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# Marketing performance of *Pterocarpus Mildbreadii* in Ibadan metropolis

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### ABSTRACT

The study focused on the marketing performance of *Pterocarpus mildbreadii* in Ibadan metropolis with a view to identify the socio-economic characteristics of marketers of *P. mildbreadii*, to estimate costs and returns from marketing of *P. mildbreadii* and to identify factors influencing the marketing of *P. mildbreadii* in the study area. The data for the study were collected through the use of structured questionnaires randomly administered to ninety (90) marketers of *P. mildbreadii* in six (6) selected markets. The result from the study revealed that women (80%) were mainly involved in the marketing of *P. mildbreadii* being their primary occupation with a higher percentage of the marketers earning above ₦20, 000 monthly. Profit margin analysis showed that the business is both feasible and viable with the marketing efficiency and rate of return on investment between 1.18-1.90 and 28%-75% respectively. However, marketing of *P. mildbreadii* in the study area was confronted with some challenges including transportation (52.22%), perishability (14.44%), seasonality (13.33%), poor storage facility (11.11%) and poor market structure (8.90%).

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### Introduction

In Nigeria, as in other tropical countries of Africa where the daily diet is dominated by starchy staple foods, vegetables such as *Pterocarpus mildbreadii* are the cheapest and most readily available sources of important proteins, vitamins, minerals and essential amino acids. The leaves of *P. mildbreadii* are used as a cooked vegetable in Nigeria. In Ghana the trees have been planted or retained in cocoa plantations to provide shade. *P. mildbreadii* is rarely exploited for its timber, e.g. in Tanzania, and the wood is used to make mortars. The majority of these vegetables are still been harvested from the wild (Okafor *et al.*, 1996). Apart from their food value, traditional vegetables are useful for other purposes, such as medicine, cash income and in cultural observance. A few of these vegetables are domesticated and marketed, thus serving as a source of household income. In the rainy season, vegetables are abundant in the wild and home gardens and therefore relatively cheap while in the dry season there is general scarcity as demand cannot be met leading to higher prices (Edwin-Wosu *et al.*, 2012). The roles of these forest resources in promoting rural welfare, employment, livelihood sustenance and sustainable forest management in the state are not fully appreciated and undervalued and they often go unrecorded in official national statistics. This is because most times traditional forest management tended to focus on production of timber and fuelwood and also due to the previous tendency where emphasis was on wood/timber and non-wood forest resources were considered only as minor/incidental (Chikamai, *et al.* 2002). *P. mildbreadii*, a non-wood forest tree species and one of the largest genus in the Papilionoideae family occurring throughout the tropics with yellow bright flowers and usually alternate leaflets, is referred to as, "Oha" in Igbo, "Madobiyar rafi" in Hausa, "Urube" in Edo, "Geneghar" in Ijaw and "Kakupupu" in Urhobo (Akpanyung *et al.*, 1995). *P. mildbreadii* is widely recognized as important indigenous multipurpose tree with very high commercial and nutritional

values in most ecological zones of Nigeria used mainly as vegetable in soups and herbs.

The value from the forest resource is derived through harvesting, processing and marketing of products based on wood and non-wood materials and services provided by the forests. In sustainable forest utilization, marketing provides a means of maximizing the values and distributing them among the participants in forestry activities. Marketing of non-wood forest products, like every other marketing enterprise, involves the interaction between a seller and buyer at an agreed price. It is the movement of commodities or products from points of harvest or production until the products are received by the ultimate consumers (Agbigbi, *et al.* 2008). Marketing of non-wood forest resources i.e. *P. mildbreadii* are extremely variable; their role in assembling and distribution may change a great deal through the year and from one year to another. This variability has a strong influence on buying and selling price, since prices depend mainly on supply and demand condition. The role of marketing therefore is of considerable importance in that a well organized and efficient market structure will ensure profitability returns to sellers at reasonable low price to consumers and it also acts as the link between production and consumption points. This study therefore seeks to assess the marketing of *P. mildbreadii* in Ibadan metropolis with a view to identify the socio-economic characteristics of marketers of *P. mildbreadii*, to estimate the cost and returns from marketing of *P. mildbreadii* and to highlight the problems encountered by marketers of *P. mildbreadii* in the study area.

