# CHAPTER IV

## "ECONOMICS OF PROCESSING UNITS WITH REFERENCE TO DEVGAD TALUKA"

## (RESULTS AND DISCUSSION)

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# C H A P T E R - IV

## "ECONOMICS OF PROCESSING UNITS WITH REFERENCE TO DEVGAD TALUKA"

## (RESULTS AND DISCUSSION)

This chapter covers the various aspects of 'economics of small scale processing units' covering production, employment, cost structure; profits, capacity utilization and marketing. This is with reference to mango processing and fish meal units of Devgad taluka. This has been done with a view to testing a hypothesis that economic aspects mention above differs significantly in case of small scale processing units; because of size and nature of their operations. The analysised is based on primary data collected with the help of pre-designed schedule (Appendix-II).

### [4.1] Profile of Entrepreneurs -

The profile of entrapreneurs covers the location of units, age group and nature of education.

1) Location of Units -

Out of total 11 surveyed units only two units are located in Devgad proper and the rest of the units are located outside the Devgad, that is shown already in Appendix-I. Most of the units are located near to N.H. (B.K.G.) of the range of 0 to 40 K.m.

2) Age group -

It has been observed in the survey that most of small entrepreneurs are relatively young because they are in the age group of 20 to 50. Only one entrepreneur has been find to be above the age of 50. It also points out indirectly that the

owners who are their 40 and 50, had taken their ventures as their career and in no case it is post-retirement activity.

3) Nature of Education

If we take the profile of these entre preneurs, it can be seen that they are not only educated but also have reasonable technical expertised with reference to mango canning activities. This can be seen in the table no. 20.

Table No.20 : Classification of units according to educational qualification of entrepreneurs

| Sr. No. | Units | Certificate/ Diploma Course | Under Graduates | Gradua- tes | Post Gradua- tes | Total |
|---|---|---|---|---|---|---|
| 1. | Mango-processing | 03 | Nil | 01 | 01 | 05 |
| 2. | Fish meal | Nil | 04 | Nil | 02 | 06 |
| | Total | 03 | 04 | 01 | 03 | 11 |

(Source :- Data collected by the researcher).

[4.2] Comparative study of processing units

Analysis of processing units shows that there is no uniformity among the mango processing and fish meal units with regard to trend of production; use of labour; capital and raw materials.

[4.3] Growth of units

Growth of mango processing and fish meal units between the period from 1981-82 to 1987-88, measured interms of number

of units started and actually functioning in that respective year, as shown in the table no. 21.

Table No.21 : Working of processing units (1981 to 1988)

| Year | No. of mango Processing units | No. of fish meal units | Total |
|---|---|---|---|
| 1981-82 | 01 | 04 | 05 |
| 1982-83 | 01 | 04 | 05 |
| 1983-84 | 01 | 05 | 06 |
| 1984-85 | 02 | 06 | 08 |
| 1985-86 | 02 | 04 | 06 |
| 1986-87 | 05 | 04 | 09 |
| 1987-88 | 04 | 04 | 08 |

(Source :- Data collected by the researcher)

It is seen from the above table that in 1981-82 only one mango processing unit and four fish meal units were in operation. The number of mango processing units increased to 5 in the year 1986-87, but latter on in 1987-88 it came to only 4. One unit was required to be closed down for lack of supervision; managerial problems, raw materials; market and transport problems. In the year 1984-85 the no. of fish meal units increased to 6, but in the next year i.e. 1985-86 it came to 4 (exit of two units) because of lack of working capita; credit gap, raw materials etc. As it stands today, the total number of existing small scale processing units is equally

divided i.e. 50 : 50 between mango processing and fish meal units. It shows that there is apparently no structural imbalance.

[4.4] Production

i) Trend of production - In this chapter an attempt is made to find out the trend of production. The study pertains to the period from 1981-82 to 1987-88. As already mentioned in earlier chapter the local resource based processing units have been classified under two categories; first is of mango processing and second is fish meal units. Data on production have been analysed industry wise. In such processing units physical quantity of production through a common measure become difficult. So that the production has been mentioned in value terms for the purpose of analysis (i.e. quantity produced X price).

Table No. 22 : Trend of production in processing units (1981-88).

(Figures in '000 Rs.)

| Year | Mango processing | Fish meal | Total |
|---|---|---|---|
| 1981-82 | 67 | 17,55 | 18,22 |
| 1982-83 | 1,23 | 24,71 | 25,94 |
| 1983-84 | 81 | 37,04 | 37,84 |
| 1984-85 | 1,63 | 43,15 | 44,78 |
| 1985-86 | 5,09 | 39,70 | 44,79 |
| 1986-87 | 15,31 | 54,27 | 69,58 |
| 1987-88 | 15,44 | 63,84 | 79,28 |

(Source :- Data collected by the researcher).

The table no. 22 shows that the level of production in mango processing units is only Rs.67,000 in 1981-82, wherever the production in fish meal units is of Rs.17,55,000. In the year 1987-88, the production in mango processing units has not increase so high due to closure of one unit. In fish meal sector, production has decline in the year 1985-86, due to closure of two units. In the year 1987-88, the production in mango processing sector was Rs.15,44,000 and in fish meal sector it was Rs.63,84,000. The comparative production figures gives an impression that the production in case of fish meal units is almost five times that of mango processing; but the 'price factor' is an important variable in this context.

ii) Average production - The trend of average production is also observed in the mango processing and fish meal units. Table No. 23 gives a picture of trend of average production in such units over the period from 1981-82 to 1987-88.

