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EXPERIENCES IN MARKETING A SUPPLEMENTARY FOOD MIXTURE  
FOR CHILDREN IN ETHIOPIA\*

by

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## I. INTRODUCTION

In Ethiopia as in many other developing countries the protein deficiency, especially among children, appears high. In 1962, after an agreement between the Ethiopian and Swedish Governments the Children's Nutrition Unit (CNU) was created with the aim of reducing the risk for malnutrition among children in Ethiopia through various means designed on the basis of gathered data.

Through its activities since 1962, the CNU has been able to develop a supplementary food for children which first was tested clinically and then in the field through free distribution to selected groups. It was obvious at an early stage that only limited distribution could be achieved through free distribution against the background of available and expected funds. It was therefore suggested in 1966 to investigate the possibilities of introducing the product through commercial channels. Several such attempts had been made in other countries, with varying success, such as Incaparina in Guatemala, Colombia and Mexico, Peruvita in Peru, Pro-Nutro in South Africa. From the information about the introduction of these other products it was evident that in order to achieve market acceptance, very careful planning of the intended commercial operations had to be made. A plan for the commercialization of CNU's supplementary product was presented in November 1966 (1). This plan i.a. included suggestions for market investigations and test sales campaigns. During the latter part of 1966 and the beginning of 1967, the surveys and test sales were carried through and in the middle of 1967 the product, now called Faffa (which means "grow big and strong") was launched with sales results which by 1968 corresponded to a yearly sales volume of 200-300 tons. Thus marketing is still in an introductory stage and there are many problems to be solved until a steady distribution can be reached.

It is the aim of this paper to present the experiences of CNU in developing and marketing this new product (2).

## II. BACKGROUND

### 1 The Product

The product developed by the CNU is almost entirely based on Ethiopian raw materials and had originally (Mixture SM 8 B) the following composition:

Teff, whole ( <u>Fragrostis Abbysinica</u> )	55%
Chickpea, split	25%
Dried sklm milk (LSI)	10%
Sugar	8%
Salt, iodized	2%

Retinol, vitamin D, tocoopherol, thiamine, riboflavin,  
niacin, pyridoxine, folic acid, B<sub>12</sub>, Ca-pantotenate  
(the amounts meeting the daily recommended allowances)

This mixture had a protein content of 14-15% and a calorie content of 350 calories.

Early in 1968, two new mixtures were tested, SM 17 with 39% whole wheat, 10% teff, 25% split field peas, 5% DSM, 15% sunflower protein concentrate, 4% sugar; and SM 18 with 25% whole wheat, 20% teff, 25% split field peas, 5% DSM, 15% defatted soy flour, 4% sugar and other ingredients as in SM 8 B. These mixtures contain 21-22% protein (3).

Late in 1968, a new mixture (SM 20) was tested and introduced to the market, replacing the original SM 8 B. The mixture had the following composition: wheat 57%, chickpea 10%, defatted soy flour 18%, DSM 5%, sugar 8%, salt 2% and vitamins as above.

The product is mixed on the premises of the CNU where there is a small mixing plant consisting of mills, balances, mixers, fillers, sealers, etc. with a total capacity of about 400 tons of packaged products per year.

## 2 The potential market

The supplementary product of the CNU is primarily designed for children between 1/2 and 4 years of age. The potential market for this age group is quite large; there are about five million families in Ethiopia with 2.9 million children between 1/2 and 4 years and another 3.1 million children between 5 and 9 years. The Ethiopian market is characterized by a low per capita income which is, on the average, about Eth. \$ 100 per capita and year\*. As income distribution is quite skewed, about 10 million of the 23 million inhabitants probably have per capita incomes of less than Eth. \$ 40. Thus purchasing power is low and probably the amount of cash at hand is even lower. It can be estimated as about 10% of the per capita income, except in areas with cash crops and in urban areas.

