



ANALYSIS OF TIMBER MARKETING IN IBADAN, OYO STATE, NIGERIA

Okeleke S. O.

Federal College of Forestry, PMB 5087, Ibadan, Nigeria

*Correspondent Author: usmanj05@yahoo.com; +234 803 241 8077

ABSTRACT

The study assessed the analysis of timber marketing in Ibadan, Nigeria. Well structured and unstructured questionnaires were used to collect relevant information from 130 respondents through the use of purposive sampling technique to sample four timber markets from the study area. The markets were Bodija, Sango, Oke Bola and Alomaja. Data were analysed using frequency distribution and Gini coefficient correlation statistics. The findings revealed that 67.7% of respondents had secondary school education. The result of Gini coefficient correlation statistics for timber sales was 0.58 which implies that market structure was inclined towards monopoly. The membership of association of sellers also makes the market performance difficult to measure between the market stakeholders despite the considerable high level of profit obtained from the sales. This implies a poor market performance. However, the result of market performance shows that timber marketing in Ibadan is a profitable venture. It is therefore recommended that Oyo State Government and the Local Government should closely monitor the market conduct with a view to ameliorate the excesses of timber merchants.

Keywords: Analysis of timber, marketing, structure, performance conduct Ibadan

INTRODUCTION

Nigerian forests are rich in plant and animal species and have since been traditionally protected for timber production (Famuyide *et al.*, 2019). Timber is a construction material which has been used for both structural and ornamental purposes. It is used throughout the world for many tasks, from simple structural application to highly finished and ornamental decoration and it is the dominant industrial material in Nigeria (Fuwape, 2000). There are approximately 200, 000 hardwood species and 1,000 softwood species in Nigeria. Among this total number, only 2,300 tree species are commercially important (Oluyeye, 2007)

Timber obtained from the forest has significant role to play in the nation's economic development. It has multi various benefit to human existence. These benefits range from the usefulness of timber for exterior and interior decorations in homes and industries, production of electric transmitter poles, pulpwood, veneers and planks needed by building

and construction industries (Sokunbi 1994). These benefits could only be sustained if effective management, conservation and distribution (marketing) of the forest resources based on timber inclusive are maintained. According to Lintu (1986), marketing provides a set of tools which people can use to create more efficient economic value for the resources and product made of it. Market structure, according to Crammer and Jenson (1982) is a description of the number and nature of participants (sellers and buyers) in the markets. The number and relative size distribution of buyers and sellers, the ease of entry into and out of the market and status of knowledge about price, and market condition among the participants in the market structure (Olukosi and Sitor, 1990). Market conduct refers to the action which firm can take out their own discretion or pattern of behaviour which enterprises or adjusting to the market in which they buy and sell. It includes the methods employed by group of firms in determining the price and output

sales, promotion policies, policies that are directly attaining the nature of the product sold and various tactics that are employed to achieve specific market result. Market conduct deals with the behaviour that exists among buyers and sellers in the market. But to the contrary as established by Olukosi *et al.* (2005) it is the sellers' behaviour in a market that mostly affect the efficiency of the entire market system. Market structure, if it tends towards monopoly rather than pure competition leads to poor market performance. However, market performance helps in appraising the extent to which interaction of buyers and sellers in the market stimulate outcome of the marketing which are consistent with profit level, sales and promotion, utilization and product character and progressiveness (Olukosi, *et al.*, 2005).

However, the movement of timber products into the market has influenced the utility, sales and profit which in turn could lead to poor marketing performance. It is in this vein that this study seeks to investigate, the marketing analysis of timber market in relation to the structure, conduct and performance of timber market in Ibadan, Nigeria.

MATERIALS AND METHODS

Study Area

The study was carried out in four difference market locations in Ibadan where timber marketing were predominant. Ibadan, city in Southwestern Nigeria, capital of Oyo State, located about 110 km Northeast of Lagos. Ibadan has eleven Local Government Areas and has the coordinates of 7° 24' 47" N and 3° 55' 0" E. It has rainfall of average distribution of about 1250 mm and 1800 mm. The temperature ranges between 27°C and 32°C with a relative humidity of about 75% to 90%. Ibadan is also the center of the trade for a farming area producing cocoa, palm oil, yams, cassava, corn, and fruits. Industries include the processing of agricultural products, processing and marketing of timber products, brewing, and the manufacture of cigarettes. The species of timber present in the area are presented in Table 4 below. The city is the site of several major research institutes, notably the International Institute of Tropical Agriculture (IITA), Cocoa Research Institute (CRIN), Forest

Research Institute (FRIN), National Horticultural Research Institute (NIHORT), and Nigeria Institute of Social and Economic Research (NISER). Most of Nigeria's leading publishing companies are based in the city. Inhabited mainly by the Yoruba people, Ibadan grew rapidly in the mid-19th century when Yoruba civil wars shook the region. The Population in 2007 is estimated to be 3,570,000 Nigerian Population Census as projected from 2006 national census (2006).

