

"ECONOMICS OF SMALL SCALE UNITS WITH REFERENCE TO
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"ECONOMICS OF SMALL SCALE UNITS WITH REFERENCE TO PROCESSING UNITS"

This chapter is devoted to the 'Economics of S.S. processing units'. It has been our contention that economics of a S.S. units i.e. the cost functions and revenue functions differs significantly, because of various factors affecting a small unit. The present chapter covers the aspects like meaning of S.S. units and processing unit, economic implications of S.S. units and size and nature of operations of these units.

[3.1] Definition of Small Scale Industry

According to latest official definition April 1985, "Small industries now have been redefined to include these manufacturing and repairing units which have investment in plant and machinery upto Rs.35 lakhs". In case of an ancillary unit the investment limit is upto Rs.45 lakhs. This investment includes investment only in plant and machinery and specifically exclude the investment in land and building, because of this given level of investment the plant size of a small unit is a given factor. This technical size of a plant dominates the entire operations of a unit. This investment limit has been accepted for the purpose of concessional finance and naturally there is temptation for a small entrepreneurs to limit the size of its operations.

[3.2] Meaning of the term "process"

The term 'Process' is formed by the latin prefix. 'Pro' meaning forward and 'cess' meaning to go. So that

'Process' means -

- i) a forward movement or ongoing operation
- ii) a method of producing something
- iii) a series of actions that brings about a result.

[3.3] Meaning of 'processing units'

In most business a product passes through several distinct stages of manufacture, these are called "processes". Manufacture in such industries is said to be 'continuous' if plant or machinery is so arranged that production of a standard article proceeds for long period of time; interrupted only. When the plant or machinery must be shut down for repairs or when it is decided to alter the product either by retooling or by a change in technique or specification.¹

Another meaning of processing is - "processes involved while converting a raw material to finished output". Processing industry involved painting, chemical plants, food manufacturing, oil refining, paper mills, textile mills, canning, dairy etc.²

The present study covers these processing units where in the basic raw materials is locally available i.e. mango processing units and fish meal units in Devgad taluka. In case of mango processing units 'Mangos' constitutes the basic raw materials which are converted into Mango-pulp; syrup,

1. Magdonald and Evans - "Cost Accounts" By Walter W. Bigg. London, 1963, page no.285.

2. B.K. Bhar - "Cost Accounting", Academic publishers, Culcutta-7, page no.414.

squash etc. In case of fish meal unit 'sundry' fish; 'Khatavi' are basic raw materials which are converted into fish powder with some processing. The operational definition which we have accepted for study is "processing units as those units where in cost of raw materials constitutes a substantial part of total production cost. In term of percentage more than 50% of total manufacturing expenses 60 - 70 % are accounted for raw-materials".

[3.4] Classification of processing units

The processing units are classified as follows -

- 1) Single product plants like those producing electric power, gas, water, ice-bread, paper, rubber etc, where the entire plant or factory manufactures, through one or more processes, on single product, or the various departments of the factory are responsible for the manufacture of one product each.
- 2) Factories which manufacture different products in one and the same process but each product has a separate run, one at a time e.g. bakeries; canning plants, flour mills etc.
- 3) Units in which different products are simultaneously produced from the same process e.g. foundries, laundries.
- 4) Plants in which a particular standard or repetitive operation or process is carried-out in one department or cost centre e.g. in mass production of automobile parts; electrical and mechanical equipments, etc.³

3. N.K. Prasad - "Cost Accounting", Books Syndicate Pvt.Ltd.,
Culcutta-9, page 13.1

[3.5] Processing Technology

The object of 'processing technology' is to produce finished consumable goods by making the technical or chemical process on raw materials which is commercially profitable. Today, there are so many examples of processing technology, such as to produce petrol, kerosine, diesel etc. from crude petrolium, to produce fertilisers with the help of water and electricity. The origin of this processing technology is in the fundamental research; such types of research are undertaken by various universities and laboratories of industrial groups. These inventions which are the results of fundamental research are converted into commercial inventions. In this step an attempt is made to have commercial application for new products. Where on standard formula are prepared; product design are finalised; cost budgets are prepared and profitability aspect is workout. In short research and development efforts of laboratories are brought into practices in a concrete product form. The attempt have is to undertake standardasition both of products and the various processes involves in the production.⁴

[3.6] The economic implications of small scale units with reference to processing units

The importance of such kind of special study of small scale units arises from the fact that economics of these units

4. Marathi Vishwakosh, Khand 10 - Tarktirth Laxman Joshi - Maharashtra State Marathi Vishwakosh Nirmitti Mandal, Bombay, Page No.237, 1981.

differs basically from that of large units. This is mainly because of 'size' factor and the magnitude of operations of small units. There are certain forces which affect small size units significantly attening their cost revenue function.

