20. *Education:* Supervisory personnel should be educated in the objectives, potentials, fundamentals and techniques of profit planning and control. All budget problems should be made known to them.

Advantages of Profit Maximisation

Profit maximisation has been considered to be the most important business objective for the following reasons:

1. It is rational to accept profit for a business enterprise.
2. It is difficult to survive without profit maximisation.
3. Even for the attainment of social and economic welfare, profit maximisation has to be achieved.
4. A business with a high level of profitability will generate a high level of funds, out of which it can provide for expansion, in addition to a substantial and increasing return to its shareholders.
5. In the absence of profit, business activity would remain static. A firm cannot afford to do this because:
   (a) Price levels are not stable. Profits, therefore, have to be made to create additional resources.
   (b) Investors in business would expect a positive return on their investment. Profits are essential for ensuring this return.
   (c) It would not be possible to maintain the same level of activity because of the pressures for the expansion of business. The resources required for this purpose have to be provided through profits.

Limitations of Profit Maximisation

1. Profit is essential, but it would be wrong to assume that every action initiated by the Board of Directors is aimed at maximising profits, irrespective of its social consequences.
2. One of the difficulties in looking at the comparative profitability of a number of companies lies in their different standards of valuing business assets.

Conclusion

Profit motive is the prime mover of business activity. In fact, profitability is the most useful overall measure to the health of an enterprise. In other words, the profitability of an enterprise in any one year is the relationship between the profit made and the funds employed to earn the profit. Profitability analysis is a useful tool/technique to entrepreneurs to take right decisions in maximising profits and to bankers and financial institutions to arrive at the viability of the enterprise and its financial needs.

◆ ◆ ◆

CHAPTER 29

SOCIAL COST-BENEFIT ANALYSIS

Introduction

The Indian economy has been undergoing major structural changes since 1991. Wide-ranging reforms have been introduced in all the major sectors such as industry, trade, taxes and finance. The goal of the liberalization drive has been the dismantling of bureaucratic controls and infusion of private enterprise and competition.

In this emerging scenario of globalization, the Indian industrial sector requires considerable upgradation in many areas, as price competitiveness and quality have become the basis for survival. In a resource-scarce economy like India's, a yardstick is necessary to gauge the appropriateness of investments, as globalization accelerates.

One such measure is the use of social cost-benefit indicators, viz., the Economic Rate of Return (ERR), the Effective Rate of Protection (ERP) and the Domestic Resource Cost (DRC). These indicators explain comparative advantage and can assist in deciding whether a product should be manufactured domestically or imported. This kind of analysis is more relevant for a developing country like India, where there are many distortions, like inflation and unemployment, in the system.

The Concept

The term "social costs" refers to all those harmful consequences and damages which the community on the whole sustains as a result of productive processes, and for which private entrepreneurs are not held responsible manifested. The definition of the concept is comprehensive enough to include even certain "social opportunity costs", avoidable wastes and social inefficiencies of various kinds. Implicit in such an appraisal is the assumption that the principal objective of investment decision-making is to maximise the net present value of monetary flow or some variant of it.

The social cost-benefit analysis is a tool for evaluating the value of money, particularly of public investments, in many economies. It aids in making decisions with respect to the varidus aspects of a project and the design programmes of closely interrelated projects. Cost benefit analysis has become important among economists and consultants in recent years.

Need for Cost-Benefit Analysis

The essence of the theory of social cost/benefit analysis is that it does not accept that the actual receipts of a project adequately measure social benefits and actual expenditures measure social costs. The reason is that actual prices may be an inadequate indicator of economic benefits and costs. For example, in developing countries like India, the prices of necessities are set low, despite their economic importance, while the prices of less essential goods are set high (through a system of taxes and duties). As a result, some projects which appear very profitable when their outputs and inputs are valued at actual prices are, in fact, unattractive from the viewpoint of the national economy, while other apparently unprofitable projects have high economic returns. But the theory accepts that actual receipts and expenditures can be suitably adjusted so that the difference between them, closely analogous to ordinary profit, will properly reflect the social gain.

The Objectives

The objective of social cost-benefit analysis is, in its widest sense, to secure and achieve the value of money in economic life by simply evaluating the costs and benefits of alternative economic choices and selecting an alternative which offers the largest net benefit, i.e., the highest margin of benefit over cost.

Very broadly, social-cost benefit analysis involves the following steps:

1. Estimates of costs and benefits which will accrue to the project-implementing body.
2. Estimates of costs and benefits which will accrue to individual members of society as consumers or as suppliers of factor input.
3. Estimates of costs and benefits which will accrue to the community.
4. Estimates of costs and benefits which will accrue to the National Exchequer.
5. Discounting the costs and benefits which accrue over a period of time to determine the feasibility of the project.

Here again, the non-quantifiable benefits are stated only in descriptive terms. These strategies will work towards the appropriate calculation of the profitability Ratio (PR).

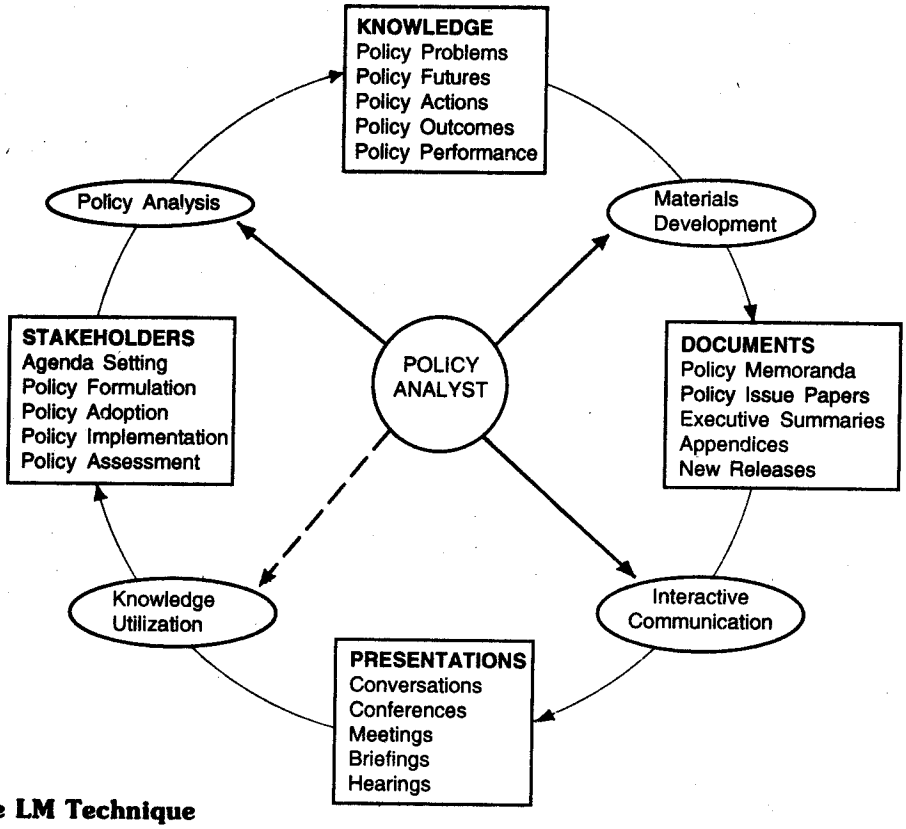
While this is the general approach to project formulation, implementation and evaluation, the same may be modified to suit the circumstances.

Main Features of Cost-Benefit Analysis

Prest and Turvey defined cost-benefit analysis as "a practical way of assessing the desirability of projects, where it is important to take a long view (in the sense of looking at repercussions in the future as well as the near future and a wide view in the sense of allowing side-effects of many decisions relating to industries, regions etc.), i.e., it implies the enumeration and evaluation of all the relevant cost and benefits." This definition focuses attention on the main features of cost-benefit analysis. It covers five distinct issues:

1. Assessing the desirability of projects in the public, as opposed to the private sector.
2. Identification of costs and benefits.
3. Measurement of costs and benefits.
4. The effect of (risk and uncertainty) time in investment appraisal.
5. Presentation of results — the investment criterion.

THE PROCESS OF POLICY COMMUNICATION



The LM Technique

One of the most widely used methods of social/cost benefit analysis is the LM technique. This technique involves the use of hypothetical rather than predicted actual prices when evaluating a project. These shadow prices are used, since they are a better reflection of the real costs of inputs to society and the real benefits of the output to society than actual prices. The term 'shadow price' suggests that an analysis based on these prices is remote from reality and, therefore, academic and highbrow. Of course, 'shadow prices' are unreal in that they are not the current prices of goods in the market. But then no price, in a project analysis, can ever be an actual price, as the analysis considers the future years of the project. A shadow price or an accounting price corresponds more closely to the realities of economic scarcity and needs. According to the World Bank: "To make a direct estimate of the contribution, of even one project

output or input to total national production, would require an enormous amount of information on the economic linkages between this project and other parts of the national amount of information on the economic linkages between this project and other parts of the national economy, and the use of advanced computational techniques. For this reason, and despite much theoretical work on shadow prices, no country has succeeded in calculating an ideal set of shadow prices for practical use. Instead, as a second-best method... economic evaluation in Western and East European countries has used world prices as the main basis for calculating shadow prices."

The LM technique assumes that a country can buy and sell any quantity of a particular good at a given world price. Hence, all traded inputs and outputs are valued at their international prices (CIF for importables and FOB for exportables) which is the opportunity cost/value of the particular good to the country. Every input is treated as a forex outgo and every output is treated as a forex inflow. All non-tradable inputs are valued at accounting prices. These costs are broken up into tradable goods and other non-traded goods. Following this chain of production, commodities that are either exported or imported are determined for application of accounting prices. The theory assumes that non-tradables form an insignificant part of operating costs.

Cost of Production

While discussing the planning of production in small-scale industries earlier, we have laid stress on minimum cost. Cost control in small-scale industries is now a well-recognised and most effective technique of managerial control. Cost, by and large, is the most important factor influencing sales in a competitive market. As a natural corollary, we shall now discuss three important features closely related to the cost of production, viz., product mix, full utilisation of production facilities and quality control.

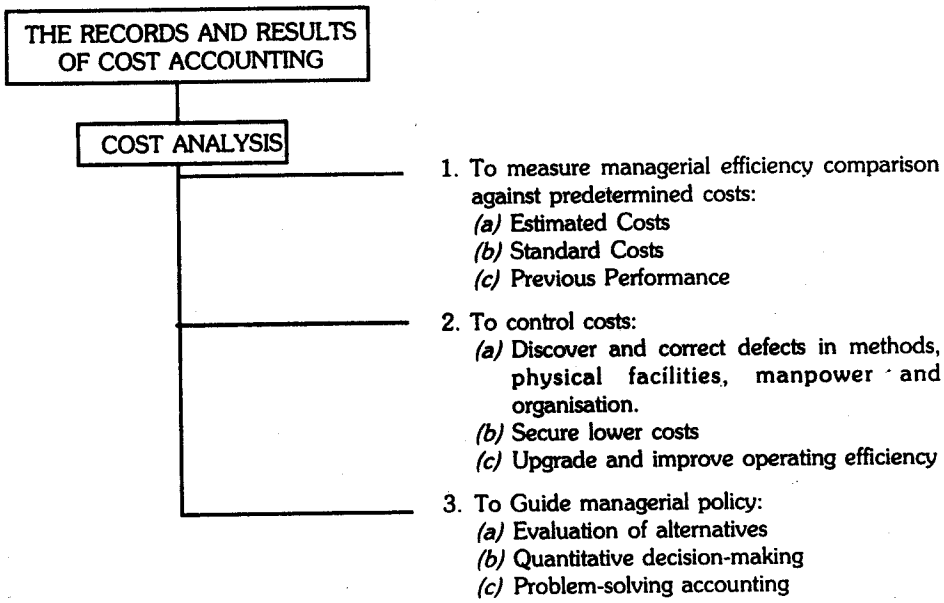


Fig. 29.1 Cost Analysis

Meaning

Costing is not merely a tool of control but also a device of management planning, organisation and direction. The technique of cost control involves the determination of standard in research of each item of cost, ascertainment of actual costs regarding those very items, detection of variations in actuals from the standard laid down, analysis of these variations so as to determine the responsibility and the cause, the cost of each variation and then taking the necessary action to ensure that actual costs conform to standard costs in future.

Usefulness

Accurate costs of production estimates and records are of immense use in managerial decisions. Costing provides a scientific base for several other management decisions. Some important features are given below:

(i) Cost of production records provide ample informative material for planning material budget, labour budget, factory budget.

(ii) Cost of production aids the management to fix competitive prices. It also enables small-scale industries to quote the most competitive prices in the tenders without incurring losses.

(iii) Cost of production determines the level of production activity.

(iv) It determines the minimum acceptable quality and, therefore, enables the entrepreneur to avoid fixing quality levels which are higher than those desired by customers.

(v) Cost figures reveal the cost per unit of material consumed, labour, machine or process, and help in determining which materials prove comparatively costly or cheaper. This assists the small-scale entrepreneur to substitute other materials to minimise cost. Similarly, it is applicable to labour, machinery and process. The cost of production can be maintained by a process of constant substitution.

(vi) A periodical review and analysis of the cost of production enables the entrepreneur to identify the causes of inefficiency, abnormal wastages, pilferages, overstaffing and losses. It also suggests the possible reasons for variations in costs and enables the small entrepreneur to take timely corrective steps to overcome such deficiencies and distinguish between profitable products and non-profitable products; between profitable process and non-profitable labour; between profitable material and non-profitable material; and between profitable volume of production and the non-profitable volume of production.

(vii) The cost of production is dependent upon control over inventory receipts, issues, balance and flow of materials and on the maintenance of records. The small entrepreneur has to give adequate attention to the accounting systems.

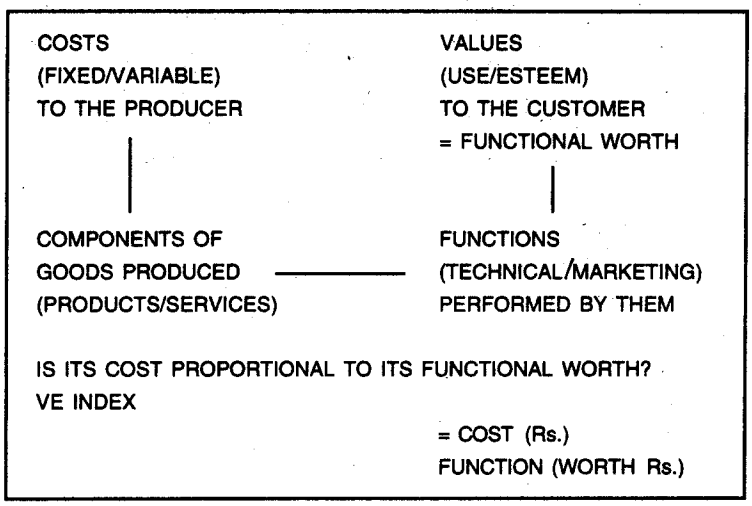


Fig. 29.2 Concept of Cost vs. Value

Elements of Cost

The cost of an industrial undertaking may be divided into three principal elements: *(i)* Materials; *(ii)* Labour, and *(iii)* Expenses.

The cost of materials may be divided into direct or indirect. If the material in question is used directly in the manufacture of product and becomes a part of the product, it is considered as a direct material charge. A material which does not become a part of the product but which is essential for the manufacture of the same is considered as an indirect material. This category includes such supplies as cotton waste, lubricating oils, fuel, etc.

Labour costs, like material costs, may be classified into direct labour costs and indirect labour costs. Labour which is applied directly to the manufacture of a product and which changes the shape, form or the nature of the product is considered direct labour. Labour which has a more general and less direct application is considered indirect. Salaries of sweepers, carpenters, and electricians fall in this category.

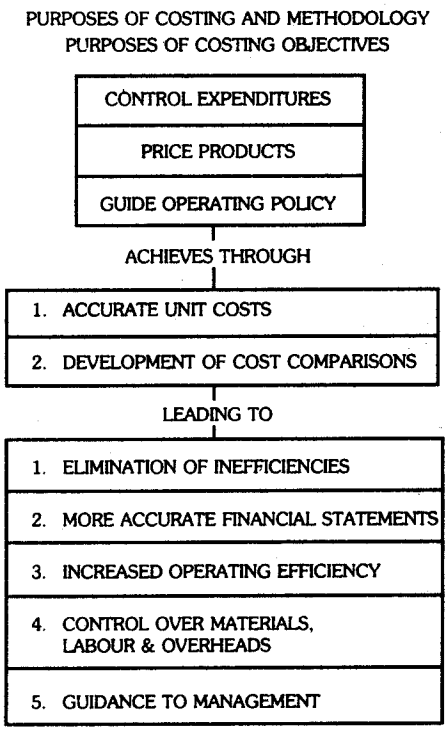


Fig. 29.3

Expenses or Overheads

Costs other than labour and material costs are classified as expenses and are frequently referred to as *overheads.* They include factory and office rent, local rates and taxes, insurance, depreciation, etc.

Overheads or expenses are usually divided into the following three categories: *(i)* Factory overheads, which include all expenses chargeable to the factory; *(ii)* Administrative expenses, which include such items as office rent, general office salaries and professional fees; and *(iii)* Selling expenses, and other expenses connected with the distribution of the product.

Classification of Costs

The categories of cost of production are:

(i) Direct and Indirect Costs: Direct costs are costs incurred exclusively on the production of a commodity, on the execution of a job work or on performing a service. They vary with the volume of production and the type of product that is manufactured, and include expenses incurred on materials, stores and the labour charges incurred on the manufacture or servicing of a product.

Indirect costs are those costs which are incurred on carrying on the business as a whole. These costs are not incurred directly on a unit of production. Generally, these costs include factory costs, i.e., rent, insurance, lighting, fuel or power, depreciation, office costs, etc. These expenses are apportioned on some reasonable basis.

(ii) Fixed and Variable Costs: Fixed costs are those which are not influenced by the volume of production. Factory costs are generally annual charges and fall in this category. Fixed costs decrease per unit with the increase in the volume of production.

Variable costs vary in the same direction and in the same production in which the volume of production varies. For example, expenses incurred on direct materials, labour and other stores vary with the volume of production. However, variable costs per unit remain the same.

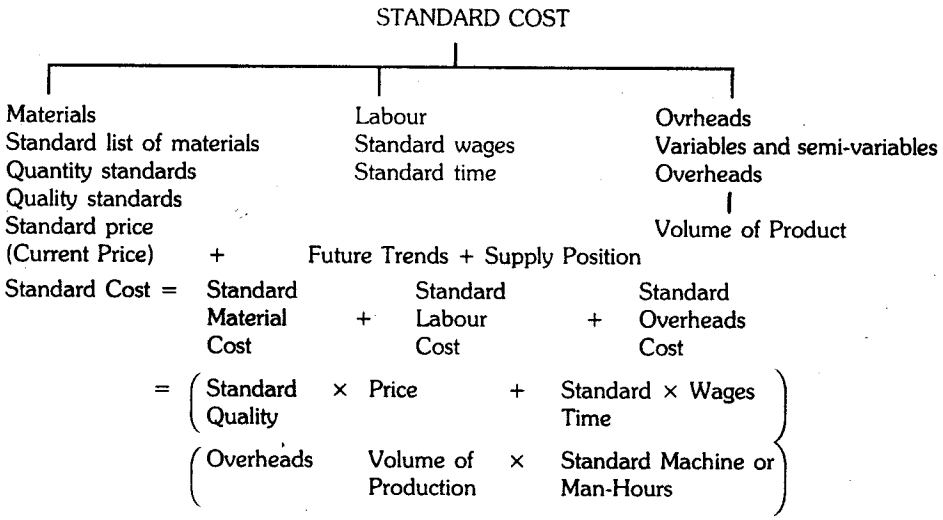


Fig. 29.4

(iii) Standard Costs: The standard cost of production per unit is the estimated cost. It is a predetermined cost and is utilised in ascertaining the estimated costs of production. In order to estimate the cost of production, standards have to be fixed in respect of each element of costs. For materials, standards have to be fixed in relation both to quantity and price. Similarly, standards are fixed in respect of time and wage rates of labour and overheads. Briefly, the standard cost is determined in Fig. 29.4.

The advantages of the standard costs are:

(1) They are helpful in production and price policies.

(2) Serve as a barometer of the operating efficiency of a plant; and

(3) Work as incentive to workers.

(iv) Average Cost and Marginal Cost: The average cost is calculated by dividing the total cost of production by the number of units produced. The marginal cost is the cost of marginal unit produced over the lot of production.

Example: A small-scale industry produces 100 units at a cost of Rs. 2,000. The average cost is 2,000 ÷ 100 = Rs. 20 per unit.

