
Constraints to Palm Wine Marketing in Rural Areas of Akwa Ibom State, Nigeria

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Abstract

The study ascertained the constraints to palm wine marketing in rural areas of Akwa Ibom State, Nigeria. A sample size of 160 palm wine marketers were selected using a two-stage sampling procedure. Data obtained were analyzed using descriptive statistics and cost-return analysis. Out of the 160 interviewed palm wine marketers with mean age of 42 and average years of palm wine marketing experience of nine years, 92.5% were males, 76.3% were married and 93.7% had formal education. Cost-return analysis indicated that the gross margin for palm wine marketing in the study area was ₦5,340,450.00 indicating that palm wine marketing in the study area is profitable. Findings also reveal that high cost of transportation, lack of storage/preservation facilities, lack of capital/inadequate finance and poor road network were the most severe constraints to palm wine marketing faced by the respondents. It is recommended that the State Government endeavour to provide basic infrastructure such as good road networks in the rural areas that will enhance palm wine marketing activities in the study area.

Keywords: Constraints, palm wine, marketing, rural

Introduction

Palm wine is an important alcoholic beverage in West Africa where it is consumed by more than ten million people (Eyo, 2015). It is produced by tapping the sap of oil palm (*Elaeis guineensis*) and the raphia palm (*Raphia spp*) (Nwibo *et al*, 2012). It contains a heavy suspension of yeast and bacteria, giving the beverage a milky white appearance (Okafor, 1998). Palm wine is created from the fermented sap of the various palm trees. Fermentation begins immediately after collection as a result of natural yeasts in the air and wine, and within two hours the alcohol content reaches approximately 4% - and at this stage the product is a sweet, white, milky intoxicating aromatic beverage (Mbuagbaw and Noorduyn, 2012). Continued fermentation for up to twenty four hours results in a more alcoholic, acidic and sour white drink (Ukhum *et al*, 2005). Palm wine is basically a highly perishable liquid

consisting mainly of water, sugar, vitamin and many aroma and flavour components in very small amounts (Omofonwan *et al*, 2013).

Palm wine is an important economic resource as it provides employment for people in West Africa (Ukhum *et al*, 2005). It plays significant nutritional and social roles in the society (Nwibo *et al*, 2012); it is a useful source of food and stimulant in breast milk production; and serves as a solvent in curing measles in children and syphilis in adults (Arowolo, 2000). In most African countries, palm wine is commonly thought to be a very nourishing drink which promotes lactation, treats conjunctivitis and improves eyesight generally (Mbuagbaw and Noorduyn, 2012). African traditional rulers often infuse palm wine with medicinal herbs to produce a wide range/variety of remedies (Lebbie and Guries, 2002). Palm wine is produced mainly in the rural areas of Nigeria (Ekundayo, 2000) and is often marketed there also. However, Eyo (2015) reported that certain constraints hinder the marketing of palm wine in rural areas of Akwa Ibom State. This study therefore aimed at ascertaining these constraints. Specifically, the objectives were to examine the socio-economic characteristics of palm wine marketers in rural areas of Akwa Ibom State, determine the profitability of palm wine marketing in the study area and ascertain the constraints to palm wine marketing in the study area.

Methodology

The study was conducted in Akwa Ibom State of Nigeria. The State is located within the South-Eastern axis of Nigeria, wedged between Cross River, Abia and Rivers State on the sandy Deltaic plain of the Guinea Coast. On the southern margins of the State is the Atlantic Ocean which stretches from Ikot Abasi Local Government Area to Oron Local Government Area. The State lies between latitudes 4⁰31" and 5⁰31" North, and longitudes 7⁰35" and 8⁰25" East; occupies a total land area of 7, 245, 935 km²; and has estimated population of 3, 920, 208 (National Population Commission, 2006). A two-stage sampling procedure was employed for this study. The first stage involved the simple random selection of four out of the six Agricultural Development Project (ADP) Zones in Akwa Ibom State. The selected ADP zones were Abak, Ikot Ekpene, Oron and Uyo. The second stage involved the purposive selection of forty palm wine marketers from rural areas in each of the four ADP Zones. Purposive sampling was employed to ensure that only palm wine marketers in rural areas of the Zones were selected for the study. This resulted in a sample size of 160. Data for the study, obtained using a validated questionnaire, from January 2014 to May 2014 were analyzed using descriptive statistics and cost-return analysis. Frequency counts, percentages, means and ranks were used to analyze the socio-

economic characteristics of palm wine marketers in rural areas of Akwa Ibom State. Cost-return analysis was employed to estimate the cost, revenue and gross margin accruable to the marketers. The equation used in estimating the gross margin is defined below:

$$GM = TR - TVC$$

Where:

