

## PROFITABILITY OF GUM ARABIC MARKETING IN KANO STATE

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### ABSTRACT

*The study investigated the marketing of various grades of gum arabic in some selected markets in Kano state. Purposive sampling technique was employed to select five major markets in five local government areas. Data were collected from 100 marketers through random sampling technique by using well structured questionnaires. The collected primary data were subjected to both descriptive statistics and marketing margin analysis. The findings shows that marketing all grades of gum arabic were profitable as the average marketing margins per tonne for Grade I, Grade II and Grade III were N49,550.00, N19,633.33, N5,600.00 while the average rate of returns per naira invested were N0.30, N0.16 and N0.09 respectively.. The study further concludes gum arabic marketing to be profitable. However, many constraints such as inaccessibility to credit, low volume of capital adulteration, grade, poor storage and processing facilities were discovered to militate against an effective marketing system in the study area. The study recommends more accessibility to credit facilities, provision of modern processing and storage facilities, dissemination of market information, proper enlightenment to minimize grade adulteration and fraudulent activities in the markets of the study area.*

**KEYWORDS;** Profitability, Gum Arabic, Marketing, Kano State.

### INTRODUCTION

Gum Arabic is the dried exudates obtained from stems and branches of *Acacia senegal* (L) Willdenow or closely related species (Anon, 2004). Chemically, it is a slightly acidic complex compound made up of glycoprotein, polysaccharides and their calcium, magnesium and potassium salts (Mining News Services (MNS), 2008). There are about 1100 species distributed over tropical areas of Africa, India Australia and America. Gums from *Acacia senegal* and *Acacia seyal* are the most commercially exploited species internationally (Sagay and Mesike, 2011). Nigeria's Gum Arabic is classified into three grades: Grades 1 (*Acacia senegal*) Grade 2 (*Acacia seyal*) and Grade 3 (*Combretum*) and other species (Anon, 2004). Gum Arabic and the *Acacia* tree from which the gum is tapped are an integral part of life in the Sahelian countries of Africa. Whether as nomadic collectors, sedentary small scale producers, rural merchants or exporters from the cities, several hundreds of thousands of people depend directly or indirectly on the production and marketing of Gum Arabic for providing at least part of their subsistence (Abubakar, 2004).

In Nigeria, marketing of Gum Arabic is domestically liberalized and is in the hands of private traders or merchants from farm gate to export. The sale of the gum in the markets is in the *Mudus* measures or 50kg bags (Yakasai, 1998). Gum Arabic is mostly marketed in the unprocessed form with little or no value addition. Gum collection is done by peasant farmers and cattle Fulanis who sell to the middlemen who in turn resell to big merchants (Aghughu and Ojiekpon, 1996), However, various factors were identified to affect local and global Gum arabic markets which include; availability of close substitutes, irregularity of supply; adulteration,

climatic changes, political instability, and price variations in growing countries (Abubakar, 2004).

The future prospects of Gum Arabic are good as reported by Umar (2006), as there is tremendous increase in production and marketing worldwide. Nevertheless, only 60% of the global demand for Gum Arabic is met and the sector has witnessed continued investments in recent years (M.N.S., 2009). Therefore, this study aims to examine the profitability and constraints of marketing various grades of gum arabic in the study area.

### METHODOLOGY

#### The Study Area

Kano state is located in the north-western part of Nigeria and was created on May 27, 1967 from the Northern region It is one of the thirty six (36) states of the Nigerian Federation and has forty four (44) Local government areas. It lies between latitude 10° 33N and 12° 37N, and longitude 7° 43E and 9° 25E (Yaro, 1999). According to 2006 Census, Kano state has a population of 9,383,682 inhabitants. It is bordered by Katsina state to the north-west, Jigawa State to the north-east, and Bauchi and Kaduna States to the south. The state capital is Kano. However, majority of the inhabitants are Hausa-Fulani other minority tribes include Kanuri, Nupe, Yoruba, Igbo, Tiv, Igbira and other numerous small ethnic group from far and wide. However, majority are Muslims, though non-Muslims form about 10% constituting a minority part of the population (Trade Fair, 2010).

#### Sampling Procedure and Sample Size

Multistage sampling was employed where five local government areas were purposively selected based on preponderance of marketing of the commodity.

This was followed by a simple random sampling of one hundred (100) marketers from 1162 marketers and thus assigning each marketer a number through computer programme (excel software). This is similar to the study of Oyedokun and Olowo (2001) who randomly selected 50% of scientist from selected agricultural research institutes using the table of random numbers to select 172 scientists. However, the markets selected for the study were located in Kano Municipal; (Kurmi market.), Nassarawa; (Dakata.), Gwale; (Dorayi), Dawakin Tofa; (Dawanau Market), and Gezawa; (Tokarawa Village).

**Data Sources and Collection**

Primary data were collected with the aid of well structured questionnaires. This was aided by key National Association of Gum Arabic Producers and Processors of Nigeria (NAGAPPEN) members. The major areas of this study were either located in the metropolitan local government areas or very close to the metropolis and thus constituting the most active markets for Gum Arabic marketing and processing in the state.