Now the cost of production of 99 units is Rs. 1,985, and the cost of the 100th (marginal) unit is Rs. 2,000 – 1985 = Rs. 15, i.e., marginal cost.

An analysis of average cost and marginal cost helps the small entrepreneur to determine the volume of production and the overall production.

Costs may be classified further under the following four heads, each representing a distinct step in the breakdown of the total cost of the product.

(i) Direct Material + Direct Labour = Prime Cost.

(ii) Prime Cost + Factory Expenses = Factory Cost.

(iii) Factory Cost + Administrative Expenses = Manufacturing Cost.

(iv) Manufacturing Cost + Selling Expenses = Selling Cost.

(v) Selling Cost + Desired Margin of Profit = Sales Price.

This classification has the merit of locating clearly the responsibility for each of these categories of costs. For example, the responsibility for the prime cost is clearly that of the foreman in each production department; the factory manager would be squarely responsible for factory costs, the sales manager for selling expenses, and the general manager for the sales price. Such clear allocation of responsibility helps in controlling a particular element of cost.

The four-fold classification of cost is adequate for small industries which manufacture a single product or a few products. They do not have to face problems of allocating various overhead expenses. But for a factory manufacturing a number of products or working on job orders, it is useful to have an accurate allocation of overheads before any marketing decisions — such as pricing of individual products, preparing quotations for tenders, discontinuing a particular line or increasing the production capacity of another line are taken. In view of such great importance, it is necessary to go into the details of the problem of allocation of overheads.

The Prime Cost

As has been stated earlier, the first stage in the determination of production cost is the prime cost. This includes the cost of direct material and direct labour which go into the making of a product. The determination of these charges for a product or for a specific order is relatively easy.

Direct Material Charges

These may be easily ascertained from the stores controller who has supplied the material on the strength of a requisition note containing the name, symbol, description, and the quantity of material requisitioned.

Direct Labour Charges

In order to ascertain the direct labour costs, it is necessary to get accurate reports of all the labour time that can be charged directly against a given product or order. A common means of obtaining this under a job-order production is to give the workman a ticket when he starts on a new job. On this ticket are entered his name and number, the order number to which his time is charged, the kind and quantity of the product, and any other information necessary for a proper control of production and costs. The tickets of all the workers working on a particular job-order are collected and their wages calculated. To this sum must be added the amounts of dearness allowance and other allowances, payments made on their behalf towards the employee's state insurance. The total amount so arrived at constitutes the direct labour cost of a particular batch or order.

The Factory Cost

In order to arrive at an accurate figure of the factory cost for which the factory manager can be held responsible, initial ascertain of indirect material charges, indirect labour charges and other expenses incurred is essential, subsequently allocating them to each product or order. The prime cost plus a share of indirect expenses will constitute the factory cost.

Indirect expenses are made up of *(i)* Indirect material and indirect labour charges; *(ii)* Miscellaneous controllable expenses; and *(iii)* Fixed charges of rent, depreciation and interest.

Of these, the first two tend to show substantial fluctuations with changes in the volume of production, and so they can be controlled to that extent. It is, however, necessary to set up an adequate, comprehensive classification of these expenses if they are to be effectively controlled. Indirect materials include cotton waste, lubricating and other oils, sandpaper, etc. Indirect labour charges include wages and salaries of the foreman, shop clerks, set-up men, inspectors, truckers, etc. Miscellaneous controllable expenses include departmental charges for power; light machine repair, scrap rework etc. Finally, fixed charges include ground rent, local rates, taxes, depreciation and interest.

Distribution on the Basis of Material Costs

In simple continuous processes, where the output consists of one uniform product as in a cement or salt works, expenses incurred in a particular period may be evenly

distributed over the output for the same period. If two or more products are manufactured in a factory, the total work expenses for a period should be allocated to these products in that proportion in which the total expenses bear to the total material cost.

Man-Hours as the Basis

Under this method, work expenses are allocated on the basis of the number of hours put in by direct wage-earners in different departments. The total number of direct man-hours of each department is ascertained and that percentage of work expenses is apportioned to each department which its man-hours bear to the total man-hours.

This method removes the defect of direct labour method and also gives more accurate results than that method. The reason is that the longer the man-hours are put in a department, the greater is the use of power, machinery, etc. Hence, it is fair that the department should bear a larger portion of these expenses.

Machine-Hours as the Basis

The theory on which this method is based is much more accurate than that which underlies any of the methods discussed earlier. Most of the items of expenses naturally gather round machines and processes rather than round wages or man-hours. The rate of wages and time consumed being equal, it costs a great deal more to do a piece of work on a larger machine than on a smaller one, since the larger machine and tools originally cost more and such items as repairs, power, light, depreciation, etc. are all greater in like proportion. It is, therefore, more accurate to go for this for the distribution of work expenses because it allocates the burden on the basis of the time during which and the place at which the work is performed.

JOB AND PRICES COSTS

JOB ORDER	PROCESS COSTING
COST CALCULATED FOR SPECIFIED ORDERS	DEPARTMENTAL COSTS DETERMINED OVER A PERIOD
INDIVIDUAL ORDER NUMBER SET UP FOR EACH JOB	WORK IN PROCESS INVENTORIES KEPT BY DEPARTMENTS
KEPT AS A SUBSIDIARY LEADER BEHIND WORK IN PROCESS INVENTORY	SUPPORTED BY DEPARTMENTAL COST RECORDS, NOT PRODUCTION ORDERS
COST THAT CANNOT BE ATTACHED TO JOB ARE IDENTIFIED BY DEPARTMENTS AND THEN ALLOCATED TO JOBS	ALL COSTS ARE IDENTIFIED BY DEPARTMENTS, EITHER DIRECTLY OR BY ALLOCATION AND THEN ASSIGNED TO PRODUCTS
CALCULATED WHEN JOB IS FINISHED	CALCULATED AT THE END OF COST PERIOD

Fig. 29.5

To determine the machine rate for the purpose of distributing the total expenses, all items of expenses are pooled together so that each machine or process would, as nearly as possible, bear its just share of expenses. The total of such allocated expenses assigned to any machine is then divided by the estimated number of hours that the

machine may be expected to be in operation during a particular period. This would give the hourly rate of the machine; and every job performed on that machine will be charged accordingly.

Though, this method is theoretically most accurate; in practice, difficulties crop up whenever any departure is made from the estimated time when machines are to be in operation. If a machine fails to run for that period, an undercharge will be made; and this will mean that a part of the expenses will remain undistributed and will not appear in the cost of production.

Analysis of Variances

The determination of cost of production is dependent upon a number of variances. Thus, the entrepreneur has constantly to analyse and investigate different variances for an effective control over the cost of production. The methods of analysing these variables into their different components are:

I. Material

(i) Material price Variance representing the excess

$$\left\{\begin{matrix}\text{Actual quantity}\\ \text{Purchased} \times\\ \text{Actual price}\\ (X) \quad (Y)\end{matrix}\right\} - \left\{\begin{matrix}\text{Actual Quantity} \times \text{Standard Price}\\ (Q) \qquad\qquad (P)\end{matrix}\right\}$$

Cost of saving resulting from purchases of direct materials at prices above or below the set standards $= XY - QP$

(ii) Material usage variance indicating efficiency in the use of (P) materials

$$\left\{\begin{matrix}\text{Actual}\\ \text{Quantity}\\ (Q)\end{matrix}\right\} \times \left\{\begin{matrix}\text{Standard}\\ \text{Price}\\ (P)\end{matrix}\right\} \quad \left\{\begin{matrix}\text{Standard}\\ \text{Quantity}\\ (Q)\end{matrix}\right\} \times \left\{\begin{matrix}\text{Standard}\\ \text{Price}\\ (P)\end{matrix}\right\}$$

$= QP - QP$

II. Labour

(i) Labour wage variance showing higher or lower wage rates than contemplated

$$\left\{\begin{matrix}\text{Actual} & - & \text{Standard}\\ \text{direct rate} & & \text{wage rate}\\ (R) & - & (W)\end{matrix}\right\} \times \left\{\begin{matrix}\text{Actual direct}\\ \text{labour hours}\\ (L)\end{matrix}\right\}$$

$= (R - W) \times L$

(ii) Labour time variance. Revealing excess time taken or saving in time as compared to standard time

$$\left\{\begin{matrix}\text{Actual labour}\\ \text{direct hours (L)}\end{matrix}\right\} \quad \left\{\begin{matrix}\text{Standard direct}\\ \text{labour (S)}\end{matrix}\right\} \times \left\{\begin{matrix}\text{Standard wage}\\ \text{rate (W)}\end{matrix}\right\}$$

$= (L - S) \times W$

III. Overheads

(i) Overhead budget variance. Disclosing excess expenditure or saving in actual cost compared with the budget = {Actual overhead for the budget period} − {Standard overhead for the same period}

(ii) Overhead capacity variance — Highlighting the amount of overhead unabsorbed or overabsorbed = {Standard direct labour hours as per the production – budget Standard overhead rate} − {Actual direct labour hours as per payrolls for the above period}

(iii) Overhead efficiency variance showing the overhead cost of excess direct labour hours applied to the period's production or the saving resulting from the completion of the period's production in less than standard direct labour hours. = {Actual direct hours as per payrolls Standard overhead rate} − {Standard direct labour hours for the period of production}

In each case, the plus balance shows a loss and a minus balance indicates a profit. Variances are very important indicators of the cost of production.

Product Mix

The product mix is generally adopted in the case of multiple product. However, in a large number of cases, small-scale units manufacture a single product. With a view to maximising production, an entrepreneur has to produce ancillary by-products or components. In other words, the managerial cost of production of the by-product is lower; the profit of the entrepreneur, therefore, is higher. Besides, product mix can also be adopted in the production process without hampering the quality of the product. The entrepreneur should have analysed the strengths and weaknesses of all the materials, labour, etc. which can yield a higher production at a low cost.

Full Utilisation of Production Facilities

The small entrepreneur will increase his production by fully utilising his machinery and labour. Non-utilisation of these two important components result in an increase in the cost per unit. When all the necessary raw materials are available, there is maximum utilisation of machinery and labour resulting in higher production. And every increase in production reduces average cost per unit. This apart, the marginal cost is also considerably lower. A small entrepreneur has to plan in detail so that no bottleneck crops up in between. The cost overheads too will go down. Therefore, the aim of small-scale industries should always be to utilise production facilities fully.

Inventory or Stores Control

Inventory control is a potential strategy in controlling cost of production — one of the most complex and far-reaching problems faced by the management. A recent

survey has shown that capital amounting to about Rs. 800 crore is locked up in inventories as against an annual sales turnover of about Rs. 2,500 crore, giving an inventory-sales ratio of 1:3.40 as compared to 1:6 to 1:8 in some of the developed countries. These figures indicate tremendous scope for capital release through a control of inventories.

Inventories are stocks which are classified as:

(i) Raw materials (like oils, chemicals, cotton, steel, etc.);

(ii) Process stores;

(iii) Packing material, spare parts, ancillary goods, engineering stores, wrappers, bottles, bobbins; and

(iv) Finished goods.

The annual cost of carrying inventories adds to the cost of production. The objective of inventory control is to release working capital for more productive uses and minimise the overhead costs. Generally speaking, an inventory, either of finished goods or of raw materials or of ancillary materials should be adequate to achieve maximum production; at the same time, it should not be so excessive as to restrict the entrepreneur's ability to earn a high rate of return. As the inventory paradox has it, inventory control should "not be too much, not too little, and it should be practised at the lowest cost for the highest profit."

Inventory control also incorporates materials management. The main function of inventory control is to ensure a continuous flow of materials for production. This control will minimise the cost of production for a small-scale industry.

Life Cycle Phases and Savings Potential

The life cycle phases of a product and savings potential are shown in Fig. 29.6.

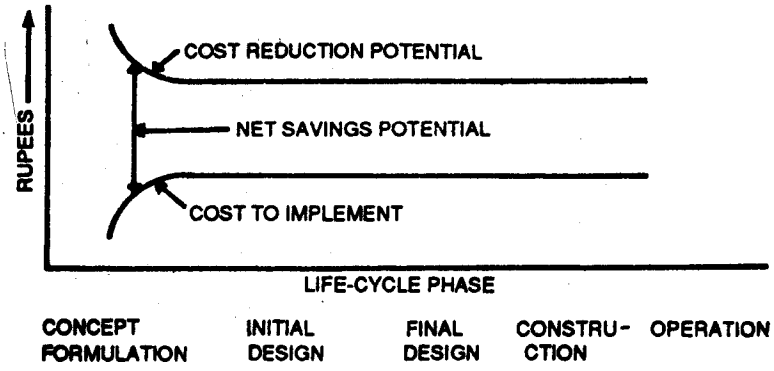


Fig. 29.6

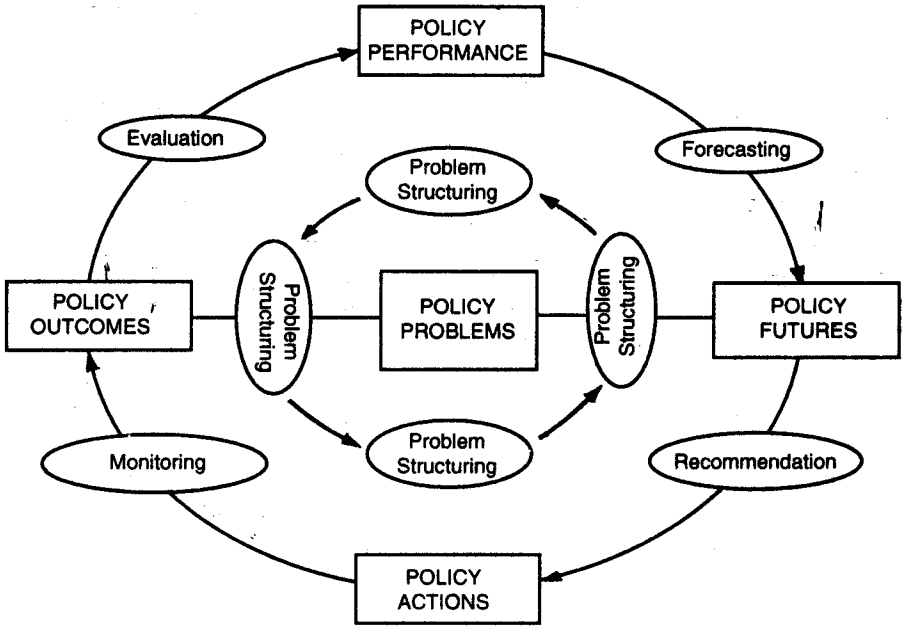
Selection of Items

The following can form the criteria for selection of items of value engineering study:

1. Items of high annual consumption, say A category items (of ABC analysis).
2. Items complex in design.

3. Items made from scarce materials.
4. Items involving too many machining operations and difficult to make.
5. Items where the chance of standardisation is bright.
6. Items with a high scrap rate or wastage and of repetitive use.
7. Items with possibilities of modification or incorporation into a related product component.
8. Items purchased in large quantities.
9. Vital items where dependence on imports is too much.
10. Critical items of single source supply.

PROBLEM-CENTERED POLICY ANALYSIS



THE ECONOMIC INDICATORS

Market Rate of Return (MRR)

This is a measure of the discounted value of the financial rate of return at the prevailing market costs and prices, including the distortions. The difference between the MRR and the Internal Rate of Return (IRR) is that the former does not include corporate tax in the cost of production. The cost items included are: capital cost, working capital and operating cost. The returns include sales and other income. The flows of these costs and returns for the life of the project are discounted to arrive at the rate of return where the net present value is zero. For comparison, an acceptable level of the MRR should, at least, be higher than the prevailing interest rate, i.e., the project should earn a rate of return that covers its interest cost, at least.

Economic Rate of Return (ERR)

This is the rate of return the project will earn if there are no distortions. For this indicator, the flow of costs and receipts is revalued at their opportunity costs. The tradable inputs and output are revalued at their international prices, the non-tradables are revalued at fixed conversion factors, while labour is revalued at the shadow wage rate. The flow of net receipts is, then, discounted to arrive at the ERR. Normally, the ERR should be higher than the prevailing rate of interest in the world market. According to a Planning Commission study, the ERR should be at least 12 per cent. The ERR should normally be higher than the MRR.

Effective Rate of Protection (ERP)

This indicator measures the degree of effective protection that a product enjoys through its entire production cycle. It is different from the Nominal Rate of Protection which is the import tariff protection that a final product enjoys. The ERP measures the margin of protection on value added in the production process rather than on the product price. It is defined as the excess percentage of domestic value added due to the imposition of tariffs and other protective measures on the product and its inputs over foreign or world market value added.

Tariffs as well as subsidies provide protection to domestic processing activities by raising the value added obtainable by a firm or industry. The ERP will be negative if tariff raise the cost of material inputs by a larger absolute amount than they raise the price of the product. Protection permits domestic industries to operate with a value added higher than that under free trade, thereby providing incentives for the movement of scarce domestic resources into protected industries. The higher the ERP, the greater this inducement, leading to uneconomic utilization of scarce resources.

Domestic Resource Cost (DRC)

This is the most crucial indicator of the viability of a project especially from a macro-perspective. It is an indicator of the comparative advantage in any product, as it refers to the real opportunity cost in terms of domestic resources. It is useful in deciding whether the product in question should be produced domestically or imported. For the purpose of calculations, the total cost of the project is divided into two categories, viz., rupee and foreign exchange expenditure. The cost components included are: the total operating costs of the normal year, an eight per cent depreciation on fixed capital and a 10 per cent return on capital employed. Taxes are excluded at all stages, as they are transfer payments and not real resource costs. Sales of the normal year are revalued at world prices. Total rupee expenditure and foreign exchange saved/earned of the project are calculated. The DRC, thus calculated, is compared with the exchange rate. A DRC lower than the exchange rate indicates that the product could be profitably manufactured domestically.

Internal Rate of Return (IRR)

IRR is a universally accepted criteria for judging the value and authenticity of investment proposals. It is based on time value of money.

IRR's working formula shows that the cash inflows of each individual project (having different IRRs) are reinvested at their respective IRRs. This seriously flouts the concept of uniformity in the capital market — after all each individual project cannot reinvest its cash inflows at different rates, because the reinvestment rate would have to be uniform at any given situation. Thus, while making a comparison between NPV and IRR — the one pertaining to NPV, i.e., reinvestment of cash inflows of all projects uniformly at the cost of the capital, does not suffer from much contradiction, from the purely theoretical standpoint of an ideal capital market, as regards its applicability in a real life capital market scenario, and has a distinct relative advantage over the concept of reinvestment of cash inflows at varying IRR of each individual project, as proposed under the technique. Therefore, NPV has a well-established edge over IRR. Some authors have, however, expressed their doubts as to the validity of assumption of the deployment of cash inflows at the rate of marginal cost of capital for NPV and at the rate of the internal rate of return of each individual project for IRR.

Capital Rationing — a Linear Programming Approach

In situations of capital rationing, either external or internal use may be made of linear programming techniques by building up an appropriate model. The fundamental theorem around which the model is woven is to maximise net present values of all investment proposals within the constraints of the availability of total funds. A frequently used model could be written as:

$$\text{Maximise } \sum_{i=1}^{n} P_i X_i$$

$$\text{Subject to } \sum_{i=1}^{n} C_{it} X_i \leq B_t \; (t = 1,..., T)$$

$$X_i = 1 \text{ or } 0 \; (i = 1, ... n)$$

where C_{it} = amount of funds required by the i^{th} project in period t where projects C = 1,..., n, time periods t=1, ...T.

P_i = net present value of the project i.

B_t is the absolute amount of funds to be invested in period 't'. X_i is an integer representing the proportion of project 'i' taken on — it can be either 0 or 1 (rejected or accepted).

In the constrained maximum form, NPV is maximised within the constraints of funds availability and mutual exclusiveness of project (acceptance of one project to the exclusion of another).

Another variant of the maximum could be:

$$\text{Maximize } Z = \sum_{i=1}^{n} a_t D_t$$

$$\text{Subject to } \sum_{t=0}^{T} C_{jt} x_j + D_t \leq M_t \; t = 0,1,....T$$

$$x_j D_t \geq 0$$

where a = time – value factors vector.

D = dividend vector.

C = matrix of cash flows (outlays are positive and inflows negative), the rows are cash flows of each period and the columns are the cash flows of each investment.

M = Column vector of cash available from outside sources,

x = Column vector indicating the number of units invested in each investment. Number of different investments = J.

T = Horizon of planning periods.

