



## Performance of groundnut oil mills in Thiruvannamalai district, Tamil Nadu - A management appraisal

G. SRINIVASAN AND K.R. SUNDARAVARADARAJAN

### ABSTRACT

The overall objective of this paper was to assess the performance of groundnut oil mills in Thiruvannamalai District of Tamil Nadu through inventory analysis. The average capacity of large, medium and small oil mills were 14.5, 7.2 and 0.9 tonnes per day and their actual capacity utilization were 35.1, 48.6 and 65.3 per cent, respectively. In all, the size of units, the quantity of total finished products produced was higher than the break even quantity to be produced. However, actual value of total finished products produced was less than the break even value of finished products to be produced in large sized units (margin of safety -4.50 per cent). Similarly, actual quantity of finished products sold and their values were lower than the break even quantity and value to be sold in the large sized units (margin of safety -7.18 per cent) where as in medium and small scale units actual quantity of finished products sold and their value were greater than the break even quantity and value to be sold. Margin of safety for medium and small scale units were 37.86 and 58.46 per cent, respectively. Large scale units had negative margin of safety on one hand and huge capacity was unutilized on the other hand, therefore there is a need to improve the efficiency in its production and sales.

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### INTRODUCTION

In the liberalized economic environment, the management of commercial organization plays an important role in reducing the costs or improving their efficiency in production and make their product more competitive in the market. Though with better strengths of Indian oilseed scenario, the oilseed processing sector is beset with conflicting interests of government policies, farmers and consumers. This industry is having broad base and diversified activities, faced with severe problems of short supply of raw materials, high cost of both procurement and maintenance of raw material, and finished products inventories, restriction on import of oilseeds and outdated technology of processing (Solvent Extractor Association of India, 1999). The majority of the oil mills are in underutilization capacity and some of them are in a vicious debt trap (Ali and Bankar, 2001). In order to enable these mills to regain their operational health, there is an urgent need for putting the various performance aspects for rigorous scrutiny to identify the exact causative factor for present unhealthy status and

prescribe effective remedies. Hence, this study aims at assessing the performance of groundnut oil mills from the point of physical performance through inventory analysis.

### METHODOLOGY

To study the above said objective, Thiruvannamalai district of Tamil Nadu was purposively selected because it has been a leading district in groundnut area and production among all other districts. The groundnut oil mills located in Thiruvannamalai District were classified into three categories *viz.*, large, medium and small according to their installed capacity. (Large More than 10 tonnes per day, Medium - 5.1 to 10 tonnes per day, Small- upto 5 tonnes per day). From each category, thirty units were selected randomly. The required primary data were collected for the financial year 2007-2008 by using pre tested schedule with respect to raw material procurement, inventory management, production management, final product marking management and capacity utilization.

In order to assess the physical

### Key words :

Break even quantity, Break even value, Margin of safety, Capacity utilization, Expeller, Ghani

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performance, a simple tabular presentation was followed with respect to quantity and value of raw materials processed and capacity utilization. Similarly, with the help of break even and margin of safety analysis the cost - volume - profit sensitivity of the units were carried out with the help of following formulas:

$$\text{Break even quantity} = \frac{\text{Total fixed cost}}{\text{Total sales revenue} - \text{total variable costs}}$$

$$\text{Break even value} = \text{Break even quantity} \times \text{unit sale price}$$

$$\text{Margin of safety} = \frac{\text{Actual quantity} - \text{Break even quantity}}{\text{Break even quantity (or value)}}$$

## RESULTS AND DISCUSSION

The findings of the present study have been presented under following heads:

### Description of selected groundnut oil mills:

Table 1 indicates that most of the small and medium sized oil mills were governed by sole proprietorship while large oil mills were governed by partnership. From the table it could be seen that the average capacity of large, medium and small oil mills were 14.5, 7.2 and 0.9 tonnes per day and their actual capacity utilization were 35.1, 48.6 and 65.3 per cent, respectively. Most of the large and medium sized oil mills were doing both processing and marketing while most of the small sized oil mills were doing processing only. Large and medium sized oil mills were using expellers for processing whereas small sized oil mills were using motorized ghanis for their processing.

The total quantity to raw material purchased for processing and their values for large, medium and small sized units were 1857.66, 1277.20 and 214.51 tonnes and Rs. 371.53, Rs. 255.44 and Rs. 42.90 Lakhs, respectively. The number of days worked in a year for large, medium and small sized units were 212, 246 and 261 days, respectively.