Table No.23 : Trend of Average production in processing units (1981 to 1988).

(Figures in '000 Rs.)

| Year | Mango processing | Fish meal | All units |
|---|---|---|---|
| 1981-82 | 67 | 4,38 | 5,05 |
| 1982-83 | 1,23 | 6,17 | 7,40 |
| 1983-84 | 81 | 7,40 | 8,21 |
| 1984-85 | 81 | 7,19 | 8,00 |
| 1985-86 | 2,54 | 9,92 | 12,46 |
| 1986-87 | 3,06 | 13,74 | 16,80 |
| 1987-88 | 3,86 | 15,96 | 19,82 |

(Source :- Data collected by the researcher).

It can be seen from the table no. 23 that difference exists among the units in respect of their average size of production. For example, during 1981-82, the average production in case of mango processing units was worth of Rs.67,000 as against 4,38,000 in fish meal units. The average production is found to be the highest in fish meal units; while lowest size of average production is found in the mango processing units during all the years covered under study. The rate of average production was declined in mango processing units, during 1983-84 to 1984-85, due to the low production. The rate of average production was declined in fish meal units during the year 1984-85 because, firstly, the total production was not so high and secondly; the number of functioning units was increased to 6.

Both these categories of small scale processing units can be classified as 'seasonal' and hence production is not carried out throughout the year. In case fish meal units, longer period is available for production i.e. from Jan. to June end, while in case of mango processing units; hardly three months are available for production i.e. from April to June. Amongst the mango processing units, only one unit carry on production throughout the year switching over from mango pulp to lime juice, kokum, tomato, chilly depending upon the seasonal availability of raw material.

It means the seasonal nature of the product and the variation in the 'production period' makes the difference.

## [4.5] Cost structure

The economic viability of an industrial unit is determined to a great extent by its cost structure. The cost structure analysis conduces to rationlisation of the industry to render it competitive.

In this section, study has been made, of the cost structure in local-resource based industries i.e. processing units of Devgad taluka, bringing out the comparative importance of various cost elements in them. An allempt is also made to find out the profitability in processing units. The processing units by and large do not show any awareness of the advantages of proper maintenance of records. Due to lack of relevant data, it is difficult to work out the accurate cost for all the years i.e. from 1981-82 to 1987-88. The study is therefore, confined to cost structure of processing units during 1987-88 only.

The cost structure of the units is discussed under two broad categories, i.e. fixed cost and variable cost.

The fixed cost consists of depreciation, rent, insurance, interest wherever the variable cost consists of expenditure on raw materials; wage-salaries, fuel, transport repair-maintenance, packing etc.

The municipal tax is not included in the calculation of cost; because there is no municipal corporation at Devgad. Licenses fees; octroi duty are not included in the cost structure. It is found that taxes constitute a very negligible proportion of the total cost of production. Most of the units do not maintain any proper accounts. So it is difficult to find out

the net profits; only gross profits have been calculated.

Table No.24 : Distribution of Elements of cost in processing units (1987-88).

(Figures in '000 Rs.)

| Sr. No. | Items of Cost | Mango processing | | Fish meal | |
|---|---|---|---|---|---|
| | | | Percentage to total fixed cost | | Percentage to total fixed cost |
| | Fixed cost | | | | |
| 1. | Depreciation | 57 | (17.38) | 61 | (15.76) |
| 2. | Rent | 5 | ( 1.52) | 23 | ( 5.94) |
| 3. | Insurance | 5 | ( 1.52) | 9 | ( 2.34) |
| 4. | Interest | 2,61 | (79.58) | 2,94 | (75.96) |
| | Sub total | 3,28 | (21.87) | 3,87 | ( 6.54) |
| | Variable cost | | Percentage to total variable cost | | Percentage to total variable cost |
| 1. | Raw materials | 8,59 | (73.29) | 48,43 | (87.47) |
| 2. | Wages | 92 | ( 7.88) | 1,28 | ( 2.31) |
| 3. | Fuel | 14 | ( 1.19) | 37 | ( 0.67) |
| 4. | Transport | 56 | ( 4.78) | 3,69 | ( 6.67) |
| 5. | Repair, Maintenance | 15 | ( 1.28) | 69 | ( 1.25) |
| 6. | Packing, sales promotion others | 1,36 | (11.68) | 91 | (1.63) |
| | Sub total | 11,72 | (78.13) | 55,37 | (93.46) |
| | GRAND TOTAL | 15,00 | ( 100 ) | 59,24 | ( 100 ) |

(Source :- Survey of processing units in Devgad taluka conducted by the researcher)

In the above table the figures in brackets indicate the

percentage of elements of cost in the respective unit. In the mango processing units the total amount of fixed cost is Rs. 3,28,000 i.e. 21.87 % of total cost. The amount of variable cost is Rs.11,72,000 i.e. 78.13 % of total cost. In case of fish meal units the total fixed cost is Rs.3,87,000 i.e. only 6.54 % of the total cost. It is less than mango processing units. The amount of variable cost is Rs.55,37,000 i.e. 93.46 % of the total cost. It shows that the percentage of variable cost is higher in fish meal units as compared to mango processing units.