**Analytical Tools**

Descriptive statistics, marketing margin were employed in order to achieve the various objectives of the study.

**Descriptive Statistics**

Descriptive statistics such as percentages and frequency tables to describe the socio-economic characteristics and were used to achieve part of objective No.1 of the study.

**Marketing Margin**

This measured the difference in Naira between the marketers price and the resale price for each 1 tonne of gum arabic marketed by the marketers. The marketing model as used in this study is expressed as;

**Return on Investment**

This was employed as a return per Naira invested and it measured the Net return accruing to the marketer for each N1 expended in the business. The model is expressed as;

$R/Ng = Ng/TCg$ ..... (c)

Where;

R/Ng = Average net return per Naira invested in gum arabic marketing

Nig = Average net income or net revenue from sales of gum arabic

TCg = Average total cost for marketing gum arabic.

The decision rule was that if;

R/N > 0 implies positive returns to the enterprise.

Contrastingly if;

R/N < 0 implies negative returns or loss to the enterprise.

But if;

R/N = 0 implies break-even meaning no profit or loss recorded.

$Mm = Sg$  ---  
 P..... (a)

Where;

Mm = Average marketing marketing margin for 1 tonne of gum arabic.

Sg = Average purchase price for 1 tonne of gum arabic marketed.

P = Average purchase price in Naira for 1 tonne of gum arabic

Based on this model, which was applied by Ekunwe et al., (2008), it follows that marketers margin equals marketers selling price per unit minus purchase price per unit This also represents the opinion of Awotide and Ajala (2007). Thus, the net return or profit accruing to the marketer is the difference between the marketing margin (Mm) and marketing cost (Mc) .

**Net Income**

This refers to the average net returns in Naira accruing to a marketer for a 1 tone of gum Arabic marketed. The net income model was used in this as ;

$Nig = Sg - (Pg + Cg)$ ..... (b)

Where;

Nig = Average net income for 1 tonne of gum arabic marketed.

Sg = Average selling price of 1 tonne of gum arabic marketed

Pg = Average purchase price for 1 tonne of gum arabic marketed

The decision rule is that if;

Nig > 0 implies that enterprise was profitable and worth undertaking, otherwise it was not.

Contrastingly, if;

Nig < 0 implies the enterprise was unprofitable or negative profit otherwise it was not.

## RESULTS AND DISCUSSION

### Average Returns per Naira Invested for Marketing Various Grades of Gum Arabic in the Study Area.

Table 1 reveals average return per Naira per tonne of various grades of Gum Arabic. It shows that the cost of unprocessed Grade I, Grade II and Grade III were ₦155,000:00, ₦110,000:00 and ₦52,000:00 respectively. However, the average selling price of the various grades were ₦216,250:00, ₦139,088:33 and ₦66,500:00. Moreso, the total cost of processing a tonne of Grade I, Grade II and Grade III were ₦166,700:00, ₦119,450:00 and ₦60,900:00. The Gross margin for the various grades as were shown on the same table revealed ₦49,550:00, ₦19,633:03 and ₦5,600:00 respectively. Furthermore, the average rate of return for Grade I was highest with ₦1.30, followed by Grade II with ₦1.16 and ₦1.09. This implied that for every one Naira (₦1) invested there were profit of 30kobo, 16kobo, 9kobo respectively. It was observed that more of Grade II was being processed than the other grades in the study area.

### Constraints to Profitability of Marketing Gum Arabic

Marketing agricultural products in developing countries like Nigeria is associated with numerous constraints (Olukosi et. al. 2005). Nevertheless, it is a major determinant of general development especially agricultural (Aminu, 2009). However, marketing of agricultural products has been variously charged with hoarding and exploitation of innocent farmers and powerless consumers, numerous constraints have been blocking the trajectory to achieving effective, efficient and improved performance of gum Arabic marketing. Therefore, the various constraints were investigated in the study area and the result is hereby presented in this section.

### Poor Accessibility to Credit

Majority of marketers (88.0%) had poor access to formal credit probably due to lack of collateral facilities or lack of awareness. Table 2 presents poor access to formal credit ranking first, among the numerous constraints militating against the expansion of their marketing activities. This implies that, the full marketing potentials of gum arabic marketers in the study area were not fully harnessed. This report is in agreement with Umar (2011) in his study of economic analysis of Gum Arabic marketing in Borno state.

### Low Volume of Capital

The result in Table 2 shows that 70.0% of the respondents regarded low volume of capital that ranked second on their list to be a major constraint. This shows their inability to expand transaction due to the meager resources at their disposal. From the findings many marketers (assemblers) depended on exporter for local processing and marketing funds, mostly on agreement or commission. Batsaa (2005) reported similar findings in his study of marketing and processing of Gum Arabic in Borno State of Nigeria

### Storage facilities

Table 2 reveals that 62.0% of the respondents, ranking 3<sup>rd</sup> reported poor storage facilities as inadequate thus, highlighting the traders' inability to enjoy the possible high prices during the off-peak period. Moreso, most the storage facilities were located within the metropolis or suburbs where rental rates were very exorbitant and ranges from small shops rented by marketers and large expansive storage facility. The large facilities were normally operated by the large scale wholesalers who export or assemble for exporters.