GM = Gross margin, TR = Total revenue and TVC = Total variable cost

In order to ascertain the constraints to palm wine marketing faced by the respondents, eleven major constraints were identified through literature. Respondents were requested to indicate whether they face any of the constraints. This was done with the aid of a 3-point Likert-type scale, with nominal values assigned to the points in the scale as follows: Not a constraint = 0, Minor constraint = 1 and Major constraint = 2. A mean score was computed for each constraint item, and the mean score was used to rank the constraints in order to severity.

Results and Discussion

Socio-economic characteristics of palm wine marketers: Table 1 shows the socio-economic characteristics of palm wine marketers in the rural areas of Akwa Ibom State. The Table reveals that the mean age of palm wine marketers in study area was 42 years. The finding corroborates Asa and Solomon (2010) who reported that majority of rural dwellers in Akwa Ibom State were below 50 years. Over ninety percent of the respondents (92.5%) were males and majority of them (76.3%) were married. The findings agree with Adinya *et al* (2008) who opined that palm wine marketing in Akwa Ibom State is dominated by males; Ekong (2003) also stated that marriage is a highly cherished value among people in Akwa Ibom State, Nigeria. Majority of the respondents (93.7%) had formal education and are functionally literate; and 88.1% were Christians. Ekerete and Asa (2014) reported a high level of literacy among marketers in Akwa Ibom State. The respondents' average household size comprised of five persons. The finding agrees with Okoro (2004) who reported that majority of rural dwellers in Akwa Ibom State have relatively low household sizes. The mean number of years of palm wine marketing experience of the respondents was nine years.

Table 1: Socio-economic characteristics of palm wine marketers in Akwa Ibom State

Variables	Categories	Frequency (n = 160)	Percentage	Mean
Age	30-39 years	68	42.5	42
	40-49 years	64	40.0	
	50-59 years	28	17.5	
Sex	Male	148	92.5	
	Female	12	7.5	
Marital status	Single	38	23.8	
	Married	122	76.3	
Educational status	No formal education	10	6.3	
	Primary education	80	50.0	
	Secondary education	70	43.8	
Religion	Christianity	141	88.1	
	Non-Christianity	19	11.9	
Household size	1-3 person(s)	12	7.5	5
	4-6 persons	110	68.8	
	7-9 persons	38	23.8	
Marketing Experience	1-10 year(s)	116	72.5	9
	11-20 years	40	25.0	
	21-30 years	4	2.5	

Source: Field survey, 2014

Profitability of palm wine marketing in the study area: The gross margin of the profitability of palm wine marketing in the rural areas of Akwa Ibom State is shown in Table 2. The Table reveals that the total variable cost of palm wine marketing was ₦4,369,550.00; total revenue realized from sales of palm wine, from January 2014 to may 2014, was ₦9,710,000.00; and the gross margin was ₦5,340,450.00, indicating that palm wine marketing is profitable in the study area. One US Dollar is equal to 199.25 Nigerian Naira (₦) as at August 10, 2015. The finding agrees with Adinya *et al* (2008) who reported that palm win marketing is profitable in Uyo Local Government Area which is the capital of Akwa Ibom State, Nigeria. Omofonwan *et al* (2013) and Nwibo *et al* (2012) also reported that palm wine marketing is profitable in Edo and Anambra States of Nigeria respectively. Table 2 also reveals that the marketing efficiency of palm wine marketing in the study area is 153% therein implying that palm wine market in the study area is efficient.