[4.6] Fixed cost

i) Depreciation - Accounting of cost calculation provides for capital consumption allowance. This is known as 'depreciation'. It is stated that for the Income tax purpose there is provision of $33\frac{1}{3}$ % depreciation in all the cases. In case of non-residence building the rate of depreciation is 10 %. There is no general rate for depreciation for Account purpose. In practice, for auditing purpose the rate is flexible from 10 to 15 %. On this background; in this study, the depreciation has been taken, on an average 15 % of present value of machinery which is being utilised;in mango as well as fish meal plants. The percentage of depreciation is 17.38 % of the total fixed cost in mango processing units, whereas it is 15.76 % of total fixed cost in fish meal plants.

ii) Rent - Rent also constitutes a very small proportion of the total fixed cost in both the types of industries. In case of mango processing units, the percentage of rent is 1.52%

of fixed cost, and in fish meal sector; it is 5.94 % of total fixed cost. Since in some mango processing units entrepreneurs have utilised their own land and building and have shown nominal amount as rent. Naturally; the average rent in mango processing units has came down which is just 1.52 % of the total fixed cost.

iii) Insurance - Industries are subject to various types of risk and for protection against such risks, industries are insured. Insurance premiums are costs of such insurance and are generally paid for coverage of risks of fire and theft. Raw materials and products stored in stocks are also insured in some cases. Insurance premiums constitute a very low percentage in total fixed cost in both the type of units. That is 1.52 % in mango processing and 2.34 % in fish meal plants. In some cases, owners donot insure their plants against loss or damage.

iv) Interest - In the analysised of cost structure of processing units it has been found that interest is major componant of fixed cost in case of mango processing units. But it is not very significant componant in case of fish meal units. This is because in case of mango units the owners have borrowed the funds and availed of institutional finance. In fact they are following the principle of "trading on equity". In case of fish meal units the position is different since the owners have utilised their own funds for production activities. In short debt equity ratio is not favourable in case of mango processing units but it is favourable in case of fish meal units. This has also reflected in their profit position, since

fish meal units is comfortable.

[4.7] Variable cost -

Variable cost includes expenditure on raw material, wages, fuel, transport, repair and maintenance, packaging, sales promotions and other miscellaneous expenses. Data have been analysed to show the relative importance of different elements of variable cost in processing units.

i) Raw materials - All the units covered under present study, are known as local resource based small scale units. Since these units are raw material - intensive units; raw materials constitutes the significant portion of the total variable cost. The mango processing units require raw materials. i.e. generally the third grade 'Alphanso' and other raywal mangoes. Fish of low food value and fish wastes (offals) are the raw materials used in the manufacture of fish meal. Generally, the raw materials for fish meal known as 'Khatavi' and 'Sun-dry fish'. The price of Khatavi was Rs.1.50 to 2.00 per k.g. and price of fish was Rs.4.00 to 5.00 per k.g. in 1987-88. Normally; the entrepreneurs can mix 70 % Khatavi and 30 % fish for manufacture of fish meal. The percentage of raw materials to total variable cost is 73.29 % in mango processing units; and in fish meal units it is 87.47 % of total variable cost. It is more with compared to mango processing units. It is stated that 10 M.T. fish meal products required near about 16 M.T. raw material. In mango processing units 1 kg. mango pulp that is finish product required near about 2 kg. of raw material. One kg. weight of mango includes nearabout 5-7

mangoes, which have weight from 150 gm to 250 gm per mango. The average percentage of peel and stone in mango fruits is 15 and 18, respectively.[1]

The both categories of processing units uses the seasonal and perishable raw materials, which is not available throughout the year.

ii) Wages - Wages and salaries are payment to the labour. In most of the processing units, the number of permanant staff is very limited. They utilise skilled as well as unskilled labourers; including male and female. The percentage of wages is 7.88 % of total variable cost in mango processing units. In case of fish meal units the percentage of wages is only 2.31 % of the total variable cost. It means both the categories of industries can not be said to be labour-intensive in nature.

iii) Fuel - Fuel includes expenditure on electricity, coal, diseal, kerosine, woods etc. Fuel constitute a very small part of total variable cost in both the categories of units. The percentage of fuel is 1.19 % of the total variable cost in case of mango processing units. And in case of fish meal units the percentage of fuel is 0.67 % of the total variable cost. It is observed that most of the units uses electricity as a main source of power.

iv) Transport - Transport cost is major part of total

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1. D.K. Tandon and S.K. Kalra - "Utilisation of mango waste", 'Beverage and food world', Jan-March, 1989, page no.21.

variable cost which follows the cost of raw materials. The fish meal unit require transport facilities to collect the raw materials from various locations, as well as to delivere the finished products at various market centre. The mango processing units require transport facilities; to collect raw material; packing materials and for local transport. The percentage of transport cost is 4.78 % of the total variable cost in mango processing units. In fish meal units the percentage of transport cost is 6.67 % of the total variable cost, which is higher as compared to mango processing units.

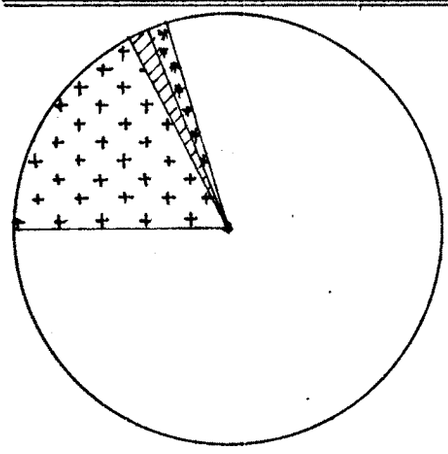
v) Repair and maintenance - Proper maintenance of plants and equipments is essential for the proper functioning of a plant. Poor maintenances of machinery involves loss in the life of machineries. The percentage of repair and maintenance cost is 1.28 % of the total variable cost, in mango processing units. In the fish meal units the percentage of repair and maintenance cost is 1.25 % of the total variable cost. Since the technical expertieses and consultancy services for repair and maintenance is not locally available. The experts are called from cities like Kolhapur and Ratnagiri on account of which the cost burden of entrapreneurs increases substantial.

vi) Other expenses - In other expenses include packaging, advertisement; sales promotion etc. The percentage of packaging cost is higher i.e. 11.68 % of the total variable cost which follows the cost of raw materials.in mango processing units. The mango products like pulp; pickle; syrup - required bottles; tins, carrogated paper botes for proper packaging.

