

PREFERENCE OF WOOD AND COMPOSITE BASED FURNITURE UTILIZATION IN HOUSEHOLDS WITHIN OTUKPO TOWN, BENUE STATE, NIGERIA

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Abstract:

The choice for wood and composite based furniture in three zones of Otukpo Local Government Area (LGAs) was assessed. Google form structured questionnaire was administered in the three purposely selected Wards: Otukpo Town Central, Otukpo Town East and Otukpo Town West based on population dispersion. Simple Random Sampling technique was used to administer 300 copies of structured questionnaire to respondents in 300 households as: 120 respondents in Otukpo Town Central and 90 in each of Otukpo Town East and Otukpo Town West respectively. Data was analyzed using descriptive statistics. Results showed that female respondents constituted 62.33% while males 37.67%. Respondents were mostly youths between 21-30 years (30.67%) and 31-40 years (27.33%) who majorly have tertiary education (68.67%). Respondents were married (55.67%), single (40%), traders (42%) and 23% were civil servants. Most of the households sampled had bed (93%) which was 94.4% wood-based while 59.4% wall hanger used by respondents was composite-based. Respondents (84%) preferred wood-based furniture while 15% used and preferred both wood and composite based furniture. Although respondents (91.4%) preferred wood-based furniture because of its durability, 44.1% chose composite-based furniture because some households were using them. Also, 28.8% preferred composite-based because of low cost of purchase. The majority of respondents (95.7%) desired locally made furniture as 97.7% agreed that the decline in wood supply will affect the choice of furniture type in the future. It was concluded that based on fast decline in wood supply because of ever increasing deforestation as acknowledged by respondents, this trends would definitely attract upsurge in demand for composite-based furniture in Otukpo town in the coming years.

Key words: composite; household; furniture; Otukpo; wood.

INTRODUCTION

Wood has been used and adapted by humans since its earliest recognition that they could be applied as raw material for varied applications to satisfy the comfort of mankind. Wood will continue to be essential to human life. Over the years, it has evolved from a simple readily available natural material to a modern industrial and engineering material with a unique ability to contribute to human life both as a material for use and as a key element in the natural world of the forest (Youngs 2009).

The increase in human population and modernization has resulted in upsurge in wood utilization with consequential impact availability of matured trees and increase in wood price. Hence, wood industries have been researching into wood alternatives to replace large timber products and solid lumber with reconstituted wood products made using smaller diameter trees and also saw and pulp Mill wastes (Lars and Roger 2005). There has been a trend away from solid wood for some traditional application towards smaller element sizes (Ramagea *et al.* 2017).

Furniture is one of the most important home accessories because it adds style and elegance besides their primary functional designs. Sets of wooden furniture are usually present in homes, offices, schools, hotels, hospitals among others. They are in various forms such as doors, tables, chairs, decorations, cabinets, shelves, cupboards, beds and the like. Furniture contributes to the beautification and aesthetics of both internal and external decoration of buildings (Aiyeloja *et al.* 2014). One of the beautiful things about wooden furniture is that it can be changed over time, for second, third or fourth use. This is done by sanding, painting or repainting the furniture, making the furniture completely new (Namichev and Petrovski 2019), all these being found in the restoration term. Wood offers unique combination of aesthetic appeal and integral structural integrity that other materials can not reflect (Namichev and Petrovski 2019).

Majid *et al.* 2015 reported that wooden furniture contributes to significant portion of global trade, hence development of the industry remarkably influence job creation, enhancement of gross domestic production and earning of revenues other than petroleum sources. According to Antwi-boasiako and Boadu, (2016) 93%

of wooden furniture manufacturing companies sold their products on the local market. This gives opportunity to buy locally from specialized Craftsmen across the country thereby supporting local economy (Namichev and Petrovski 2019).

Wooden furniture industries in Nigeria rely on raw materials from local sources (Aiyeloja *et al.* 2014). Unsustainable timber harvesting had been reported in the forest of Nigeria (ITTO 2013; Arowsoge *et al.* 2008). This is a major threat to sustainable supply of raw materials, hence serious forest conservation measures and sustainable management schemes are panacea for continuous existence of wooden furniture industries in Nigeria (Aiyeloja *et al.* 2014).

Generally, a composite is a material made from hybrid of two or more materials with different physical and chemical features. Particularly, wood composite is a product made from technically combining different wood species, tree portions with different characteristics to form a product precisely stronger and more durable than the parent materials (Papadopoulos 2020). The advantages of developing wood composites are to have value addition to use smaller trees, to resourcefully utilize waste wood generated from wood processing, defect wood, to create more uniform components and develop composites that are stronger than the original wood and to produce ingenious composites of different shapes. This is to meet sustainable forest management which involves converting non desirable, hazardous or fire prone material into high value, less expensive environmental benign wood-based products (Lars and Roger 2005).