Experimental Design

The methodology adopted for data collection includes propulsive sampling of four timber markets. The four timber markets were Sango, Alomoja, Oke-Bola and Bodija while 39, 33, 32, 26 and 39 respondents respectively. Respondents from each market were selected based on estimated number of timber marketers in the studied areas, making a total of 130 respondents. Primary data were collected by use of well structured and unstructured questionnaire and interview method.

Data Analysis

The data were analyzed using appropriate descriptive and inferential statistical tools: percentages, frequency, gross margin analysis, marketing efficiency and rate of return investments. Gini Coefficient was used to examine the market structure for timber in the study area. Gini Coefficient is a statistical measure of income distribution developed by the Italian statistician. It is often used as a gauge of economic inequality, measuring income distribution among a population. The coefficient ranges from 0 to 1, with 0 representing perfect equality and 1 representing perfect inequality. Values over 1 are theoretically possible due to negative income or wealth.

Gini Coefficient can be represented by the equation;

$$\text{Gini Coefficient} = 1 - \sum XY \dots [1]$$

Where:

X = Percentage of sellers

Y = Cumulative percentage of total sales.

RESULTS

Table 1 shows the socio-economic characteristics of timber sellers in the study area. The results showed

that 37.7% were within the age range of 41-50 years. Among 130 respondents sampled 89.2% were married. The result further shows that 54.6% of respondents had more than 10 years timber trading

business, 37.7% with 6-10 years of experience while 7.7% had 1-5 years of timber trading experience.

Table 1: Frequency distribution of respondents by socio-economic characteristics (n=130)

Variables	Frequency	Percentage (%)
Age (years)	2	1.54
<20	3	2.31
20-30	28	21.54
31-40	49	37.69
41-50 Above 50	48	36.92
Total	130	100
Marital status		
Married	116	89.23
Single	3	2.31
Widowed	5	3.85
Divorced	6	4.62
Total	130	100
Education		
Primary	18	13.80
Secondary	88	67.70
Tertiary	24	18.50
No formal education	0	0.00
Total	130	100
Experience (years)		
1-5	10	7.70
6-10	49	37.70
Above 10	71	54.60
Total	130	100

Market Conduct by Timbre Marketers

Table 2 shows that 100 % of the respondents in the study area belong to timber Sellers Association. This implies that all timber traders in the study area were members of one association or the other.

Market Performance

Table 3 shows the start off capital and types of timber business in the study area. The result shows that majority of the respondents indicated that their off capital were between ₦100 000 and ₦ 150 000.

Table 2: Distribution of respondents according to their membership of association

Variable	Frequency	Percentage
Membership of Association		
Yes	130	100.0
No	0	0.0

Table 3: Start off capital and types timber business (n=130)

Variable	Frequency	Percentage
Amount for business set-up (Naira)		
<50,000	9	6.9
50,000-100,000	20	15.4
100,001-150,000	93	71.5
150,001-200,000	2	1.5
>200,000	6	4.6
Business ownership		
Sole proprietor	111	85.4
Cooperative	3	2.3
Partnership	16	12.3

Table 4 below shows the profitability analysis of various types of timber being sold in the study area.

The results show that timber marketing business is highly profitable as shown in the table.