4 In large scale industrial undertakings, their economic size, efficient management; technical competence; suitable plant and equipment and financial prospects are taken for granted; while the position in small and village industrial is, however; entirely different. There is wide gap between management efficiency; labour productivity; levels of wages and profits; in the two groups of large and small enterprises.

The most important of the distinctive features of the S.S. industries with reference to processing units are discussed below.

1) Personal character of organisation -

The outstanding feature of the S.S. industries is the personal character of its organisation; management and ownership (in most of the cases) in contrast with the predominantly impersonal management of large scale organisations. Most of these units are owned by individuals; partnership or private limited companies. According to Prof. P.N. Dhar's survey of S.S. units in Delhi area; there are majority concerns which can be classified sole proprietorship or family concerns (more than 86 percent).⁵

5. Uma Maheswara Rao - "Small Scale Industries - Some economic aspects", Popular Prakashan, Bombay, Page 33.

Out of the total units surveyed in Devgad taluka only four units are partnership concerns and the rest of them belongs to the category of sole proprietorship.

2) Underutilization -

Underutilization has a special significance in respect of the S.S. industries; when compared to the larger ones. In the case of the large scale industry which is a capital - intensive and labour-sparing organisation; when an industrial unit experiences underutilization, both the machinery and the labour are unemployed to some extent or other; and the managerial and organisational set up is also partially under-employed. But it is not so with the small scale industries; which are labour-intensive and capital-sparing organisation. The brunt of under-utilization falls mainly on the workers.⁶

From the data given on centre-wise progress (capacity and physical production) of the Indian Handmade paper industry for 1953-54 to 1958-59 in the 'Survey Committee Report' on Handmade paper Industry; K and V.I.C. Bombay-1959; it appears that in almost all the production centres surveyed full productive capacity (rated) utilisation was not made and in many cases the physical progress is far below the targets. In reasons mentioned being mostly financial difficulties highwages; defective internal management; Govt. procedure; research activities; proper building etc.

6. Uma Maheswara Rao - "Small Scale Industry-Some economic aspects", Popular Prakashan, Bombay, Page 35.

Another instance is the village oil ghani industry which has an installed capacity of double to what it utilises.

According to Karve Committee report "only one-third of the total manufacturing capacity is stated to be utilised at present in Coir Industry of T.C. (Kerala)". It has been gathered by Prof. P.N. Dhar in survey of S.S. industries in Delhi; that "the reason for the existence of unused capacity is shortage of working capital".

In the present study, it has been seen that there is near about 57 % and 50 % capacity utilisation in mango-processing and fish meal units respectively; due to seasonal nature of raw materials.

3) Few workers -

The number of workers employed in each unit is small when compared to a large unit. The small enterpriser has the advantage of a more intimate contact with employees, and can make direct personal adjustments, whereas the large business has the problems of communication through formal channels. Due to the small number of workers good personal touch and understanding between the employer and the employee can be developed. In case of small units; no elaborate organisational arrangements are made - as a result of which administrative overheads are kept at the minimum. The small units are placed in an advantageous position since their reduced cost burden helps them to have fairly flexible pricing policies.

Secondly, these small units escape from the provisions

of various labour laws - especially from the obligation of providing various welfare measures. This also reduces the cost burden of these people. In short, small units have two advantages.

- (a) Reduced administrative overheads.
- (b) Cost of some of the legal obligations under the Factories Act of 1948.

The present survey of small scale processing units in Devgad taluka confirms this general finding since the number of employment is very much restricted in these units.

4) Labour Organisation --

There is limited need for labour organisation in S.S. industry. Collective bargaining; conciliation, agreements and adjudication awards are generally absent in the case of the S.S. industries. Most of the units are scattered, the cost of workers organisation is also low. There is limited scope for trade unions in S.S. industries; because of low number of labourers, illiteracy of labours.

It is seen in the present study that there is no trade union of any kind in all these units.

5) Locational Peculiarity -

Many S.S. industries are located where the skilled workers or working population are available. Some industries like paper; chemical, the industries can be established near the market.

But the processing units of Devgad taluka are located

near the raw materials i.e. raw fish and mangoes for fish meal and mango processing units. These are known local resource-based industries. It has been found in course of survey that neither the factor of skilled labour or availability of market has influenced the locational decision of small entrepreneurs. The single factor affecting the locational decision is local availability of raw materials.

6) Internal and External economies -

The internal economies are the economies which go along with the size factor. With the growth of an industrial units, it is found that certain economies in transportation; procuring finance; purchase of raw materials are made available. But the small units are deprived on this score.

The external economies are enjoyed by the number of firms together in terms of organised labour market of skilled labour; undertaking joint research and development; common storage facilities and development of township nearby alongwith the others facilities, like establishment of technical institutions; community services etc. It has been found that because of dispersed locations of small processing units in Devgad taluka, these units are deprived of the external economies.

