

1. The general efficiency<sup>1</sup> of the sales department in securing orders for maximum capacity of the plant equals:

$$\frac{\text{Sales}}{\text{Maximum production at sales value}}$$

2. Efficiency of co-ordination with the production schedule equals:

$$100 \text{ per cent minus } \frac{\text{Average weekly deviation of sales from weekly capacity of plant for period}}{\text{Weekly capacity at sales prices}}$$

3. Efficiency in securing accounts paying according to terms equals: (5 year average)

$$\frac{\text{Payments on time (gross)}}{\text{Sales for period}}$$

4. Credit efficiency equals:

$$100 \text{ per cent minus } \frac{\text{Bad debts}}{\text{Sales}}$$

#### Ratings in the Purchasing Phase

##### Policies:

1. Secure materials at the lowest prices.
2. Secure materials on time for uninterrupted production.
3. Secure materials in accordance with specifications.
4. Purchase to safeguard stocks against a decline of inventory value.

1. General efficiency of purchasing equals:

$$100 \text{ per cent minus } \frac{\text{Cost of purchases—Cost at lowest market prices}}{\text{Cost at lowest market prices}}$$

2. Efficiency of co-ordination with the production department equals:

$$100 \text{ per cent minus } \frac{\text{Number of stoppages due to lack of materials}}{\text{Number of manufacturing orders}}$$

<sup>1</sup>Since the maximum capacity of the plant represents 100 per cent sales, amounts over this are credited to the development phase as shown in the example:

Rating computed	108 per cent
General efficiency	100 per cent
Increase in sales (growth)	8 per cent

3. Efficiency in securing proper materials equals:

$$100 \text{ per cent minus } \frac{\text{Cost of materials in spoiled production due to defective raw materials}}{\text{Cost of Materials}}$$

4. Efficiency of investment in inventories equals:

$$100 \text{ per cent minus } \frac{\text{Cost of inventory plus charges}^{\ast} - \text{Cost at lowest market prices}}{\text{Cost of inventory plus charges}}$$

#### Ratings in the Production Phase

##### Policies:

1. Utilize a maximum of direct labor.
2. Utilize a maximum of materials.
3. Utilize a maximum of overhead factors (indirect labor expense, power, rent, insurance, depreciation, etc.)
4. Maintain quality of product.
5. Make deliveries of orders on schedule.

1. Operating time efficiency of plant equals:

$$\frac{\text{Number of operating hours for period}}{\text{Number of operating hours required for maximum production}}$$

Efficiency of labor utilization (with respect to value) equals:

$$\frac{\text{Payroll for maximum production/Maximum production}}{\text{Payroll / Production}}$$

2. Efficiency of processing materials (with respect to time) equals:

$$\frac{\text{Cost of materials in production output}}{\text{Cost of materials in maximum production output}}$$

Efficiency of material utilization (with respect to value) equals:

$$100 \text{ per cent minus } \frac{\text{Cost of materials spoiled in production plus cost of materials wasted in production}}{\text{Cost of materials in production}}$$

3. Efficiency of utilization of indirect labor (with respect to value only) equals:

<sup>2</sup>Charges=storage charges and loan interest rate on investment.

$$\frac{\text{Estimated indirect labor / Maximum production}}{\text{Indirect labor / Production}}$$

Efficiency of rent utilization equals:

$$\frac{\text{Rent / Value of maximum production}}{\text{Rent / Value of production}}$$

Efficiency of power charges utilization equals:

$$\frac{\text{Estimated power charges / Value of maximum production}}{\text{Power charges / Value of production}}$$

Efficiency of insurance charges utilization equals:

$$\frac{\text{Estimated Insurance / Value of maximum production}}{\text{Insurance / Value of production}}$$

Efficiency of depreciation expense utilization equals:

$$\frac{\text{Depreciation / Value of maximum production}}{\text{Depreciation}^{\ast} / \text{Value of production}}$$

Efficiency of utilization of other expenses equals:

$$\frac{\text{Estimated other expenses / Value of maximum production}}{\text{Other expenses / Value of production}}$$

4. Efficiency of maintenance of quality equals:

$$100 \text{ per cent minus } \frac{\text{Sales returns because of defects}}{\text{Sales for period}}$$

5. Efficiency of making deliveries according to schedule equals:

$$\frac{\text{Number of orders shipped on time}}{\text{Number of orders for period}}$$

#### Ratings in General Management

##### Including Finance

##### Policies:

1. Provide stability by standardized results of operation:

- a. Standardized raw material inventories.
- b. Standardized finished goods inventories.
- c. Standardized labor cost according to budget.

<sup>3</sup>Depreciation is estimated according to operating hours of equipment.

d. Standardized material cost according to budget.

e. Standardized overhead costs according to budget.

f. Standardized net profits according to budget.

2. Provide financial arrangements for contingent expenses:

- a. Efficiency of cash position to meet current expenditures.
- b. Efficiency of net profits in providing for return on investment and loans, and in providing for funded debt.

1. Measurement of stability:

a. Efficiency of stability of raw material inventories equals: (5 year average)<sup>4</sup>

$$100 \text{ per cent minus } \frac{\text{Average monthly deviations of inventory from average of period}}{\text{Average inventory for period}}$$

b. Efficiency of stability of finished goods inventories equals:<sup>4</sup>

$$100 \text{ per cent minus } \frac{\text{Average monthly deviations from working inventory}}{\text{Working Inventory}}$$

c. Efficiency of stability of labor costs, equals:

$$100 \text{ per cent minus } \frac{\text{Average percentage deviation from budgeted monthly labor costs}}{\text{Average percentage deviation from budgeted monthly labor costs}}$$

d. Efficiency of stability of material costs equals:

$$100 \text{ per cent minus } \frac{\text{Average percentage deviation from budgeted monthly material costs}}{\text{Average percentage deviation from budgeted monthly material costs}}$$

e. Efficiency of stability of overhead factors equals:

$$100 \text{ per cent minus } \frac{\text{Average percentage deviation from budgeted monthly overhead costs}}{\text{Average percentage deviation from budgeted monthly overhead costs}}$$

f. Efficiency of the stability of net profits equals:

$$100 \text{ per cent minus } \frac{\text{Average percentage deviation from budgeted net profits}}{\text{Average percentage deviation from budgeted net profits}}$$

<sup>4</sup>In the case of ratings a and b, the policy for maintaining inventories is taken as the average of five years' operation. Most concerns do not set a policy for maintaining stocks according to fixed values, but compare such values in the balance sheets from month to month.