0593	0.0169	- 3.5089*
Experience (X_5)	0.0712	0.0228	3.1228*
Education (X_6)	0.0883	0.0214	4.1264*
R^2	0.7746		
F-Value	41.6452*		

NS = Not Significant, * = Significant at 5%

Source: Field survey data, 2015.

The Double- Log functional form of the multiple regression model was chosen from the four functional forms of Linear, Semi-Log, Double-Log and Exponential. The selection was premised on the *a-priori* expectations of more significant variables (five out of six), highest R^2 (77.5%) and highest F-Value of 41.6452 – Table 2. The result indicated that Age (X_1), Marital Status (X_3), Household Size (X_4), Trading Experience (X_5), and Educational Level (X_6), were the major socio-economic factors affecting the pork product marketers’ net income. While the marketers’ Age (X_1), with a coefficient of -0.0822 and T-Value of -3.0902 and Household Size (X_4), with a coefficient of -0.0593 and T-Value of -3.5089 , have inverse relationships with their net income, a direct relationship existed between their net incomes and their Marital Status (X_3) with a coefficient of 0.0749 and T-Value of 2.4638 ; Trading Experience (X_5) with a coefficient of 0.0712 and T-Value of 3.1228 ; and Education (X_6) with a coefficient of 0.0883 and T-Value of 4.1262 . The implication of this result is that the pork marketers’ income on one hand significantly increases with their increasing marital status, trading experience and education; and on the other hand significantly decreases with their increasing age and household size. This result is adjudged good as pork and pork product marketing

could offer employment to the educated and upcoming people in our society; who with experience garnered over youthful years of trading, is capable of accumulating capital for possible investment into other ventures at an older age and with large household size.

4.0 CONCLUSION

Pork product marketing is therefore capable of generating adequate employment for literate young men and women, who driven by their marital status, small households and marketing experiences, are likely to take the sub-sector and the entire livestock industry to the next level. A sound implementable government policy, programme and or project geared towards achieving this especially in line with world best practices will be most salubrious. Institutional and other support capable of ensuring sustainability of the sub-sector should be provided as matters of policy and advocacy by appropriate authorities.

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