The market is further characterized by fixed purchasing habits, purchases of small amounts of products, mostly unpackaged. The degree of urbanization is low, there is wide geographical distribution of people who cover their needs through a large number of small-scale retailers, many of whom are found in the open markets. Thus it is necessary to work through a very wide distribution network in order to reach a great number of consumers, much wider than in corresponding cases in industrialized countries.

### III. MARKETING POLICY USED IN INTRODUCTION

#### 1 Pre-promotional market research

There are very few data on consumption or purchasing habits in Ethiopia. Therefore, before planning the marketing programme, some small surveys had to be undertaken. These surveys included poor families in Addis Ababa, both users and non-users of the freely distributed SM mixture. The surveys indicated that most buying of food is done on a hand-to-mouth basis and generally food was purchased several times daily and in small amounts.

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\*Eth. \$ 1 = US \$ 0.40

Teff (for "injera" - breadbaking) was usually purchased in bulk once a month and meat was purchased infrequently for special occasions. A few families bought special products for the children such as wheat flour, sugar or tea. In summary, these surveys showed that purchase amounts were small (at an average 5 cents per purchase), that packaged products were almost never purchased, and that no special children's food was purchased.

On the basis of these surveys and on the opinions of the staff of the GNU it was decided to develop two packages for children's food, one with one day's need (100 grams) at a suggested sales price of 5 cents and one covering the need for one child for a week at a suggested price of 35 cents. A number of brand names were tested ("Injerina", "Teffamin", etc.) with the help of association tests and it was found that the Amharic word Faffa ("grow big and strong") met with the most positive reaction. As only seven per cent of the population is literate, the package design had to include an illustration of the product in use. The label is printed in red and yellow (two of the national colors of Ethiopia) and shows two small children eating. The same picture is used on posters and on the distributing vans. The bags are made of plastic and are heat-sealed.

## 2 Test marketing

Before the eventual market introduction there was a test-sales campaign in Debre Zeit, a town of about 20,000 inhabitants, situated 50 km. south of Addis Ababa. Samples and pamphlets were distributed, the stores were stocked and a loudspeaker van criss-crossed the town, giving information about Faffa. There were also lectures and demonstration. A follow-up survey one month after the campaign showed that 70% of the mothers in the households knew about Faffa and that 65% of these mothers could account for the main ingredients of the product. The sales, however, were quite low. This test campaign set the pattern for campaigns in other towns in the continued promotion work. There have been considerable modifications in package and marketing policy in subsequent campaigns, as will be discussed below under section 3.4.

### 3 Policy for market segmentation

It is quite obvious that in an introductory period it is not possible to blanket the market with a product of the kind discussed. One has to divide the market into segments and decide whether some segment should be left out altogether and whether remaining segments should receive the same or differentiated promotional treatment.

There are several criteria for the segmentation of the Ethiopian market for children's supplementary food.

Income groups: The need for supplementary products is probably higher in lower income groups. In the lowest groups purchasing power is probably so insignificant that commercial distribution is impossible. Availability of cash: In parts of Ethiopia people mostly grow cash crops. The preconditions for commercialization of supplementary products seem to grow with the occurrence of cash crops. Degree of urbanization: The problem of insufficient nutrition seems to be even more prevalent in urban than in rural areas. Urban areas are easier to distribute to on account of a denser distribution net. Reachability: The differences in reachability mainly consist of difficulties in physical distribution (access to all-weather roads), differences in economic reachability (transport costs may be so high that exorbitant prices ought to be charged) and differences in distribution net-work (parts of areas have very good middlemen, who are easy to cooperate with, other areas can be difficult to reach through available commercial channels). Geographical: In order to start with a small-scale operation, it might be necessary to select only a few areas to work with. The areas could be chosen among those most easily accessible. Commercial - institutional: Through the commercial channels people are reached who are consumers and who make up their minds to buy the products. As was stated before, some of the people cannot be reached in this way, either through lack of suitable distribution channels or because their purchasing power is too low. Some of these people might then be reached through various institutional channels such as schools, missions, hospitals, health centres, or community development centres.

