

THE NIGERIAN SUGAR INDUSTRY(1960-1987)

ABSTRACT

The concept of an industry is important for economic analysis. Here, we define sugar industry as group of firms producing sugar that are close substitutes by the use of identical production processes and raw materials. However, sugar industry in Nigeria (by then) was still in its pioneering stage. This paper therefore argues that the structure and orientation of Nigeria Sugar industry have not induced growth and development and thus a more urgent attention was needed from the policy makers and government to check the observed ugly situation.

KEYWORDS: Nigeria, Sugar, Industry, Production, Pricing Policy, distribution techniques, Market structure, government, incentives

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1.0 INTRODUCTION

The concept of an industry is important for economic analysis. It is also important to business man, to the government, to those involved in the collection and processing of economic data, and to all research investigators. Two criteria are commonly used for the

definition of an industry, the product being produced (market criteria), and the methods of production (technological criteria). According to the first criterion firms are grouped in an industry if their products are close substitutes, while according to the second criterion firms are grouped in an industry on the basis of similarity of processes and/or raw materials being used. However, the integration of the two criteria is most desirable in analyzing the behavior of the firm in oligopolistic market structures which are typical of the modern business world. For our purpose therefore, we can define sugar industry as group of firms producing sugar that sugar that are close substitutes by the use of identical production processes and raw materials.

Sugar industry in Nigeria is still in its pioneering stage. At present, there are four main sugar companies, namely: the Nigerian Sugar Company Limited. Bacita; Santi Sugar Company in Niger State; the Savannah Sugar Company Numan in Gongola State, and the Lafiagi Sugar Company, Lafiogu, Kwara State. Of these four companies, only Nigerian Sugar Company and Savannah Sugar Company that has gone into production. Others are still at the pilot stage or unable to produce because of numerous production bottlenecks or constraints. It is also pertinent to point out that there is existence of similar sugar companies who does only cubing of refined sugar with imported granulated sugar and a lot of others who imports sugar into this country. Such companies are Tate and Lyle (Nigeria) Limited and Inlaks Nigeria Limited. By our definition of industry, they are not to be included in our analysis however, it is a combination of locally produced sugar and imported sugar that make up the market for sugar in terms of consumption. Prior to 1964, when Nigerian Sugar Company Bacita went into production, Nigeria was totally dependent on imports for its sugar needs. The major exporters of sugar to Nigeria in the past have been United Kingdom, France, Soviet Union, Czechoslovakia and Holland. Granulated and cubed sugar are the main types imported. Thus, the Nigerian market has been built upon the sale of refined sugar. Sugar of lower grades such as Mill white are not acceptable. Local plantations milling sugar must, therefore, undertake the refining process even if initially they may not go in for cubing a proportion of their production.

The Federal Government of Nigeria attaches high priority to the development of sugar cane plantations in Nigeria to achieve self sufficiency in sugar production and reduce or eliminate the heavy call on foreign exchange to meet the cost of imports. In this direction, various sugar cane plantations have been established in the country to serve as a source of raw material to the companies. Some of the plantations are owned by the companies, the government or the individuals.

Nigeria with a vast area (nearly 357,000 square miles) and with the largest population among African countries (over 100 million), still lags behind very much in the local production of sugar to meet domestic needs which is riding year by year. With low per capita consumption of sugar in Nigeria compared to some other countries of the world, there is thus a great scope for expansion of sugar industry in Nigeria.

For a systematic approach and in view of restrictions imposed by space, I was limited to four section . The paper therefore discusses concisely in the introductory part , the definition of industry and an overview of sugar industry in Nigeria, as presented in section one. The second section looks at the sugar production market structure, pricing policy and distribution techniques of the industry. The third section focuses on the impact and role of the industry and offers recommendations to these problems.

2.0 PRODUCTION AND MARKETING

2.1 SUGAR PRODUCTION

There are seven production stages that must take place before a sugar is produced. They are as follows: Harvesting of sugarcane; transportation of cane bundles; crushing and shredding of cane; testing of canejuice; mixture of crystals and syrup; weighting of granulated sugar and finally cubing of sugar stab and packaging.

