SOCIO-ECONOMIC CHARACTERISTICS OF BODIJA SAWN WOOD MARKET IN IBADAN, OYO STATE, NIGERIA.

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Abstract: *The paper analyzed the socio-economic characteristics of sawn wood market in Ibadan, Oyo state, Nigeria. Primary data was used for the study. The data was collected using structured questionnaires administered to 150 sawn wood marketers sampled from the main sawn wood market in Ibadan North Local government of Oyo state, Nigeria. Both descriptive and inferential statistics were employed to analyze the data. The result indicated that majority (41.33%) belongs to the active population group of 20-40 years. Male (86.00%) dominated sawn wood marketing enterprise while female constitutes only 14.00%. 18.00% of sawn wood marketers were single, 50.00% were married, 20.00% were divorced/divorcee while 12.00% were widowed/ widower. Majority (45.00%) of the marketers had post primary education while minority (36.67%) had primary education and (18.00%) had no formal education at all. 10.00% of the marketers had 1-5 years marketing experience. 16.67% had 6-10 years, 55.33% had 11-20 years while 18.00% had greater than 20 years business experience. 32.67% of the marketers used between ₦ 100,000 - ₦250,000 as capital set up, 47.33% used between ₦ 250,001-₦ 500,000, 10.00% used between ₦ 500,001 - ₦ 750,000. 6.67% used between ₦750,001-₦ 1,000,000. 3.33% used more than ₦1, 000,000 to start the business. 2.67% of sawn wood marketers in the study area were processor, 31.33% were wholesalers, 26.00% were retailers, and wholesaler/retailers were 40.00%. 25.33% of the marketers had regular contact with extension workers, 26.67% had occasional contact with extension workers while 48.00% never had contact with extension workers.*

The result also shows that 53.33% had moderate family size of between 1-6 persons. 26.67% had moderately large family size between 7 – 9 persons and 20.00% had more than 9 persons in the family. The study showed that 8.00% of the sawn wood in the market were from Oyo state, 20.00% were from Osun state, 16.67% were from Ondo state, 22.00% were from Edo state, 20.00% were from Ogun state and 13.33% were from Ekiti state. Major species of sawn wood in the markets are Terminalia superb (24.00%), Terminalia ivorensis (13.33%), Triplocyton scleroxylon (10.00%), Milicia excelsa (28.00%), Khaya ivorensis (13.33%) and Mansonia altissima (11.33%). It was therefore recommended government should encourage the people to stay in the business by providing market incentives such as credit and loans for marketing institutions in the market. There should be effective transport system for bringing the sawn wood from various parts of the country to the study area. The number and activities of extension

workers should be intensified so that more marketers can have access to extension services.

Keywords: Sawn wood, Market, Trees, Species, Oyo state

INTRODUCTION

Trees and animals are the major forest products that Nigeria has been enjoying for ages. The trees are group into three major groups which are the hardwood, the softwood and the herbs and ropes. The hardwood consists of the Mahogany, African teak popularly called Iroko tree and Ebony [1]. The softwood is made up of Afara and Mansonia while the herbs and ropes include Neem (Dongoyaro), sponge and Baobab. The hard wood is forest trees with very hard inner wood. It is formed when the cambium layer divides and differentiates to form radial rows of cells known as xylem and phloem. The xylem cells divide further and become lignified to form the main wood of the tree. The phloem forms the soft and white wood. When tree grows old, the wood or xylem adds more lignin, dyes and other substances to become the hardwood [2]. When very little or no lignin or dyes are added, tannins are added. The wood therefore becomes soft and white as in Afara and Mansonia.

Hardwood are economically important to man as they are harvested and reduced to logs which are processed into timber for making furniture, buildings houses or converted to plywood for other household uses. Some of the hard woods like the African teak are used for electric poles or animal fences [2]. The softwood on the other hand are characteristically white in colour and cannot be used for heavy construction purpose because they are easily destroy by moisture and insects; but they are used for making furniture and cabinet works, decorating parks as in Acacia and Gmelina, making paper of different grades, making carving, handcraft and crates. With a large forest resource and high production and consumption of wood products, the United States continues to play an important role in world forest product markets [3]. For the past two years the U.S. role on the world stage has improved as a result of the on-going recovery in the wood segment of America's economy, precipitated by the rise in residential construction and production of building materials.