The objective of this study was to assess the choice of wood and composite based furniture utilization in home within Otukpo Local Government Area (LGA) of Benue State to ascertain consumer's reasons of preference.

MATERIALS AND METHODS

Study Area

The research was carried out in within town in Otukpo LGA of Benue State. Geographically, Otukpo lies between longitude 7°45' and 8°17' East of the Greenwich Meridian and Latitude 7° 00' and 7° 40' North of the equator. It is bounded by Apa LGA in the North, Gwer West and Gwer LGA to the East, Ado and Obi LGA to the South, Okpokwu LGA to the South West, Ohimini LGA in the West and Ankpa LGA of Kogi State in the Northwest (Joseph and Ikyernum 2016).

Otukpo LGA is inhabited by the Idoma people of the State. It has a population of 266, 411 people according to the National Population Commission (NPC 2006). At present, the LGA comprises of four (4) Districts namely; Otukpo, Ugboju, Adoka and Akpa (Joseph and Ikyernum 2016) and thirteen (13) political Wards; 10 Wards are located in the rural areas and 3 Wards in the township area. The predominant socio economic activities in Otukpo LGA include farming, trading, tailoring, hunting as well as civil service (Joseph and Ikyernum 2016).

Experimental Design

This research covered the three zones of Otukpo town; Otukpo Town Central, Otukpo Town East and Otukpo Town West which were purposively selected. Google form questionnaire was administered to households in Council Wards based on disparity in population. Simple Random Sampling technique was used to administer 300 copies of structured questionnaire to respondents in 300 households as: 120 respondents interviewed in Otukpo Town Central and 90 in each of Otukpo Town East and Otukpo Town West wards.

Data collection

The instrument of data collection was Google form structured questionnaire and oral interview. The questionnaire contained uniform set of questions for all homes that use furniture.

Data Analysis

Data was analyzed using decriptive statistics and results presented in tables and charts.

RESULT AND DUSCUSSION

Demographic characteristics of respondents (Table 1) show that, most of the respondents (62.33%) were females while males constituted only 37.67%. This could be because female folks are more ready to answering questions directed to their homes than males; this in turn could be attributed to the African view of feminine gender. Females are found more at home while the males are busy at their work places. This agrees with the opinion of Blackstone (2003) that women traditional role is to nurture her family by working full time within the home. Also, since google form questionnaire was used to elite information and questions answered online, females obviously emerged dominate because of their afinity with social media. This correlates with the suggestion of Volkovich *et al.* (2014) that women outnumbered men for most social

networking sites exception of LinkedIn. This is also in line with Kaplan and Haenlein, (2010) that reported that women outnumbered men on social media platforms.

Also, most (30.67%) respondents were between the ages of 21-30 followed by 31-40 ages with 27.33%. This finding could be attributed to the fact that youths most times tend to be easier to convince to answer questions because of their level of exposure, experience and education, whereas the old and adolescents are often ignorantly adamant and difficult to convince to answer questionnaire. This is in accordance to Brown *et al.* (1998) that people who do not respond to questionnaires are mostly older people.

The least 1.67% and 2.67% were recorded for respondents above 70 years and less than 20 years respectively. Respondents with tertiary level of education were more in number constituting 68.67% whereas those with primary level of education had the lowest number of respondents of 2.33%. High level of illiteracy is one of the challenges faced with data collection. People who are highly educated are conversant with research and are willing to answer questions towards achieving the researcher's goals, while people who have little or no educational qualification are mostly reluctant to give out information.

Respondents comprised of more married (55.67%) and singles (40%). Few number of respondents were widowers (0.33%), divorced (1.33%) and widows (2.67%). Respondents were mostly traders (42%), followed by civil servants (23%), students (13.67%) and farmers (13.33%). This agrees with the findings of Joseph and Ikyernum (2016) that the predominant socio economic activities of Otukpo inhabitants are farming, trading among others.

Table 2 shows that most households in Otukpo township area used bed (95%), wardrobe (73.6%), dining table and set of chairs (70.6%), kitchen cupboard (58.1%) and room cupboard (53.1%). Only few households used standing hanger (10.2%) and wall hanger (5%). This could be because, the first set of furniture was basic with some of them used as multifunctional. Wooden bed was present almost in every household. This correlates with the opinion of Kazemifer and Khodadadeh (2013) that every individual spends a third of their lives in bed for relaxation and privacy. As a result most families rank bedroom furniture as the most important product to be purchased for home. Kingsway (2009) and Drayse (2008) observed also that office and bedroom furniture were the main commodities traded on global furniture market.