### Lack of modern processing facilities

Table 2 depicts 60% of the respondents, ranking fourth complained about lacking of modern processing facilities for value addition. From the findings, only two firms had the capacity of adding value to the commodity in a required exportable form namely: Dansa Company Limited, Sharada, Kano Municipal and Fulmark Nigeria Limited at Tokarawa, Gezawa local government area.

### Inactive Marketers' Association

Table 2 reveals that 31.0% considered their trade association as performing below average. The National Association of Gum Arabic Producers Processors and Exporters (NAGAPPEN) had mandates of promoting the production, processing and exporting commodity. Although, NAGAPPEN had always enumerated the huge benefits derivable by working in a group through the association, but still so many marketers were unregistered. However, this had not stopped the unregistered marketers from partaking in all marketing activities of gum Arabic in the study area

**Table 1: Average Returns per Naira Invested for Marketing Various Grades of Gum Arabic in the Study Area.**

| OPERATION   | GRADE I<br>N/tonne | GRADE II<br>N/tonne | GRADE III<br>N/tonne |
|---|--------------------|---------------------|----------------------|
| A. Average Selling Price of Processed 1-tonne of Gum Arabic | 216,250:00         | 139,083:33          | 66,500:00            |
| B. <u>Unprocessed Gum Arabic</u>                            | <u>155,000:00</u>  | <u>110,000:00</u>   | <u>52,000:00</u>     |
| C. <u>Marketing variables*</u>                              |                    |                     |                      |
| 1. Transportation   | 6,000:00           | 5,000:00            | 5,000:00             |
| 2. Loading/ off loading                                     | 1,000:00           | 800:00              | 800:00               |
| 3. Marketing & other charges                                | 1,000:00           | 700:00              | 700:00               |
| 4. Storage  | 700:00             | 700:00              | 700:00               |
| 5. Cleaning/sorting/grading                                 | 2,000:00           | 1,500:00            | 1,000:00             |
| 6. Bags & packaging   | 1,000:00           | 750:00              | 700:00               |
| Total marketing Cost  | 166,700:00         | 119,450:00          | 60,900:00            |
| Average Marketing Margin (A – B)                            | 49,550:00          | 19,633:33           | 5,600:00             |
| Average Rate of Return (N) A/B                              | 1.30               | 1.16                | 1.09                 |

*Source; Computed from field data, 2010*

\* The cost of marketing variables were rounded off to the nearest hundred for convenience.

**Table 2: Distribution of Marketers According to the Constraints to Effective marketing of Gum Arabic in the Study Area.**

| S\No | Constraint            | Frequency* | Percentage* | Ranking |
|------|-----------------------|------------|-------------|---------|
| 1.   | Credit Accessibility  | 88         | 88.0        | 1st     |
| 2.   | Low capital volume    | 71         | 71.0        | 2nd     |
| 3.   | Storage facilities    | 62         | 62.0        | 3rd     |
| 4.   | Processing facilities | 60         | 60.0        | 4th     |
| 5..  | Inactive association  | 35         | 35.0        | 5th     |

*Source; Field survey data, 2010*

\* Total frequency and percentage may exceed 100% due to multiple responses.

### CONCLUSION

The prospects of gum arabic marketing in the study area are bright as indicated by the reasonable amount of profit in terms of the marketing margin and the return per naira invested. Gum Arabic (Grade I) was the most profitable followed by Grade II and Grade III in all the study markets. The marketing system was found to be efficient taking cognizance of input – output relationships and thus making gum arabic marketing a worthy and highly lucrative venture with more potential untapped. Furthermore, various constraints such as access to credits, low volume of capital, high transportation costs, modern storage and processing facilities were discovered to militate against more profitable and most efficient marketing of the commodity.

### RECOMMENDATIONS

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

- 1) The study recommends marketers to form strong and viable association so as connect with the public and private sectors with view to accessing more financial assistance through credit facilities and subs
- 2) More effort should be targeted at providing modern processing facilities

for value additions which could increase the value, acceptability and profitability of the commodity at domestic and international markets. This could be done through cooperative association's effort in collaboration with government and corporate bodies.

- 3) Buffer stock storage facilities can be provided by cooperative association in collaboration with the government and private sector so as to spread the availability of the product throughout the year and also minimize rampant storage loses due to inappropriate storage facilities
- 4) Governments with high potentialities for gum arabic production like Jigawa, Kano, Bauchi, Sokoto etc. should expedite action towards re-invigorating their ailing productive capacity of the commodity with the view to reducing the problem of inadequate supply of the product.
- 5) The NAGAPPEN should reactivate or open more branches in both urban and rural areas with the aim of boosting production, processing and marketing of gum arabic in the study area in particular and the country in general.

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