The U.S. forest products industry's annual harvest was 371 million cubic meters in 2012, exceeding the 361 million cubic meters harvested in 2011. Domestic round wood timber harvest in 2013 that supports domestic consumption is expected to be above the 2012 harvest level [4]. The European Union is the largest importer of tropical wood from Africa; most of these wood species are usually extracted from natural forests and sometimes from plantations. Logs are sawed into planks of different sizes for distribution

and marketing. However, logs and sawn wood are marketed locally in designated plank markets and sawmills across the country [2]. The three major indicators of demand for wood products—furniture and related products, paper products output, and total industrial production—were higher during the first 8 months of 2013 relative to 2012 [4].

Sawn wood is used for various purposes across Nigeria and its price plays vital roles in socioeconomic development of the country. Out of the semi processed and processed wood categories, sawn-wood has the highest production and demand and it is the most widely distributed in Nigeria for construction purposes such as building and furniture [5]. Prime marketable product of most forest today is wood for use as timber, fuel-wood, pulp and paper, providing 3.4 billion cubic meters of timber equivalent a year globally [6]. Ayeloja *et al.,* [2] reported logs and sawn wood are marketed locally in designated plank markets and sawmills across the country. Sawmills account for 93.32% of the total number of wood based industries in Nigeria, while sawn wood also constitute 70% of wood consumption in Nigeria respectively. Despite the importance of sawn wood industry to Nigerian economy, only few empirical knowledge exits about it markets and marketers.

This study therefore investigated socio-economic characteristics of sawn wood marketers, the sources of sawn wood to the market and various species and types of sawn wood that can be found in the market so that marketers will find it easy to source for them. This study will hence fill the gaps in knowledge in sawn wood markets. These in turns will lead to improvement in sawn wood production and marketing. The study will also benefit policy makers and implementers in making concrete decisions that will benefit all the stakeholders in sawn wood market.

METHODOLOGY
Description of the Study Areas
The study was conducted in Bodija Sawn wood market in Ibadan with Lat. 7_0 23_1N and Long. 3^0 55^1. It is the largest sawn wood market in Ibadan. It covers more than 10 hectares of land. It is divided to ten zones with 144 sheds in each zone. It is situated few meters away from Bodija market but recently, the continuous increase in expansion of both markets has joined them together. Bodija is one of the busiest and heavily populated places in Oyo state. The presence of the largest food market, Sawn mill market, closeness to Nigerian Premier University and the state secretariat have made it point of convergence for almost all the tribes in Nigeria [15]. This has thus led to its being the center of commerce and industry in Ibadan. Ibadan is the capital of Oyo State and the third largest metropolitan area in Nigeria, with a population of 2, 338,659 [7]. Ibadan is located in southwestern Nigeria but in the southeastern part of Oyo State. It is about 120 km east; bordered with the Republic of Benin in the forest zone and is also close to the boundary between the forest and the savanna. The total area is 1,190sq mi (3,080 km²). It has tropical wet and dry climate with average temperatures range of 21.42°C-26.46°C throughout the year. It also has two peak annual rainfall of 1420.06 mm falling in approximately 109 years. The presence of heavy rainfall and thick forest in the state has

supported the prevalence of forests and forest reserves which includes Gambari and Awba Hills forest reserves. This therefore allows regular supply of timber and other non timber forest products throughout the year in Ibadan. Common trees that dominated Oyo state are *Mansonia altissima, Triplochiton scleroxylon, Terminalia superb, Celtis Zenkeri, Sterculia spp, Terminalia ivorensis and Cola spp, Tectona grandis, Gmelina aborea* while fuel wood, sponge, snails, leaves and ropes are the Non timber forest products commonly found in the State [8]. This therefore makes Bodija saw mill suitable for the study.

Data Collection and Sampling Methods: Primary data were collected with the aid of structured questionnaires. A random sampling technique was used to select a total of 15 marketers from each of the ten zones in the market. In all, a total number of one hundred and fifty (150) respondents were selected for the study. The data were analyzed using descriptive statistics such as frequency counts and percentages. Included in the data collection were the socio-economic characteristics of the marketers such as age, gender, marital status, household size, and marketing experience and so on.