Otukpo town dwellers used wood based material for frequently used furniture which are bed (94.4%), wardrobe (70.6%), dining table and set of chairs (68%), kitchen cupboard (54.8%) and room cupboard (50.8%) whereas they used composite based furniture for wall hanger (59.4%) and standing hanger (24.1%) (Fig. 1).

Table 1

Demographic Characteristics of Respondents

Variable	Frequency	Percentage (%)
Gender		
Male	113	37.67
Female	187	62.33
Total	300	100.00
Age in Years		
<20	8	2.67
21- 30	92	30.67
31- 40	82	27.33
41 - 50	58	19.33
51 - 60	38	12.67
61 -70	17	5.67
>70years	5	1.67
Total	300	100.00
Education Level		
Primary	7	2.33
Secondary	69	23.00
Tertiary	206	68.67
Informal Education	18	6.00
Total	300	100.00
Marital Status		
Single	120	40.00
Married	167	55.67
Widow	8	2.67
Widower	1	0.33
Divorced	4	1.33
Total	300	100.00

Occupation		
Farming	40	13.33
Trading	126	42.00
Civil Servant	69	23.00
Students	41	13.67
Applicants	14	4.67
Carpenter	2	0.67
Retiree	2	0.67
Others	6	2.00
Total	300	100.00

Table 2

Type of House used Furniture by Respondents in Otukpo Township

Types of furniture	Frequency	Percentage
Bed	288	95
Wardrobe	223	73.6
Dining Table and set of chairs	214	70.6
Kitchen Cupboard	176	58.1
Standing Hanger	31	10.2
Wall Hanger	15	5
Room Cupboard	161	53.1

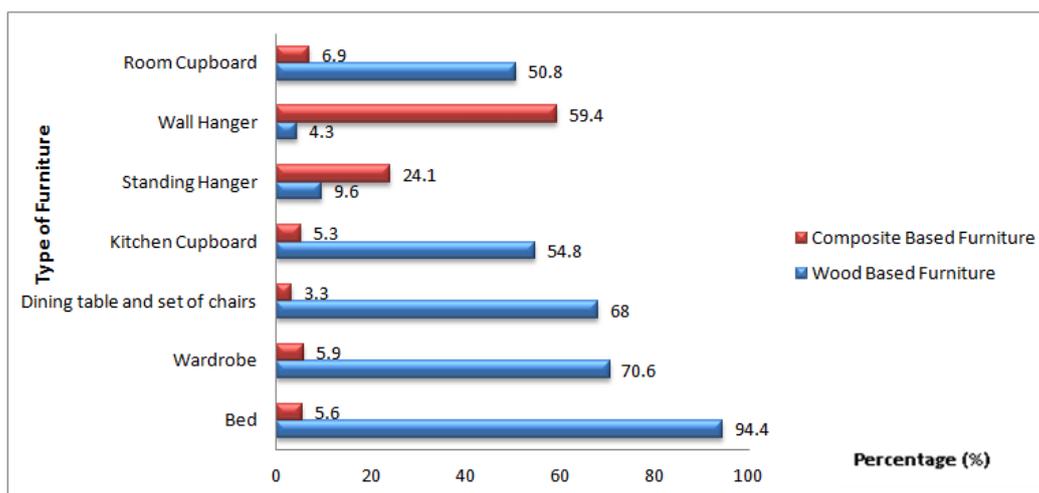


Fig. 1.
Material base of Furniture Used by Respondents in Otukpo Township.

Most households (84%) used wood-based furniture while 15% of households used both wood and composite-based furniture in their homes. However, 1% of respondents used neither wood based nor composite based. No household used only composite based in their homes (Fig. 2). In Fig. 3 majority of respondents prefer wood-based furniture (84%) as only 15% of prefer composite-based furniture. Only 1% respondents prefer neither wood based nor composite based. Since wood-based furniture was perceived more as durable, they were probably preferred to composite-based furniture which was rarely used by respondents. This may also be attributed to the availability of wood-based furniture within Otukpo town. Reasons why respondents preferred composite-based furniture was mostly because people were using it. Other reasons include: low cost of purchase and their aesthetic/beautiful appearance. Considering respondents' economic status, they probably chose wood-based furniture because it would serve them for a long time without wearing out so as to reduce replacement cost. Result finding also showed that nearly all respondents (95.7%) preferred locally made furniture in comparison to foreign made. This could be traced to high cost of foreign furniture.