It was decided to concentrate the commercial marketing efforts on Addis Ababa and on geographical areas easily reached from this city, on mainly urban or urbanized areas, on cash-crop areas and on areas with good distribution networks. It was not possible to select certain types of households although it was considered that the families most likely to buy the product were those with annual incomes above Eth.\$ 600 per annum (not necessarily all cash income).

#### 4 Introductory campaign

The period following June 1967 can be considered a period of introduction. During this period the market has been successively extended and the distribution has grown slowly. Part of the sales result from stocking-up of the distribution channels and at present it is not possible to find out what the sales to consumers have been. During the period the marketing policy has been gradually changed as new information has been added.

##### 3.4.1. Geographical areas

After the test campaign, Faffa was introduced in Addis Ababa and later the distribution was extended to towns in various directions such as Jimma (in the province of Kaffa), Dessie (in the province of Wollo), to the province of Sidamo, and to the Harrar-Dire Dawa area.

##### 4.2 Distribution outlets

The products are sold through "general stores" and "Kiosks" and in the introductory campaigns all outlets are visited. Some of the stores consist of combined wholesalers-retailers who in turn distribute to other retailers. Most of the retailers are quite small, taking only a few Eth.\$ worth of the products. In general, the shops are dark and do not offer any possibilities for display of the products.

Market coverage in areas visited seems to be good. In a survey undertaken in March 1968 in Jimma, it was found that all wholesalers and two-thirds of the retailers had stocked Faffa. About 90% of the Faffa had been sold by CNU.



#### 4.3 Sales organization and sales methods

The CNU has its own sales organization consisting of sales teams with two distributing vans (loud-speaker vans). The sales teams visit all the shops in the area and stock these up with Faffa. At the same time, the retailer is educated about the benefit of improved nutrition and Faffa's place in a nutrition programme. The work of the sales team is usually supplemented by nutrition teaching and food demonstrations made by the staff from the CNU information and education department. All sales are made on a cash basis.

A system of sales statistics was established in April 1968 and it has been possible to obtain an opinion about the distribution of sales efforts and ensuing sales for the three-month period August to October 1968. The main result from the analysis is that:

- a) both sales efforts and sales are unevenly distributed with the Addis Ababa region, the Sidamo region and the Kaffa region accounting for about 80% of the total;
- b) only every fourth visit on an average leads to a sale;
- c) the order size is small with an average of Eth.\$ 15 per sale and,
- d) the size distribution of orders is uneven, having as a result that only 10% of the orders are needed to obtain 45% of the sales, whereas the remaining 90% of the orders only yield 55% of the sales.

#### 4.4 Prices and discounts

There have been several changes in the price and discount policy, which have consisted in an upward adjustment of the prices and discounts and a corresponding downward adjustment of the package size. At present there is only one package size of 300 grams which sells at a consumer price of 25 cents (i.e. Eth.\$ 0.83 per kg.).

The product is sold in packages of five to retailers at a basic price of Eth.\$ 1.00 for each 5-pack. At certain sales amounts discounts are given in the form of extra packages.

The discount is a strict quantity discount and so far there has been no designation of agents who get a special reward for performing certain functions.

#### 4.5 Packaging and branding

As was mentioned above, there is at present only one package size, the 300-gram plastic bag with the illustration and brand-name printed on it. This package has met with a favourable reaction among consumers. It is quite well recognized and the heatsealing makes it in principle impossible for the middlemen to change the amount or character of the content.

#### 4.6 Advertising

The market for the product cannot be reached by advertisements in newspapers, etc. which are for obvious reasons almost non-existent, but so far the main media have been the loud-speaker vans and posters which are exhibited outside the retailers' shops. These posters are also represented in miniature form on matchboxes distributed by regular sales channels to selected areas. In the summer of 1968 radio advertising has been started.