In accordance with the Nigerian Industrial standard for white Refined Sugar, which states that white refined sugar shall be the organic substance produced in pure form from sugar cane or other sources of sugar by any acceptable process of purification depending upon

the nature of the initial material; the description of principal raw material component parts used by the firms in the industry are presented in table 2.1.

TABLE 2.1: RAW MATERIALS USED IN THE SUGAR INDUSTRY

S/No.	DESCRIPTION OF PRINCIPAL RAW MATERIAL COMPONENT PARTS	UNIT OF MEASURE
1.	Imported Raw Materials Component:	
(a)	Hydrated Lime	Kilograms
(b)	Hydro-chlorex	Kilograms
(c)	Filter-Bags	Kilograms
(d)	Phosphate, Tabs, spindle, Acetote etc.	Kilograms
2.	Locally Produced Materials Components:	
(a)	Sugar Canes	Metricktonnes
3.	Fuels:	
(a)	Diesel	Litres
(b)	Black Oil	Tonnes

SOURCES: 1985 Survey of Manufacturing Industry, Federal Office of Statistics Lagos

The major component of refined sugar is sugar cane, however, according to Mr. Adedeji, Chairman of Nigerian Bottling Company, the feasibility studies (1983) undertaken by the company for their proposed local production of sugar shows that the cheapest method of producing industrial sugar in the country appear to be through extracting it from maize. The basic principle under which a sugar industry operates is that of high quality control. Under this basic principle, high degree of purity and cleanness is necessary. Since cane constitutes the major components of refined sugar, it is properly treated with chemicals., since high quality is expected to compete effectively with similar products from other companies (local and foreign) deviation may lead to a total fall in standard and quality which of course will affect the company's performance and reputation. The productivity of labor in any industry depends not only on the quantity and quality of labor being used, but also, on the quantity and quality of other inputs that are competing with labor. The sugar producing equipments are more or less standardized. But variations could occur in the maintenance and running of these machines. Moreover, some activities like material handling and in-plant transportation may be done manually rather than mechanically. All these would affect the labor productivity. The composition of unit cost for producing sugar depends on, among other things, the technique of production.

2.2 MARKET STRUCTURE

The number of companies that make up the sugar industry in Nigeria is small compared to other industries. They are four in number as shown in table 2.2

TABLE 2.2: NUMBER OF FIRMS OR COMPANIES IN SUGAR INDUSTRY

S/NO.	COMPANIES	STATE	INSTALLED	YEARLY CAPACITY
1.	Nigerian Sugar Company Bacita	Kwara		100,000 ts
2.	Sunti Sugar Company Jebba	Niger		100,000 ts
3.	Savannah Sugar Company Limited	Gongola		100,000 ts
4.	Lafiagi Sugar Company Limited	Kwara		65,000 ts

SOURCE: International Sugar Organization Sugar Year Book 1978.

At present, it is only Nigerian Sugar Company Bacita and Savannah Sugar Company Gongola that are operational, although none have achieved optimum capacity utilization. This small size characterizes the industry as an oligopolistic type though non collusive in nature but are conscious of their interdependencies. The competition is not perfect, yet the rivalry among them is high since their product is homogenous.

The companies can be classified as integrated since they refine and cube sugar on their own. Judged by the number of companies, it would seem that there is a high concentration in the industry because if we were to measure concentration by adding up the total output in the industry, only the companies were responsible for total output of sugar produced in the country. But since some sugar is imported, it may be meaningful to look at the share of the industry in total sugar consumed in the country. A look at the production, consumption and importation of sugar in this country have shown that local production have always accounted for a very low percentage of total consumption of sugar in this country while imported sugar have always accounted for high percentage of total consumption of sugar. For instance, in 1986, the quantity of imported sugar was 406,850,753 kilograms while between January to September 1987, the quantity was 231,658,638kg.

It may be of interest to ask why there is this high concentration in the Nigerian Sugar Industry. Sugar is a homogenous product and so product differentiation which accounts for low concentration in other industries is absent. Furthermore, in Nigeria, there is no legal barrier to entry into the industry which should also make for low concentration. The demand for sugar is price inelastic. Moreover, sugar does not have a good substitute so that a change in its price will not make much difference. Therefore, the demand for sugar does not show much response to changes in its price.