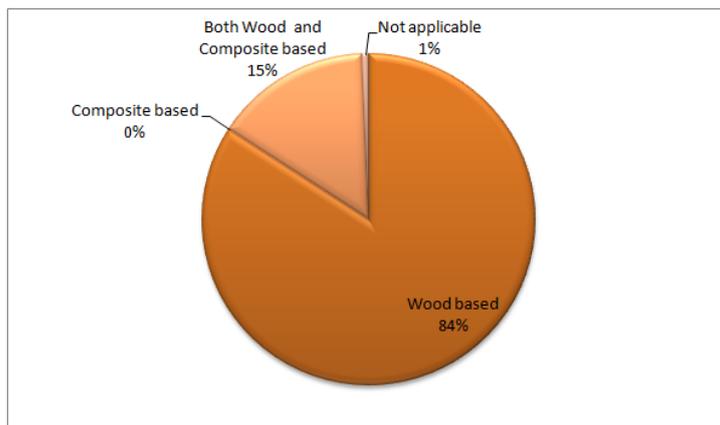


Fig. 2.

Main Composition of Furniture in Respondents' Houses in Otukpo Township.

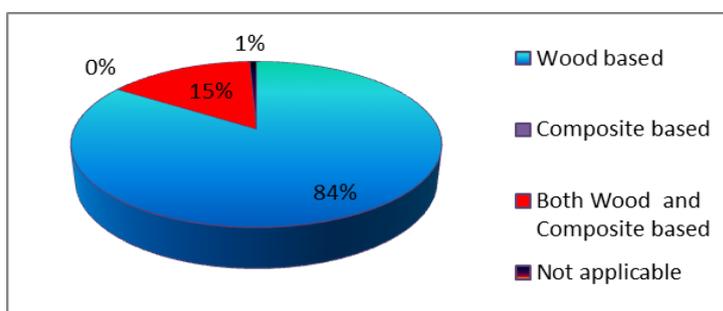


Fig. 3.

Preferred Furniture type by Respondents in Otukpo Township.

Fig. 4 shows that the major reason for the use of wood based furniture was durability (91.4%) followed by aesthetic/beautiful appearance (14.2%), because others are using it (5.3%) and low cost of purchase (3%). No one gave high cost of purchase as a reason they did not use wood based furniture. On the other hand, most households used composite based furniture because others are using it (44.1%), followed by low cost of purchase (28.8%), aesthetic/beautiful appearance (25.2%), durability (5.4%) and high cost of purchase (2.4%). Boampong *et al.* (2015) reported that durability, appearance and quality were the most leading features for specification and choice of the species for furniture in Ghana.

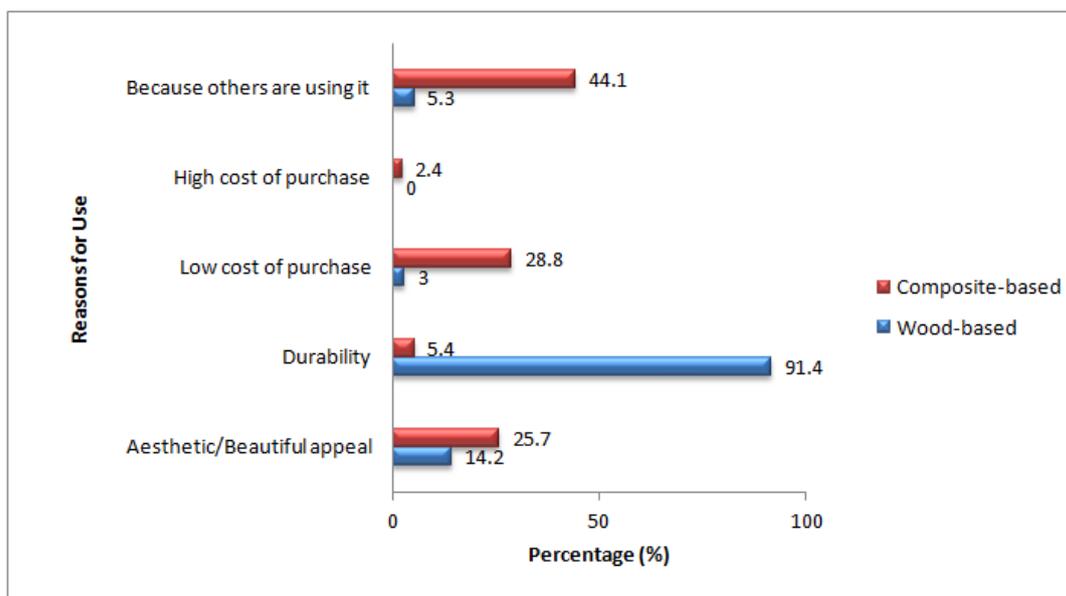


Fig. 4.