Through these linear programming models, based on the NPV method, although the firm may not be able to rank the investment opportunities, it would nevertheless be able to select the best set of investments from the criteria of maximising their net present values within the constraints of the availability of a pre-determined quantum of investible funds. However, the problems associated with such model building exercises steam from the enormous information inputs that would be needed to make use of them (present value of all investment opportunities and constraints, etc.) Besides, serious doubts have been raised in some quarters as to the theoretical soundness of the assumption underlying such model building. It has been held by them that the concept of NPV traces its origin to perfect capital market conditions with no capital rationing and making adjustments in its applicability by superimposing conditions of capital scarcity militates against the very concept of NPV. Besides, if in a market-dominated marginal cost of capital, the very basis of the principle of NPV exists, then the idea of capital rationing simply falls through. However, even within these limitations, these linear programming techniques may be made use of investment opportunities, using it as the basic theoretical frame work. To this extent, NPV does have an edge over IRR, as no such modelling could be woven around the concept of IRR. In a capital budgeting scenario for IRR technique, a threshold limit is fixed (more often than not on the basis of a subjective linking of the threshold limit to the availability of funds). Thus, IRR suffers from serious inadequacy vis-a-vis NPV in situations of capital rationing.

Some Observations

IRR as a capital budgeting technique has been claimed to have certain inherent advantages, a few of which are listed below:

(i) The internal rate of return is a relative measure of the worth of a project, as opposed to the absolute measure of the worth proposals in the NPV method, facilitating to some extent *inter se* ranking of projects having uniform scales of investment, timings of cash flow and project timings. For the same reasons, it has an appeal to entrepreneurs, since returns are measured in percentages, which make so much more of a sense to them, vis-a-vis the net present value, which is a measure in absolute terms of the increase in the firm's net wealth.

(ii) Some authors have held that IRR, not requiring the computation of the cost of capital (which is quite an involved exercise), has an edge over the NPV

method, which uses the cost of capital as a discounting factor. However, the assumption would not stand the test of a close scrutiny, since for deciding upon the acceptability or otherwise of a project under consideration, a knowledge of the cost of capital would be called for, as this would determine the threshold level as far as the acceptability of investment proposals is concerned. Only in NPV method, it enters into calculation at a much earlier stage, and in the IRR method it is only used for the purpose of comparison.

However, as opposed to these advantages, IRR suffers from the following drawbacks:

(a) The basic theoretical foundation for IRR as regards reinvestment of the surplus is seriously flawed as discussed above.

(b) Combination of IRR is much more difficult compared to NPV.

(c) The ranking of mutually exclusive projects under IRR is cumbersome as it involves computation of internal rate of return of the differentials of cash flows of the projects taken in pairs and arriving at the best solution. NPV method gives consistent results in all such cases.

(d) In non-conventional projects, involving more than one change in the sign of cash flows, there would be more than one valid solution for the value of IRR and that too, varying over a wide range rendering the decision-making process much more difficult. No such difficulty arises in applying NPV method in such cases.

(iii) In a capital rationing scenario, the IRR method does not lend itself amenable to any analytical treatment. The only solution in such cases would be to decide upon, somewhat arbitrarily, a cut-off IRR rate beyond which all proposals would be accepted. However, in the NPV method, linear programming solutions are available, which although having limitations from a purely theoretical angle, offer very good practical solutions.

It would thus be seen that on balance, the NPV method enjoys decided advantages over the IRR method as a capital budgeting technique.

Unit Cost of Production [UCP]

UCP helps in extrapolating the operating cost at the desired levels of production. The cost of production includes cost of raw materials, components, consumables and utilities comprising power, fuel, water etc. The initial theoretical calculations are adjusted taking into account actual consumption pattern in the industry. The consumption patterns are also indicated by the suppliers of plant/technical know-how based on their experience. Cost of inputs per unit is taken on the basis of cost at site which includes loading, transportation and unloading expenses. While arriving at the expenditure on raw materials, the cost of procurement from the expected source of supply is considered. Suitable provisions are also made for seasonal fluctuations in prices. The cost of power includes demand and energy charges. The requirements of power, steam, water, oil and fuel are calculated on the basis of actual need and on the experience of similar units in the industry. In case a project contemplates generation of power internally, then the cost of power generated is to be segregated from power

obtained from the State Electricity Board. Material balances, yields at various stages of process, rejections etc. are also to be calculated before computing the UCP.

The other items of cost forming a part of the overall cost of production are labour and supervision, plant overheads, repairs and maintenance, contingencies, administrative overheads, packing cost, sales expenses, financial charges, depreciation and taxation. Under "labour and supervision", total wage bill depends upon the size of labour force, skills required of them and the wage rate. Wage rate is taken either as per statutory provisions (including bonus etc.) or the rates prevailing nearby the location of the plant, whichever is higher. To the wage, a provision of around 50 per cent is added for allowances, provident fund, ESI and other benefits. All costs in the plant which are not chargeable to any specific operation are considered as "plant overheads" and are charged to the manufacturing cost of product.

Insofar as repairs and maintenance are concerned, unless the plant and machinery has some special characteristics for the purpose of projections, the repairs and maintenance costs can be taken at 2 to 3 per cent of the value of fixed assets and may be subsequently increased by 5 to 10 per cent every year. A higher provision might be necessary in the case of those industries where wear and tear is high. Under contingencies, it would be prudent to make a provision equivalent to the latest figure of the annual inflation rate or 5 per cent, whichever is higher, to take care of marginal increases in the cost of production. The administrative overheads and sales expenses can be taken for the purpose of projections at 3 to 5 per cent and 5 to 10 per cent of the sales respectively. The provisions for financial charges are to be made on the basis of actuals taking into account the applicable interest rates, guarantee commission, etc. Provision for depreciation and taxation are to be made as per provisions of the Income-Tax and other related Acts.

Sensitivity Analysis

Sensitivity analysis identifies the critical or sensitive elements affecting the viability of a project taking into account different assumptions. This helps in determining the performance of a project, its ability to survive the trade cycles and its ability to compete in the market. The use of sensitivity analysis in project appraisal eliminates the need for restricting one's judgement to a single set of parameters and provides the basis for a multiple value sensitivity analysis. This analysis is necessary, in the first instance, in respect of demand projections taking into account the degree of competitiveness, consumer response and the amount of the substitution that would be possible. In doing the sensitivity analysis, it is not sufficient to measure the effect by one single change (in a factor or a co-efficient) but often the changes are assessed on the basis of permutations and combinations. In the marketing area, the objective of this analysis is to determine the impact on the size of demand in aggregate or by segment. In the case of profitability projections, the sensitivity analysis can be combined with subjective profitabilities through a network of decisions to provide the most probable for a project. Though in a real situation, all factors are subject to fluctuations for the sake of simplicity in relation to profitability projections, the analysis is done taking into consideration the changes in the least sales revenue and prices of raw materials.

Promoters' Backgrounds

Apart from ensuring technical feasibility and financial viability of the project, the appraiser also has to look into the background of the promoters and their credibility.

In all project evaluations, the track record of the promoters is checked and verified from all possible knowledgeable sources. These sources may include other financial institutions, banks and government agencies with whom the promoters might already have had dealings. The income-tax and wealth-tax assessments of individual promoters are reviewed to establish their financial worth.

Applications for financial assistance from industrial groups who are tax defaulters, are not processed by the financial institutions until the defaults have been settled to the satisfaction of the government. This aspect is closely monitored by obtaining quarterly return from every borrower containing details of the statutory and government dues outstanding.

The working results of existing concerns of the promoters are looked into and their projected funds flows evaluated to establish the availability of surplus funds for investment in the new project towards promoter's contribution.

Project Cost Comparisons

Analysis of the project estimates start with an examination of the assumption on which these have been based in the project report. Every effort is made to ensure that all items of project cost have been adequately taken into account. In order to make a realistic assessment of the project cost, various items of cost are broken down into as many sub-heads as possible so that no item of cost is overlooked.

While assessing the project cost, escalation in cost on account of inflation during the implementation period is provided for. The yearly rate of inflation as available in the "Financial and Economic Review" appearing in the Reserve Bank of India (RBI).

The main aspects looked into while scrutinising the project cost, estimates are as under:

(i) Land: While assessing the expenditure on land, the total area and its cost, inclusive of conveyancing charges are taken into account. If the cost seems to be higher than the current prevailing price, the reasons for variations are looked into. While examining this cost, the cost of alternative arrangements such as taking land or buildings on lease are examined. The requirement of land is examined separately from the viewpoint of factory buildings, auxiliary buildings, open storage space, future expansion programmes and housing colony. If the land is acquired or proposed to be acquired from the promoters or their relatives, detailed scrutiny is made with regard to propriety of such a transaction. In respect of valuation of self-acquired land, the cost of acquisition plus simple interest at the current lending rate of financial institutions (12.5 per cent per annum for notified less developed districts and 14 per cent per annum for other places including metropolitan town) from the date of acquisition till the date of submission of complete application to the financial institutions is considered.

In case the land has been earlier used for agricultural purposes, permission of the State Government needs to be obtained for converting the land into non-agricultural

land. If the land is leasehold, the terms of the lease, particularly with reference to mortgage of leasehold rights, the lease, particularly with reference to mortgage of leasehold rights, provisions relating to its termination of lease etc., are examined and ensured that they do not come in conflict with the requirements of the financial institutions. The topography of the land, its elevation, suitability for the location of the project, likely exposure to natural calamities (like earthquakes, floods, cyclones, etc.) are also examined. Site development often poses many problems and thereby raises the total cost of land. The expenditure on site development, construction of approach roads, fences, drainage, culverts etc. are therefore scrutinised.

(ii) Building: The cost under this head includes the cost of construction of buildings for the main plant, auxiliary and administrative services, godowns, warehouses, canteen, time office, silos, tanks, wells, garages, sewers, drainage etc. as also the architect's fees. The cost of buildings would depend upon the type of construction envisaged as also the load-bearing capacity of the soil which determines the type of foundation required. It is also necessary that the construction rates are comparable with the rates in the recent past, preferably in the vicinity of the project site. If a project is to be located in a less developed area a suitable provision is desirable for housing the workers and other key staff. Such a provision is made up to 10 per cent of the project cost subject to manpower employment and projections.

Project cost overruns often arises due to understanding of building and foundation costs. At the appraisal stage itself, an architect's report is obtained giving the types and specifications of buildings to be constructed. Provision for escalation in the prices of building materials is also considered necessary. Current costs of building materials is also considered necessary. Current costs of building materials and construction charges are used for projects with a relatively shorter implementation period, say, of up to one year. In the case of projects with a longer implementation schedule, an allowance is added to the current cost estimates equal to the latest available annual inflation rate for civil works multiplied by the number of years of implementation period.

With regard to civil contracts, financial institutions insist upon obtaining competitive bids. In no case are the promoters, if they happen to be civil contractors, allowed to carry out the civil work of the project. Likewise, in-house execution of civil work is also not encouraged. The reputation and experience of architects and contractors in handling the proposed jobs and the procedure the proposed jobs and the procedures followed by the promoters in selecting them are carefully examined.

(iii) Plant and Machinery: While calculating the cost of plant and machinery, the entire infrastructure is segregated into imported and indigenous categories and also into those in respect of which firm orders have been placed and are yet to be placed. Machinery orders and suppliers' quotations are examined with a view to analyse erection expenses. In case the quotations of the machinery suppliers are old and latest quotations are not available, suitable escalation in the cost estimates, based on the validity period of quotations, is provided. In respect of projects with a relatively shorter implementation period, the latest available quotations are used for working out the cost of plant and machinery, taking into account any escalation clauses provided in the quotations. In other cases, provision for escalation is made by adding the latest figures

of annual inflation for machinery multiplied by the length of the delivery period. In the case of large chemical projects, besides provision for the inflation rate, a specific contingency margin of 20 per cent is provided towards equipment, piping and utilies for which estimates cannot be drawn until detailed examination has been carried out.

Where the institutions find that the plant and machinery proposed to be installed as capable of producing 125 per cent or more of the licensed capacity, this aspect is brought out in the appraisal report and also to the notice of the Government before any assistance is considered for the project.

(iv) Technical know-how and Engineering Fees: This aspect includes know-how fees, expenses on foreign technicians, training of Indian technicians within the country and abroad as also any royalty and compensation, if payable. A thorough scrutiny is done with regard to the precise scope and cost of know-how and consultancy services. These are examined in depth with reference to government guidelines, range of services to be rendered by the consultants and guarantees offered/risks shared by them. In the case of technical know-how and engineering fees payable to a foreign collaborator, the impact of income-tax is shown separately.

(v) Miscellaneous Fixed Assets: Miscellaneous fixed assets differ from project to project. Nevertheless, certain assets common to most projects are vehicles, furniture, fixtures, office equipment, workshop and laboratory equipment, erection and miscellaneous tools, fire fighting equipment, equipment for supply and distribution of power, steam, gas, water, etc. and effluent treatment and disposal plants. Special elements of miscellaneous fixed assets, particularly in respect of units located in backward areas, cover the infrastructure like water supply, power connection (including deposits to be kept with the State Electricity Boards), transportation, railway siding, etc. The provision for these facilities is determined depending upon their need and justification. Adequate provision is also necessary for standby power generating facility. Provision for escalation is made in the light of escalation clauses, if any, or by adding an allowance at the latest rate of annual inflation on various equipments multiplied by the delivery period.

Sometimes expenses are required to be incurred for patents, licences, payments in respect of trade marks, trade names, copyrights, etc. which are to be included in the cost of project under miscellaneous fixed assets.

With a view to conserving the use of furnace oil, the government desires that economies and feasibility of using coal or coal in substitution of oil should be examined. However, if the financial institutions come to the conclusion that on economic grounds, it would not be in the interest of a project to put up facilities for either gas or direct coal burning and that it would be preferable to use fuel oil, a specific reference to the DGTD and/or Licensing Committee for relaxing this condition is made by the institutions.

(vi) Pre-operative Expenses: Expenses not included under any other item of the project cost and which are to be incurred by the undertaking before starting commercial production are included under "pre-operative expenses." These include promotional, organisational and training costs, establishment expenses, interest on term loans and

instalments of interest and principal on deferred payments payable during construction period, guarantee commission, commitment charges on loans, legal charges as also insurance expenses during the construction period. All these expenses are directly dependent on project implementation schedule and as such if the schedule has not been worked out on a realistic basis, there is a high probability of an overrun under this head. The institutions allow for a delay of about 25 per cent in the project implementation schedule and accordingly allow a cushion of 25 per cent in the estimates of pre-operative expenses. An allowance, nevertheless, is added to the estimates equal to the latest available annual inflation rate based on the time schedule worked out for the project implementation.

(vii) Preliminary and Capital Issue Expenses: Preliminary and capital issue expenses include cost of preparation of feasibility report, project report, conducting market survey or any other survey necessary for the project, legal charges for drafting agreements, memorandum and articles of association, capital issue underwriting commission, brokerage, charges for drafting, printing and issue of prospectus, share certificates etc.

(viii) Contingencies: Over and above the escalation under various items of cost on the basis of latest available rate of inflation, contingency provision is made on the basis of the project implementation schedule. Wherever the construction period is of one year's duration, a contingency provision of 10 per cent on the overall estimates of capital cost including margin money for working capital is considered as adequate. For every additional period of one year, a 5 per cent increase in the contingency margin is made. This means, for example, that for a project with an estimated implementation period of two years, a 15 per cent contingency margin might be advisable.

(ix) Margin Money for Working Capital: The amount of working capital differs from project to project and is determined by having regard to the nature of business, manufacturing cycle, business fluctuations, purchase and sale policy, market conditions, availability and source of raw materials and availability of bank credit. The cost of raw materials (imported and indigenous) consumables, utilities, wages and salaries, repairs and maintenance, packing and sales expenses, stock of finished goods and work in process and outstanding debtors are required to be worked out on the basis of the operating cycle. From the total requirements of working capital, the bank finance as also the credit available from raw material suppliers is deducted to find out the amount of margin money for working capital which forms a component of the total project cost. The accepted practice for working out the margin money for working capital is based upon the requirement during the first year of operation of the project and under the second method of lending as suggested by the Tandon Committee.

Often, in the event of any overrun in the capital cost, the margin money provided for working capital is utilised towards capital cost with the result that no margin money is available when the project is ready for commissioning. With a view to avoiding such a situation, the financial institutions stipulate that the loan amount equivalent to the margin money for working capital be initially blocked and not be released to the borrower till such time as the project is complete and the build-up of inventory commences.

(x) Initial Cash Losses: Projects often incur cash losses during the initial years of operation. This cash loss, if not covered in the project cost, adversely affects the liquidity of the project and its working. It is, therefore, important to provide for the expected cash losses, if any, in the cost of the project at the initial stage itself.

However, as a matter of practice, the borrower does not disclose the initial cash losses in order to make the project look more attractive both to lending institutions and the investing public. This unhealthy practice leads to a severe financial crunch to operate economically viable projects.

Average and Marginal Cost Pricing

Achieving high sustained export growth is the major plank of the reform process. In this context, it would be important to know the products which have an export potential, if not on a total cost basis, at least, on a marginal cost basis. In a working paper titled 'India: Protection Structure and Competitiveness of Industry — Findings and Conclusions from a Sample of Projects', the World Bank had attempted to study the explanatory factors for the decision of a firm to export. Its analysis showed that it was the marginal profitability, at international prices, which explained the firms' behaviour *vis-a-vis* exports. In the analysis, the marginal cost refers to total operating costs less administration costs. The counter-argument is that companies do not export on a long-term basis to cover only their marginal costs (operating cost) per unit of output. They need to cover their fixed costs as well, whether in the domestic or export markets. Only when the companies are cost-efficient on a total cost (fixed + marginal cost) basis, can they continue to export on a long-term basis. *Ad hoc* exports can be based on the marginal cost principle, as they are a consequence of excess production or depressed domestic demand.

Case-studies

1. Company A

Product – Tungsten Filament

Operating Cost	= Rs. 112 lac
Sales Value (Domestic)	= Rs. 187 lac
Sales Value (World)	= Rs. 206 lac
WP/MP of Output	= 1.10
WP/MP of Inputs	= 0.41
Normal Year Output	= 31.7 tonnes
Operating Cost per Unit	= Rs. 3.5 lac
Sales Value per Unit (Domestic)	= Rs. 5.9 lac
Sales Value per Unit (World)	= 6.5 lac
Gross Profit (Domestic)	= Rs. 5.9 lac – Rs. 3.5 lac = Rs. 2.4 lac
Gross Profit (World)	= Rs. 6.5 lac – Rs. 3.5 lac = Rs. 3 lac
Gross Profit Margin (Domestic)	= 2.4/5.9 = 40.7%
Gross Profit Margin (World)	= 3/6.5 = 46.1%

This company had plans to export.

2. Company XYZ

Product — Cotton Yarn

Operating Cost	= Rs. 2009 lac
Sales Value (Domestic)	= Rs. 3162 lac
Sales Value (World Market)	= Rs. 3162 lac
WP/MP of Output	= 1.00
WP/MP of Inputs	= 1.05
Normal Year Output	= 2847 tonnes
Cost per Unit	= Rs. 0.71 lac
Sales Value per Unit (Domestic)	= Rs. 1.11 lac
Sales Value per Unit (World)	= Rs. 1.11 lac
Gross Profit (Domestic & World)	= Rs. 1.11 lac – Rs. 0.71 lac = Rs. 0.40 lac
Gross Profit Margin	= 0.40/1.11 = 36%

In this case, since WP/MP of output is one, while operating cost is assumed to be the same in domestic as well as world markets, the gross profit margin in both markets is the same. This company had plans to export at the time of appraisal.

3. Company ABC

Product — Aluminium Fluoride

Operating Cost	= Rs. 772 lac
Sales Value (Domestic Market)	= Rs. 1418 lac
Sales Value (World Market)	= Rs. 1296 lac
WP/MP of Output	= 0.91
WP/MP of Inputs	= 0.67
Quantity Produced in Normal Year	= 4050 tonnes
Operating Cost per Unit	= Rs. 0.19 lac
Sales Value per Unit (Domestic)	= Rs. 0.35 lac
Sales Value per Unit (World)	= Rs. 0.32 lac
Gross Profit (Domestic)	= Rs. 0.35 lac – Rs. 0.19 lac = Rs. 0.16 lac
Gross Profit Margin (World)	= Rs. 0.32 lac – Rs. 0.19 lac = Rs. 0.13 lac
Gross Profit Margin (Domestic)	= 0.16/0.35 = 45.71%
Gross Profit Margin (World)	= 0.13/0.32 = 40.62%

According to this case-study, since the operating cost is assumed to be the same for both the domestic and world markets, there can be three variations of profitability.

- For products where the WP/MP output is greater than unity, profitability in the world market will be higher than the domestic market. Such products are: tungsten filaments, aniline, vat dyes, glass bottles (flint), glass shells, roses, HSS taps, Max/DRS, cobalt and nickel-based rods. These are products with export potential.