RESULTS
Socio-economic Characteristics of Respondents
The socio-economic characteristics of sawn wood marketers were presented in table 1 above. Accordingly, the table revealed that majority (41.33%) belongs to the active population group of 20-40 years. This finding signifies that the marketers are relatively young and active to engage in marketing, 34.67% were between 41 -50 and 24.00% were more than 50 years old. This also indicated that young and mid age people are more engaged in marketing sawn than the aged in the study area. This agree with Sekumade and Oluwatayo [5] who declared that markets with young and active people have the potential of striving better because of their ability to take risk.

The data analysis further revealed that male (86.00%) dominated sawn wood market while female constitutes only 14.00%. This may be due to the stressful nature of the business. This confirms Ndaghu et al.,[9] that stated labour demanding livelihood are usually male dominated. The data further shows that 18.00% of sawn wood marketers were single, 50.00% were married, 20.00% were divorced/divorcee while 12.00% were widowed/ widower. This signifies that marketing sawn wood is accommodative for all irrespective of their marital status. It similarly proof that sawn wood market provide means of livelihood for many families. This may be the reason why while it is dominated by the married people who have lots of financial obligations. Majority (45.00%) of the marketers had post primary education while minority (36.67%) had primary education and (18.00%) had no formal education at all. The results signifies that the sample size are fairly educated which will positively influence their decision making process. This is in consonance with Achoja and Okoh [10] who stated that education plays major role in the adoption of new innovations by marketers. This finding also confirms Haruna et al., [11] that revealed that literate traders that have been found to adopt new marketing ideas more faster than illiterate's ones and would find it relatively easy in their dealings with people more

especially in the exchange process. The study further shows that 10.00% of the marketers had 1-5 years marketing experience. 16.67% had 6-10 years, 55.33% had 11-20 years while 18.00% had greater than 20 years business experience. This result implies that marketing experience is a vital skill that prospective tomato marketers must put into consideration before venturing into the business. This confirms Busari et al., [12] who stated that experience is an important skill necessary to overcome factors which threatens both producers and marketers' returns on their investment.

The result also revealed that 32.67% of the marketers used between ₦ 100,000 - ₦ 250,000 as capital set up, 47.33% used between ₦ 250,001- ₦ 500,000, 10.00% used between ₦ 500,001 - ₦ 750,000. 6.67% used between ₦ 750,001-₦ 1,000,000. 3.33% used more than 1, 000,000 to start the business. The result implies that sawn wood enterprise is not a business for an average income earners based on the economy of the nation. It therefore suggests that any prospective investors must acquire enough capital before venturing into the business because the higher the invested capital, the higher the possibility of returns. This finding supports the Popoola [13] who described wood business as highly capital intensive. He thus suggested that the forest supply should encourage tree farmers to farm forestry cooperative and organized accordingly. Similarly, the table revealed that only 2.67% of sawn wood marketers in the study area were processor, 31.33% were wholesalers, 26.00% were retailers, and wholesaler/retailers were 40.00%. This implies that all the marketing institutions of sawn wood are present in the study area. Furthermore, the result analysis showed that 25.33% of the marketers had regular contact with extension workers, 26.67% had contact with extension workers but not regular while 48.00% claimed no contact with extension workers. This implies that the impacts on extension workers are low in the study area.

The result also shows that 53.33% had moderate family size between 1-6 persons. 26.67% had moderately large family size between 7 – 9 persons and 20.00% had more than 9 persons in the family. This implies that sawn wood marketing is a business enterprise that serves as important means of meeting family needs. This result confirms Sekumade and Oluwatayo, [5] and Adeyoju [14] who agreed together that the wood based industries have contributed to the economy of Nigeria. Adeyoju [14] further stressed it that 34.9% of the country labour force, both skilled and unskilled feed their families through it. Similarly, the predominance of moderate family size confirms the high level of post primary education of the marketers.

Sources of Sawn Wood to the Study Area
The result of data analysis in table 2 showed the sources of sawn wood to the study area. It revealed that six south western states are the major sources of sawn wood to the study area. This may be because of the abundance of rain fall and heavy forest found throughout the year in all the six states. The study showed that 8.00% of the sawn wood in the market were from Oyo state, 20.00% were from Osun state, 16.67% were from Ondo state, 22.00% were from Edo state, 20.00% were from Ogun state and 13.33% were

from Ekiti state. This therefore revealed that majority of the sawn wood sold in the Oyo state is from outside the state. This suggests that transportation must be given high priority while making investment decision in sawn wood business. This result agreed with Sekumade and Oluwatayo [5] who declared that saw mills are concentrated in the southwestern part of the country with Ekiti, Ondo, Ogun and Lagos having the largest numbers.