### IV. ECONOMIC CONSIDERATIONS IN PRODUCTION AND DISTRIBUTION

#### 1 Goal of operation

The aim of the supplementary food activities of GNU is to reduce malnutrition among children in Ethiopia to the largest possible extent. This means that the economic goal will be one of sales maximization rather than profit maximization. If profit maximization were the only goal then products could be distributed even in 25- or 50-gram packages and at present prices and no responsibility would have to be taken concerning

the effect of the product. In such a case distribution would be pushed till the marginal revenue equalled the marginal cost per unit and it would be of no importance of whether the sales volume as such was large or small.

In the present case GNU wants to reach as many children as possible with available means (consisting at present of a certain subsidy) and also obtain desired nutritional effects. This means that it is necessary to include consumption control in the aim of the GNU. In order to obtain the desired results, it is quite important that the product be used in the proper manner.

## 2 Cost and revenue estimates at various volumes

As a foundation for production, price and marketing policy, it is necessary to have an opinion about the relationship between production volume and cost and distribution volume and cost. The main cost element in production is the cost for raw materials and therefore no great economies of scale can be expected with increase in production. The relationship between volume and distribution cost is more difficult to foresee, but there is reason to assume that the unit distribution cost will fall as volume increases.

A cost calculation\* made in the fall of 1967 showed that, as production volume increases from 100 tons per year to 1,500 tons, the estimated total production and distribution cost per kilogram of mixture decreases from 98 cents to 69 cents. About 85% of total cost is production cost and for each kilogram the cost for raw materials amounts to 42 cents. A follow-up of the actual cost during the spring of 1968 showed the total cost to be about 90 cents per kilogram to which should be added 6 cents for estimated administrative cost. The volume in this case corresponded to yearly sales of about 200 tons. The cost for distribution was quite high, about 27 cents

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\*In this cost calculation the price of donated UNICEF dry skim milk was included at an estimated market price and the cost for foreign experts (administration cost) consists of allocated time for various GNU members estimated at local Ethiopian salaries.

a kilogram, which amounted to about 28% of total production and distribution cost. There seems to have been considerable "slack" in the marketing organization so that maybe twice the amount could have been sold and distributed at approximately the same cost.

At the present price and discount policy the average net revenue per kilogram can be considered to be about 60 cents. This implies that the operation does not break even, but that there has to be a subsidy: Eth.\$ 40,000 at a volume of 100 tons per year, Eth.\$ 70,000 at 400 tons per year and Eth.\$ 135,000 at 1,500 tons per year. The subsidy needed per kilogram decreases with volume and at a volume of 1,500 tons about 45,000 children would get a sufficient protein supplement at a subsidy of Eth.\$ 3.00 per child per year.

#### V. MAIN CONCLUSIONS FROM PERIOD OF INTRODUCTION

During the period of introduction the reactions of both consumers and middlemen have been studied leading to the following tentative conclusions:

##### 1. The product

The product seemed to be generally accepted, but both from the trade and consumers there were viewpoints on the taste and it was also suggested that a whiter meal would be preferable. Therefore the introduction of the new mixture (SM 20) met with quite positive reactions.

In the original product decision it was taken for granted that the product should be consumed regularly, preferably daily, to ensure the needed supplement of 14 grams of protein a day. A study of the market shows that the product is consumed infrequently (and probably not in the prescribed daily amounts) and it therefore was important to increase the protein content so that at the consumption occasions the child gets as much protein as possible.

2 The package

The present package seems very successful, even if on some occasions the plastic bag does not offer protection against vermin, especially rats. It has, however, a low cost, gives generally good protection, has good appearance and is easy to handle.

3 The price

The present price and discount policy seems correct. If, however, the aim is to make the operation break even, the price may have to be raised. Savings can probably also be obtained through more directed sales efforts.