- Where the WP/MP of output is unity, profitability in both markets will be the same. According to our calculations, such products are: cotton yarn, welding electrodes, chlorinated rubber, polypropylene resin, woven labels, PVC foam sheets, diamonds (after cutting and polishing), acrylic yarn, halogen bulbs, bimetallic contacts, terry towels and granite tiles. These could also be products with export potential.
- For products where the WP/MP of output is less than unity, profitability in the world market will be negative. Such products were: agrochemicals, acrylonitrite, butadene rubber, monocrotophos, nonyl phenol, DMT, PFY, continuous copper rods and engineering plastics, to name a few. These products do not have the potential for exports.

Limitation of Social Cost-Benefit Analysis

The nature of social benefits and costs are such that there cannot be any standard method or technique applicable to all types of investment projects. A bridge, a road, a housing colony, or an industrial project will each require a different approach while identifying and measuring its social benefits and costs. For one thing, the nature of inputs and outputs of projects involving very large investment — and their impact on the ecology and people of the particular region and the country as a whole are bound to differ from case to case.

At another level too, the problems of qualification and measurement of social costs and benefits are formidable. This is because many of these costs and benefits are intangible and their evaluation in terms of money is bound to be subjective. Even with honesty of purpose, assessment of social good and social evil is likely to be tainted by the analyst's own ideas and subjective preferences and the resulting decision may not serve the socio-economic goals which might have been initially formulated.

Moreover, a successful application of the techniques of analysis depends upon the accuracy and reliability of forecasts. Even when evaluation of social costs and benefits has been completed for one project, it may be difficult to judge whether any other project would yield better results from the social point of view. If all possible alternative investments are sought to be socially assessed, the costs would be prohibitive.

However, the limitations of analysis should not deter one from applying the techniques so far evolved. The element of subjectivity can be reduced by cross-checks. Even economic assessments suffer from certain drawbacks due to distortions in the price-mechanism caused by imperfections in the labour market, government controls, tariffs and quotas, and price inflation. Finally, while the limitations should not be ignored, it would be a folly to disregard the gains of social evaluation of investments.

Conclusion

The social cost-benefit analysis is a very significant tool to assess the overall feasibility of a project, both in the private and public sectors by providing a useful framework for clarifying important issues and separating factors and judgements. Although the process is bound by limitation, its value is not diminished. Broadly, it is applicable to tactical decision-making within the broad planning framework that is

based on a wider range of considerations, which are usually socio-political and socio-cultural in nature. As for the entrepreneurs, an awareness of social cost-benefit will enhance their contribution to society. In the coming years, efforts will be made by social scientists to perfect this analytical process by removing or overcoming the limitations and universally accepting it in deciding on a project. As in all matters of social evaluation, we would be on safer grounds if we could rely on objective standards of social minima and measure social costs in terms of shortfalls or deficiencies from such minima. In short, economic science would then be said to deal with the problem of social economy and would finally prove its status as a system of knowledge concerned with the study of the nature and causes of wealth of nations. Thus, social costs, social returns and social values are important dimensions in project analysis.

ANNEXURE 1

Practical Policy Tools: A Guide to Cost-Benefit Analysis

Drawing on his diverse experience within academic, business and think tank environments, Richard Judy — Director of the Center for Central European and Eurasian Studies at the US-based Hudson Institute — has developed practical guidelines for applying cost-benefit analysis to the policymaking process.

Purpose: To formulate options, estimate their costs and benefits and recommend the options that maximize net benefits.

Phase I: Preparation

Policy analysts must begin by attempting to understand the problem they seek to solve. His approach avoids the common mistake of devising a solution for the wrong problem. Once the nature of the problem is clear, the policy analyst must explain why policy action is needed. As policy problems are often vague, it is important to first clarify the impact a policy may have on a particular socioeconomic group.

Phase 2: Strategy

Next, policy analysts must parameters to guide the selection of policy options, above all by defining the objectives of policy action. A list of potential objectives should be compiled and prioritized, paying special attention to trade-offs among objectives. The analytical focus can be further narrowed by defining the constraints of policy action, which helps determine what is and what is not possible. Once these constraints have been identified, strategies for avoiding them or minimising their impact can be developed.

Phase 3: Options and Analysis

At this juncture the policy analyst can elaborate a list of policy options. An explanation of the costs and benefits for each group likely to be affected should be provided for each alternative policy. It is important to explain how these costs and benefits will be distributed among the people involved. In other words, who wins and who loses?

Phase 4: Fine-tuning

Finally, analysts should utilize a rigorous process for determining the efficacy of each option. One common practice is to strive for pareto-optimality (i.e., a scenario in which no further changes can be made which would benefit one group without harming another). Another way of increasing the value of a policy recommendation is to explain the level of uncertainty involved in implementing a particular policy. Experiments and simulations can be conducted to determine how sensitive a particular policy would be to sudden changes in the external environment. Policies that are resistant to outside forces are considered to be "robust" and generally preferable to more sensitive alternatives.

ANNEXURE 2
Standard Costs in a Small-scale Industry

Progressive Conditions	*Average Conditions*	*Weak Conditions*
1. Cost systems designed to reflect all variances between standard and actual costs.	1. Cost accounting fairly accurate but not organized to provide standard cost information promptly.	1. No standard costs. Job costs inaccurate and uncontrolled.
2. Variances from standard performances supplied currently to management for corrective action — (Daily or weekly as needed).	2. Records and report not best suited to control cost and expenses.	2. Cost information mostly estimated. Monthly profit and loss statements inaccurate.
3. Unnecessary accounting records eliminated — management control reports furnished as needed.	3. Many records, reports and statistics maintained that are not useful as a tool of management.	3. Some records and reports prepared have no practical advantage.
4. All control records and costs integrated with standard costs.	4. Records unrelated to control; therefore of little assistance.	4. Production records required for suitable cost control not maintained.
5. All estimates for product pricing based on standard costs; guess-work is eliminated; loss of volume or profit is indicated.	5. Estimates not checked against actual cost.	5. Estimates determined by past performance and competition.
6. The effect that sales mixture and product selling prices have on the total company profits picture at varying operating levels is known at all times.	6. No knowledge of the effect on total business profits of individual product or order pricing.	6. Profit or loss estimated monthly; verified and adjusted annually to inventory; no profit or loss known by product breakdown.
7. Effect of additional volume on cost and profit is easily determined. Break-even points determined.	7. Effect of additional volume on cost & profit not easily determined. Break-even points not determined and their value underestimated.	7. Additional volume usually authorized to keep plant busy without knowledge of effect on cost and profit. No knowledge of sales mixtures or break-even point.

ANNEXURE 3

Industry-wise Economic Indicators 1998

Product	*No. of Projects*	*MRR (%)*	*ERR (%)*	*ERP(B) (%)*	*ERP(C) (%)*	*DRC (Rs. per US$)*	*Exchange Rate of Rs.*
Agro-based Products	5	22.55	44.19	-15.78	-13.52	18.44	31.50
Cement	2	13.85	32.10	-36.00	-25.00	20.00	31.00
Chemicals & Petrochemicals	17	21.76	30.18	28.01	18.41	23.73	32.00
Organic Chemicals	2	19.91	43.65	18.41	1.56	22.28	32.00
Drugs & Pharmaceuticals	1	26.90	125.30	-55.50	-44.70	11.60	32.00
Petrochemicals	8	21.80	27.59	29.70	-21.61	23.72	32.00
Dyestuffs & Intermediates	1	17.60	38.40	-12.90	-8.00	24.00	32.00
Plastic Products	1	30.20	51.00	36.30	19.60	24.10	32.00
Electric Lamps	1	18.90	18.80	-32.20	-29.30	21.00	31.00
Ceramics & Glass	2	24.31	64.47	-28.34	-27.73	13.06	32.00
General Purpose Machinery	1	28.00	46.10	190.70	53.40	30.60	25.90
Ferrous Metal Products	3	19.47	39.26	245.52	75.27	37.44	31.00
Iron & Steel Products	2	19.27	38.93	279.15	86.41	39.64	31.00
Rolled Products	1	19.20	42.70	312.20	90.70	41.10	31.00
Paper	1	19.80	15.30	132.60	69.80	39.00	31.50
Sugar	2	17.24	21.95	32.21	25.28	31.35	31.00
Textiles	9	22.13	24.78	34.79	24.17	23.88	31.50
Cotton Textiles	3	21.65	32.79	2.95	2.42	21.81	31.50
Man-made Fibres	4	22.02	22.88	40.99	28.47	24.37	31.50
Others	4	20.49	38.90	-23.70	-18.79	16.96	31.00
Total Sample	47	20.15	29.90	54.18	22.94	26.17	

Source: ICICI Projects.

CHAPTER 30

BUDGET AND PLANNING PROCESS

Introduction

Budgetary control is a tool of management used to plan,carry out and control the operations of the business. The entrepreneur finds it quite handy in planning the growth of his business or enterprise.

Over the years many have associated the word *'budget'* with restrictions, pressure devices and limitations. This is entirely due to misunderstanding of the performance and misuse of budgets. As such the current trend is to drop the word 'budget' and use in it place the term "profit plan," as more descriptive of the characteristics and objectives of the budget planning process and control.

The concepts and procedures under budget plan and control have wide application not only in profit-oriented enterprises but in every enterprise where the resources are limited and have to be properly applied. This, in a sense is *'managerial budgeting.'* It applies to public and private enterprises, government departments and charitable organisations.

The modern approach is towards a comprehensive budget plan and control. The other terms used in this regard is 'profit planning and control.' The steps involved in this include specifying enterprise goals, developing a long-range budget, carving out of it a short-range budget, periodic review of performance and follow up. This forms the basis for all the modern management approaches like management by objectives, participative management, dynamic control, continuous feedback responsibility accounting and management by exception.

More than mere Accounting

Though budget plan and control is closely related to accounting. It is not confined to it. It is a total management system with intimate relationship to the accounting system. Accounting provides historical data as a means to quantify the goals and supplies the units in which to report achievement and a basis for review. It also supplies information for marginal costing, standard costing and flexible budgets.

Management objectives are operationalised through proper strategies, by budget plan and control. The latter is a financial and narrative expression flowing from the planning decisions. Budget plan and control gives a firm basis for participative management. It requires involvement of all management levels in the planning process and in the approaches for accomplishing the goals. It enlightens the members of the management team regarding the objectives of the enterprise and its approaches. Thus it creates involvement and commitment.

The mechanics of preparing the budget plan consists of finalising the functional objectives and then preparing the master budget. The techniques adopted comprise among other measures forecasting of future targets, resolving sales-production, inventory problems, resources determination and cash flow determination. To increase the effectiveness of budget control, all enterprises should be divided into organisational sub-units, as decision centres or responsibility centres. They could also be viewed as cost centres, profit centres, or investment centres depending on the main objective and responsibility, of the sub-unit.

Total Systems Approach

A comprehensive budget plan and control encompasses much more than a periodic financial budget. It covers all operations in the enterprise and involves a total systems approach.

Subsequent to the preparation of the comprehensive budget, supplemental analysis might have to be undertaken periodically for individual decisions. The usual techniques are planning model, simulation, break-even analysis, marginal cost, return on investment (ROI), preparation of flexible budgets and preparation of data base.

The positioning of a budget director with a direct responsibility for the preparation of the budget plan is found very useful. A recent trend is to have an executive committee instead of a single budget director. This committee receives and reviews budgets from sub-centres and helps in forging a master budget for the organisation. It is also responsible for revision of the budgets from time to time.

The financial budget is only a part of the overall budget plan. It is an attempt to quantify the financial results of the management objectives, strategies and overall budget.

In harmony with the overall comprehensive objectives of the enterprise, both strategic or long-term and tactical or short-term budgets should be evolved. The short-range, tactical budget should be dove-tailed with the long-range budget. As a practical approach, the long-range budget is first evolved and thereafter the tactical budget. Many factors like general forecasting for the economy and for the industry as a whole, enter into the evolution of the long-range budget. Its time span all covers more than one year whereas the short-range budget normally covers a period of one year only. It is also further subdivided for each month or quarter.

Budget Objectives

One of the major aims of a system of budgetary control is that of entrusting the individual planner at all levels in the acceptance of budget responsibilities. It is a way

of splitting up the business into natural divisions and departments, budgeting the performance and cost requirements of each section, and then using these budgets as both the targets at which to aim and the measures with which to control. There should be a clear structure and pattern of organisation where techniques of budgetary control are applied.

Unless something of this sort is in existence and there is knowledge in an organisation of the lines of authority, it will be impossible to get the full advantages from a system of budgetary control. An organisation operates various controls of the output, quality and cost of its departments and divisions. There should be supervisors in each department who should know their subordinates and to whom they should report. The supervisor has the responsibility for output, quality and cost. He is an important person in budgetary control. This applies whether he is in-charge of a production or service department.

Budgetary Control

Budgetary control is a plan of operation based on a forecast of sale, income and expenditure which deals with departmental budgets framed on the basis of policy requirements and the responsibilities of supervisors/executives. This activity also calls for a constant comparison of the actual with the budgeted results.

In the words of C.L. Van Sickle, "a budgetary control system is a carefully worked out financial plan, including the procedure involved in its operations for conducting the various divisions of a business for the ultimate purpose of earning a profit."

At present, budgetary control has become a means of effective management control. It is looked upon as a profit plan. The primary object of a budget is to ensure the optimum utilisation of available funds for the purpose of producing at minimum cost and selling in a competitive market at maximum profit.

Budgets are broadly classified into:

(a) Revenue and expense budgets;

(b) Time, space, materials and manpower budgets;

(c) Capital expenditure budgets;

(d) Cash budgets;

(e) Master operating budgets.

Budgetary control provides a basis for: administrative control, direction of the sales effort, production planning, control over stocks.

The budget co-ordinates production, sales and finance. It compels small entrepreneurs to think on a continuing basis to maximise profits.

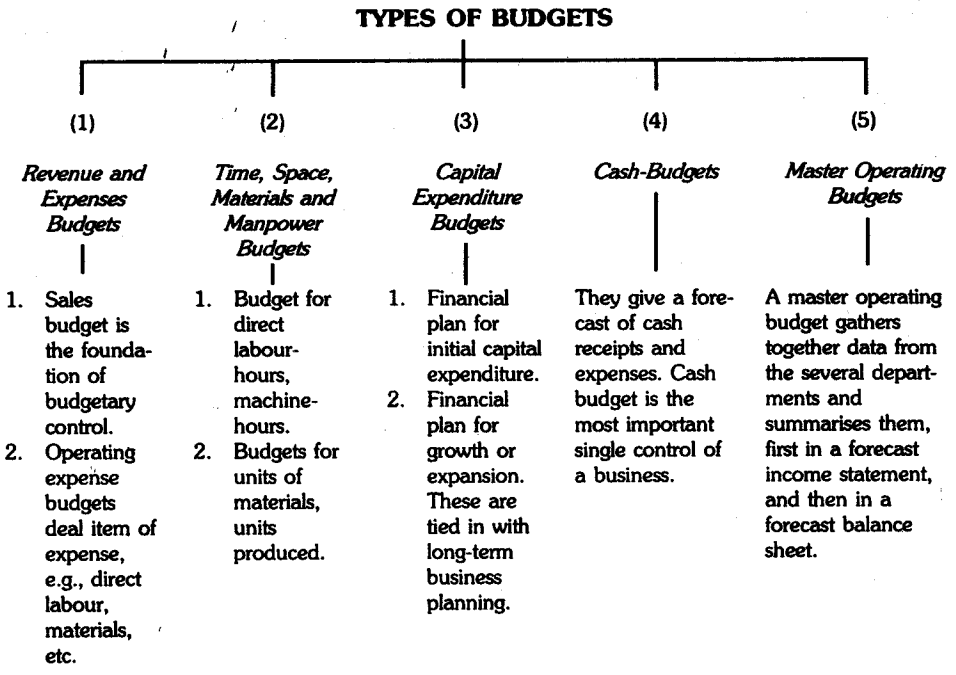


Fig. 30.1 Types of Budgets

Price fixing, financial requirements, expenses control, production control and profit maximisation.

Advantages of Budgetary Control

The important advantages of budgetary control are as follows:

(i) It helps the process of planning.

(ii) It provides an effective means by which, the entrepreneur can delegate authority without sacrificing his overall control.

(iii) It keeps expenditure in check.

(iv) It helps in coordinating activities of an enterprise.

(v) It helps in determining the policies of the enterprise.

(vi) It aids in measuring performance.

(vii) It promotes cooperation and enhances controls on business activities.

Steps in Budgetary Control

The following are the steps involved in budgetary control:

1. Preparation of the Budget
2. Publishing the Budget.
3. Measuring the Results.
4. Comparing the performance with the Budget.
5. Correcting the unfavourable variance for better growth.

Conscious Budgeting

Stated in simple terms, budgeting/planning is a technique of organising, developing and controlling business activity in a systematic manner. But, surprisingly enough, we often hear of conscious planning in social activities rather in business life. In business/industries, people are, by and large, hesitant to plan because of:

(a) The uncertainties inherent in the ever-changing economic environment which very often renders planning hazardous, if not meaningless;

(b) The lack of professional management;

(c) The tendency of businessmen to follow the rule-of-thumb methods; and

(d) The absence of a comprehensive and reliable management information system.

However, these are precisely the reasons which make the use of this technique imperative. Indeed, the greater the uncertainty, the greater is the need for planning would be extensive because an entrepreneur's response to change can be quicker. It is said: "Today is the product of yesterday's decisions; and the future that we plan today affects the present."

Conscious planning is necessary for the survival of industries in which capital commitments and financial risks are high, and which necessitates heavy research and development expenditure in an environment of acute competition and fast-changing market preferences and consumer tastes.

Planning — A Continuing Process

Planning is a continuing process and an extension of budgeting. Generally, there may not be sufficient segregation of the various functions, and the responsibility of each departmental head of the organisation may be too loosely defined to bring about real benefits from budgetary control. This does not, however, mean that small units should forgo the advantages of budgeting/planning because the benefits to be derived from it are numerous.

Techniques of Planning

The technique of planning was first introduced by multinational corporations as an instrument of management control and business development. As long as a business enterprise is small and manufactures only a few products for a limited and compact market with which it is familiar, it is possible for it to adapt itself to a change without much attention to planning, provided that the change is gradual. But when an institution grows into a multinational organisation, it is compelled to decentralise and delegate authority to branches and subsidiaries, and to operate on a system of remote control. With the rapid widening of the area of operations, sectorially and spatially in an ever-changing political, economic and social environment, intractable issues arise of coordination, control, decision-making and management.

What is Planning?

What, then, is planning? It is not an effort to predict results or eliminate uncertainty. Broadly speaking, it is an effort to develop and allocate financial and

manpower resources as soundly as possible under certain conditions, and to be as well prepared as possible for the future. From this it is evident that planning must not be confused with forecasting. Plans are certainly made in advance of an anticipated result. The fact that results cannot be guaranteed does not condemn planning or condone the failure of plan. It is much more comprehensive than specific project planning. It involves nothing less than the total resources — financial and manpower — of the small industries so that they may attain both short-term and long-term objectives. It involves a proper selection of objectives, strategies, policies, programmes and procedures. Above all, it entails a consideration of a detailed and specified course of action, after a careful examination of the alternatives, to achieve the desired results. And this endeavour becomes meaningful only if the planning and control processes are delegated downwards through all levels of management to secure not only greater accuracy but, more importantly, personnel involvement and commitment all down the line.

In other words, a lack of understanding of, and confidence in the plan among the line staff who are not closely associated with its preparation is bound to seal its fate in that it may not get off the ground. In such cases, pressures from top are of little avail. Planning is, therefore, much more than a mathematical exercise. It is a blueprint for action. It is known as *management by objectives* which calls for a complete change in the style of management in the organisation structure and in information flow, combined with a complete change of attitude to people to tasks, communication and control.

Phases of Planning

Corporate planning involves four main phases, viz.,

(i) Choice of definition of objectives and goals, which include the generation of alternative courses of action, and identification and measurement of consequences, and an assessment of the uncertainties which affect the consequences;

(ii) Preparation of operating plans or budgets to achieve these objectives, choice of a criterion that should be used for selecting a course of action in view of the significant, uncertain and multi-dimensional consequences;

(iii) Evolving strategies and taking strategic decisions in order to integrate these plans; and

(iv) Implementation.

The objectives should preferably be measurable in value and time and described in terms of output — such as expected rate of growth, profitability, return on investment, share of market and involvement in the socio-economic issues in accordance with public policy.

In arriving at a set of desired objectives, a small-scale industry has to take into account several internal and external factors. To begin with, it must first decide where it is going; for unless it knows this, it cannot very well decide how to get there and know or evaluate the difficulties it is likely to encounter in reaching its goal.