7) Capital light industries -

The S.S. industries are comparatively capital-light industries, involving less capital investment than these

employing completely mechanised mass production techniques. The percentage of working capital is much bigger than the fixed capital.

In the present study, it is seen that the total percentage of working capital to total capital is 60 % and 86.7 % in mango processing and fish meal units respectively. Most of the amount are invested in to purchase the raw materials.

8) Value Adding -

There is scope for value adding in S.S. industry when we deduct the total cost of raw materials from the prices of finished goods, the rest is value added. There is vast scope for value adding in mango processing as well as fish meal units. There is process of conversion of perishable raw materials to non-perishable products. Mango is perishable but mango-pulp, syrup, squash are non-perishables. They live for longer period. Sundry fish are perishable but fish powder is a product which is non-perishable. This kind of conversation of perishable raw material into non-perishable products adds not only to the value of the commodity but also create substantial capacity to fetch quite attractive prices for the products. This value adding generates a very good source of income for mango-growers as well as for the supplier of raw fish.

8) Economic Structure -

The economic structure of S.S. unit is very limited

organically. Generally, these units are single product firms and not multi-product firms. Naturally, they are not required to have elaborate organisational arrangement like - separate marketing organisation or sales division. This results into reduction of their administrative overheads. Many a time these small units enter into some institutional arrangement of selling their products to certain customers, as a result of which they do not expend more on advertisement and sales promotion. The small processing units in Devgad taluka also have similar position since they do not spend any sizeable amount on advertisement and sales promotion.

9) Existence of distance and waiting gap.⁷ -

There is existence of 'Distance and Waiting gap' in processing units. The 'distance gap' is the distance between the location of raw materials and actually finished product factory. The distance between the mango farm and canning factory is the 'distance gap' in mango processing units. The mangoes are to travel before they are crushed. The longer the distance gap the lower the potential recovery percentage of mangoes. There is also another concept known as 'waiting gap', which is time taken at the factory before the raw material is converted into the finished products. The time taken at the canning factory before the mangoes are actually crushed is the 'waiting gap' in mango processing units. In case of perishable

7. Patibandla - 'Eco-political weekly' - "Role of large and small firms in India's Engineering export", 28 May 1980.

commodities like mangoes the longer waiting gap may create serious problem of recovery. In case of fish meal processing unit, we find that their 'waiting gap' will not pose any serious problem because the fish can be dried under the sun. If both, the distance gap and waiting gap is combined, we get the concept of 'duration period'. In both the cases i.e., Mango processing and fish meal units the duration period is very limited.

10) Size of plant -

The small industry is more susceptible than the large industry to several smaller random or chance factors such as - high variability of know-how, skill or experience of producers, availability of of fluid assets, capacity for industrial management, expected failure of production equipments; rapid changes in supply and demand conditions etc, as their incidence is mostly local rather than general. While nature's counteractions such as world wars; famines, earthquakes, floods, crop failures; fires, business cycles, sudden changes in the availability of raw materials or energy sources, labour disputes etc, which have profound influence on industrial production, would affect all sectors of industry more or less commonly and equally.⁸

In respect of the concept of size it has been proved beyond doubt by several specific surveys conducted abroad that

8. Uma Rao - "Small Scale Industry - Some economic aspects," Popular Prakashan, Bombay, page no. 39.

there is not much justification in the claim that firms lack economic dimension to meet the challenges of growth and that such units cannot survive in the years ahead. After conducting systematic surveys, it has been found that in U.S.A., of the 80,000 new enterprises which survive on the market every year, 77,000 are small and medium size. The N.S.S. results and the industrial survey in Delhi point to the conclusion that the average gross output capital ratio for firm employing less than 20 persons may be somewhere in the region of 0.6. This is significantly higher than the model schemes which is about 0.5 on the assumption of full capacity. The survey conducted in Orissa by Bedabati Mohanty; shows that size is no absolute constraint on the efficiency of the industry in terms of capital output ratio.⁹

The present study shows that the capital output ratio is 1.98 and 0.95 in mango processing and fish meal units respectively. The ratio has been drawn on the basis of a year. But in practice the production period for mango processing is only three months; and in case of fish meal it is six months. So against this background of seasonal nature of these processing units; high capital output ratio has to be interpreted continuously.

11) Investment and profit -

It is often hypothesised that profit goes with investment.

9. Bedabati Mohanty - "Economics of Small Scale Industries", Ashish Publishing House, New Delhi, page No.5.

Investment determines the size of profit and there is correlation between these two variable. It is found out in survey of Orissa by, 'Bedabati Mohanty', that co-efficient of corelationship between investment and gross profit is higher i.e. 0.94 in chemical industry; which implies that a change in investment probably brings a great change in profit of this industry.¹⁰

The present study also shows that profit goes with investment. The co-efficient of correlation in investment and profit is higher i.e. 0.07 in fish meal units, and in case of mango processing units, it is 0.01. There is higher investment in fish meal units than mango processing units.