Table 4: Analysis of profitability of timber sales in the study area

Timber Products		Total cost per log	Selling price per log	Profit
Common Name	Scientific Name	(₦ : K)	(₦ : K)	(₦ : K)
Afara	<i>Terminalia superb</i>	12,173.00	25,920.00	13,747.00
Mahogany	<i>Khaya senegalensis</i>	15,423.00	42,120.00	26,697.00
Iroko	<i>Milicia excels</i>	15,423.00	42,120.00	26,697.00
Araba	<i>Ceba petandra</i>	12,173.00	25,920.00	13,747.00
Ooro	<i>Antiaris suxicaria</i>	12,173.00	27,540.00	15,367.00
Gmelina	<i>Gmelina aborea</i>	12,173.00	27,999.00	15,826.00
Abura	<i>Mitragyna ailiana</i>	12,173.00	27,540.00	15,367.00
Arere	<i>Tiplochiton scleroxylon</i>	12,173.00	35,640.00	23,467.00
Agboin	<i>Piptadenia Africana</i>	12,173.00	22,680.00	10,507.00
Omo	<i>Cordia millenii</i>	12,173.00	25,920.00	13,747.00
Apa	<i>Azelia Africana</i>	12,173.00	25,920.00	13,747.00
Mango	<i>Mangfera indica</i>	15,412.00	42,120.00	26,708.00
Mansonia	<i>Mansonia altrssina</i>	15,412.00	45,360.00	29,948.00
Cassia	<i>Cassia bicarpsularis</i>	12,173.00	24,300.00	12,127.00
Osan Igbo	<i>Chrysophyllura delevoyi</i>	12,173.00	25,920.00	13,747.00
Akonu	<i>Pychantlus angolensis</i>	12,173.00	25,920.00	13,747.00
Poomoporo	<i>Pterygota macrocarpa</i>	12,173.00	25,920.00	13,747.00
Ita	<i>Cebis integrifolia</i>	12,173.00	24,300.00	12,127.00
Opepe	<i>Nauclea diderinchii</i>	12,173.00	30,780.00	18,607.00
Danta	<i>Nnogondonia papaverifera</i>	20,520.00	43,200.00	22,680.00
Eki	<i>Phira alota</i>	20,520.00	43,200.00	22,680.00
Ure	<i>Trichilia spp.</i>	20,520.00	43,200.00	22,680.00
Breadfruit	<i>Treculia Africana</i>	20,520.00	43,200.00	22,680.00
Rubber	<i>Havea brasiliensis</i>	20,520.00	43,200.00	22,680.00
Teak	<i>Tectonia grandis</i>	20,520.00	43,200.00	22,680

Market Structure of Timber Marketing

Table 5 below presents the computation of Gini coefficient in determining the market structure. The result show 46.9% of timber sellers accounted for 14.87% of the total monthly sales at the market, 30.0% of respondents accounted for 39.4% of the

total monthly sales whereas 2.31% of respondents accounted for 6.23% of the total monthly sales of the timber products at the markets. The Gini correlation coefficient of marketing obtained from the sales analysis for the study was 0.58.

Table 5: Gini Coefficient Analysis for Timber Sales In Ibadan

Sales (₦ : K)	Number of sellers	% of sellers X	Cumulative Frequency %	Total Sales	% Total Sales	Cumulative Sales (Y)	XY
1-20,000	61	46.92	46.92	816000	14.87	14.87	0.07
20,001-40,000	39	30.00	76.92	2160000	39.36	54.23	0.16
400,001-60,000	14	10.77	87.69	1030320	18.77	73.00	0.08
60,001-80,000	8	6.15	93.84	780000	14.21	87.21	0.05
80,001-100,000	5	3.85	97.69	360000	6.56	93.77	0.04
Above 100,000	3	2.31	100.00	342000	6.23	100.00	0.02
Total	130	100.00		5488320	100.00		0.42

Key: X = % of sellers; Y = Cumulative sales; XY = % of sellers multiplied by Cumulative sales, GC = 0.58

DISCUSSION

The results of socio-economic showed that 37.7% were within the age range of 41-50 years. This implies that majority of the respondents engaged in the timber marketing were adult and within the active age. In a related study by Okumadewa *et al.* (2000) also established that traders in this age group are productive and energetic with greater potential for better performance to explore opportunities in their existing timber trading business.

Among 130 respondents sampled 89.2% were married. This implies that most of the traders are married and also involved in the livelihood activities which cater for their household needs. This finding concurs with the research work of Akinbile (2007) that marriage confers responsibility. The data further show that 67.7% had secondary education, 18.5% had tertiary education and 13.8% had primary education. This indicates that all the respondents have formal education which defines their effectiveness towards their livelihood activities. This finding is in line with the submission of Oluyole and Usman (2006) that education enhances the efficiency of trading business. The result shows that majority of the respondent (54.6%) had more than 10 years timber trading business. This implies that respondents involved in the timber marketing have been in the timber trading business for long time which means many years of experience improve the efficiency on timber marketing.