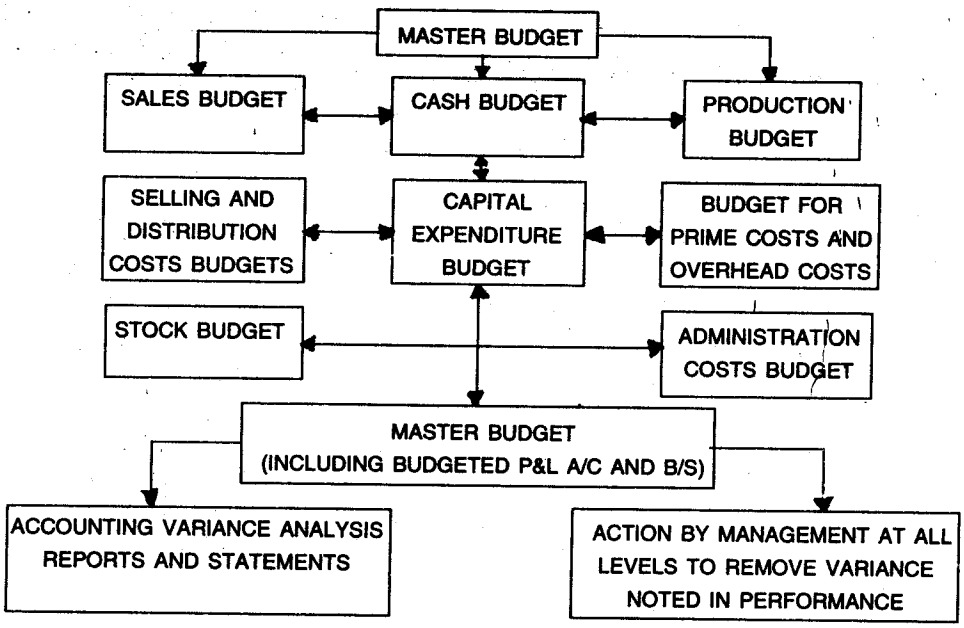


Fig. 30.2 Budgetary Control System

Situation Appraisal

A situation appraisal is concerned with an evaluation of the ability of a small-scale unit to perform the essential tasks of the business in which it wishes to specialise. It searches the whole spectrum of the SSI to identify its strength and weakness in terms of opportunities and threats indicated by environmental analysis. Some major areas to be examined include management, organisation, lines of service, production schedules, geographic presence, pricing strategy, sales promotion and management, human resources and systems support. Each of these areas can be examined for efficiency, effectiveness, integration within the organisation, and the external image it would project of the unit.

A second aspect of the situation appraisal is an examination of the current financial performance of small industries. Each department and division must determine where it stands and how its position has been achieved. Data should first be collected on major categories of assets and liabilities, such as loans, deposits, total assets, earning assets and equity. The collection of data then leads to simple and analytical measures, such as the rate of growth and stability to be achieved.

The next step is to develop a market share. For this purpose, it would be useful to build a comparative data base from a panel of small-scale industries considered to be competitive in various markets and products. The position of the small-scale industry in each major area for which financial objectives have been stated is then compared with that of the small-scale industries in the panel for compound growth rates over the past five years. Such comparisons will indicate whether others in similar circumstances have been able to achieve the desired results, and whether the objectives are realistic.

On the completion of the environmental analysis and situation appraisal, the results should be assembled into a set of statements which describe the current position of a small-scale industry. It is now possible to study today's objectives and strategies as a major step in the process of translating the objectives and strategies which will guide the future development of a small-scale industry.

Objectives and Strategies

The most critical and difficult task in planning is to establish objectives and strategies for the future. Strategic management, managing towards and by the objectives, and strategies of the organisation — these are the new and dramatic developments in management and planning.

The establishment of objectives begins with an examination of the organisation as it exists, a statement identifying each major business and major market served, and a statement of the current objectives and strategies of each unit. There is a natural tendency to follow organisational lines when working on this part of the task. Many a time, however, an entirely different and revealing view results from stepping back and asking: How does the user of our services view us?

The basic values of management — how it views its customers, the competition it faces, government regulations, how it deals with its employees, suppliers and others — determine the character and image of a small-scale industrial project. To the extent possible, the philosophy of management ought to be stated explicitly and incorporated in the internal planning literature at this point.

A capsule statement of existing corporate strategies for each of the major businesses should be prepared for the guidance of executive management. It is important that members of the management agree on major thrusts of policy. For example, if executive management has not agreed on a location strategy, every proposal for a new location must be examined and evaluated as an entirely new decisions.

An examination of its strengths and weaknesses, its opportunities and the threats it faces would probably uncover some core problems which need to be attacked by the management — for example, the need to establish a consistent pricing policy for all the customers, or the means of payment for services rendered.

The identification of these core problems and the assignment of responsibilities for their solution are important at this point in the planning process. The next step in establishing objectives and strategies is to formulate existing objectives into a concise and consistent set of statements covering at least the financial and market position, management, organisational development, innovation, personnel and public responsibility. These statements communicated to every executive in the organisation and applied to daily activities, become powerful guiding forces for the small-scale industrial unit.

The time has now come to assemble the statements of environmental analysis and situation appraisal as well as statements of current objectives, strategies and categories of corporate objectives for the future.

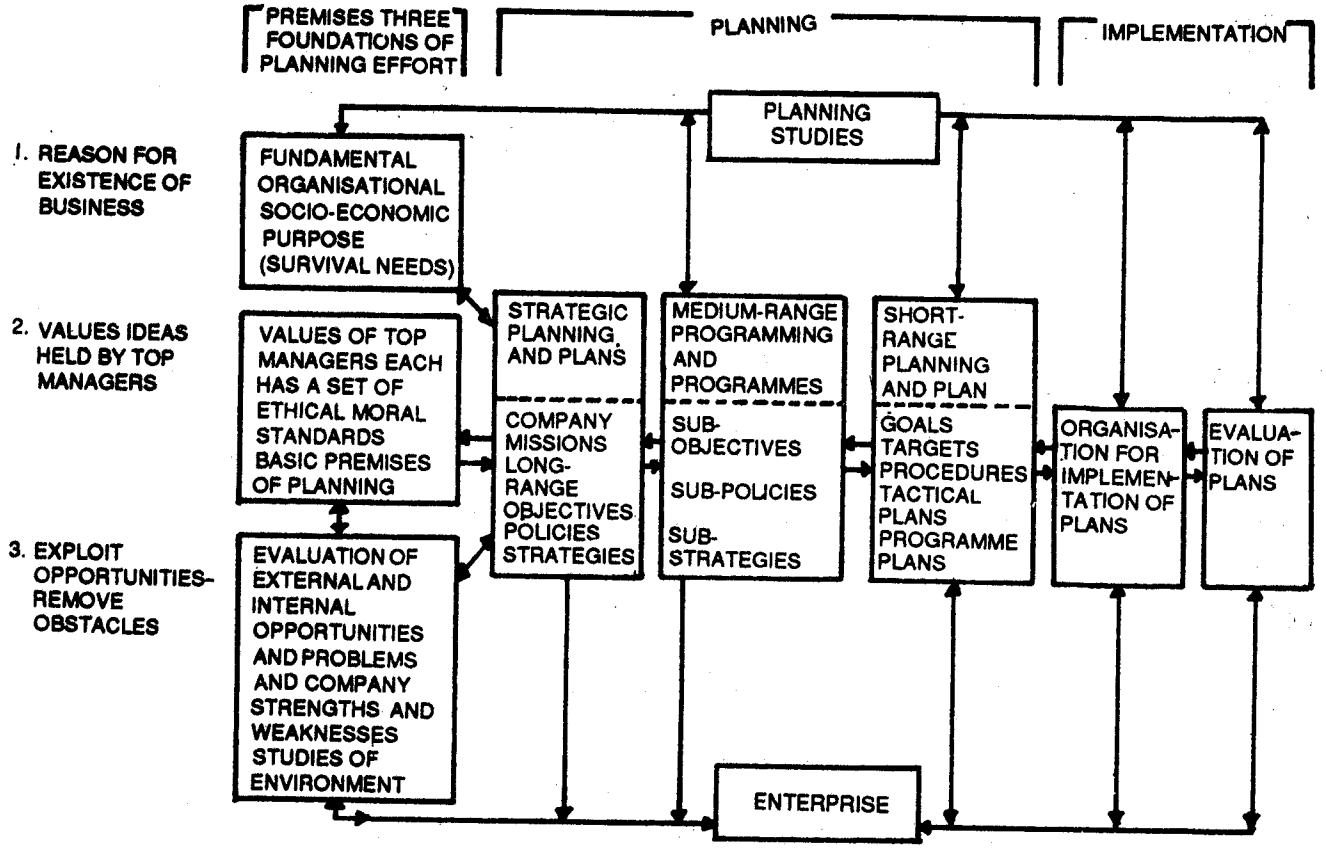


Fig. 30.3 Structure and Process of Business Planning.

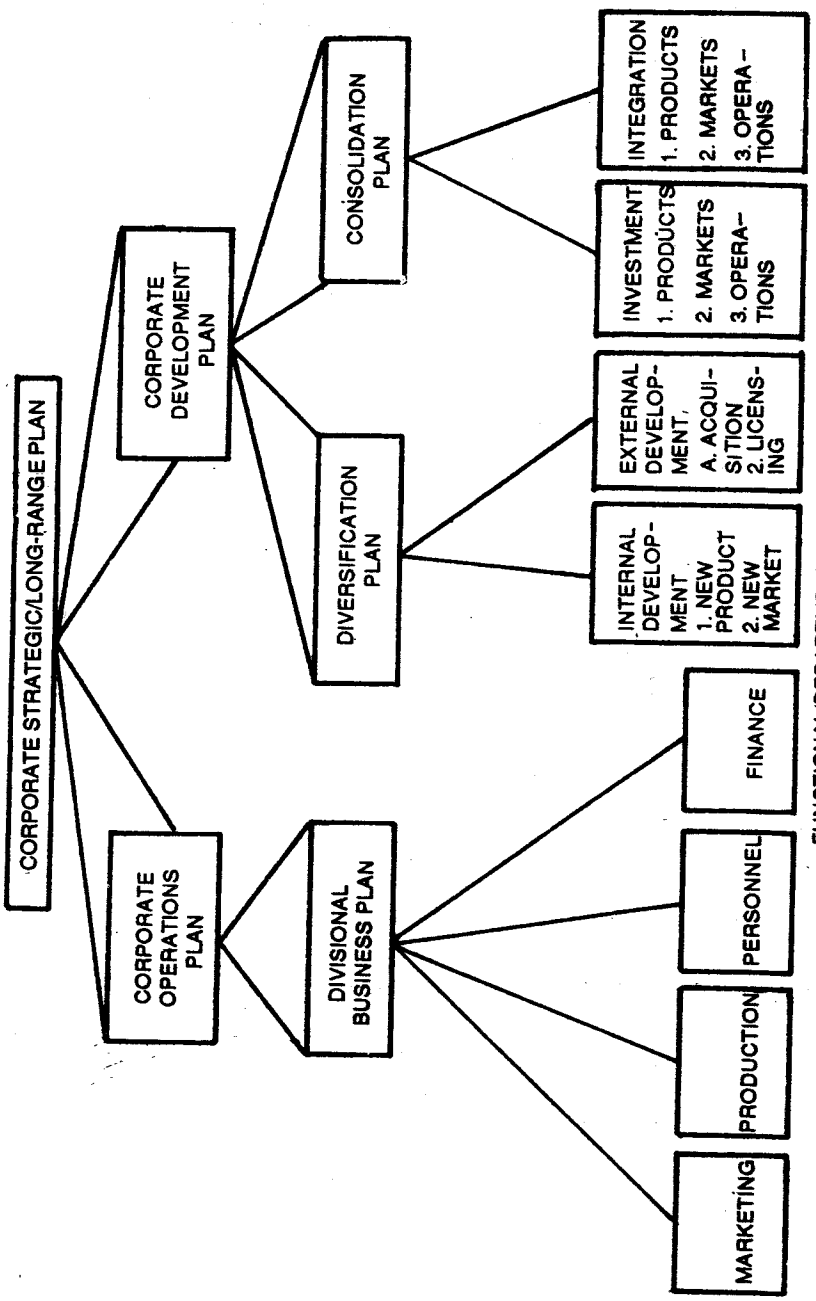


Fig. 30.4 Structure of Corporate Planning.

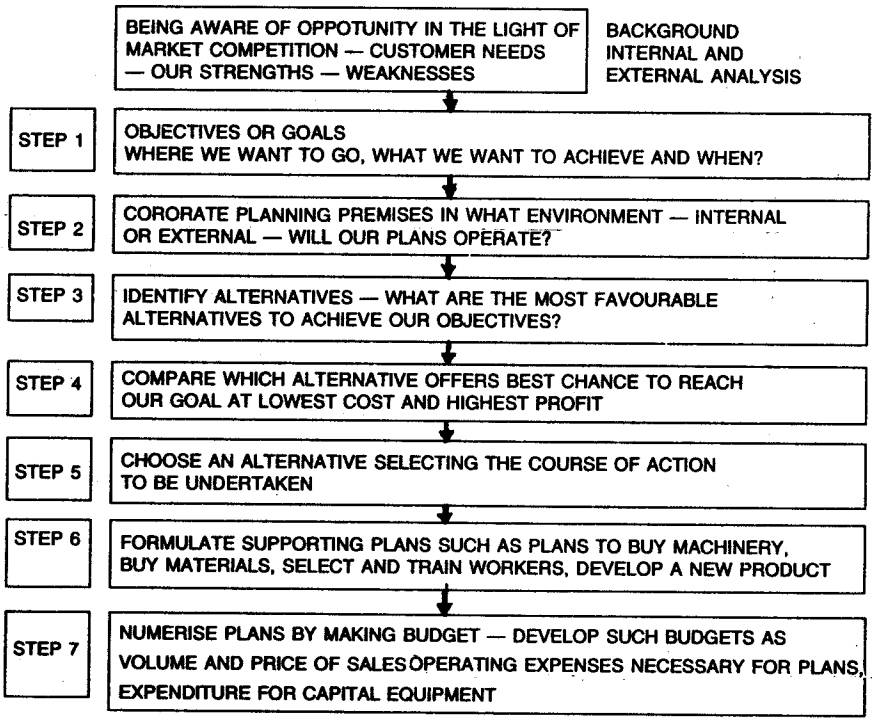
The statement of objectives for the future begins with a statement of mission, which provides the most important guidance mechanism, and thrust of the small-scale industry relating to the various stages of production and aspects of marketing.

Each time a planning process is undertaken, important business, principal markets, and management philosophy should be re-examined in detail and restated. This exercise provides an opportunity for the management to re-evaluate its position and achieve a new commitment to principles. In addition, the new members of the management will want to approve these statements or suggest modifications in emphasis.

The new statement of objectives identifies the goals of the corporation and embodies the design and ambitions of the executive management. As such, the management notifies everyone of its members of the kind of corporate performance it expects of them.

Programmes, Budgets, Controls

The final step is to convert the strategies into action plans to be implemented by the organisation. The action plans should be communicated to the organisation through



Note:

1. Planning is simply a rational approach to the accomplishment of an objective.
2. The planning process is similar to the procedure of decision-making through scientific analysis and investigation of problems and/or opportunities.
3. Planning is fundamentally choosing, and in this sense, is essentially decision-making.
4. Planning is deciding in advance what to do, how to do it, when to do it and who is to do it.
5. Planning bridges the gap between where we are and where we want to go.

assignments that identify specific projects, short-term goals, requirements and times or periods of their accomplishment.

Action Plans

Action plans result in very specific resource allocations, which may be quantified through a budget. A budget is a detailed schedule of expected income and expenses. It expresses financial and profitability goals for the first year of an action plan. It is prepared by profit and cost centres, the lowest organisational level in planning. The budget that flows from an action plan provides the link between the long-term strategic, managerial type of planning and the specific quantitative budgeting or profit planning for the year ahead.

In addition to management action plans and budgets provide specific emphasis on activities that can be used to monitor performance. The measurement of variance from the budget provides the basis for a periodic review of progress towards goals and objectives.

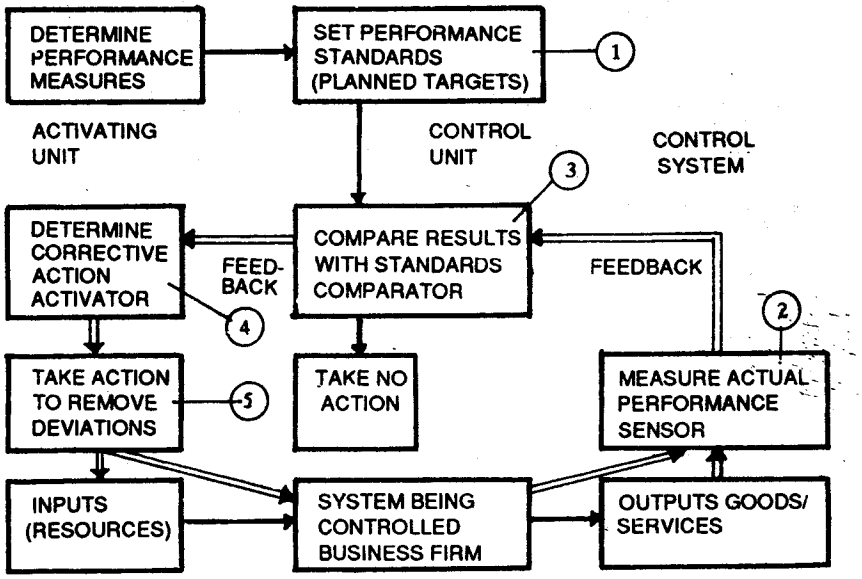


Fig. 30.5 Operating System

The Essence of Control

The essence of control is the ability to establish standards of performance for each organisational unit. Standards are developed from the sequential steps stated as a part of the action plan and from the quarterly and annual targets in budgets and strategies. Performance can be measured against these standards and corrective action taken.

Tracking performance is difficult because of the assumed condition underlying the action plan and budget changes, and because the manager adjusts himself to match current conditions. Sometimes, organisational changes cause difficulties, when new managers are assigned to problems or reaping benefits not of their planning. To track performance accurately, a sophisticated and flexible accounting system is needed to keep up with all the changes in plans.

First, control calls for the setting up of a plan, a budget, a target, a standard — an aim to be achieved. You can have a plan without having control; but you cannot have control without having a plan. That target may be the given level of sales or production, a cost standards, a defined level of quality, or any other measurable attribute. Control implies measurement.

The second essential feature is communicating the plan to those concerned with implementing it or initiating the necessary action on it. It is self-evident that if the members of the team do not know where the goal-posts are, they cannot be blamed for not scoring the goals. Yet this aspect of control is probably the most neglected in practice.

Third, there must be a means of monitoring the actual achievement, quantified in appropriate units, whether these are monetary values or physical quantities.

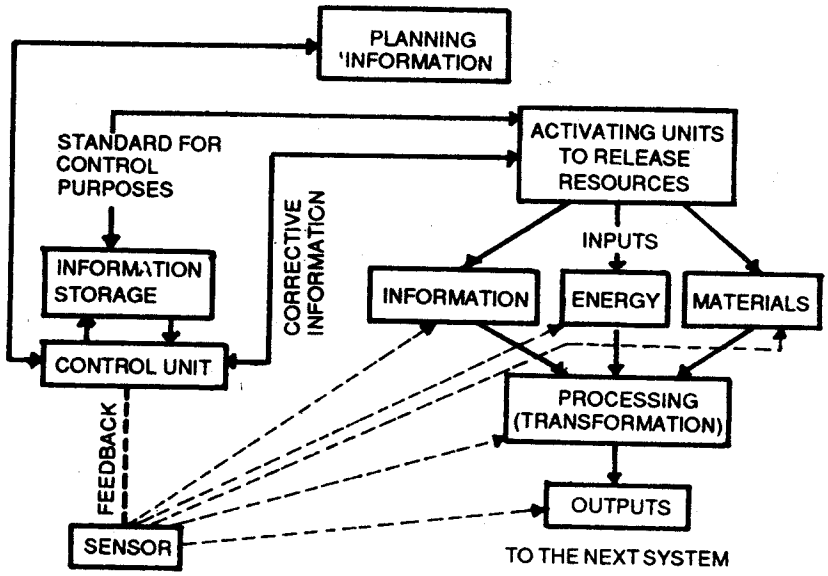


Fig. 30.6 Flow of Planning and Controlling Information in a System.

Note: Sensory devices to measure performance or output are placed at five strategic points in the system flow. The sensor gets data from these five points as shown by the five dotted lines. The control unit, on the basis of feedback, compares the actual performance with the standards laid down. Information to correct deviations is given to the activating units which make corrections.

In operation and control, inputs are inputs of information (for example, customer data, prices, discounts, delivery dates), inputs of energy (energy exerted by workers or energy used to operate machines), or inputs of materials (raw materials, invoice forms).