2.3 PRICING POLICY

One important element in the pricing policy of any industry is the structure of such an industry. The other factors are the nature of production costs and the demand conditions in the industry. Pricing is an important element in the marketing mix. Among the objectives which pricing helps to achieve are ensuring target return to investment and to compete effectively in the industry. Pricing policy is therefore determined by the cost of the product, demand for the product and the state of competition existing. Ensuring a constant returns to investment would ensure that the profits of the company does not fluctuate so that it can plan for the future. To retain its share of the market, company has to adopt a reasonable price policy.

The usual objective of pricing policy of the industry is to maximize profit from a product or group of products in a market, either in the short term or long term. As fixed cost will not normally change as a consequence of a price change, this is equivalent to saying that the industry aim to maximize gross contributions earned and will be looking for the optimum price which will do this. The total gross contributions earned is the multiplication of the number of products sold in the market and the gross contribution rate.

In the sugar industry, which is Oligopolistic in nature (Non conclusive), the number of sellers are not so many unlike the perfect competitive industry, hence prices are not entirely determined by market forces. Again, price control has been prominent in the industry but deviations from the stipulated price are quite observable. However, since the structural adjustment programs get prices have been removed, thereby giving the producers greater freedom to fix prices (but taking into cognizance of the availability of cheaply imported sugar).

It is also pertinent to point out that there have not been much stability in prices of sugar recently. For instance, a packet of sugar (475g or 500g) have always fluctuate between the price of N1.50 and N2.00 for all brand in the market. Since transportation cost increase the price of sugar, it is always cheaper at the premises of the producers. The demand for sugar is definitely much higher than the amount of sugar produced hence the companies or firms uses simple pricing system. That is, the firm decides what the ex-factory price will be, and the buyer pays in addition to the cost of transporting the sugar.

Sugar is marketed in various ways. Dubrey Wilson defines marketing as "the actual process of integrating and coordinating all functions which serve to identify and anticipate needs, communicate these needs to the research, create and stimulate demand and transfer production and service from the supplier to the consumer", 5 and Robert f. Gwinner et al defined marketing as "being concerned with the satisfaction of customers needs and the accomplishment of an organization's marketing objectives through the efficient and effective distribution of the organization's goods and services under conditions of

constraints imposed by marketing environment"6. These definitions encompass the components of the marketing mix-product, pricing, promotion and advertising. The producers of sugar ensure these in the following ways: the make sure of the quantity of their products and ascertain the relative strength of demand for their product; they also fix their prices in such a way that they are within the reach of the numerous consumers, and the consumers cut across all groups in the society. The companies adopt various methods of promoting their products like the use of printed cap, printed T-shirts, advertising through the media, incentives and discounts.

So long as Nigeria remains reliant on the world sugar market for the supply of the majority of its sugar requirements, it can have very little control over the domestic price of sugar. This is dependent upon short and long-term fluctuations in the world price. Although a greater portion of sugar consumed in Nigeria is imported, there does not seem to be any direct relation between international sugar prices and the prices at which sugar is sold in the market. considering the very high cost of establishing and producing sugar in Nigeria a domestic price much higher than current world prices is inevitable.

2.4 DISTRIBUTION TECHNIQUE

Production is not complete until the good or services reaches the final consumer. To Nwokoye, "the task of distribution is to make goods physically available to the buyer, 7 while cardiff and still saw it as "a term synonymous with marketing - "It is the logistics of the market. It is the flow of purchase orders from consumers to producers via the chain of intermediaries. It is also the physical movement of goods and services from the producer to the consumer"8. The "physical distribution" is reflected in the cost function and lends itself to quantitative analysis more readily than many marketing processes.

The companies have different methods of distribution. Basically all have beg dealers and small dealers come to collect their orders. They also embark on what they call roof-selling whereby they use their own lorries to convey the products to their agents in their ware houses. It is from these agents that retailers come to buy and then sell to the final consumers. The distributors and agents are expected to sell and advertise according to stipulations by the company, but these expectations are rarely met. They however serve the companies as storing agents and provide the necessary personal services required.