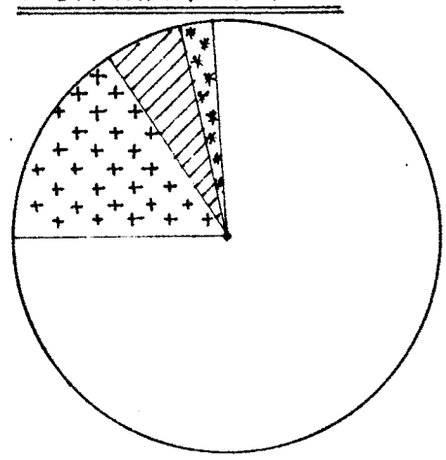
GRAPH NO 1

## [i] FIXED COST

MANGO PROCESSING UNITS

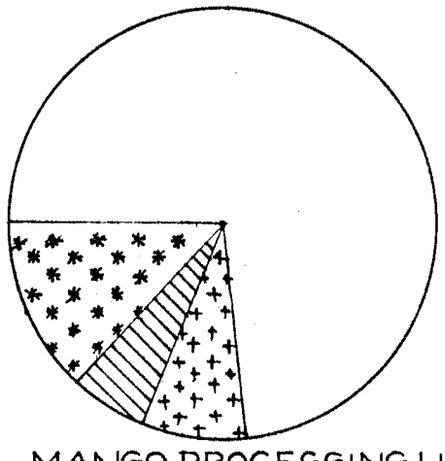


FISH MEAL UNITS

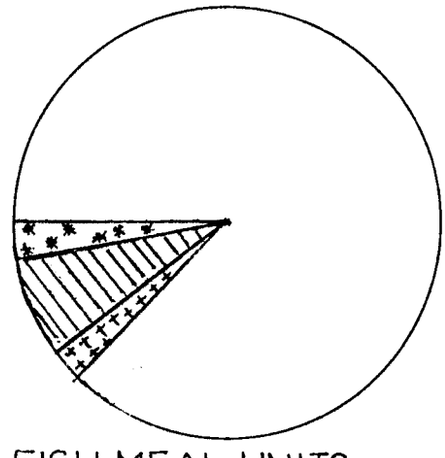


- INTEREST
- RENT
- DEPRECIATION
- INSURANCE

## [ii] VARIABLE COST



MANGO PROCESSING UNITS



FISH MEAL UNITS

- RAW MATERIAL
- FUEL, TRANSPORT
- WAGES
- REPAIRE, MAINTENANCE, OTHER EXPENSES

The mango processing units require variaties of containers for packaging purpose. In case of mango processing units product packaging has to satisfy the test of sefty conviction and attractiveness. As a result of which the cost of packaging is comparatively higher.

## [4.8] Profitability

Profit earned by a unit depends not only on the cost of inputs but also on factors like demand for products, market price, the size of investment; the efficiency of management etc. In this part of chapter, profit is dealt with only as a function of cost of inputs.

Profits have been calculated for processing units by deducting the total cost from the total return. Total return is indicated by total production in value terms. The table no. 25 gives a picture of average level of profit, and profit as percentage to production in processing units.

Table No.25 : Profit in processing units (1987-88).

| Sr. No. | Categories of units | No.of units | Total Production (in '000Rs) | Total Cost (in '000 Rs) | Total Profit (in '000 Rs) | Average profit (in '000Rs.) | Profit as % of total production |
|---|---|---|---|---|---|---|---|
| 1. | Mango processing | 04 | 15,44 | 15,00 | 44 | 11 | 2.85 |
| 2. | Fish meal | 04 | 63,84 | 59,24 | 4,60 | 1,15 | 7.20 |

(Source :- Data collected by the researcher).

The above table shows that the total and an average profit

is less in mango processing units as compared to fish meal units.

[4.9] Investment

Investment means an addition to the nation's physical stock of capital, over a period of time. Investment plays an important role in determining the level of production in units. The growth of units depends upon the level of investment. In large scale industries huge amount of initial investment is required on machineries and employment, whereas in small scale industries relatively larger amount of investment is necessary for working capital.

The present part of the chapter, shows the analysis of investment in processing units in Devgad taluka. This part also describe the pattern and structure of productive capital investments.

i) Structure of capital - The capital structure of small scale industry generally depends upon the type of the organisation; level of income and family background of the entrepreneur. The entrepreneur with limited resources at his disposal, may not be in a position to invest more. Even if he is interested; his capacity to raise external finance; will be limited. The entrepreneurs ability of raising capital depends, upon the socio-economic position of his family. If an entrepreneur belong to trading community he has generally very sound knowledge about money market and also has necessary capacity of financial manoeuvring. If he comes from the

category of business executive, he gets industrial credit, without much trouble, likewise if he comes from the agricultural background he could get finance or easy terms from money lenders, friends, and other relatives. In short the family background is a crucial determinants of credit-worthyness of an entrepreneurs.[2]

In the present study it has been found that most of the entrepreneurs come from the occupation of agricultural and trade. This fair economic background has certainly help them, in raising the necessary funds for running their units.