A computer is at present looking after the management information system. Management can now get a great deal of information very quickly.

There are five control points in the diagram, the final one measuring the output itself. Other control points measure resources and processing. A sensor is a unit for measuring performance or result.

The fourth essential stage of control consists in comparing the actual achievement with the target, uncovering any variances and identifying their cause or causes.

Finally, control implies that, in the light of the information uncovered, appropriate action is taken to rectify the situation or to adjust the standard, if necessary.

This simple, five-step procedure is widely accepted by many managers and has become almost second nature to the management of progressive firms. (There are many managers, however, particularly in small firms, who have no inkling of the nature and purpose of control.) In principle, there is much in common between management control and servocontrol mechanism in engineering, or a control device such as a thermostat. The function of a thermostat is to maintain the temperature at a predetermined level — the target. It monitors the temperature, compares this information with the standard taken, then takes an appropriate action by switching the source of heat on or off. However, a big difference between the thermostat and a management control system is that the latter is prone to human error at all stages. The target may be ill-defined; communication may be imperfect or even omitted; the measurement of actual achievement may be inaccurate; the cause of the variances may be wrongly identified; or the management may take inappropriate action or no action at all.

Profiteering

Profiteering, as an economic function, has to be understood as a concept distinct from profit. Profit, as enunciated by Pigou, is a particular species of monetary gain — a monetary gain secured in a particular way. To make a profit, in the sense here relevant, implies performing a middleman's or an entrepreneur's function, hiring the services of other men or buying goods from other men, and selling the products or the goods and obtaining, as a reward, the difference between outlay and receipt.

If the difference exceeds a socially acceptable limit, and that by questionable methods, it is a case of profiteering.

For the purpose of a realistic economic analysis, we have to shelve the principles governing perfect market competition, and have to reckon with forces of imperfect competition, duopoly, monopoly and obligopoly, monopolistic competition and black market.

Before we analyse the economic process of profit-making and in that context, the theory of maximisation, and finally of profiteering, it is necessary to appreciate that it would no longer suffice to assume merely that the demand-and-supply curves exist, and that some are elastic and some inelastic or that some rise and some fall. If we do not so appreciate it, we shall reduce the study of economic phenomena of today's market situation to the simplicity of the concept of bilateral trade.

The assumption of perfect competition, on which much of the supply-and-demand analysis is based, must also be scrutinised. Perfect competition is rare — and, in a real sense, does not exist anywhere outside the imagination of the economists. Over large areas of economic life, other systems of market relationships are of great importance.

Let us first indicate the principle of the profit-making process in a market of imperfect competition, as was done by the post-Chamberlin economists. Very briefly, the profit-making process in this situation is determined by what is called the *dynamics* of a marketer.

In the marketing of a product or a service, the larger the savings in a profitable succession of transformation of the product or the service (or in short, the investment), the greater the total profit.

But this is not all. The play of these savings is restricted, or even determined, by the nature and extent of market imperfections and the presence and delineation of risks and uncertainty.

According to the theory of profit optimisation, marginal conditions in the market will lead to optimisation of production in relation to its total marketable cost components, so that the maximum average revenue for minimum average cost is achieved. In any case, this will be one of the ends of the economic functions of a marketer under imperfect competition in his endeavour to optimise profit.

Black Market

It is evident from this that the theory of black market can take off from the point of profit optimisation. The change-over is vastly or only in relation to the change-over of the objective from profit optimisation to profit maximisation by any or all means.

Profit maximisation, or profiteering, is conditioned by the *"Principle of increasing risk and uncertainty,"* as Kalechi calls its. With an increase in the potential risks on the investment co-efficient profits will increase or decrease to the extent of the risk taken.

In the long run, a small industry can survive only if it can make enough profit to pay a return on the capital after making adequate and necessary provisions. Profit is the outcome of the operations of all small-scale industries and, in the ultimate analysis, of profit planning. Profit can be expressed as an earning per share, a return on the capital employed or a return on a shareholder's capital. There are difficulties in expressing all the three and in making comparisons with the competitors in the field.

It has now been recognised that the old theory of profit maximisation is not strictly valid in the present-day Indian context because of the developmental role which the small-scale industry is called upon to play in the context of its socio-economic obligations, although in the long run, it has to be a profitable proposition if it has to survive in the fiercely competitive world of today. The central objective, therefore, should be a judicious combination of profit with achievements on the socio-economic front. Some economists refer to this as profit with growth. For our purpose, we shall assume that what small-scale industries are primarily striving for is improved profitability rather than maximisation of profit as an end in itself.

Operational guidelines form the basis or the cornerstone of an operational plan to be formulated at the branch level, or what is known as the performance budget. The final operational plan that emerges from the aggregation of the performance budgets of the various branches should give a clear picture of what the small-scale industry is expected to become in terms of assets and liabilities, revenue and expenses, at the end of the period under review, supplemented by a statement of cash flow.

Implementation of Plans

Plans have no meaning if they are not implemented. Control, therefore, becomes an integral part of the planning process; and for control to be effective, the management

should constantly know in an organised and systematic manner, how closely the action follows the plan, and to do whatever is needed to bring the performance in line with the plan. It is the variance from the plan which signals the need for corrective action; and this ought to be achieved through an efficient system of management information and monitoring of feedback information.

In other words, corporate planning combines in a systematic, integrated and formal way, with strategic, tactical, operational and project planning. In financial terms, by which an organisation seeks to attain its short and long-term objectives within the limits of its available and, one might add *"attainable"* resources. Corporate planning is scientific because it defines and quantifies objectives, analyses facts, and sets performance standards to attain these objectives. The results are reviewed periodically, and timely remedial action is taken as and when called for.

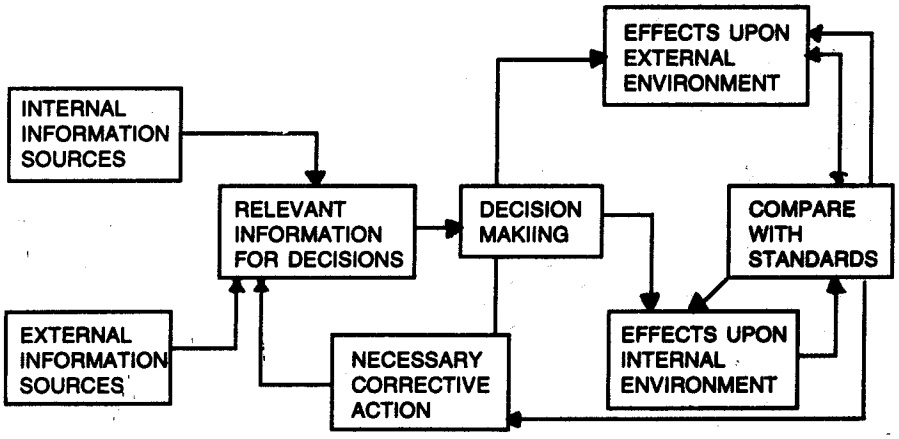


Fig. 30.7 Basic Components of a Management Information System

Notes:

1. Management Information System (MIS) is a federation of sub-systems based on functions performed in an organisation:
   (a) Marketing Information; *(b)* Production; *(c)* Logistics, i.e., buying, receiving, inventory and distribution; *(d)* Personnel; *(e)* Finance and Accounting; *(f)* Top Management Information; and (g) Information Processing.
2. A manager including the decision procedures for directing an activity is called *decision centre.*
3. A decision centre plus an activity is called *a functional unit.*
4. A number of functional units connected with a network of information flows is called an *organisation* in designing an information system.

Management Planning

Management planning, on the other hand, falls into three distinct types of planning activities:

(a) Strategic planning for deciding long-term objectives — to be done by the corporate management. In the case of a small-scale industry, it is done by the entrepreneur or the proprietor.

(b) Action planning for achieving a qualified level of performance during the strategic plan period — to be done by the executive management. In the case

of a small-scale industry, action plans are prepared for production, sales, finance and profitability.

(c) Operational planning for developing performance targets for a much shorter period, usually one year, in order to provide effective tools for management control — to be done in consultation with the operating management, i.e., the marketing department, the finance section, etc.

Here, some very valid questions arise.

(i) How much do we change our style of management to enable every level of management — indeed, every member of the staff — to contribute?

(ii) Is the organisational structure appropriate to the objectives? Will it stand the typical stresses and strains, and does it offer maximum freedom and flexibility in which one may perform? Are responsibility areas clearly defined in a realistic and workable manner in accordance with the need for the generation of revenue and/or expenses?

(iii) Is there a fair basis for fixing the prices for the transfer of services and funds among the different responsibility areas?

These are vital matters involving a great deal of work, the implications of which cannot be considered here.

Planning Machinery

A word about the planning machinery. Planning is not the task of a functional department; it must be initiated at the top (small entrepreneur) and is an important part of every "line" manager's job. The planning staff are not paid to do the "line" manager's thinking; their function is advisory — analysing opportunities, studying the effects of environment, and co-ordinating. It may sometimes be more important that they know a lot about planning than a lot about the technical aspects of a small-scale industry. They help to set up a decision-making process, but do not take the decisions. The planner is a kind of a pilot aboard a ship; he does not decide the destination; but he helps to set the course which the master of the vessel has decided upon.

Conclusion

The process of planning budgetary control helps the small-scale entrepreneur to regulate his production, sales and administrative cost, and to maximise his profits. The perspective outlook acts as a lever for efficient management and lays a strong foundation for accelerated growth. Further, it enables the entrepreneur to plan for the expansion of his unit. Budgetary control is an effective tool of accelerated growth. By introducing budgetary control, the entrepreneur imposes a rational pattern on the external statistics of his business, a process which provides him with a basis for further effective planning and control.

ANNEXURE I

Management Aids for a Small-Scale Industry

Progressive Condition (1)	*Average Condition* (2)	*Weak Condition* (3)
A. Budgetary Control		
1. Budgetary control of all expenditure based on flexible performance standards equitably established by operating levels.	1. Budget structure rigid; ratios of expense to sales based on past performance, not on predetermined, flexible performance standards.	1. No attempt made to budget or forecast performance.
2. Sales budget by products, salesmen, customers, territories based on market analyses.	2. Sales budget by products, salesmen, customers and territories — based on past sales performance only.	2. No sales budget. No "quotas" for salesmen. No programme.
3. Knowledge and control of the effect of all selling price changes on budgeted amount of total net profits.	3. No centralized control over selling prices within limits of predetermined profit requirements.	3. No established pricing policy; cost estimates ignored where a considerable volume is involved. Effect of cutting prices to meet competition not projected in terms of lost profits.
4. Daily, weekly or monthly reports on the performance of all departments controlled through: *(a)* Standard or budgeted performance; and *(b)* Variance from standard performance.	4. Divisional accounting, reports periodically exhibited: *(a)* Comparison of current with past periods; *(b)* No standards; therefore no comparison of actual results with what should have been accomplished, and no analysis of the causes of variations.	4. No budgets; no broad long-term planning. Policies vacillating because not founded on complete comparative information and thorough analysis.
B. Accounting		
1. Procedures, records, forms, reports designed with a view to producing required information at lowest cost.	1. Accounting fairly comprehensive, accurate, prompt and well-managed — some written procedures.	
2. Accounting data supplied promptly, in a form best adapted to its use by management.	2. Accounting data not adequate in comparison with most modern conceptions of control by standards.	
3. Modern accounting equipment used effectively in the preparation of necessary information and reports.	3. Accounting machines used but not adaptable to modern methods.	

CHAPTER 31

APPLICABILITY OF THE FACTOREIS ACTS

Introduction

In society, regulations are the basis of steady growth, the governing factors, ensuring that everything occurs in conformity with the plan and policy adopted, the instructions issued and the principles established. They pinpoint the weakness and errors so that they may be rectified and their recurrence may be prevented. They operate on everything — people, objects and actions. Thus, a regulation is a process by which we may check whether or not plans are being adhered to, whether the environment is saved from polution whether law and order is maintained or not, whether the interests of the workers are safeguarded or not, whether the small entrepreneurs are getting the raw materials or not, and whether there are any deviations for which a corrective action needs to be taken.

Objective

The basic objective behind the whole process of regulations is to ensure that the results of operation conform as closely as possible to established standards of goods, specified procedures, or instructions. The small-scale industry has to develop as an important segment of society; as such it has to adhere to the rules of the land, i.e., it has to be subjected to the various regulations. Regulations governing the small-scale industry are of two types: *Protective* and *Promotional.* Protective regulations are in the nature of various safeguards, while promotional regulations are in the nature of giving a push to the small-scale industry, i.e., they are growth-oriented.

Type of Controls

Government controls or regulations assumes several forms. The controls are grouped into formal and informal, direct and indirect, promotional and regulatory and inducive and coercive controls (Fig. 31.1).

Formal and Informal Controls: Formal controls are usually those emanating from legislation, as for example, the Industries (Development and Regulation) Act, 1951,

the Companies Act, 1956, and the Monopolies and Restrictive Trade Practices Act, 1969. Formal controls are very powerful and when we think of government control over business, we generally mean formal controls. Informal controls refer to the controls which various groups impose upon themselves out of need and custom. Business firms in various lines of activity develop conventions, informal agreements, and accepted ways of doing things that have important regulative implications.

Direct and Indirect Controls: When government fixes prices of certain products or services, it is an example of direct control. The administered price policy of the Government of India is a direct control measure. The variation of corporate income tax to influence economic activity is an indirect control measure. Businessmen prefer indirect controls to direct regulations.

(*a*) Government regulations designed to make competition work, the MRTP Act, for example;

(*b*) Government competition with business firms as a means of setting standards of competition; or

(*c*) Direct government ownership and operation to supplement competition.

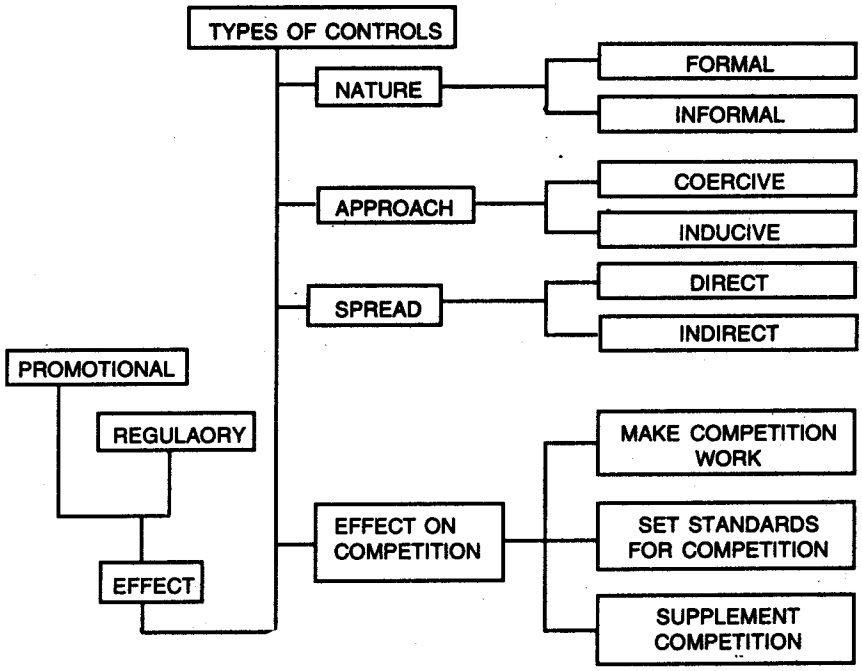


Fig. 31.1 Classification of Regulatory Measures

Promotional and Regulatory Controls: Promotional measures are of a positive nature, and include such activities as expansion of public sector establishment and operation of development banks, revival of sick units, encouragement to small-scale units, removal of regional imbalances, provision of incentives and subsidies and export promotion.

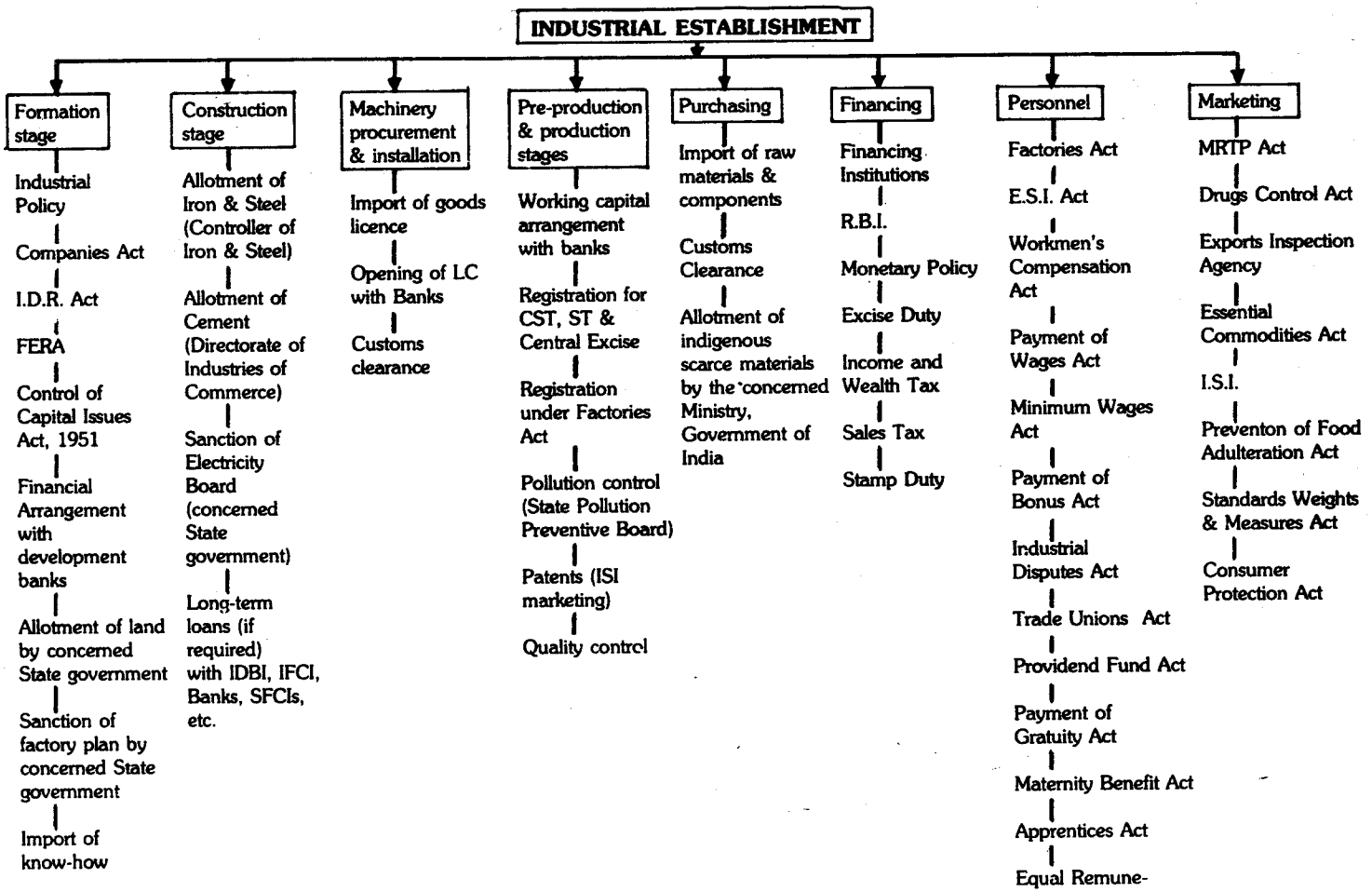


Fig. 31.2 Spectrum of Regulatory Controls

Regulatory measures ensure orderly development of industries with the least wastages of resources. Regulatory measures include direct controls like the Industries (Development and Regulation) Act, the Monopolies and Restrictive Trade Practices Act, the Companies Act, the Foreign Exchange Regulation Act, and price and distribution controls, labour laws, and indirect controls like monetary policy and fiscal policy.

Extent of Intervention

Ours being a regulatory economy, government intervention is enormous and all pervasive. State intervention is noticed in all aspects of a business establishment. In Figure 31.2 an attempt is made to bring out the spectrum of regulations operative at different stages of industrial activities.

Regulations

Over the years, Central and State Government have enacted various measures to regulate the industrial undertaking at various stages. Such regulatory enactments cover a very wide field from registration to pollution control. The controls embrace all activities of industrial activities, viz., layout, production, labour, marketing, profit, etc. The small-scale enterprises are being regulated and governed by the following Acts:

(a) State Industries Acts;

(b) The Factories Act, 1948;

(c) Shops & Estabishment Act, 1948;

(d) Indian Boiler Act (if applicable);

(e) Payment of Wages Act, 1936;

(f) Minimum Wages Act, 1948;

(g) Workmen's Compensation Act, 1923;

(h) Employees Povidend Fund Act, 1952;

(i) Employees State Insurance Act, 1948;

(j) Income Tax Act, 1981;

(k) Central Sales Tax Act & State Sales Tax Acts;

(l) Drugs Control Act;

(m) The Payment of Bonus Act, 1978;

(n) The Industrial Employment (Standing Orders) Act, 1956;

(o) Industrial Disputes Act, 1947.