Although channels of distribution vary, each company at least adopt one, some or all of the following:

- (a) manufacture - Household or Industrial user
- (b) manufacture - Retailer or Consumer
- (c) Manufacture - Wholesaler - Retailer - Consumer
- (d) Manufacture - Agent - Wholesaler - Retailer - Consumer

Evidently the companies in the industry adopt both the intensive and selective distribution techniques with emphasis on the former, as against exclusive distribution. This is to ensure that the product gets to all who need the products.

3.0 IMPACT ASSESSMENT AND INCENTIVES

3. 1 ROLE AND IMPACT

In this chapter, we shall find out whether the establishment of sugar industry in Nigeria has improved or worsened Nigeria's balance of payment and whether the industry has made any meaningful contribution to the economic growth of this nation. We are fully aware of the fact that there are other reasons why industries are established. the contribution of any industry to the economy cannot be measured alone by its effects on the county's balance of payments such indices as its share of employment of labor force, value added to the GNP and some others can be employed. However, it should be of interest not only to professional economists, but moreso to policy makers, to have an idea of how new industries affect the country's balance of payments position especially when one major argument or the establishment of import competing industries is their supposedly favorable effect on the balance of payments.

It is assumed that even if there had been no domestic sugar, Nigeria could have used as much sugar as she use to do. also it is assumed that the unit valued of sugar remains

unchanged even if all the sugar used in Nigeria are imported. To get the value of foreign exchange saved by the local production of sugar we multiply the quantity of sugar produced by the industry with the unit value of imports sugar. But the existence of the industry creates the demand for some foreign exchange which would not have occurred in the absence of the industry. We have to compare with the foreign exchange saved, the amount of foreign exchange saved is higher than the amount spent by the industry and its employees, then one could conclude that Nigeria's balance of payment position is improved by the establishment of sugar industry. If on the other hand, the reverse is the case, one may then conclude that Nigeria's balance of payment is worsened by the establishment of sugar industry.

Infact, I must point out that the establishment of sugar industry in Nigeria has helped to save foreign exchange in Nigeria because assuming the industries were not producing at all, our present consumption rate will still have to be met by more importation and hence a drain on the scarce foreign exchange. For instance, in 1986, a total of C.I.F. value of N113, 810,631 was used for importation while between January and September, 1987, the C.I.F. value of N136,153.450 was used'. Imagine what these figures would have been if our sugar industry were not existing or producing. However, we must note that by the use of imported raw material component parts (chemicals) , the industry helps to utilize our scarce foreign exchange. Since the major raw material component part is sugarcane which is produce locally, the effect of the imported raw material on the foreign exchange is not much compared to its effect, if the industry were non-existence.

The industry has linkage effect (forward and backward) it is a market for sugar cane produced locally in this country. On the other hand, the product of the industry serves as raw material or intermediate product to many industries such as soft drink industry, beer industry, confectionery industry, hotels, bakery industry etc. sugar industry has also made its impact in the employment of some proportion of the country's teeming labor force. The percentage employed is not very impressive and this is because the industry is more capital intensive which is responsible for the failure of the industry in achieving its objective of creating more employment opportunities.

Finally, the overall impact of this industry in the Nigeria economy have not been significant, but it is hoped that with more of the companies established and with strong linkage between the various sectors of the economy, then a more positive effect will begin to occur.

3. 2 GOVERNMENT INCENTIVES

Industry has developed in Nigeria without much active promotion on the part of the governments. There has been a useful framework of tariff protection industrial estates, pioneer tax exemptions and industrial loans, but the governments have not always tried to get new industries in accordance with preconceived plans of what can or should be manufactured in Nigeria¹¹. With respect to sugar industry, government impact have not been significantly felt in the industry although they control a large proportion of the shares in the industry. This is aided by the structural adjustment program (SAP) which seeks for government non-interference with market forces by way of subsidy, price control etc.