This shows that all timber traders in the study area were members of one association or the other. This means that before anyone could operate in timer marketing business he or she must join on more associations such as sawyer association, timber

contractor association saw milling association and puller association. The result in Table 2 further implies that the traders association is price determinate. This will concurrently leads to hike in prices thereby leading to abnormally high profit by the traders. This means that the prices are not determined by forces of demand and supply but by the associations. The result shows that majority of the respondents indicated that their off capital were between ₦100, 000 and ₦ 150,000. This implies that even though the timber business is capital intensive with amount of money between ₦ 100,000 and ₦ 150,000 one could invest in the timber trade as means of livelihood. The result further shows that majority of the respondents (85.4%) were sole proprietor.

The results show that timber marketing business is highly profitable as shown in Table 4. This is in agreement with Usman *et.al* (2007) in a work on analysis of *Thaumatococcus danielli* which gave a positive difference between average revenue and cost price. The study shows that all the timber products being sold in the market were brought in as logs and later converted into various sizes. The Gini correlation coefficient of marketing obtained from the sales analysis for the study was 0.58. This implies that the timber market is imperfectly competitive with the market structure tending towards monopoly. This is in line with Olukosi *et al.* (2005) that when market structure tends towards monopoly, the outcome will be bad market performance as a result of control of certain stakeholders which are basically the sellers.

CONCLUSION

The study appraises the analysis of timber marketing in Ibadan metropolis, Oyo State, Nigeria. It was found that 37.7% respondents were within the age range of 41-50 years. Among 130 respondents sampled 89.2% were married. The result further shows that 54.6% of respondents had more than 10 years timber trading business, 37.7% with 6-10 years of experience while 7.7% had 1-5 years of timber trading experience. The result shows 46.9% of timber sellers accounted for 14.87% of the total monthly sales at the market, 30.0% of

respondents accounted for 39.4% of the total monthly sales whereas 2.31% of respondents accounted for 6.23% of the total monthly sales of the timber products at the markets. The Gini correlation coefficient of marketing obtained from the sales analysis for the study was 0.58. The study further shows that timber marketing in the study area is highly profitable. It is therefore recommended for prospective timber sellers to go into the business of timber marketing due to the profitability of the business.

REFERENCES

- Akinbile, LA. (2007) Social Impact of Limestone Exploitation in Yewa North Local Government Area of Ogun State, Nigeria. *Pakistan Journal of Social Science*, 1: 107-111.
- Crammer, G.L. and Jensen C.W., (1982): Agricultural Economics and Agricultural Business. 2nd Ed. John Willey and sons Inc. Pp 171.
- Famuyide, O.O., Adebayo, O. Odebode, A.V Awe, E Ojo, O.B. and Ojo D.(2019): Timber species availability and variation in Ibadan and Oyo Timber markets over the last forty years. In.: Issues of the Nigerian Forestry: Some basic concepts of Forestry Economics and Policy. Publisher: International Publishers Limited. Pp 67-78.
- Fuwape, J.A (2000): Wood utilization from cradle to the grave. Federal University of Technology, Akure. Inaugural lecture series Number 25. Pp 1-33.
- Lintu L (1986): Marketing in the forestry sector unasyual 38(153): 10.19
- Microsoft Encarta (2009). 1993-2008 Microsoft Corporation. Ibadan Locations. Accessed on November 8, 2019.
- Olukosi J.O and Isitor S.U., (1990): Introduction to Agricultural Marketing and Prices. Principles and Application. 1st Ed. Living Book Series,G.U. Publication Abuja Nigeria Pg 27-34.
- Olukosi J. O. and Isitor S.U., and Ode, M.O. (2005). Introduction to Agricultural Marketing and Prices; Principles and Application. 1st edition. Living Books series, GU Publication, Abuja, Nigeria. Pp 27-34.
- Oluyeye, A. O. (2007). Wood: A versatile material for natural development. Inaugural lecture series 45, delivered at the Federal University of Technology, Akure. Pp 1-45
- Oluyole, K.A. and Usman, J.M. (2006): Assessment of Economic Activities of Cocoa Licensed Buying Agents in Odeda Local Government Area of Ogun State, Nigeria. *Akoka Journal of Technology and Science Education*, 3(1):130-140
- Sokunbi O.K (1994): Technical information on some Nigeria Commercial Timber. Monograph prepared for Equitorial Forest Resources Limited. 15 John Road Ilawe, Ekiti Nigeria 39pp.
- Usman J.M., Adebisi-Adelani O., Adeoye I.B. and Akoun J. (2007): Marketing of *Thaumatococcus danieli* in Ibadan. Proceeding of 25th Annual Conference of Horticultural Society of Nigeria. Pp 258-262.