Types of Sawn wood Mostly Market in the Study Area

The result of data analysis in table 3 revealed that African teak, *Milicia excelsa* (42%) is the major sawn wood sold in Bodija market. This was followed by white Afara, *Terminalia superb* (38%). African mahogany and B. Afara has the same prevalence in the market (20%). Mansonia has 17% prevalence in the market while Obeche has the least percentage of prevalence in the study area. This implies that Bodija market is a complete sawn wood market where sawn wood buyers can get different types of sawn wood of several species that they may want. This confirms Larinde and Olasupo [8] who stated the trees that dominated Oyo state as *Mansonia altissima, Triplochiton scleroxylon, Terminalia superb, Celtis Zenkeri, Sterculia spp, Terminalia ivorensis and Cola spp.* Hence, it is not a surprise that the sawn woods in the study area are from these trees.

CONCLUSION AND RECOMMENDATION

In Ibadan, sawn wood markets are dominated by large number of young and active marketers (76.00%). The study shows that majority of the marketers were male (86.00%) and few females (14.00%) are found in the market. Sawn wood market is an important source of livelihood for both married and single marketers. The study further revealed that majority of the marketers has formal education (82.00%). Business experience is an important skill any prospective sawn wood marketer must acquire for profit maximization. Most of the marketers (32.67%) used minimum of ₦ 100,000 to start the business and very little (3.33%) used more than a million naira. The study further shows that wholesalers (31.33%) and retailers (26.00%) dominated sawn wood markets in Ibadan while only 2.67% were the processors. Most sawn wood marketers (52.00%) have contact with extension workers while 48.00% do not. Oyo, Osun, Ondo, Edo, Ogun and Ekiti States are the major sources of sawn wood to Ibadan sawn wood markets but Edo, Osun and Ogun states are the chief suppliers. African teak (with 28.00% prevalence) obtained from *Milicia excelsa* was the major sawn wood found in the market.

This was followed by White Afara (24.00%) obtained from *Terminalia superb.* Other types of sawn wood that can be found in the market include B. Afara (13.33%) from *Terminalia ivorensis*, African mahogany (Lagos wood) (13.33%) from *Khaya ivorensis*, Obeche (10.00%) from *Triplocyton scleroxylon* and Mansonia (11.33%) from *Mansonia altissima.* Since sawn wood enterprise is a major source of livelihood to many people in the study area, government should encourage the people to stay in the business by providing market incentives such as credit and loans for marketing institutions in the market. There should be effective transport system for bringing the sawn wood from

various parts of the country to the study area. The number and activities of extension workers should be intensified so that more marketers can have access to extension services.

REFERENCES

1. Olaitan, S.O, Agwubike, C.C and Akubuilo, E. 2014. Forest Products. Junior Secondary Agriculture Book 3. Heimann Press

2. Aiyeloja, A.A, Oladele, A. J and Furo, S.B. 2013. Sustaining Livelihood Through Sawn wood Marketing in Port Harcourt, Nigeria. International Journal of Science and Nature Vol.4 (1) 84-89

3. United Nations Economic Commission for Europe. 2014. Forecast of the Committee on Forests and the Forest Industry: Forest Products Production and Trade 2012-2014 United Nations Geneva Timber and Forest Discussion Paper 61.

4. James, L. H and David, B.M. 2014. U.S. Forest Products Annual Market Review and Prospects, 2010-2014 Forest Products Laboratory, Madison, Wisconsin USA

5. Sekumade, A.B, Oluwatayo, I.B 2011. Economic Analysis of Plank Production in Gbonyin Local Government Area of Ekiti State, Nigeria. International Journal of Agricultural Economics & Rural Development. 4 (1)

6. Food and Agricultural Organization of the United Nations. 2004. Assessing Forestry Project Impact: Issues and Strategies, F.A.O 4-6p

7. Nigeria Population Commission, (NPC) 2006 Census Report. Accessed on March, 20th, 2014

8. Larinde, S.L and Olasupo, O.O. 2011. Socio-Economic Importance of Fuel wood Production in Gambari Forest Reserve Area, Oyo state, Nigeria. Journal of Agriculture and Social Research (JASR), Vol. 11, no 1

9. Ndaghu, A.A, Taru, V.B, Tizhe, I and Tizhe, J. 2011. Analysis of Socio-economic Characteristics of Fuel Wood Marketers in Yola Metropolis, Adamawa State, Nigeria. J Hum Ecol, 36(2): 153-157

10. Achoja, F O, Okoh, R.N. 2014. Post-Harvest Properties of Tomato and Effect on Its Marketing Efficiency. Turkish Journal of Agricultural and Natural Sciences 1(1): 52–58.

