

CHAPTER II

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(A) INDICATORS FOR EVALUATION OF INDUSTRIAL ESTATE

The basic objective of the present study is to evaluate the performance of industrial estates and hence unit level performance has not been fully assessed. The unit level performance has been taken into account with a view to throwing light on the performance of industrial estates only. We have tried to identify the common indicators which will enable us to know the comparative picture of the working of industrial estate. In fact, the present study attempts to evaluate the decision of establishment of industrial estate as investment decision. This comparative picture will enable us to understand how far this investment decision is correct taking into account the common indicators being identified in this Chapter.

1. Percentage of land utilisation

The first indicator in the present study is percentage of land utilisation in the total land allotted or earmarked for the purpose. To ensure this, knowledge of total land acquired is essential in order to get the percentage of land utilisation. Even after sanctioning of land if acquisition becomes difficult, the cost of which constitutes a significant cause of the initial capital expenditure. Moreover, mere acquisition is not sufficient since its

utilisation ratio will ultimately determine the unit cost for the entrepreneurs. Hence, this ratio of utilisation of land to the total land possessed or acquired. The land which is in possession may be under factory, sheds, plots, roads, space and other administrative buildings. The land in possession can be obtained by subtracting the land which is not in possession from the total land acquired. The percentage of land utilised can be worked out as under:

$$\text{Percentage of land utilisation} = \frac{\text{Land under the factory} + \text{shed} + \text{plots} + \text{under roads} + \text{space} + \text{under administrative buildings}}{\text{Total land in possession}} \times 100$$

This indicator will help us to understand the development of the industrial estate from the year of establishment. This aspect of land utilisation is important because the cost of acquiring land itself is very significant. Its increasing utilisation will ensure the speedy recovery and initial cost incurred.

2. Capacity utilisation as a level of industrial estate

The second indicator in this study is capacity utilisation. The primary objective of an industrial estate is the development of small scale units. Taking into account this objective, the plots are planned and new entrepreneurs are welcomed to take their possession.

Industrial estate allots these plots with the provision of all the infrastructure facilities to their members. But even after having all the facilities, the allotment of plots may not take place. The causal factors behind that are either lack of entrepreneurs or they are hesitant to buy the plots due to heavy charges. Here, the term 'Capacity Utilisation' refers to the capacity utilisation of industrial estate as a whole and not of industrial units located in these estates. Though the term 'Capacity Utilisation' is generally used with reference to an industrial unit, an attempt has been made to have notional extension of this term with reference to an industrial estate. In order to estimate this capacity utilisation, it is essential to know how many plots are functioning from amongst the allotted plots. The purpose here to to examine the causes which might have led to this non-functioning. It is interesting to know why these plots are defunct. The formula for calculating the capacity utilisation is as under:

$$\begin{aligned} \text{Capacity Utilisation:} & \quad 1. \frac{\text{Allotted plots}}{\text{Total plots}} \\ & \quad 2. \frac{\text{Functioning plots}}{\text{Allotted plots}} \end{aligned}$$

This particular indicator will help us to obtain the comparative picture of capacity utilisation with reference to different types of industries. The capacity utilisation data will throw light on the causes leading to high

performance and causes which might have led to lower utilisation of capacity.

3. Average amount of investment per plot

This is the third indicator in this study while making the comparative evaluation between the Udyam Nagar Industrial Estate and M.I.D.C. Industrial Estate. The average amount of investment per plot is the best indicator to know the efficiency of capital for erecting the plots/sheds and infrastructure facilities. The application of this indicator has got its own difficulties, as it is very difficult to get the exact data relating to the total amount of investment. In case of M.I.D.C. most of the built-up plots with definite sq. feet have been provided by State Government to entrepreneurs. Such type of built-up sheds are not provided in Udyam Nagar. Therefore, it is necessary to get per plot investment. This per plot investment will enable us to know how effectively capital input is being utilised. This indicator of per capita investment is important from two points of view. Firstly, this indicator has got relevance for Macro policy formulation for developing country like ours where capital itself is scarce commodity and its judicious utilisation is urgently called for. Secondly, at micro level, it has got implications because the cost per plot becomes the capital expenditure for entrepreneurs. Any rational entrepreneur would always strive for economising his initial capital expenditure. The total cost of infrastructure

facilities will be apportioned uniformly. Therefore, the per capita investment of the plots will naturally be according to size. The per plot investment will be as under. The actual direct cost incurred per plot + apportioned cost in providing infrastructure facilities. Therefore, to put it in formula:

$$\begin{array}{rcl} \text{Average amount} & & \text{The actual direct cost} \\ \text{of investment} & & \text{incurred per plot +} \\ \text{per plot} & = & \text{Cost of infrastructure} \\ & & \text{facilities} \\ & & \hline & & \text{Total number of plots} \end{array}$$