There are two types of capital i.e. fixed and working capital. Any unit which goes into production; requires investment in fixed assets such as land and building; machinery; tools and equipments, furniture etc. The component of working capital is required to meet the day to day operations and to foot the bills of purchase of raw material; wages and other commercial payments.

The production circle consists of i) cash amount ii) purchasing of raw materials iii) processing upon raw materials iv) finished products v) sell of finished products vi) payments recovery vii) cash amount.[3]

In this part of chapter, the data about the current value of the assets are collected. The study is confined to

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2. Dr. Subbireddy - "Capital structure in small scale industry" S.S.I., April-June 1980.

3. Kukade A.V. - "Khelate Bhandval", 'Laghuudhog' Maharashtradin Visheshank, 1987.

the structure of capital in processing units with reference to the accounting year 1987-88; shown in table no. 26.

Table No.26 : Structure of Capital at current value.

(Figures in '000Rs)

| Sr. No. | Units | No.of units | Total fixed capital | Total working capital | Total productive capital | Average productive capital |
|---|---|---|---|---|---|---|
| 1. | Mango processing | 04 | 11,57 (40.52) | 16,98 (59.48) | 28,55 ( 100 ) | 7,13 |
| 2. | Fish meal | 04 | 7,98 (13.28) | 52,10 (86.72) | 60,08 ( 100 ) | 15,02 |

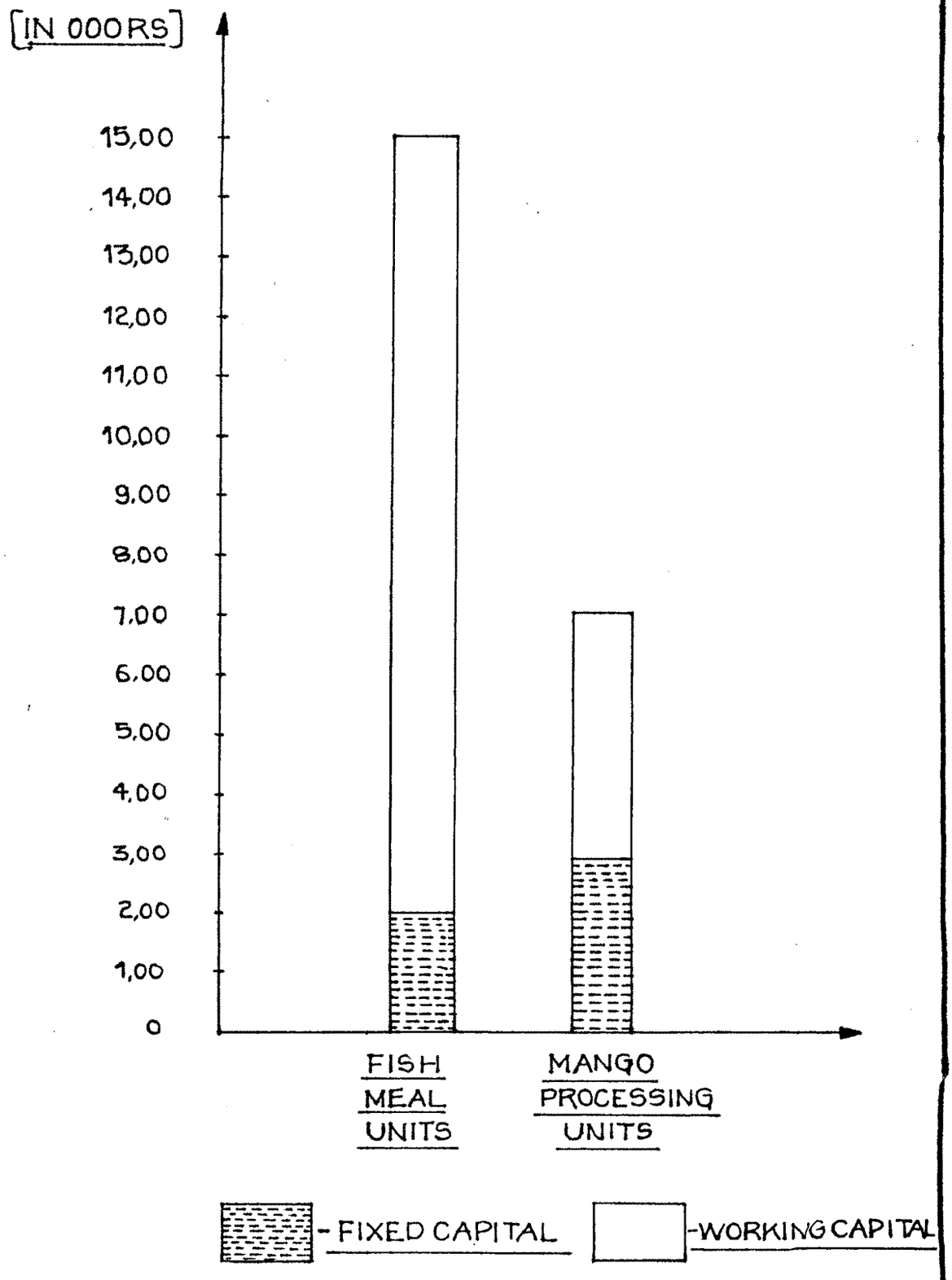
(Note : The figures in brackets denotes the percentage of Fixed Capital and working capital to total capital)

(Source :- Survey of S.S. processing units in Devgad taluka conducted by the researcher.)