11. Haruna, U., Sani, M. H., Danwanka, H. A. and Adejo, E. 2012. Economic Analysis of Fresh Tomato Marketers in Bauchi Metropolis of Bauchi State, Nigeria. Nigerian Journal of Agriculture, Food and Environment. 8(3):1-8

12. Busari, A O. Idris-Adeniyi, K.M. Oyekale, J.O. 2012. Economic Analysis of Vegetable Production by Rural Women in Iwo Zone of Osun State, Nigeria. Greener Journal of Agricultural Sciences. Vol. 3 (1), pp. 006-011

13. Popoola, L. and Ajewole, O.I .2001. 'Public perceptions of urban forests in Ibadan, Nigeria Implications for Environmental Conservation'. *Arboricultural Journal*, 2001, vol 25, Pp. 1-22.

14. Adeyoju, S. K 2001. 'Forestry for National Development; A critique of the Nigerian situation' Proceedings of the 27th Annual Conference of the forestry association of Nigeria, Abuja, Nigeria. 54-68p

15. Filani, M.O. 2005. Transport Market Study. The Bodija Cattle Market in Ibadan. Paper presented at Department for International Development, United Kingdom.

16. Fuwape, J.A. 2001. The impact of Forest Industry and Wood Utilization on the Environment. A journal of Tropical Forest Resource 17 (2)

Table 1: Socio-Economic Characteristics of Sawn wood Marketers.

Characteristics	Frequency	Percentage
Age in years		
20-30	24	16.00
31-40	38	25.33
41-50	52	34.67
>50	36	24.00
Total	**150**	**100.00**
Gender		
Male	129	86.00
Female	21	14.00
Total	150	100.0
Marital Status		
Single	27	18.00
Married	75	50.00
Widow	18	12.00
Divorced	30	20.00
Total	**150**	**100.0**
Educational Status		
No formal Education	27	18.00
Primary Education	55	36.67
Secondary Education	65	43.33
Tertiary	3	2.00
Total	**150**	**100.0**
Family size		
1-3 persons	30	20.00
4-6 persons	50	33.33
7-9 persons	40	26.67
Greater than 10 persons	30	20.00
Total	**150**	**100.00**
Business Experience (years)		
1-5	15	10.00
6-10	25	16.67
11-20	83	55.33
>20	27	18.00
Total	**150**	**100.0**
Types of sellers		
Producer/ Processor	4	2.67
Wholesaler	47	31.33
Retailers	39	26.00
Wholesalers/Retailers	60	40.00
Total	**150**	**100.0**
Amount of start up capita (₦)		
100,000- 250,000	49	32.67
250,001-500,000	71	47.33
500,001-750,000	15	10.00
750,001-1,000,000	10	6.67
Greater than 1,000,000	5	3.33
Total	**150**	**100.0**
Contact with extension workers		
Yes and regular	38	25.33
Yes but not regular	40	26.67
No	72	48.00
Total	**150**	**100.00**

Source: Field survey, 2014.

Table 2: Sources of Sawn Wood to the Study Area

Sources of sawn wood	Frequency	Percentage
Oyo State	12	8.00
Osun State	30	20.00
Ondo State	25	16.67
Edo State	33	22.00
Ogun State	30	20.00
Ekiti State	20	13.33
Total	150	100.00

Source: Field Survey, 2014

Table 3: Types of Sawn Wood mostly Sold in Bodija Sawn wood Market

Family	Species	Trade Name/ (Yoruba)	Frequency	Percentage
Combretaceae	*Terminalia superb*	White Afara	36	24.00
Combretaceae	*Terminalia ivorensis*	Black Afara	20	13.33
Sterculiaceae	*Triplocyton scleroxylon*	Obeche	15	10.00
Moracea	*Milicia excelsa*	Iroko (African teak)	42	28.00
Meliaceae	*Khaya ivorensis*	African Mahogany(Lagos wood)	20	13.33
Sterculiaceae	*Mansonia altissima*	Mansonia	17	11.33
Total			150	100.00

Field Survey, 2014