### Methodology

#### Study Area

The study was conducted in Ibadan Metropolis which is the capital of Oyo state. The area is located between latitude 7° 21' and 9° 17' North; and longitude 1° 21' and 2° 44' East. Two climatic seasons are identifiable; they are the rainy season beginning from late march to October and dry season stretching from November to early March. The mean annual temperature

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varies between 21.1<sup>0</sup>C and 31.1<sup>0</sup>C. The annual rainfall is within the range of 800mm in the derived eco-zone to 1500mm in the rainforest belt. It is bimodal with peak in July and September (Faleyimu and Agbeja, 2004).

**Data Collection**

The methodology adopted for data collection includes purposive random sampling of six (6) markets, selection of respondents, data collection and analysis to derive fruitful findings. Six (6) markets namely Apata, Omi-adio, Oja-oba, Oje, Bodija and Moniya markets distributed across six (6) Local Govt Areas (Ibadan Southwest, Iddo, Ibadan North, Akinyele and Ibadan Northeast) were selected for the study. Fifteen (15) respondents involved in the trade of *P. mildbreadii* were randomly selected in each market and administered questionnaires.

**Data Analysis**

The quantitative and qualitative data were analyzed using appropriate descriptive and inferential statistical tools i.e. percentages, frequency, gross margin analysis, marketing efficiency and rate of return on investment. A unit in this study is measured in terms of 50kg bag. The results were summarized accordingly, presented in the form of figures and tables for clarity purposes.

Gross margin analysis is given as:

$$GM = TR - TVC \dots\dots\dots (i)$$

Where:

GM= gross margin

TR= total revenue/unit

TVC=total variable cost/unit

Marketing efficiency is given as:

$$ME = TR / TVC \dots\dots\dots (ii)$$

Where:

ME= marketing efficiency

TR= total revenue

TVC=total variable cost

Rate of return on investment is given as:

$$RORI = GM / TC \dots\dots\dots (iii)$$

Where:

RORI= rate of return on investment

GM=profit margin/gross margin

TC= total cost

**Results and Discussion**

**Socio-economic characteristics of respondents**

Seventy two (80%) of the respondents were female, fifty nine (65.6%) were of age 21-40, sixty two (68.89%) were married while eighty two (91.11%) of the sampled population were into marketing of *Pterocarpus mildbreadii* alongside other non-wood forest products as their primary occupation in the study area. Distribution of respondents by education revealed that 55.56% had secondary education. Majority of the respondents earned a monthly income above N20, 000 (56.67%) while 91.11% had household size of 0-5. *P. mildbreadii* marketers were dominated by females, this is because women are more predominant in either capital or labor intensive aspects of forestry businesses include marketing (Ogunwande, et al. 2009). Adults in their active ages were involved in the collection and marketing because of their experience and having good sense of judgment they are able to avoid losses. Majority of the respondents were secondary school leavers due to the fact that living in urban area exposes people to opportunity to education.

**Table 1: Socio-economic characteristics of respondents**

VARIABLES	FREQUENCY N=120	
PERCENTAGE (%)		
<b>SEX</b>		
MALE	18	20.0
FEMALE	72	80.0
<b>AGE (YEARS)</b>		
0-20	5	5.56
21-40	59	65.6
41-60	24	26.7
>60	2	2.22
<b>MARITAL STATUS</b>		
MARRIED	62	68.89
SINGLE	6	6.67
WIDOWED	20	22.22
SEPERATED	2	2.22
<b>EDUCATIONAL STATUS</b>		
NONE	11	12.22
PRIMARY	21	23.33
SECONDARY	50	55.56
TERTIARY	8	8.89
<b>PRIMARY OCCUPATION</b>		
FARMING	0	0
NTFPs TRADE	82	91.11
OTHERS	8	8.89
<b>HOUSEHOLD SIZE</b>		
0-5	82	91.11
>5	8	8.89
<b>MONTHLY INCOME</b>		
< N5000	8	8.89
N5000- N9000	1	1.11
N10,000- N14,000	9	10.0
N15,000- N19,000	21	23.33
≥ N20,000	51	56.67

Source: Field survey 2012

Most of the respondents made this business their primary occupation with a higher percentage of the sampled population earning above N20,000 monthly. This probably indicates that the business provides a good means of livelihood to the extent that they are able to depend solely on it for a living.