In this table it is shown that the percentage of total fixed capital is 40.52 % of total capital in mango processing units and 13.28 % in fish meal units. The percentage of working capital is 86.72 % of total capital in fish meal units and it is 59.48 % in case of mango processing units. It is found that the average amount of capital invested in both the categories of units is different. If the amount of capital invested is taken as the criterion for indicating the size of the industry; wide rangi of variation in size is observed among both the categories. The fish meal units consume nearabout 2 times more capital as compared to mango processing units.

GRAPH NO. 2

# AVERAGE PRODUCTIVE CAPITAL ON THE BASIS OF CURRENT VALUE [COST]



The distribution of units according to capital employed has been shown in the table no. 27.

Table No. 27 : Distribution of units according to capital employed.

| Sr. No. | Units | Upto Rs.1,00,000 | Rs.1,00,000 to 3,00,000 | Rs.3,00,000 to 5,00,000 | Rs.5,00,000 to 7,00,000 | Rs.7,00,000 to 9,00,000 | Rs. 9,00,000 to 11,00,000 | Rs.11,00,000 to 13,00,000 | Above Rs.13,00,000 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. | Mango processing | 01 | 01 | -- | -- | 02 | 01 | -- | -- | 05 |
| 2. | Fish meal | -- | -- | 01 | 02 | -- | -- | 02 | 01 | 06 |

(Source : Survey of small scale processing units in Devgad taluka conducted by the researcher.)

The table shows that only one unit of mango processing, where capital employed is less than Rs.1,00,000 and highest amount of capital employed is Rs.11,00,000. In fish meal units lowest amount of capital investment is Rs.3,80,000 and highest is of Rs.13,18,000. It shows wide ranges in processing units. One more thing is apparent from the bar diagram that in both the categories of processing units their requirements for working capital are more than those of fixed capital.

ii) Break down of fixed capital - The fixed capital consists of investments in plants, machinery, tools and

equipments, land and building, furniture in the unit. The break up of each category of fixed capital on the basis of current value is indicated in table 28.

Table No. 28 : Analysis of fixed capital valued at current cost.

(Figure in '000 Rs)

| Sr. No. | Units | Plant, Machinery, equipments. | Land, Building | Furniture | Total |
|---|---|---|---|---|---|
| 1. | Mango processing | 3,78 (32.67) | 7,60 (65.69) | 19 (1.64) | 11,57(100) |
| 2. | Fish meal | 4,28 (53.63) | 3,25 (40.73) | 45 (5.64) | 7,98(100) |
| | Total | 8,06 | 10,85 | 64 | 19,55 |

(Note : The figures in brackets denotes the percentages)

(Source :- Survey of S.S. processing units in Devgad taluka conducted by the researcher).

The above table shows that the percentage of investment in plant; machinery is 53.63 % of the total fixed capital in fish meal units, it is higher as compared to mango processing units. But the percentage of investment in land building is higher in case of mango processing units i.e. 65.69 % of total fixed capital. The percentage of investment in furniture is generally constitutes a small amount that is only Rs.19,000 in mango processing and 45,000 in fish meal units. Both types of units do not require show-room, involving large investment in furniture.

iii) Composition of working capital - The working capital consists of investment in stock of raw material, finished and semi-finished goods, cash-bank balance, daily wages, outstanding credit etc. The average amount of working capital employed in both categories is presented in table no.29.

Table No.29 : Composition of working capital.

(Figure in '000 Rs)

| Sr. No. | Units | Stock of raw-materials | Finished and Semi-finished goods | Cash, Bank Balance | Out-standing credit | Daily wages | Total |
|---|---|---|---|---|---|---|---|
| 1. | Mango processing | 6,71 (39,62) | 3,69 (21,73) | 3,80 (22,34) | 2,44 (14,37) | 30 (1,94) | 16,98 ( 100 ) |
| 2. | Fish meal | 38,96 (74,78) | 1,40 ( 2,69) | 2,50 ( 4,80) | 8,34 (16,00) | 90 (1,73) | 52,10 ( 100 ) |

(Note :- Figures in brackets indicate percentage to total)

The table shows that the working capital requirement vary significantly in case of fish meal and mango processing units. The variation in size of operating cost is due to variation in size and prices of raw materials; difference in purchase and stocking policies; differences in marketing practices and varying degree of liquidity existing in both the units. The percentage of investment on stock of raw material is 74.78 of total working capital in case of fish

meal units. It is higher as compared to mango processing units. In mango processing units the percentage of investment on stock of raw material is 39.62 % of total working capital. In both the type of units, stock of raw materials is the most important item of working capital. The percentage of investment in finished and semi-finished goods is higher i.e. 21.73% total working capital in mango processing units. This is because of the fact that all the varieties of the finished product may not be sold in the market immediately and there may be some 'waiting period'. This 'waiting period' increases the cost of inventory of finished products. The percentage of daily wages is very little in both the cases. The total working capital is nearabout three times more in fish meal units than mango processing units.

[4.10] Capital output ratio in processing units

The capital output ratio determines the potential viability of any industry. It varies with the level of investment in any unit. The capital output ratio refers to, the amount of capital required in order to produce a unit of output. The average capital output ratio indicates the relationship between existing stock of capital and resultant flow of current output. In this part, data have been analysed to find out the average capital output ratio.