In addition, the small-scale entrepreneur has to be well versed in excise, customs procedures and export and import regulations and procedures. He should always seek assistance from the following professionals:

(a) Inspecting Staff of Government;

(b) Labour Consultants;

(c) Financial Consultants.

The salient features of the regulations governing the SSIs industries are summarised below:

1. Industrial Development (Regulation) Act

The IDR Act is an instrument in the hands of the Government for the control and direction of private sector industrial investment through the mechanism of the industrial licensing system, which enables in to exert pressure on the applications in a variety of ways. Conceptually, the Government ought to direct further industrial investment in such product lines which would better serve the overall national interest and in such geographical areas which need it the most.

It is a complicated, time-consuming and costly exercise to acquire an industrial licence. Sometimes, it takes before it can be obtained. Obviously, it cannot be the intention of the Government to extend this procedure to the small-scale sector because it would be impossible to implement. A small unit needs the recommendations of an agency to prepare an application for an industrial licence.

The agency is responsible for checking the veracity of what the applicant says in his application.

In recent years, there has been quite a clamour from various associations of SSIs for their legislative protection. August 1971, the Small-Scale Industries Board, at its 29th meeting, had recommended to the Government to set up a committee to examine the feasibility of enacting suitable legislation for the development of SSIs. Always eager to form committees, the Government speedily acceded to the recommendation of the Board and constituted a committee in January 1972 under the chairmanship of Mr. A.R. Bhat to draft a legislation for this sector. It was, moreover, required to identify specific areas where legislation was considered necessary and to submit drafts for the purpose.

In its report submitted in August 1972, the Bhat Committee prepared a total of five draft legislations for the Government's approval. They were: The Small Industries Development Act, while included a definition of the small-scale industry; the Restricted Parternership Act; the Small Industries Reservation Act; the Small-Scale Ancillary Industries Act; and the Public Stores Purchase and Disposal Act for Small Industries.

The committee has quoted extensively from similar legislative enactments in the USA and Japan. However, though well over nine years have passed since the recommendations were submitted to it, the Government has not been able to take any decision on them, perhaps because it has reservations on the desirability of enacting such legislation. If this is so, it should come out in the open and share its viewpoint with others.

The small-scale sector in this country is an important sector, for it is capable of meeting the consumer goods needs of the community. It is, therefore, only fair that the Government should keep the interests of the community uppermost in time, the small-scale sector must fulfil social and moral obligations if it desires protection against large houses, it should, on its part, safeguard the interests of millions of those who depend on it for their livelihood.

2. Factories Act, 1948

(i) Definition of a Factory: Section 2 (m) of the Act defines a factory as any place wherein ten or more persons are working and in which manufacturing process

is carried on with the aid of the appropriate power machinery and infrastructure. Premises in which power is not used come under the term of a factory if twenty or more persons are working in them. This definition brings a greater number of places under the purview of this Act that was the case under the Act of 1934.

(ii) Employment of Children: The Act fixes the maximum age of persons who can enter a factory for work at 14 years. It prohibits the employment of children up to the age of 13.

The Act further lays down that a qualified surgeon must certify that a person has completed the age of 14. Such certificates must be obtained by a factory manager and must be available for inspection by a factory inspector.

(iii) Hours of Work for Children: The Act reduces the hours of work for children between the ages of 14-17 from 5 hours a day to 4½ hours a day. It also prohibits children from doing night shift.

(iv) Hours of Work for Adult Female and Male Workers: The Act prohibits employment of women in factories between 6 P.M. to 7 A.M. It reduces ten hours of work for adult men and women workers from 54 to 48 per week and from 9 hours to 8 hours a day.

The Act also lays down that the eight hours of work will be spread over a period of not more than 10½ hours. Further it provides that no worker shall work for more than 5 hours before he has had an interval or rest of at least half an hour. Lastly, the act lays down that those workers who are made to work for more than 8 hours a day or 48 hours a week shall be paid for the extra hours at the rate of twice their ordinary rates of wages.

(v) Cleanliness: The Act lays down that every factory shall be kept clean and free from effluvia arising from any drain, privy or other nuisance. Accumulation of dirt and refuse shall be removed daily from the floor and the benches of work-rooms, from staircases and passages, and disposed of in a suitable manner.

The floor of every work-room in factory shall be cleaned once a week.

All inside walls, ceilings and partitions shall be white-washed at least once in fourteen months; if they are painted ar varnished, they shall be repainted or revarnished once in five years.

Effective arrangements shall be made in every factory for the disposal of wastes arising out of the manufacturing processes carried on therein.

(vi) Ventilation and Temperature: Effective and suitable provision shall be made in every factory for securing and maintaining in every work-room adequate ventilation by the circulation of fresh air and the maintenance of such temperature as will secure therein reasonable conditions of comfort for those working there. Where excessively high temperatures are necessary for technical reasons, adequate measures shall be taken by the management to protect the workers from such temperatures.

The State Government may prescribe a standard of adequate ventilation and reasonable temperature for any factory or class of factories and can suggest ways and means for reducing excessively high temperatures.

In any factory, where dust or fumes injurious to the health of workers arise in any manufacturing process, effective measures shall be taken to prevent their inhalation or accumulation in any work-room.

(vii) Artificial Humidification: In factories where humidity is artificially increased, the State Government may:

(a) Prescribe standards of humidification;

(b) Regulation methods used for humidification;

(c) Direct prescribed tests for determining humidity, and directing that such tests are carried out — their results recorded; and

(d) Prescribe methods to be adopted for securing adequate ventilation and cooling of the air in those rooms where artificial humidity is introduced.

Water used for the purpose of humidification shall be such as has been certified by the municipal authorities as fit for drinking.

(viii) Overcrowding: To prevent overcrowding in a factory, the Act lays down that, in factories built before the passing of this Act, there shall be a space of at least 350 cubic feet per worker and in factories built after the Act came into force, it shall be at least 500 cubic feet. To arrive at these figures, a height above 14 feet shall not be taken into consideration. In accordance with this rule, the Chief Inspector of Factories will communicate each factory manager the maximum number of workers that may be employed on any premises. He has, however, the power to exempt any factory or work-room from this rule, if he is satisfied that its observance of this rule is not necessary in the interest of the workers employed therein.

(ix) Lighting: It is the duty of the management of a factory to maintain sufficient suitable lighting, natural or artificial or both, in a factory and in all the work-rooms.

All glazed windows and sky-lights shall be kept clean on both the inner and outer surfaces, and effective measures shall be taken for the prevention of glare and formation of any shadows which may cause eye-strain or create a risk of accidents.

The State Government may make rules as to what is sufficient and suitable lighting, for a factory or a class of factories.

(x) Drinking Water: In every factory, effective arrangements shall be made to provide, at suitable points conveniently situated for all workers employed, therein, a sufficient supply of wholesome drinking water.

In every factory, where more than 253 workers are ordinarily employed, provision shall be made for cool drinking water during the hot weather.

(xi) Toilets: In every factory, sufficient toilets shall be provided at places which are conveniently situated and are easily accessible to workers at all times while they are at the factory.

The state Government may prescribe the number of toilets to be provided in any factory in proportion to the number of male and female workers employed therein.

(xii) Provision of Spittoons: In every factory, there shall be sufficient number of spittoons in convenient places and they shall be maintained in a clean and hygienic condition.

(xiii) Safety Provisions: According to the Act of 1934, a factory manager could afford to wait till an Inspector of Factories gave instructions as to what ought to be done to ensure the safety of workers. The Act of 1948 has placed the responsibility for safety matters on the shoulders of the owner or the manager of a factory. He must comply with all the safety provisions without waiting for the inspector's instructions.

Secondly, the Act places legal responsibility on the management for the maintenance and use of safety guards. It is its duty to supervise the use of these guards by the workers.

The specific provisions for safety are as follows: In every factory, all dangerous parts of all machines, such as the moving parts of prime movers, flywheels, electric generators, motors, rotary converters, etc., shall be securely fenced by safety guards of substantial construction which shall be kept in position while the parts of machines are in motion.

(xiv) Dangerous Fumes: Adequate provision shall be made in a factory where dangerous fumes are present in any chamber, tank, pipe, etc., for egress of such fumes.

(xv) Explosive Gases, Dust, Fume: If, in any factory, the manufacturing process raises dust, gas, fume or vapour which is likely to explode on ignition, all measures shall be taken to prevent any such explosion by —

(a) Providing an effective enclosure of the plant or machinery used in the process, or

(b) The removal or prevention of accumulation of such dust, gas or fumes.

(xvi) Safety of Factory Buildings and Machinery: If it appears to the Inspector that any building or part of factory is in such a condition that if it is dangerous to human life or safety, he may serve on the manager of the factory an order in writing specifying the measures that should be adopted and the specific date by which they should be carried out to ensure the safety of the building or factory. He may also serve an order to the manager, prohibiting its use until proper repairs or alternations have been carried out.

(xvii) Welfare Provisions:

(a) Facilities for Washing: In every factory, adequate and suitable facilities for washing shall be provided and maintained for the workers. Adequately screened facilities for washing shall be provided for male and female workers separately. Such facilities shall be conveniently accessible and shall be kept clean.

(b) Storing and Drying Clothes: The state Government may require any factory or class of factories to make provision therein of suitable places for keeping clothes not worn during working hours and for drying wet clothing.

(c) Facilities for Sitting: In every factory, suitable arrangement for sitting shall be provided and maintained for all workers obliged to work in a standing position in order that they may take advantage of rest in the course of their work.

(d) *First-Aid Appliances:* First-aid boxes, equipped with the prescribed contents, which will readily accessible during all working hours, shall be provided and maintained in every factory. The number of such boxes shall not be less than one for every one hundred and fifty workers.

(xviii) Penalties for Breach of Provisions of the Act: For any contravention of the Act, the occupier and the manager of a factory shall each be guilty of an offence and be punishable with imprisonment for a term not exceeding three months or with a fine up to Rs. 500 or with both.

If any person, who has been convicted of any offence punishable under the provisions of this Act, is again found to be guilty of an offence involving contravention of the same provision within a period of two years from the date of conviction will undergo imprisonment up to six months or with a fine up to Rs. 1,000 or with both. This Act, for the time, provides that if any worker contravenes any provision of this Act or any rules or orders, such as the use of safety guards, etc., he shall be punishable with fine up to Rs. 20.

India's ratification of International Labour Convention No. 90 prohibiting the employment of young persons in factories at night necessitated an amendment of the relevant sections of the Factories Act, 1948. This was achieved by passing an Amendment Act in April 1954. This Act added a new chapter on "Annual Leave with Wages" to the Factories Act, 1948. It lays down a period of 240 days as the minimum attendance necessary during a calendar year to qualify for leave with wages. It also prohibits employment of young persons on cleaning, lubricating or adjusting any prime mover or transmission machinery while is in motion, if such work exposes them to a risk of injury.

3. Income-Tax Act

The tax concessions provided in the Income-Tax Act for SSIs of minor significance. Under Section 80 HHA, which came into effect from the assessment year 1978-79, an assessee is entitled to a deduction in respect of profits and gains derived from a new small-scale industrial undertaking set up in any area at the rate of 20 per cent for the first ten assessment years. One of the conditions is that the unit should have commenced its manufacturing activity after September 30, 1977. This concession is discriminatory, for there is no justification for denying the benefit to those units which commenced manufacturing activity before September 30,1977. Moreover, the units in urban areas have been neglected. Unless we have correct statistics of the proportion of small-scale units in rural areas to those in urban areas and the proportion of the tax collected from rural units to the tax collected from urban ones, the significance of such a discriminatory tax concession cannot be evaluated.

Another incentive is the investment allowance under Section 32 A of the Act, under which a small-scale unit is entitled to a deduction at the rate of 25 per cent of the cost of plant and machinery installed after March 31, 1976. This allowance is capital-oriented whereas most of the small-scale units are capital saving and labour-oriented.

At present, there is no Central Government definition of the term *Small-Scale industrial undertaking* — a fact which indicates how unimportant these undertakings are in the eyes of the tax department. According to the definitions given under Section 32 A & 80 HHA, the term is used to mean an industrial undertaking whose aggregate value of machinery and plant — other than tools, jigs, dies and mould — installed on the last day of the previous year for the purpose of the business of the undertaking, does not exceed Rs. 10 lakh. In Section 58A of the Companies Act, however, the term is defined as any industrial undertaking registered with the Directorate of Industries or the Directorate of Small-Scale Industries.

4. The Industrial Employment (Standing Orders) Act, 1946

The absence of standing orders clearly defining the rights and obligations of the employer and the workers in respect of recruitment, discharge, disciplinary action, holidays, leave, etc. was one of the most frequent causes of friction between management and workers. On the recommendations of the Tripartite Labour Conference held in 1943, 1944, 1945 the Government of India passed the Industrial Employment (Standing Orders) Act in 1946. This Act provides for the farming of standing orders in all establishment employing 100 or more persons. It requires employers to submit within six months of enactment of the law standing orders covering the classification of workmen (permanent, temporary, etc.), the manner of intimating to them their hours of work, holidays, pay-days and wage rates, the procedure to be followed while applying for leave and holidays, the termination of employment of notice of discharge and for disciplinary action. In pursuance of this Act, the Central Government published the Central rules in 1946 which were applicable to Commissioner's provinces and to the undertakings under the Central Government. Its lead was promptly followed by all State Governments. In Maharashtra State, it has been made applicable to establishments in which fifty or more persons are employed.

5. The Indian Trade Unions Act, 1926

The experience of the working of the system of free enterprise in the industrial field revealed that though theoretically both the employers and workers were free to enter into a contract and to agree upon the wages to be paid and received, in point of fact, for various reasons, this freedom did not benefit the workers in any way. Firstly, the commodity that a worker has to sell is highly perishable in the sense that if he refuses to work on a particular day because the wages offered are low, he cannot store up his labour of that day to be used the next day. This compels him to accept work even if the wages offered are unsatisfactory. Secondly, as his income is very low, he is not able to accumulate any savings on which he can fall back if and when he refuses to work. The consequences can be quite drastic. These two factors compel a worker to accept low wages and so the theoretical freedom of contract is not of much use to him. Lastly, the fact that a worker is a small-scale seller and the employer is a large-scale buyer reduces his bargaining power to a very great extent. It is possible for the employer to refuse the wage which a worker demands because it is possible for him to engage somebody else who is willing to work on lower wage. It is, however, relatively difficult for a worker to find an alternative employer who would pay him the wage he demands.

His weak bargaining position thus compels him to accept whatever wages are offered to him.

Rules of a Trade Union: The rules of a union contain the following provisions:

(a) the name,

(b) the objectives for which it has been established,

(c) the purpose for which its general funds will be applicable,

(d) maintenance of the list of members for inspection by officers and members of the Units,

(e) the admission of ordinary members who shall be persons engaged in the industry with which the Union is connected and also the admission of honorary members to form the executive of the union,

(f) the conditions under which fines or forfeiture may be imposed on them,

(g) the manner in which any rule shall be amended, altered or rescinded,

(h) the manner in which the members of the executive and other officers of the Union shall be appointed and removed,

(i) the safe custody of the funds of the union, the audit of accounts and inspection of the account books by the officers and members, and lastly,

(j) the manner in which the Union will be dissolved.

Rights of Registered Trade Unions: A registered trade union has a right:

(a) To collect membership fees on the premises of the factory without interference from the management;

(b) To put up notices of the meetings of the union and of the other activities of the union on the premises of the factory;

(c) To use the general funds for specific purposes;

(d) To raise funds for political purposes at the option of the members;

(e) To conduct a strike if called for by peaceful methods;

(f) To be exempted from the provisions of Section 120B, subsection (2) of the Indian Penal Code if the members conduct a peaceful strike;

(g) To appoint outsiders in a number which is not more than one-half of the total number of office-bearers to the executive of the union; and

(h) To send to the Registrar, every year, an audited statement of receipts and expenditure.

6. The Payment of Wages Act, 1936

The payment of wages to factory workers in a particular form and at regular intervals without any unauthorised deductions is the objective of this Act.

Scope of the Act: The provisions of the Act are applicable to workers engaged in factories as defined by the Factories Act of 1948, and to persons employed on any railway by contractor or sub-contractor. The State Government may, after giving three months' notice of its intention of doing so by a notification in the official Gazette, extent

the provisions of this Act to any class of persons employed in any industrial establishment. The provisions of this Act are applicable to those persons whose wages do not exceed Rs. 400 per month.

The Date of Payment of Wages: The wages of every person employed in a factory, industrial establishment, or a railway, where less than 1,000 persons are employed, shall be paid before the expiry of the seventh day after the completion of wage period, generally a month; the wages for a month, for example, shall be paid before the seventh day of the next month. In the factories in which more than 1,000 persons are employed, the wages shall be paid before the expiry of the tenth day of the next month. The wages of a person whose services have been terminated shall be paid on the next working day after such termination. The payment of wages shall be made on a working day.

Authorised Deductions: The Act authorises the employer to make deductions from wages in the wake of:

(a) fines,

(b) absence from duty,

(c) damage to or loss of goods or money, where such damage or loss is due to the negligence or default on the part of the employee,

(d) housing accommodation supplier by the employer, and

(e) such amenities and services supplied by the employer as the State Government may authorise.

In the case of fines:

(i) It shall be imposed for those acts of commission and omission which the employer, with the approval of the State Government, may have specified by notice to his employees.

(ii) It shall be imposed on any employee unless he has been given an opportunity to show cause why the fine should not be imposed.

(iii) No fine shall be imposed on persons below the age of fifteen.

(iv) A fine imposed on any employee in any wage period should be according to the wages payable to him for the period.

(v) The fine so imposed shall be recovered in instalments or after the expiry of sixty days from the day on which it was imposed.

(vi) The fine and the actual amount recovered shall be recorded in a separate register in the prescribed form which will be utilised only for purposes beneficial to the employees and as are approved by the prescribed authority. Applications for the recovery of fines, or of deductions not authorised under the Act, for delay in payment of wages shall be presented within six months of the date on which such fines were imposed or deductions were made or wages were due.

7. The Workmen's Compensation Act, 1923

Within the installation of machinery operated by motive power, the number of accidents in factories have increased considerably. Many times, worker have met with

accidents, resulting in physical impairment and death working on machines in factories. This meant the loss of earnings for their immediate family. From a purely humanitarian point of view, it would be natural to expect that employers should give some compensation to such workers or their defendants. Further, even on economic grounds, it could be argued that the amount of compensation is a legitimate element of the cost of production under the factory system and, therefore, neither society nor employers should grudge to pay it in these critical situations. Some enlightened employers did pay compensation to their employees when they suffered accidents; but a large majority was not willing to accept this responsibility. The workers, however, could not claim compensation as a matter of right; and even when compensation was paid, there was bound to be an honest difference of opinion between an employer and an employee as regards the fairness of the amount paid. In order to provide some bases for a statutory claim for compensation to be paid to the disabled factory worker, Workmen's Compensation Acts have been passed in almost all the countries.

The following are the provisions of the Indian Workmen's Compensation Act:

Employer's liability for compensation: If a personal injury is caused to a worker by an accident arising out of and in the course of his employment, his employer shall be liable to any compensation in accordance with the provisions of this Act.

When employer is not liable: The employer, however, shall not be liable if:

(a) the injury results in a partial or total disablement of the worker for less than three days;

(b) if the injury can be directly attributed to the worker having been under the influence of drink or drugs; or

(c) if the injury can be directly attributed to the wilful disobedience by the worker of an order expressly given; or

(d) to the wilful removal or disregard by the worker of any safety guard or other device which he knew to have been provided for the purpose of securing his safety.

Occupational Diseases: If a worker engaged in any employment which involves the handling of wool, hair bristles or animal carcasses or loading or unloading of such merchandise, or in processes carried on in compressed air, or in processes which involve the use of lead or tetrayethyl or in processes involving exposure to nitrous fumes, contracts diseases like anthrax, compressed-air illness, lead poisoning, or poisoning by nitrous fumes respectively; or when engaged continuously for not less than six months in any employment specified in Part B of Schedule III, contracts any disease specified in this schedule as an occupational disease, the contracting of such a disease shall be regarded as an injury by accident and shall be deemed to have arisen out of and in the employment. The State Government in the case of employments specified in Part C of the schedule may make additions to the list of employments in Schedule III and specify the corresponding diseases after giving three months' notice in the Gazette.