Reasons why Respondents prefer a particular type of Furniture in Otukpo Township.

Most respondents (95.7%) of Otukpo town preferred locally made furniture while 4% preferred both local and foreign made furniture. No household preferred foreign made furniture (Fig. 5). Also, 97.7% of respondents agreed that decline in wood supply will affect choice of furniture while 2.3% of respondents did not agree (Fig. 6). This is in line with the findings of Antwi-boasiako and Boadu (2016) that wooden furniture industry is steadily declining in performance, productivity and profits due to lack of raw materials. He also reported that the choice of furniture products was dependent only on availability of markets.

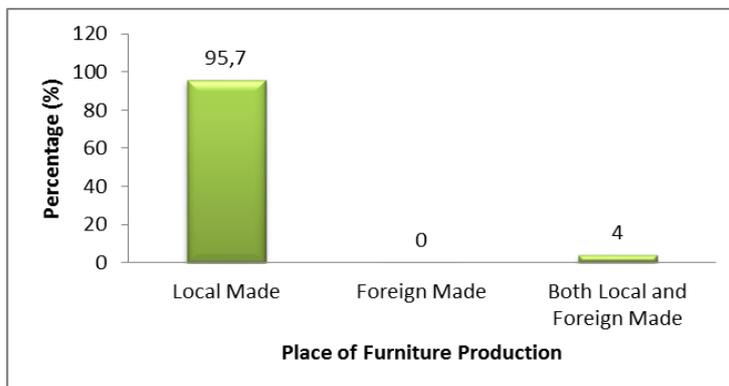


Fig. 5.

Respondents preference for local and foreign based Furniture in Otukpo Township.

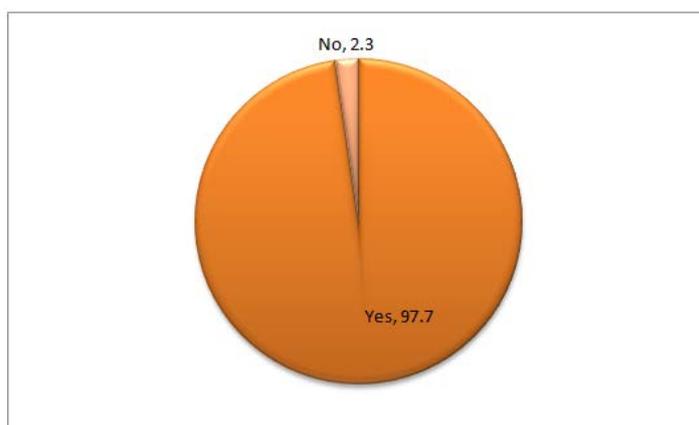


Fig. 6.

Respondents' Perception that decline in wood supply will affect choice of furniture in Otukpo Town.

Fig. 6 to 10 show wood-based and composite based furniture produced and used in Otukpo Otukpo Town, Benue State, Nigeria.



Fig. 7.

Wardrobe made from Composite-based material in Pipeline Ward, Otukpo Town Central.



a



b

c

Fig. 8.

- a. **Wood-based Bed made from** *Tectona grandis* wood in **Pipeline Ward, Otukpo Town Central**
b. & c. **Composite Bed made from** *Tectona grandis* wood in **Enugu Road Ward, Otukpo Town Central**



d.

e.

Fig. 9.

- d. **Desk made from composite in Otukpo Town Central**
e. **Table made from wood in Depot Ward, Otukpo Town East**



Fig. 10.

f. Set of sofas and armchairs made in Pipeline Ward, Otukpo Town Central
g. Dining set of chairs and tables made in Pipeline Ward, Otukpo Town Central



Fig. 11.

Room divider made in Pipeline Ward, Otukpo Town Central.

CONCLUSION

Wood-based furniture was exclusively used in households of Otukpo town compared to composite-based furniture. Most household in Otukpo town essentially preferred wood-based especially for its durability. However, the fast decline in wood supply because of ever increasing deforestation as acknowledged by respondents would definitely attract high demand for composite-based furniture in Otukpo town in the coming years.

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