In the calculation of capital output ratio, the term 'capital' refers to total productive capital invested in the units.productive capital includes both fixed and working

capital. The capital output ratio has been drawn from the following formula that is shown in the table no. 30.

$$\text{Capital output ratio} = \frac{\text{Total productive capital}}{\text{Total amount of production}}$$

Table No.30 : Capital output ratios in processing units; (Amount of capital per unit of output) 1987-88.

| Sr. No. | Units | Amount of fixed capital per unit of output | Amount of working capital per unit of output | Amount of total capital per unit of output |
|---|---|---|---|---|
| 1. | Mango processing | 0.75 | 1.09 | 1.84 |
| 2. | Fish meal | 0.13 | 0.82 | 0.95 |

(Source :- Survey of S.S. processing units in Devgad taluka, conducted by the researcher).

The lower the capital output ratio, the higher is the rate of growth of output with given level of investment.

The table shows that the amount of total capital required per unit of output is found to be lowest i.e. 0.95 % in fish meal units, and highest i.e. 1.84 % in mango processing units. In both the types of units, the capital output ratio remains higher, because these are seasonal type of units. The production period is only three months in mango processing and

six months in fish meal units. In the remaining period of a year; the productive capital remains idle. It is not utilised for any other production. Because of seasonal nature of production, the capital output ratio works out to be higher than it should have been normally.

[4.11] Investment and profit

Profit serves as the milestone for the industrilists in their plans for further investment. The efficiency; favourable infrastructure, level of investment, market invoriement can affect the level of profit. It is often hypothesised that profit goes with investment.

On the basis of data collected for the year 1987-88; which has been shown in the following table, the relationship between the investment and size of profits becomes clear.

Table No.31 : Correlationship between investment and Gross profit (1987-88).

| Sr. No. | Units | Co-efficient correlationship with gross profit |
|---|---|---|
| 1. | Mango processing | 0.01 |
| 2. | Fish meal | 0.07 |

(Source :- Survey of S.S. processing units in Devgad taluka, conducted by the researcher)

The table shows that, the co-efficient of correlation-ship between investment and gross profit is 0.01 in mango

processing units and 0.07 in fish meal units. This has been work out with the help of following formula.

$$\text{Co-efficient correlation} = \frac{\text{Total profit}}{\text{Total productive capital}}$$

[4.12] Extent of Employment

It is observed that, most of the units do not give proper information regarding the actual number of Labourer employed in unit, due to the fear of factory Act.

The following table shows the number of skilled and unskilled labourer employed in mango and fish meal units during the course of production.

Table No.32 : Extent of Labours in processing units (1987-88).

| Sr. No. | Units | No. of skilled Labours | No. of unskilled Labours | Total |
|---|---|---|---|---|
| 1. | Mango processing | 13 | 56 | 69 |
| 2. | Fish meal | 28 | 63 | 91 |
| | Total | 41 | 119 | 160 |

(Note : No. of labours indicate one man day working).

(Source :- Survey of processing units in Devgad taluka, conducted by the researcher).

The total number of labours employed in both the type of units is 160, that is required for one day in production period. The no. of skilled and unskilled labours is more in

fish meal units than mango processing units. The labours include male as well as female. Mostly labourers are belong to local area.

[4.13] Period of Employment

It is observed in the survey, that the extent of labour employed in mango processing and fish meal units has not been constant throughout the year. Both the units are seasonal in nature. In mango processing units the period of employment is from April to June; and in case of fish meal units, it is from January to June, i.e. only six months. Normally, both the type of units required more number of labourers in the period of April-May. It has been found in the survey that the demand of labour is generally met by the entrepreneur by recruiting causal labourers from outside i.e. from Jat, Bizapur area.

Table No. 33 : Extent of different types of labours (1987-88)

| Sr. No. | Units | No. of family Labourer | No. of hired Labourer | No. of contract Labourer | No. of perma-nant Labourer | Total No.of Labourer |
|---|---|---|---|---|---|---|
| 1. | Mango Processing | 01 | 34 | 44 | 10 | 89 |
| 2. | Fish meal | 02 | 32 | 67 | 10 | 111 |

(Source :- Survey of processing units in Devgad taluka, conducted by the researcher).

It has been found in the course of survey that the

practice of exploiting contract labour is in vogue, in case of both the types of units. This is with a view to meeting the seasonal nature of demand for labourers. The no. of permanent staff is generally kept low, which includes managers, Accountants, Clerical etc. This reduces the burden of over-heads, for these units and even other contractual obligations like providend fund, gratuity, welfare funds, are kept at minimum.

[4.14] Capital labour ratio

It is wellknown that the small scale units are labour-intensive and capital-saving nature. Capital-labour ratios give the range of capital intensity in both type of units; or an idea about the magnitute of capital requirement per worker employed in a unit. Per worker employed in a unit. Indirectly, the capital-labour ratio also serves as an index of the employment potential in a given unit.

In calculating the 'capital labour ratio', the term 'capital' is used to refer both, total fixed and working capital invested in the unit. The amount of employment represents the amount of total mandays in respective units in the year 1987-88. The capital labour ratio for mango processing and fish meal units are given in the table No. 34 for the year 1987-88.

Table No. 34 : Capital Labour ratio in processing units (1987-88).

| Sr. No. | Units | Average fixed capital per unit of Labour (one man day) | Average working capital per unit of Labour (one man day) | Average total capital per unit of Labour (one man day) |
|---|---|---|---|---|
| 1. | Mango processing | 144.4 | 211.7 | 356.1 |
| 2. | Fish meal | 39.8 | 260.7 | 300.5 |

(Source :- Survey of S.S. processing units in Devgad taluka, conducted by the researcher).