12) Raw Materials -

In the present study, it has been shown that all the processing units require raw materials which is seasonal and perishable by nature. It is not possible to stock of raw material for further production. That will happen in another type industries. The period of availability of raw material is only 'April - May'; in Mango processing and it is Jan. to May in case of fish meal units. The percentage of raw materials cost is much higher; out of the total variable cost in mango and fish meal units. The raw materials as percentage of the total value of production is much higher; in the small sector. It is find out by Two 'All India Sample Survey'

10. Bedabati Mohanty - "Economics of Small Scale Industries", Ashish Publishing House, New Delhi, Page No. 103.

conducted by R.B.I. and N.S.I. 1976-1979.¹¹ In the cotton textile mill industry there is a sort of localisation. This means concentration of the mills in some localities. Out of total textile mills, nearly 2/3 rd of the mills are localised in Tamilnadu, Gujarat and Maharashtra States. The reason responsible for such localisation was mainly due to availability of cotton in these states.¹²

13) Variable Cost -

Variable cost includes expenditure on raw materials; wages; fuel, transport, repair and maintaince; packaging etc. And fixed cost include insurance; interest, depreciation and rent. It is observed in the present study that the percentage of variable cost is much higher to total cost in both the categories of units i.e. mango processing and fish meal units. Raw materials is the main item of variable cost.

14) Law wages -

Wages in the small scale sector are generally low. Workers in the high productivity industries do not seem to get relatively higher wages. Because of low wages, there arise higher profit.¹³

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11. Nagaraj - "Some Aspects of Small Scale Industry in India", 'Economic-political weekly, 12 Oct., 1985.
12. H.R. Aiyer - "Economics of textile trade and industry in India", Vora Publishers, Bombay-2, Page No.63.
13. Nagaraj - "Some Aspects of Small Scale Industries in India", Eco.Political Weekly, 19 Oct., 1985.

In the present study; it is also find out that the percentage of wages is very limited in total cost of production in mango and fish meal units in Devgad taluka. An average rate of wage per day is Rs. 15 to 20 in mango processing units and it is Rs. 10 to 20 in fish meal units.

15) Marketing -

The product of processing units had got wide marketing; inside as well as outside. The finish product sold at Devgad, alongwith the Govt., Belgaum, Thana, Khopoli, Miraj, Hubli, Bangalore, Bombay, Pune etc. One mango processing unit is going to export the mango pulp in Gulf countries and USA also. One mango processing unit going to sell the finished products with the help of dealers and distributors.

[3.7] Two All India Survey-Report -

It is find out in two All India Sample Surveys, conducted by R.B.I. and National Small Industries Corporation, during 1976-77 and 1979; that the capital efficiency ratios namely; value added in manufacture as percentage of net fixed assets, and net sales as percentage of net fixed assets, clearly show that the smaller units use capital resources more efficiently. It is interesting to note that while the smaller units employ a relatively greater proportion of workers especially skilled workers, the average wages they pay are considerably lower. The bigger unit pay relatively better wages to all their workers. These results together seem to suggest that smaller unit in the small scale sector substitute

capital for labour, skilled labour, and use their capital stock more intensively.

More intensive use of the stock of capital equipment and less than average wages seem to enable the smaller size class firms to obtain higher profitability. However, this is subject to a serious qualification. It is generally true that in the smaller units, the employer and his family also actively participate in the production.

The most important finding in this report is that the profitability of the small scale sector is much higher than that of the corporate sector. This could be the result of a number of factors. The efficiency of use of capital is much higher in the small sector and raw materials as a percentage of the total value of production is much higher in the small scale sector.¹⁴

[3.8] Modern Approach

It is stated that small scale industries are labour intensive, lead to decentralisation, promote quality, help to draw out latent scarce resources, especially of entrepreneurship and capital. But according to Dr. Dhar and Lydall, these arguments are not particularly valid as far as the modern type of small industries in concerned. These small factories are actually capital-intensive i.e. use more capital per unit of

14. N. Nagaraj - "Some Aspects of Small Scale Industries in India", Eco-political weekly, 12 Oct., 1985.

output than the large factories. They also say that S.S. industries should take the form of assistances for removing their disabilities.¹⁵

In the present study it is also observed that in processing units i.e. mango processing and fish meal units, the amount of capital required in order to produce a unit of output is higher. Therefore even the small scale processing units cannot be classified as capital- saving units.

15. P.N. Dhar & H.F. Lydall - "The Role of Small enterprises in Indian Economic Development", Asia Publishing House, 1960.