However, during the period of study ,the Minister of Finance and Economic development, in his statement on remove the disadvantage imposed by excise duty on locally produced goods, government has decided that all imported commodities which have local substitutes (sugar being one of them) will now attract extra landing charges equivalent to the excise duty on such local substitute¹²

With Government much emphasis and encouragement on local sourcing of ram material, it will stimulate the industry to use all resources and means at their disposal to achieve a 100% local raw materials content or their product and thus enabling the industry to produce cheaply because with the current second tier foreign exchange market, the industry have been producing at a very high cost although they can now get the foreign exchange with less administrative bottleneck or bureaucracy. But all the same, there is now an inward seeking for imported raw materials.

4.0 PROBLEMS PROSPECTS AND RECOMMENDATION

4.1 PROBLEMS AND CONSTRAINTS

Government neglect is one of the major problems facing the industry. There has not been policy statement or direction specifically on the industry by way of how to improve its performance. This has even contributed to the neglect by the public by way of not showing any economic interest on the industry that is attracting local private investors or foreign private investors.

There is also the problem of competition. Sugar industry in Nigeria is really facing hard competition with imported sugar. Usually this imported sugar are relatively cheaper than locally manufactured sugar and often consumers prefer this imported sugar on the ground that they are quick dissolving one might then say that this high cost of locally produced sugar helps to discourage investment on sugar industry in Nigeria. The exporting nation might be responsible for this ugly situation because of their adoption of dumping technique so that we continue to patronize their market.

The introduction of second tier foreign exchange market (SFEM) has escalated the cost of projects to over three times its original estimates and the financial commitment now expected of the companies is beyond its resources. Furthermore to enable them to proceed, it will be necessary to obtain loans from the relevant financial institutions at advantageous interest

4.2 PROSPECT AND FUTURE DEVELOPMENTS

To determine the brightness and bleakness of the prospects of the sugar industry in Nigeria, one has to look at the chances and dark alleys before it.

Since a lot of sugar is being imported into this country, there is however a big prospect for development of sugar industry in Nigeria. This is by way of achieving the optimum capacity utilization of the existing plants or establishment of new plants. Their production will then offset those imported sugar and hence meeting the needs of growing local consumption and if possible delve into exportation business.

With the current economic predicament, there are likely to be constraints to this development but once the industry achieves a 100% local raw material content for their product, the effect might not be much. In this direction therefore, I am urging the government to introduce some form of price support for locally produced sugar, as an urgent measure. This is because the survival of this is a prospect for more employment opportunities and foreign exchange conservation for the country.

With the government facilitation of the completion of petro-chemical complex, a prospect awaits the industry since most of the imported chemicals will now be bought locally and hence cost reduce is assured.

However, if the foreign country continues to subsidize the imported sugar and there is no government action, the possibility exists that sugar industry in Nigeria may not survive. It is a negative development and should not be allowed.

4.3 CONCLUSION AND RECOMMENDATION

This study has shown that sugar industry in Nigeria is very small in size to make a significant impact on the economy and contribute to the economic growth of the country. In the course of the study, we identify the factors that were responsible for this low performance and on that basis therefore we offer the following suggestions:

(a) There should be radical transformation of agro-allied, petro-chemical and agricultural sector which provides the raw materials needed.

(b) The government should genuinely encourage the industry to embark on research and development activities through subsidizing the cost of such ventures.

(c) The government should embark on industrial promotion activities by way of canvassing of the investment possibility of the industry among indigenous as well as foreign investors.

(d) The industry should be provided with loans, grants and subsidies as growth inducing

measures, where the need arises.

(e) The location of the present companies or firms in the industry is uneven. They are mostly located in the Northern States. For future development therefore, the government should seriously consider the establishment of these companies within the Eastern and Western States. This will help to assure even development and spatial locational balance.

(f) Although the Nigerian economy is at present undergoing a structural transformation through a program of structural adjustment (SAP) with its tool of second tier Foreign Exchange Market (SFEM); the government should however give concessions to certain basic industries (of which sugar industry is among) by way of not allowing totally the workings of market forces to determine their operation. The government should interfere and help positively where the need arise.