### Break-even analysis:

Table 2 reveals that in all the size of units *i.e.* large, medium and small units, the quantity of total finished products produced was higher than the break even quantity to be produced. However, the break even quantity of finished products to be produced was higher in large scale unit (1215.63 tonnes) when compared to medium (702.35 tonnes) and small scale unit (125.36 tonnes).

Similar trend was noticed in case of break even value of the end products to be produced. This was because large scale unit had invested huge amount in the fixed capital when compared to that in the medium and small scale units.

Further, it was also revealed that in the large scale unit, value of total finished products produced was less than the break even value of finished products to be produced (margin of safety -4.50 per cent) while in the medium and small scale units it was higher than the break even value. Margin of safety for medium and small scale units were 43.99 and 59.16 per cent, respectively. This may be because the large scale units invested huge amount in the fixed capitals on the one hand and fetched lower price for their finished products on the other hand.

Similarly, actual quantity of finished products sold was lower than the break even quantity to be sold (margin of safety -7.18 per cent) in case of the large scale unit. But in the case of medium scale (margin of safety 37.86

**Table 1 : Description of selected groundnut oil mills**

| Sr. No. | Particulars                           | Unit     | Arithmetic mean | C.V. %          |
|---------|---------------------------------------|----------|-----------------|-----------------|
| 1.      | Nature of the organization            |          |                 |                 |
|         | Sole proprietorship                   | 8        | 18              | 27              |
|         | Partnership                           | 22       | 12              | 3               |
| 2.      | Capacity (tonnes per day)             | 14.5     | 7.2             | 0.9             |
| 3.      | Capacity utilization (Per cent)       | 35.1     | 48.6            | 65.3            |
| 4.      | Type of processing                    | Expeller | Expeller        | Motorised Ghani |
| 5.      | Nature of the business                |          |                 |                 |
|         | Processing only                       | 2        | 6               | 18              |
|         | Processing and marketing              | 28       | 24              | 12              |
| 6.      | Raw material purchased for processing |          |                 |                 |
|         | Quantity (tonnes)                     | 1857.66  | 1277.20         | 214.57          |
|         | Value (Rs. in lakhs)                  | 371.53   | 255.44          | 42.90           |
| 7.      | No. of working days                   | 212      | 246             | 261             |

**Table 2 : Break even analysis**

| Sr. No. | Particulars   | Units of measurement | Size of the unit |         |        |
|---------|---|----------------------|------------------|---------|--------|
|         |   |                      | Large            | Medium  | Small  |
| 1.      | Actual quantity of finished products produced           | Tonnes               | 1745.12          | 1119.80 | 207.85 |
| 2.      | Break even quantity of finished products to be produced | Tonnes               | 1215.63          | 702.35  | 125.36 |
| 3.      | Margin of safety at actual production                   | Percentage           | 43.55            | 59.43   | 65.80  |
| 4.      | Actual value of finished products produced              | Rs. in lakhs         | 616.73           | 468.35  | 83.26  |
| 5.      | Break even value of finished products to be produced    | Rs. in lakhs         | 645.86           | 325.26  | 52.31  |
| 6.      | Margin of safety at actual value of finished products   | Percentage           | -4.50            | 43.99   | 59.16  |
| 7.      | Actual quantity of finished products sold               | Tonnes               | 1128.25          | 968.32  | 198.65 |
| 8.      | Break even quantity of finished products to be sold     | Tonnes               | 1215.63          | 702.35  | 125.36 |
| 9.      | Margin of safety at actual quantity of sales            | Percentage           | -7.18            | 37.86   | 58.86  |
| 10.     | Actual value of finished products sold                  | Rs. in lakhs         | 599.48           | 448.50  | 82.89  |
| 11.     | Break even value of finished products to be sole        | Rs. in lakhs         | 645.86           | 325.20  | 52.31  |
| 12.     | Margin of safety at actual value of sales               | Percentage           | -7.18            | 37.86   | 58.46  |

per cent) and small scale unit (margin of safety 58.46 per cent), it was higher than the break even quantity to be sold. Similar trends were noticed in case of value of finished products sold and break even value of the total finished products to be sold. This may be because the large scale unit faced stiff competition from local private traders for marketing its finished products and as a consequence major quantity of its finished products were held in as inventories for a long periods. Therefore, the large scale unit was badly in need of an effective sales promotional strategy that would boost its sales performances and ultimately reduce the inventory of finished products.

#### Conclusion:

Though all the units achieved break even quantity of production, the margin of safety in value of products to be produced was negative in case of large scale unit on one hand and huge capacity was unutilized on the other

hand therefore there is a need to improve the efficiency in its production sector. It was also indicated to increase its sales in general and particularly by large scale unit by adopting suitable inventory management strategies.

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