**Costs and Returns**

The average costs and returns from marketing of the *P. mildbreadii* were estimated by using gross margin analyses, marketing efficiency and rate of returns on investment to determine the profitability. (equations i, ii and iii above). The results are presented in Table 2.

**Table 2: Estimates of costs and returns from marketing of *P. mildbreadii***

	TR/UNIT (N)	TVC/UNIT (N)	GM (N)	ME	RORI
LEAVES	2110	1200	910	1.90	75%
SEEDS	1900	1400	500	1.36	36%
FRUITS	1720	1200	520	1.43	43%
TWIGS	2050	1600	450	1.18	28%
BARK	1860	1400	460	1.33	33%

Source: Field survey, 2012

The average gross margin was higher for leaves (N 910) as against N 500, N 520, N 450 and N 460 for seeds, fruits, twigs and barks respectively. This indicated that trade in the leaf of *P. mildbreadii* made more profit per unit price of the product. There was a wide disparity in the prices of the products brought

into the market by the sellers. This may be attributed to the bargaining power of the traders at the points of purchase and lack of standard weighing machines. Also, the marketing efficiency for the products in the study area was between 1.18-1.90. This showed that marketing of these products were efficient. The RORI for the study area was between 28%-75%. RORI been an indicator of profitability showed that the business was highly profitable since the higher the RORI, the higher the profitability (Akinyemi, *et al.* 2009).

#### Factors influencing marketing of *P. mildbreadii* in the study area

There were five identifiable constraints facing the marketing of *P. mildbreadii* in the study area. These include transportation (52.22%), perishability (14.44%), seasonality (13.33%), poor storage facility (11.11%) and poor market structure (8.90%). Transportation was the greatest constraint faced by the respondents. This is because the people travel far and wide outside the state to obtain their products coupled with the fact that inter-state roads are in deplorable conditions which invariably leads to increase in transportation cost. Also price fluctuation was another major constraint since the products are seasonal and perishable which makes them scarce during off season leading to unwarranted price increase even though there are substitutes.

**Table 3: Factors influencing marketing of *P. mildbreadii* in the study area**

CONSTRAINT	FREQUENCY	(%)
Transportation	47	52.22
Perishability	13	14.44
Seasonality	12	13.33
Poor storage facility	10	11.11
Poor market structure	8	8.90

Source: Field survey, 2012

#### Conclusion and Recommendation

The study has shown that the contributions of marketing of *P. mildbreadii* should not be under estimated when we consider the role it plays in the economy of the people. Women were the dominant participants in the trade being their primary occupation because they play crucial role in the downstream forestry enterprise development at all stages including marketing and also because of the small scale/capital requirement of the business. Also, marketing of *P. mildbreadii* in the study area contributed positively towards poverty alleviation as it is a good source of income in peri-urban and urban economies with a higher percentage of the population earning above N20,000

monthly. Profit margin analysis showed that the business is both feasible and viable with the marketing efficiency and rate of return on investment between 1.18-1.90 and 28%-75% respectively. However, marketing of *P. mildbreadii* in the study area faced some challenges including transportation, perishability, seasonality, poor storage facility and poor market structure. It is therefore recommended that due to the profitable and efficient nature of this business, more people are encouraged to be involved as a means of livelihood. Also, government, NGOs, private investors and other relevant stakeholders should look into the constraint of poor market structures and transportation to promote marketing of non-wood forest based resources in urban areas.

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