Types of Injuries: Injuries under this Act have been classified into the following categories:

(1) Death,

(2) Permanent total disablement,

(3) Permanent partial disablement, and

(4) Temporary disablement, partial or total.

Amount of Compensation: The Act provides for compensation for these categories of injuries in Schedules I to IV.

Medical Examination: A worker who has given notice of an accident shall submit himself to a medical examination, if the employer insists on it by a qualified medical practitioner and free of charge. Similarly, a worker who is in receipt of half-monthly payments under this Act shall submit himself to such medical examination from time to time.

If a worker refuses to submit himself to such a medical examination without sufficient cause, his right to compensation shall be suspended.

8. The Employees State Insurance Act, 1948

Experience in the working of the Workmen's Compensation Act of 1923 revealed that the benefits conferred by it upon factory workers in many cases, did not reach them. This was due to various reasons. Firstly, a claim for compensation for injury had to be failed in an ordinary court of law and the lack of finance often made it impossible for a worker to file such a suit and fight it out. Secondly, armed with expert legal advice, it was often possible for an employer to prove that the accident either did not arise out of and in the course of employment or that it was due to the worker concerned being under the influence of drink or drug at the time of the accident, or that it was due to his negligence or his disobedience of safety rules. In such conditions, workers were generally unwilling to go to court of law, and preferred to accept whatever compensation employers chose to pay out of a sense of pity or charity. The Employees' State Insurance Act of 1948 was framed to prevent such victimisation of the worker by the employer.

Contributions: Every person, who is employed for wages in or in connection with the work of a factory or establishment to which this Act applies, shall be insured. All the insured workers, except those who earn wages applies shall be insured. All the insured workers, except those who earn wages of less than one rupee per day, shall pay their contributions to the Employees' State Insurance Corporation at the rates specified in the First Schedule to the Act. The employers shall pay their contributions at the rates specified in the above schedule.

Distribution of Benefits under the Act: The insured persons or as the case may be, their dependants shall be entitled to the following benefits, namely:

(a) Sickness benefits: Periodical payments to any insured person in case of his sickness certified by a duly appointed medical practitioner;

(b) Maternity benefits: Periodical payments in case of confinement to an insured woman certified to be eligible for such payments by an authority specified in this behalf by the regulations;

(c) Disablement benefits: Periodical payments to an insured person suffering from disablement as a result of an injury sustained in the course of his employment;

(d) Dependants' benefits: Periodical payments to such dependants of an insured person who dies as a result of an injury sustained in the course of his employment; and

(e) Medical benefits: Medical treatment for and attendance on an insured person.

The Corporation may at the request of Government of India, extend medical benefits to the family of the insured person. Accordingly, these benefits have been so executed from 1st January, 1962.

A person who is in receipt of sickness or disablement benefits, must observe the following conditions:

(a) He shall remain under medical treatment at dispensary, hospital, clinic or other institution provided under this Act and shall carry out the instructions of the medical officer or medical attendant in charge thereof;

(b) He shall not, while under treatment, do anything which might retard or prejudice his chances of recovery;

(c) He shall not leave the area in which medical treatment provided under this Act is being given without the permission of the medical officer or such other authority as may be specified in this behalf under the rules framed for this purposes; and

(d) He shall allow himself to be examined by any duly appointed medical officer or any other person authorised by Corporation in this behalf.

Penalties: If a person makes a false statement for the purpose of causing any increase in payment or benefit or for the purpose of causing any payment or benefit to be made where no payment or benefit is authorised, or for the purpose of avoiding any payment to be made by himself, he shall be punishable with imprisonment for a term up to three months or with fine up to Rs. 500 or with both.

If any person fails to pay any contribution which he is liable to pay, or deducts from the wages of an employee the whole or any part of the employee's contribution, or reduces the wages or any privileges or benefits admissible to an employee, dismisses, discharges, reduces or otherwise punishes an employee in contravention of Section 73, or files or refuses to submit any return required by the regulations or make a false return, or obstructs any inspector or other official of the Corporation in the discharge of his duties, or is guilty of contravention of, and non-compliance with, any of the requirements of this Act, he shall be punishable with imprisonment up to a period of three months or with fine up to Rs. 500 or with both.

9. The Industrial Disputes Act, 1947

Industrial disputes, strikes and lock-outs were not very common occurrences in India till 1914. It was, however, during the Great War of 1914-18 that the strike came to be regarded as an ordinary weapon of industrial warfare. During the war, while the cost of living went on rising, the wages did not keep pace with it. This gave rise to serious

discontent among industrial workers and led to a series of strikes, notably in the textile industry in Bombay, in the post-war period. In addition to low wages, there were many other causes which were partly responsible for the outbreak of strikes during this period. The more important of these were long hours of work, bad conditions, insanity housing conditions, absence of any provision till 1922 for compensation for injuries sustained in the course of employment, absence till 1925 of the right to form a trade union, ill-treatment of workmen by foremen or other mill officials etc.

The important provisions of the Industrial Disputes Act of 1947 are:

(i) If any industrial dispute exists or is apprehended, the appropriate Government may, by order in writing: *(a)* refer the dispute to a board of promoting a settlement thereof; or *(b)* refer any matter appearing to be connected with or relevant to the dispute to a court of inquiry; or *(c)* refer the dispute to a tribunal for arbitration.

(ii) If either of the parties to a dispute or both of them apply to the Government to refer a dispute to board, court or tribunal, the appropriate Government, if satisfied that the person applying represents majority of each party, shall make the reference accordingly.

(iii) If a dispute has been referred to a board or a tribunal the Government may prohibit the continuance of any strike or lock-out in connection with such a dispute.

(iv) A settlement arrived at in the course of conciliation under the Act, or an award which is declared by the Government as binding on all the parties for at least six months.

(v) An award declared by a Government shall come into operation on such date as may be specified by the Government and shall remain in operation for a period for one year, or a shorter period, if so fixed by the Government.

(vi) Workers employed in public utility industries shall not go on a strike and the employers in such industries shall not resort to lock-outs —

(a) without giving a fourteen days' notice and before the period of notice expires; or

(b) during the pendency of conciliation proceedings.

(vii) Workers employed in any industrial establishment shall not go on strike —

(a) During the pendency of conciliation proceeding; or

(b) During the pendency of proceeding before a labour court, tribunal or national tribunal; or

(c) During a period in which a settlement or award is in operation.

A strike or a lock-out in contravention of any these provisions, shall be illegal.

No person shall knowingly expend or apply any money in direct furtherance or support of any illegal strike or lock-out.

Penalties: Any worker who commences, continues or acts in furtherance of an illegal strike shall be punishable with imprisonment up to one month or with fine up to Rs. 50 or both.

10. The Employees Provident Fund Act, 1952

The Act provides for the institution of a contributory provident fund in establishment in which 20 or more persons are employed. The contribution, which shall be paid by the employer to the fund, shall be $8^1/_3$ per cent of the basic wage and the dearness allowance payable to each employee, while the employee's contribution shall be equal to the contribution payable by the employer.

11. The Indian Boilers Act, 1923

An owner of a boiler shall not use it or permit to be used.

(a) unless it has been registered in accordance with the provisions of this Act;

(b) in the case of a boiler transferred from one State to another, until the transfer has been reported in the prescribed manner;

(c) unless certificate or provisional order authorising the use of the boiler is obtained under this Act;

(d) at a pressure higher than the maximum pressure recorded in such certificate or provisional order;

(e) Unless the boiler is in charge of a person holding a certificate of competency.

Procedure: The owner of a boiler may apply to the inspector to have the boiler registered. Every such application shall be accompanied by the prescribed fee. He shall examine the boiler and submit a report to the Chief Inspector in the prescribed form.

The permit is a "must" for boilers.

12. The Indian Electricity Act, 1910

The Act relates to the supply and use of electricity energy.

Issue of Licence: A State Government may, on an application made in the prescribed form and on the payment of the prescribed fee, grant a licence to supply energy in any specified area and also to lay electric supply lines for the transmission of energy.

Conclusion

Rules and regulations governing Small-Scale Enterprises act as a governor ensuring steady growth of the industry as well as the environment (ecosystem) and the labour force. It ensures both healthy growth and rapid growth. The basic objective of these rules and regulations scale is to ensure that the results of operations confirm as closely as possible to established standards of goods, specified procedures or instruction. The need for rules and regulations are meant to put these SSIs small-scale industries on the successful track.

They are the directions for excellence, growth and development. And, regulation is a monitoring mechanism of rules. Since, small-scale enterprise is concerned with land, environment, goods, people and consumer, rules and regulations have been formulated to safeguard these varied interests. If there is greater awareness among the entrepreneurs, these rules and regulations have minimum effect and disturbance. Thus, ensure steady and rapid growth of SSIs, develop new products and markets, produce

quality goods, promote healthy development of human resources. More importantly, small industries are located nearer to the natural resources and human resources. They do not pollute or degrade the eco-system, intimidate and exploit labour and cheat the consumer on all counts. They are, therefore, the basic component of the SSIs. They are like the lamp post which direct the growth of this sector on a firm ground.

ANNEXURE I

Applicability of Various Labour Acts

204. A table indicating the factories or establishments to which various Labour Acts are applicable is given below to enable the entrepreneur to know the Acts applicable to his enterprise:

Name of the Act	*Factories or establishments to which applicable*	*Remarks*
Apprenticeship Act, 1961	—	Apprenticeship Adviser shall give a notice in writing to the employer.
Contract Labour (Regulation and Abolition) Act, 1970	Where contract labour is permitted.	It is permitted if work is intermitent or of sporadic nature.
	Esablishment or contractors who employ or had employed 20 or more workers on any day in preceding 12 months.	Principal employer/contractor is required to seek registration/licence.
Employees Provident Fund and Family Pension Fund Act, 1952	Factories employing 20 or more persons and those industries which are specified in the Schedule.	Employer required to furnish particulars to Regional Commissioner within 15 days of the application of the Act to his establishment. Those employees are eligible to become members whose wages do not exceed Rs. 1,000 per month.
Employees State Insurance Act, 1948	Factories employing 20 or more persons, except specified seasonal factories.	
Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959	Establishments where ordinarily 25 or more persons are employed.	Vacancies are to be notified to local Employment Exchange one week before the date on which interviews/test is to take place.
Employment of Children Act, 1938	Workshops engaged in specified processes; these processes are 10 in number.	Employment of children in these processes is prohibited. Child is defined as one who has not completed his 14th year.
Equal Remuneration Act, 1976	—	Act enjoins every employer to pay equal remuneration to men and women workers.
Factories Act, 1948	Factories where 10 or more workers with the aid of power or 20 or more workers without aid of power are working or were working on any day in preceding twelve months and where manufacturing process is carried on.	Occupier is expected to obtain prior permission for construction of factory premises and seek licence for the factory.
		Act is applicable to other places wher manufacturing process is carried on, even though number of workers is less than 10 or 20, if so notified by the State Government.

Industrial Disputes Act, 1947	Any business, trade, undertaking, manufacture or calling of employer and includes any handicraft, or industrial occupation.	It deals with procedures for settlement of disputes and stipulates compensation for lay-off, retrenchment and closure of establishments.
Industrial Employment (Standing Order) Act, 1961	Industrial establishments employing one hundred or more workmen.	Standing Orders relating to classification of workmen, terms and conditions of service, etc. are to be got approved from certifying officers.
Maternity Benefit Act, 1961	Factories where 10 or more workers with aid of power or 20 or more workers without aid of power are/were workng; mines and plantations or other establishments notified by the State Government.	Act is not applicable to any factory or establishment to which Employees State Insurance Act applies. A woman is entitled to maternity benefit at the rate of average daily wages for 12 weeks (6 weeks before and 6 weeks after delivery) if she has worked for 160 days in 12 proceding months.
Minimum Wages Act, 1948	Certain specified employments or processes.	State Governments have fixed minimum wages for skilled, unskilled, manual and clerical workers, and have specified other conditions of service. Payment of Wages Act, 1936 is also applicable to these specified employments and processes.
Payment of Bonus Act, 1965	Factories where 10 more more workers with aid of power or 20 or more workers without aid of power are/were working; and establishments employing 20 or more persons.	A minimum bonus 8.33% of the salary or wages earned or Rs. 10, whichever is higher, is payable even if the establishment has made no profits. Maximum amount of bonus payable is 20 per cent of the salary or wage earned. Newly set up establishments are exempted from payment of bonus till they start deriving profit or for 5 years from their establishment, whichever is earlier.
Payment of Gratuity Act, 1972	Factories where 10 or more workers with aid of power or 20 or more workers without aid of power are/were working; and mines or plantations, and shops or establishments employing 10 or more persons.	An employer is required to furnish particulars to the controlling authority when Act becomes applicable, notify any change or closure of establishment. Gratuity is payable, after an employee has rendered five years of continuous service, at the rate of 15 days of wages for a year's service, subject to a maximum of 20 months' wages.

Payment of Wages Act, 1936	Factories where 10 or more workers with aid of power or 20 or more workers without aid of power are/were working; other industrial estabishments as are specified; specified employments included in the Schedule to Minimum Wages Act.	This Act seeks to regulate timely payment of wages in respect of persons, whose wages average less than Rs. 1,000 a month.
Sales Promotion (Conditions of Service) Act 1976	Establishments engaged in Pharmaceutical industry.	—
Shops and Establishments Act of State Governments	Shops, commercial establishments, residential hotels, restaurant, eating houses, etc.	Act is not applicable to such undertakings which are covered under Factories Act, 1948.
Workmen Compensation Act, 1923	Certain specified employments.	Compensation is payabl to workmen, whose monthly wages do not exceed Rs. 1,000, for injury by accident or occupational disease.

ANNEXURE 2

Applicability of various regulations to small-scale industries in India

A summary of the various Acts/Regulations that are applicable to small-scale indusries is given below to enable the entrepreneur to know the Acts at a glance.

Name of the Act	*Applicability*	*Remarks*
Central Sales Tax Act	Any dealer engaged in inter-state trade or commece during any year is liable to pay tax on all such sales effected by him. [Sec. 6(1), (A)]	Not liable to pay tax if the sale is for the purpose of export out of the territory of India [Sec. 6(1), (1A)]
Maharashtra Sales Tax Act	Every dealer who carries on business of buying and selling goods, except an agriculturist who sells agricultural produce grown on land cultivated by him personally, is liable to pay tax in respect fo sales as purchase made by him. [Sec. (34)]	Every registered dealer has to display the certificate of regisration or a copy thereof conspicously at each place of his business. [Rule 9] A dealer liable to pay tax shall get himself registered by making an application in the prescribed form to the sales tax officer and shall seek a certificate of registration. [Sec. 141)]
Delhi Sales Tax Act, 1975	Every dealer whose turnover from the commencement of any year exceeds the taxable quantum (Rs. 30,000 in relation to any dealer who manufactures goods for sale regardless of the value of gods manufactured) shall become liable to pay tax on all sales effected by him after the day immediately following that day on which the turnover exceeded the taxable quantum. [Sec. 3(2)(1)]	
Income tax Act, 1961	Income tax is leviable on profits and gains from business if it is carried on in the previous year. [Sec. 2(13) or (36)]	In computing the taxable income from business or profession, following deductions are admissible: 1. Rents, land revenue, municipal taxes, cost of repairs, insurance premium etc. [Sec. (32)] 2. *Depreciation* in respect of buildings, plant as machinery and furniture & fixture on the basis of its actual cost [Sec. 32(1)] 3. *Investment Alowance:* 35% of actual cost of machinery or plant installed fo the purposes of manufacturer or production

after 30.6.1977 but before 1.4.1982. [Sec. 32A(2B)]

4. Preliminary expenses, commission, etc.

(a) Amortisation of preliminary expenses — restricted to 2½ percent of the cost [Sec. 35D)

(b) Commission Bonus paid to employees [Sec. 36*(i)* & *(ii)*]

(c) Contribution towards recognised Provident Fund & Gratuity [Sec. 36*(i) (iv)* & *(v)*]

(d) Audit fee, commission, pension, compensation etc. [Sec. 37)

(e) Expenditure on scientific research related to assessee's business is admissible [Sec. 35)

(f) Expenditure on acquiring patent rights or copyrights is allowed in 14 equal yearly instalments [Sec. 35A)

5. *Donations:* 50 percent of qualifying amount of donation [Sec. 80G)

6. *New undertakings in Backward Aeas:* 20 percent deduction in respect of Profit and gains. [Sec. 80HH]

7. *Setting up small industrial undertakings in rural areas:* 20 percent of the profits are eligible for deduction. [Sec. 80HHA)

8. *Capital Allowance:* Deduction is allowed at 7.5 percent per annum on capital employed for companies which begins manufacturing after 31.3.1976 for five years (otherwise it is 6 percent)

9. *Publication of Books:* Publication of books (other than newspapers, journals & magazines etc.) are eligible for a deduction of 20 percent of such profits & gains [Sec. 80QQ)

10. *Intrest on borrowed capital* [Sec. 40A(8).

11. Amalgamation of sick units with health units effective from 1.4.1978. [Sec. 72A)

Maharashtra State Tax on Professions, Trade & Employment Act, 1975.	Individual, undivided Hindu family, firm, company, corporation, society, club or association. [Sec. 5(1) and 2(c)]	12. Rural Development The Employer has to deduct tax payable and furnish to the appropriate authority within 15 days of expiry of a month. [Sec. 4 and 6)

UNIT 5

SOURCES OF FINANCE

It is well known that resources are the key inputs of development. The development bank plays an important role in providing not only development finance needed at different stages of development, but also extending professional, and promotional assistance on an ongoing basis. In fact, the contributions of the various inputs to the productive transform into:

(i) Rapid growth in output,

(ii) Change in the structure of the economy, and

(iii) Accelerated over all socio-economic growth.

Economic development is achieved by increasing both the inputs of resources and the productivity of those inputs, i.e., resources. Productivity enhances the recycling of resources in an accelerated manner.

Among other things capital also plays a crucial role in the growth process. The process of economic development involves savings to create a surplus for capital formation and further boost savings and investments prudentially and productively.

Development Finance

Finance is one of the basic requirements of a project. The entrepreneur needs capital to start with and he needs financial assistance at every stage of the project. Project finance is both for short-term and long-term. The sources from which the entrepreneurs can meet their financial needs for their projects are: *internal source* and *external source.* Besides, the entrepreneur raises his finance by availing of available subsidies, state aid to industries, etc. Project finance, therefore, is very crucial for the success of a project. Here, the various facets of project financing will be discussed.

"One of the key problems of planning, therefore, is where to strike this balance between giving enough credit for the small man to develop and not giving him so much that there have to be large write-offs every year."

Finance is one of the constant problems, and if the economy has to develop in the way the Government policy hopes, various segments such as agriculture, industry, transport etc., must have adequate credit. Credit is available on the basis of the creditworthiness of the entrepreneur. In regard to capital structure and working capital management, substantial differences between large, medium and small-scale industries exist. However, finance is the catalytic agent for development.

Finance is the life-blood of any business. Its management is an art and merits special attention. The financial function of management is to:

(a) Ensure fair returns on investments;

(b) Generate and build-up surpluses and reserves for growth and expansion;

(c) Plan, direct, and control the utilisation of finances so as to ensure maximum efficiency of operations and build a proper relationship with suppliers, financiers, workers and members; and

(d) Co-ordinate the operations of the various departments through appropriate measures to ensure discipline in the use of financial resources.

Sources of Finance

A characteristic feature of manufacturing units/entrepreneurs is that the personal funds of entrepreneurs form a substantial proportion of the total assets. Most of the units are not corporate entities. The owners of small units, therefore, run a considerably higher risk than those of corporate units. The sources that usually provide the working capital requirements are commercial banks, special agencies like the State Industrial and Investment Corporation of Maharashtra (SICOM), and the Gujarat Industrial Investment Corporation (GIIC), and co-operative banks. Indigenous bankers and moneylenders also advance loans for working capital needs. The fixed capital needs are usually met by State Governments (under the State Aid to Industries Acts/Rules), State Financial Corporations (SFCs), National Small Industries Corporation (NSIC) which supplies machinery on hire-purchase basis, State Small Industries Corporations (SSICs), State Industrial Development Corporations (SIDCs) and Commercial banks and other financial institutions.

WORKING CAPITAL	FIXED CAPITAL		VENTURE CAPITAL
Commercial Banks	IDBI	SCICI	STATES
SFCs	SIDBI	UTI	Venture Companies
Cooperative Banks	IDCI	NABARD	Mutual Funds
Finance Companies	ICICI	IDBI	Comercial Banks
Indigenous Bankers	LIC		SFCs
Money Lenders	GIC		Finance Companies
	NSIC		SIDCs
REFINANCE	KVIC		RCTFC
	SFCs		SIDBI
IDBI	SIDCs		TDICI
SIDBI	Commercial Banks		TFCI
NABARD	EXIM Bank		
EXIM BANK	SSIDCS		