4. Efficiency of industrial units

Efficiency of industrial units is the fourth indicator of this study. The central point of the whole study is the comparative efficiency of the units in the industrial estates. Industrial estates, if they are well located and efficiently organised, should be in a position to make significant contribution to the industrial units. The efficiency of the industrial units can be classified into productivity of labour, capital and raw material. These three are the components of "Manufacturing efficiency". It relates to manufacturing inputs to total manufacture. Such a measure is called "Efficiency coefficient". The formula for the same is as under:

$$\text{Efficiency coefficient} = \frac{\text{Output}}{\text{Inputs}}$$

where output = Gross output + job work

and input = Raw material + Wage + Power + Fuel + Payment for sub-contracts + Interest + Taxes on raw material and Octroi + Commission and brokerage on raw material + Labour welfare measures (excluding bonus) + Stationery, postage and packaging + premium on insurance of machines and buildings + Transport charges of raw material + Transport charges of personnel + Depreciation of machines + Repairs to machines and buildings.

We have to take the job work into account because most of the units located in M.I.D.C. and Udyam Nagar Industrial Estates, undertake job work.

Net value added per head is a good indicator of the productivity of labour.

$$\text{Productivity of labour} = \frac{\text{Net value added}}{\text{Total employment}}$$

where net value added = Sales value minus cost of manufacture.

This productivity in turn depends upon such factors like application of modern management techniques, attitude of management towards labour and morale of workers.

5. Returns on investment

As regards economic efficiency of the units, the returns on investment is possibly the best measure. The returns, on investment i.e. the rate of profit reflects the overall efficiency of this unit. This indicator has two-fold objectives. Firstly, it will help us to obtain inter-unit performance. Secondly, it will reflect the overall efficiency as we have taken capital employed as divider. The amount of capital employed will be in turn decided by the per capita investment required for erecting the plots as well as the apportioned cost of infrastructure facilities such as road, power, transport and communication, etc.

$$\text{Return on investment} = \frac{\text{Gross profit}}{\text{Capital employed by entrepreneurs}}$$

6. Average employment per unit

The last indicator in this study is average employment per unit. Employment may be converted into man-year or man-days. It is assumed that small scale units are labour intensive in nature i.e. they provide greater amount of employment per unit of output. This indicator of labour intensity will help us to understand to what extent these units are labour intensive. The employment may be permanent, seasonal or casual and is very difficult to quantify.

(B) METHODOLOGICAL NOTE FOR THE PRESENT STUDY

The present study is a comparative evaluation of industrial estates located at M.I.D.C. Shirolji and Shivaji Udyamnagar. Basically, this evaluation was intended to be made in order to ascertain how far their investment decisions were correct. Therefore, only the performance having the bearing on the industrial estate has been taken into account. The assessment of unit level performance has not been the major goal of the study, and hence the unit level performance in terms of capacity utilisation and profitability has been kept out the purview of the present study. The objectives of the present study can be stated as under:

1. To evaluate the performance of industrial estates located at M.I.D.C. Shirolji and Shivaji Udyamnagar.
2. To ascertain how far the investment decision of establishing industrial estates at respective places has been economically feasible.
3. To know what mode of organisation, i.e. co-operative organisation or State sponsored, is more suitable for establishment of industrial estate.
4. To assess on the whole the performance of small units located in both the places to the extent that it could be attributed to their mode of organisation in respect of the industrial estates.

Initially, certain indicators were selected for evaluation of the industrial estates like percentage of

land utilisation, capacity utilisation at the level of industrial estate, average amount of investment per plot and efficiency of industrial units. Out of these different indicators, listed in Chapter No.II, only certain indicators could be actually applied in the present study. These indicators are:

1. Land utilisation
2. Capacity utilisation in terms of allotted plots and functioning plots.
3. Average capital expenditure
4. Capital productivity
5. Labour productivity and
6. Average employment per unit

In order to assess the economic feasibility of industrial estate (when we take this as major investment decision), one basic indicator is required, i.e. returns on investment. In fact, this return on investment is to be calculated on the basis of capital employed by entrepreneurs and their gross profits. This data was not available either in the aggregate fashion or individually and hence this indicator could not be applied in the present study. This is a major limitation of the present study for want of adequate data.

In order to have comparative evaluation, 32 units were selected from each industrial estate on the basis of the functional classification. The classification of

industries was first made, which covered the following industries:

1. Agro industries
2. Metal and metal products:
 - (i) Ferrous
 - (ii) Non-ferrous
3. Engineering (only manufacturing)
4. Chemicals
5. Electrical

From amongst industries, only functioning units have been included in the sample and the number of selections from both the estates has been kept equal to facilitate the comparison. The stratified random sampling method was followed. But it is not proportionate sampling since we are forced to select units from amongst functioning units. In some cases, the number of functioning units operated as a limiting factor.

The information with reference to industrial estate and individual units (wherever necessary) was obtained on the basis of pre-designed schedule administered by the researcher herself. This schedule has been attached in the appendix.