(g) It is obvious that sugar has no close substitutes but in the course of my study, I found that there has been development of artificial sweetener (sacarine) as a substitute for sugar. However, this product is said to be detrimental to health and hence not acceptable by the drug and food association. The government should take note of this for necessary action to be taken.

(h) All the sugar importing companies in Nigeria should be given deadline to stop importation and go into alliance with their foreign partner for the establishment of the sugar factory in Nigeria.

In general and finally, the structure and orientation of Nigeria industry have not induced growth and development in this country; therefore a more urgent attention is needed from the policy makers and government to check the ugly situation.

NOTES

1A. Koutsoyiannis Modern Macroeconomics, Hongkong: Macmillan press Ltd., 1979, pp. 7-12

2 S. Onuigbo "Bottling company Plans Industrial Sugar" NewoNigeria, December 5, 1983, p.2.

3 S.U. Ugoh "The Nigerian cement Industry" in O. Teriba and M. O. Kayode (eds.) Industrial

Development in Nigeria: Patterns, Problems and Prospect. Ibadan: Ibadan University press, 1977, P. 165

4Federal Office of Statistics Annual Abstract of Statistics, Lagos: F. O. S, 1987.

5D. Wilson The marketing of Industrial Products, London: Hutchison Company, (Publishing) Ltd., 1965, P.4.

6R.F. Gwinner et al Marketing: An Environmental perspective(c), U. S. A. Wst Publishing Company, 1977, P. 27.

7G.N. Nwokoye Modern Marketing for Nigeria, London and Basin Stork: The Macmillian press, 1981.

8E.W. Candiff and R.R. Still Basic Marketing Concepts, Environments and Decisione, Eagle Cliff N. J. Prentice Hall, 1964, p. 19

9P.U. Onwuachi "Fundamental Problems of Distribution in theNigerianEconomy" in F. E. Onah and C.S. Ige (eds) Production problems in the Nigerian Economy, Jos: Jos University press Ltd., P. 215.

10Federal Office of Statistics, Loc. City.

11W.A. lewis "Reflections on the structure of Nigerian Manufacturing Industry" in O. Teriba and M. O. Kayode (eds.) Industrial Development in Nigeria: Patterns, problems and Prospects, Ibadan: Ibadan University Press, 1977, P.333.

12Chu S. P. Okongwu "Statement on 1988 Fiscal Budget" Business Times, January 11, 1988, P. 8.

BIBLIOGRAPHY.

BOOKS

Candiff, E. W. and Still, R. R. (1964) Basic Marketing Concepts Environments and Decisions, N. J. prentice Hall: Eagle Cliff

Gwinner, R. F. et al (1977) Marketing: An Environmental Perspective(C) , U. S. A. West Publishing Company..

Koutsoyiannis, A. (1979) Modern Macroeconomics, Hongkong: Macmillan press Ltd.

- Lewis, W. A. (1977) "Reflections on the structure of Nigerian Manufacturing Industry" in Teriba, O. and Kayode, M. O. (ed.) Industrial Development in Nigeria: patterns, Problems and prospects, Ibadan: Ibadan University Press.
- Nwokoye, G. N. (1981) Modern Marketing for Nigeria London and Basin Stoke: The Macmillan press.
- Onwuachi, P. U. (1985) "Fundamental problems of Distribution the Nigeria Economy" in Onah F. E. and Ige C. S. (eds.) Production Problems in the Nigerian Economy, Jos: Jos University Press Ltd.
- Ugo, S. U. (1977) "The Nigerian Cement Industry" in Teriba, O. and Kayode, M. O. (eds) Industrial Development in Nigeria: patterns, problems andProspects, Ibadan: Ibadan University press.
- Wilson, D. (1965) The Marketing of Industrial product, London: Hutchison Company (Publishing) Ltd.

GOVERNMENT PUBLICATIONS

- Federal Office of Statistics (1987) Annual Abstract of Statistics, Lagos: F. O. S.
- Federal Office of Statistics (1987) Loc. City
- Federal Office of Statistics (1985) Survey of Manufacturing Times, January 11
- Onuigbo, S. (1983) "Bottling Company plans Industries Sugar" New Nigerian, December 5.