4 The consumer promotion

Knowledgewise Faffa is doing quite well and an amazingly large proportion of the consumers seem to know the brand and what it stands for. Sales are, however, relatively low and massive promotion is needed to get the consumers buy the product regularly. The obvious information medium is radio advertising. Posters should also be used to a greater extent than at present.

5 The sales organization

The cost of selling seems fairly high. The sales teams have been successful in obtaining distribution for Faffa, but most shops to which Faffa is sold are of small size. This means that there is a great number of small sales so that the sales per salesman hour is fairly small. There seems to be overstocking in some instances. At present it is, however, not possible to monitor the sales efforts because of too few sales data.

The analysis of past sales shows that the present market is quite concentrated both geographically and with regard to customer size. This fact means that an even distribution of marketing activities will be an inefficient use of resources. Instead a policy should be established to direct the major part of the efforts to the most promising segments and there to conduct an active programme.

The middlemen seem to have a very passive attitude towards pushing Faffa. It is therefore important to educate them further and also to create a "suction" from the consumers through radio advertising so that the products move out from the shops. Today the sales activity is very slow.

The marketing is still in its introductory phase and at present the project should be considered a pilot project with the main goal of obtaining information about methods of promoting Faffa-type products. It therefore seems wise to keep the sales organization under CNU control and not appoint a general agent for the marketing. Gradually, however, regional agents should be appointed at major distribution places, so that the sales teams would have more of a promotion function, such as to introduce products into new areas, check promotion and sales in old areas, and to take orders for delivery by agents. The sales teams should be directed to the most profitable customer categories and completely leave out customers with insignificant sales potentials.

## VI. THE NEED TO ESTABLISH AN INTEGRATED INFORMATION AND CONTROL SYSTEM

When planning the introduction of a new product on the market, we usually need background information on the market, such as consumer purchasing power and purchasing habits, geographical distribution and size distribution of retailers, retailers' purchasing habits, etc. We would also like to know what general models the diffusion of innovations follow on the particular market. What channels do the information flow through, who are the opinion leaders, what interpersonal communication net-works exist? The same applies to the distribution channels: What general rules govern the behaviour of the agents in these channels, how should the various marketing instruments be developed to have the best effect? So far there have been very few studies on market behaviour in developing countries and there seems to be a need for systematic research with the aim of developing generalizations.

The experiences from the introduction of Faffa also point out the need for market information of a continuous type. It is necessary to establish market indicators in order to direct the sales organization and the promotion in the best possible way and in the process measure the market performance. In the plan of operation for the coming budget year, a market research department is included in the Faffa organization. This market research department will make investigations about distribution channels to find out the behaviour, attitudes and knowledge of the middlemen, the rules by which they work, and the relative importance of various types of middlemen. It should also make both occasional and recurrent customer studies to collect information about consumer purchasing behaviour (such as purchase size, frequency, brand and store loyalty, what distinguishes purchasers from non-purchasers, etc.), consumer attitudes (toward product, price, package, etc.), consumer knowledge (about malnutrition, about Faffa, about promotional arguments, etc.) and consumer use behaviour (frequency of using Faffa and similar products, ways of using the products, etc.).

It is necessary to integrate the information with a control system so that the data, once collected, can be used to guide the marketing efforts. Only in this way can one hope to arrive at an efficient and profitable programme for the marketing of CNU's supplementary food mixture Faffa.

REFERENCES

1. Wickström, B. On the question of commercializing CNU's supplementary food product. Children's Nutrition Unit, Box 1768, Addis Ababa, November 1966 (mimeographed).
2. This document is partly based on a paper "Organization of production and marketing of supplementary food for children", read at the International Conference on Supplementary Food for Ethiopian Children, Addis Ababa, October 26-28, 1967.
3. Data about the various mixtures can be found in "Supplementary mixtures in Ethiopia", a paper presented at the International Conference for Supplementary Food for Ethiopian Children, Addis Ababa, October 26-28, 1967.