The capital labour ratio has been calculated with the help of following formula.

$$\text{Capital labour ratio} = \frac{\text{Total capital}}{\text{Employment (total man days)}}$$

The table shows that in mango processing units Rs. 356 worth of capital required for generating one manday of employment; and in fish meal units Rs. 300 worth of capital is required for generating one amount of labour.

## [4.15] Output labour ratio

The successes of industrial performance depends upon turn-out of high output per unit of labour employed. In this part, study has been made to find out the relationship between the output and amount of labour employed to produce that output,

the output labour ratio has been calculated. This ratio indicates the average productivity of labour inputs in processing units. The labour includes total labours i.e. permanent, contract, hired, etc. and is measured in terms of man-days of employment; during the production period. It is three months for mango processing units (90 days) and six months for fish meal units (180 days). The output refers the gross value of production in terms of money. The output labour ratio is arrived at by dividing the total production by total units of man-days employed in the units. The output labour ratio has been calculated in table no. 35.

Table No.35 : Output labour ratio in processing units (1987-88).

| Sr. No. | Units | Total Production (In '000 Rs) | Total Employment (in Man-days) | Output per man-day of employment (in Rs.) |
|---|---|---|---|---|
| 1. | Mango processing | 15,44 | 8010 | 192 |
| 2. | Fish meal | 63,84 | 19980 | 319 |

(Source :- Survey of S.S. processing units in Devgad taluka, conducted by the researcher).

The above table shows that productivity of labour or output per manday varies with the nature of unit. It

highest in fish meal units, with output worth of Rs.319 produced per man day. In mango processing units with output worth of Rs.192 produced per manday of labour.

## [4.16] Marketing

Marketing aspect differs a lot in case of both these types of units, i.e. mango processing and fish meal units. The 'Four P.S.' of marketing i.e. product, price, place, promotion get different mix in case of mango processing and fish meal units. For example - the finished good are sold to private agencies engaged in the sales of consumer goods in case of mango processing units; while in case of fish meal units, private agencies account for 80 % of their sales and co-operative firms account for 20 % of their sales. The element of place also differs in these cases; in case of fish meal units, the area of market is Pune, Khopoli, Karhad, Hubli, Belgum, Miraj, Kalayan, Bombay etc. In terms of percentage, it may be said that 80 % of the sales are within the state and 20 % of the sales are outside the state; in case of mango processing, there is also local market within the district and also outside market in Pune, Bombay, Ratnagir, Thana area. The sales are also made outside the state in Goa, Belgum etc. It has been found in the survey that one mango processing unit has crossed the 'National' boundries and has taken entry in the 'International Market' by exporting its products to USA, Europe and Gulf Countries.

The mode of payment is 80 % cash or cheque and remaining 20 % amount will be made available after the analysis report in case of fish meal units. The 'time gap' between sale and receipts is from 1 to 1.5 months. The mode of payment in mango processing units is approximately 20 % cash and 80 % cheque. In some cases 100 % amount is made available with cheques. The gap between sale and receipts is nearabout 1 to 2 months in mango processing units.

## [4.17] Price Determination

In fish meal units, the prices of finished products i.e. fish powder is determined by the company on the basis of 'Analysis Report' which is prepared by Compani's labouratory. Normally, the analysis report is prepared on the basis of following factors -

| Sr. No. | Factors | Percentage |
|---|---|---|
| 1. | Proteins | 50 |
| 2. | Mouisture | 10 |
| 3. | Sand Silica | 6 |
| 4. | Salt | 5 |
| 5. | Oil | 7 |
| 6. | Others | 22 |

More protein contains, finished goods can get higher prices. Fish meal is used as an ingredient in cattle feed and poultry feed, since it is established that the protein

in fish meal stimulates animal growth and also reduces sickness and promotes laying in poultry. The price of one full load (i.e. 10 M.T.) of fish powder was nearabout Rs.32,000 in the year 1987-88. In mango processing units the prices of finished product is determined by owner himself on the basis of prices of raw materials, amount of investment; overhead cost, packing expenditure, depreciation etc. In one mango processing unit which is in export-business, price is fixed by 'International market Price' with negotiation, quotation. On an average price of 1 k.g. mango pulp was Rs.30-35 in the year 1987-88.

## [4.18] Capacity Utilization

The utilization of installed capacity has an important role in productive efficiency of a firm. Under-utilization of capacity is a common feature of Indian small scale.[4] A wide gap between capacity production and actual production exists in processing units. The gap between these two is described as 'idle capacity' or 'excess capacity' in the units.

Data collected have been analysed to find out the trend of capcity utilisation in processing units in the year 1987-88. Capacity utilisation is expressed as a percentage of full capacity output or maximum output. The extent of capacity utilisation has been shown in the table no. 36.

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4. Bedabati Mohanty - "Economics of Small Scale Industries", Ashish Publishing,House, New Delhi.

Table No.36 : Average Extent of Capacity utilisation in processing units (1987-88).

| Sr. No. | Units | Percentage |
|---|---|---|
| 1. | Mango processing | 57 |
| 2. | Fish meal | 50 |

(Source :- Survey of S.S. processing units in Devgad taluka, conducted by the researcher).

The above table shows that only 57 % of productive capacity is going to be utilised in mango processing units, and 50 % productive capacity is going to be utilised in fish meal units. On the whole, the percentage of idle capacity is quite significant in both the types of units, and this is because of non-availability of raw material on regular basis, power failures and purely seasonal nature of the operations. The raw materials is available barely for three months in the year, in case of mango processing units. The another reason which is prominant in case of fish meal unit is the lack of working capital at proper intervals.