Table 2: Costs and returns for palm wine marketing in the study area

Item	Total cost for the production period (₦)	Average cost (₦)	Percentage
A. Fixed cost			
Cups/calabashes	75,920.00	474.50	3.8
Bottles	653,120.00	4082.00	33.0
Filters	14,030.00	87.69	0.7
Jerry cans	105,700.00	660.63	5.4
Brushes	14,200.00	88.75	0.7
Tables/chairs	1,099,950.00	6,874.69	55.6
Drinks' covers/mats	16,700.00	104.38	0.8
Total fixed cost (TFC)	1,979,620.00	12,372.63	100
B. Variable cost			
Rentage	220,000.00	1,375.00	5.0
Supply price	2,908,800.00	18,180.00	66.6
Electricity bill/fuel	270,300.00	1,689.38	6.2
Transportation	522,500.00	3,265.63	12.0
Salary/wages	406,000.00	2,537.50	9.3
Water/preservatives	41,950.00	262.19	1.0
Total Variable Cost (TVC)	4,369,550.00	27,309.69	100
Total Cost = TFC + TVC	6,349,170.00	39,682.31	
C. Total Revenue (TR)	9,710,000.00	60,687.50	
D. Gross Margin (GM)	5,340,450.00	33,377.81	
GM = TR – TVC			
E. Marketing efficiency (ME) 153%			
$ME = \frac{TR}{TC} \times 100$			

Constraints to palm wine marketing in rural areas: Table 3 shows the constraints to palm wine marketing faced by palm wine marketers in rural areas of Akwa Ibom State, Nigeria. The Table reveals that the most severe constraints the respondents faced were: high cost of transportation ($\bar{x} = 1.68$), lack of storage/preservation facilities ($\bar{x} = 1.58$), lack of capital/inadequate finance ($\bar{x} = 1.57$) and poor road network in the rural areas ($\bar{x} = 1.52$). The finding agrees with Omofonwam *et al* (2013) who reported that high cost of transportation and lack of credit facilities were major constraints to palm wine marketing in Edo State of Nigeria Adinya *et al* (2008) also reported that high cost of transportation, lack of capital/inadequate finance and lack of roads maintenance/bad roads were problems affecting the marketing of palm win in Uyo Local Government Area of Akwa Ibom State. On the other hand, the least severe constraints to palm wine marketing in the study area as revealed by Table 3 were: insufficient price information ($\bar{x} = 0.86$) and poor patronage ($\bar{x} = 0.78$).

Table 3: Constraints to palm wine marketing in rural areas of Akwa Ibom State

Constraints	Mean	Rank
1. High cost of transportation	1.68	1
2. Seasonality of supply	1.48	5
3. Lack of storage/preservation facilities	1.58	2
4. Lack of capital/inadequate finance	1.57	3
5. Poor road network in the rural areas	1.52	4
6. Poor market infrastructures	1.17	7
7. Lack of extension services relevant to marketing of agricultural produce	0.97	8
8. Insufficient price information	0.86	9
9. Poor patronage	0.78	10
10. Inadequate electric power supply	1.34	6

Note: * = Rank 1 is considered the most severe constraint while rank 10 is the least severe constraint
Source: Field survey, 2014.

Conclusion and Recommendations

The study ascertained the constraints to palm wine marketing in rural areas of Akwa Ibom State, Nigeria. The study reveals that palm wine marketing in the rural areas of Akwa Ibom State is profitable as evidenced from the result of cost-returns analysis. The study also reveals that the most severe constraints to palm wine marketing faced by palm wine marketers in the study area were high cost of transportation, lack of storage/preservation facilities, lack of capital/inadequate finance and poor road network in the rural areas.

Based on the findings of the study, the following recommendations are made:

- a) The Government in the State should endeavour to provide basic infrastructure such as good road networks in the rural areas of the State since poor road network and high cost of transportation were major constraints to palm wine marketing in the study area.
- b) Palm wine marketing in the rural areas of Akwa Ibom State should be encouraged, by both Governmental and Non-Governmental agencies, to form co-operative associations in order to enhance their ability to access credit facilities for their marketing activities. These co-operative associations can also help the palm wine marketers access storage /preservation facilities at a reduced thereby enhancing their marketing activities.

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