MANAGERIAL ECONOMICS

UNIT-V

The Concept of Profit in Business:

The concept of profit entails several different meanings. Profit may mean the compensation received by a firm for its managerial function. It is called normal profit which is a minimum sum essential to induce the firm to remain in business. Profit may be looked upon as a reward for true entrepreneurial function. It is the reward earned by the entrepreneur for bearing the risk. It is termed as supernormal profit analysis.

Profit may imply monopoly profit. It is earned by a firm through extortion, because of its monopoly power in the market. It is not related to any useful specific function. Thus monopoly profit is not a functional reward. Profit may sometimes be in the nature of a windfall. It is an unexpected reward earned by a firm just by mere chance, an inflationary boom.

Profit is the earning of entrepreneur. To the economist, the most significant point about profit is that it is a residual income. However, the term profit has different connotations.

In short, the following are the distinctive features of profit as a factor reward:

(i) It is not a predetermined contractual payment.

(ii) It is not a fixed remuneration.

(iii) It is a residual surplus.

(iv) It is uncertain.

(v) It may even be negative. Other factor rewards are always positive.

Gross Profit and Net Profit:

In ordinary parlance, profit actually means gross profit.

Gross profit is a term in which the following items are included in addition to the net profit due to the entrepreneur:

(i) Remuneration for factors of production contributed by entrepreneur himself.

(ii) Depreciation and maintenance charges.

(iii) Extra personal profits.

(iv) Net profit.

Net profit is the exclusive reward for the entrepreneur for the following functions performed by him:

(i) Reward for co-ordination

(ii) Reward for risk taking

(iii) Reward for uncertainty bearing, and

(iv) Reward for innovation.

In short,

Gross Profit = Net profit + implicit rent + implicit wages + implicit interest + normal profit + depreciation and maintenance charges + non-entrepreneurial profit.

Net Profit = Gross profit – (implicit rent + implicit wages + implicit interest + normal profit + depreciation and maintenance charges + non-entrepreneurial profit)

In fact, Net Profit = economic profit or pure business profit. It is the net profit which may be positive or negative. A negative profit means a loss.

Accounting Profit and Economic Profit:

An accountant looks at profit as a surplus of revenues over costs, as recorded in the books of accounts. An accountant is interested in accounting, auditing, planning and budgeting profit. The accountant does not take care of implicit or opportunity cost. Accounting profit is also called residual profit.

For the business firm, accounting profit is very important. Accounting profit is defined as the revenue realised in a given period after providing for expenses incurred during the production of a commodity. A firm while making accounting profits may be incurring economic losses. Such a firm would have to withdraw from business in the long run. In the balance sheet of a firm, accounting profit occupies an important place.

The economist, however, does not agree with the accountant's approach to profit. The accountant would only deduct the explicit or actual costs from the revenues to determine profit. The economist points out that in addition to the deduction of explicit cost, imputed cost, i.e., the cost that would have been incurred in the absence of the employment of self owned factors, should also be deducted.

Their examples are:

(i) Entrepreneur's wages that he could earn by working for someone else,

(ii) Rental income on self-owned land and building employed in the business, and

(iii) Interest on self owned capital that could have been earned by investing it elsewhere.

Thus the profit arrived at after deducting both explicit and imputed costs may be called economic profit. From the managerial point of view, economic profit is very important because this alone shows the viability of a firm.

Normal Profits and Supernormal Profits:

Normal profits refer to the imputed returns to capital and risk-taking just necessary to prevent the owners from withdrawing from the industry. The normal profits are usually defined as the supply price or opportunity cost of entrepreneurship. Such cost must be covered if the firm is to stay in business in the long run.

When competition among entrepreneurs is perfect, the market price of the product is equal to average cost which itself includes 'normal profit'. Normal profit is the minimum to induce the entrepreneur to remain in the business in the long run.

It is possible that the entrepreneur may not get normal profit in the short run and may have to sell his product at a loss, but in the long run every entrepreneur must get at least the normal profits. It is assumed to be part of the price. In the words of Mrs. Joan Robinson, "Normal profit is that profit which neither attracts a new firm to enter into the industry nor obligates the existing firm to go out of the industry."

Supernormal profit is defined as the surplus over the normal profit. It is obtained by the super marginal firms. The marginal firm gets only the normal profit, but determines the supernormal profit of the intramarginal firm.

Profit as Functional Reward:

Some economists consider profit as a functional reward. According to them, profit is a reward for the entrepreneur for his entrepreneurial functions. Some have said that organising and coordinating other factors of production are the main functions of the entrepreneur. Some others have said that risk- taking and decision making are the important functions of the entrepreneur.

They say that since the entrepreneur takes risks in business, he earns profit. Schumpeter said that the entrepreneur is performing the role of an innovator and therefore profit is a reward for his innovation. Prof. Knight opined that profit is due to his risk taking and uncertainty bearing.

Monopoly Profit:

When a firm possesses monopoly power, it can restrict output and obtain a higher profit than it could under competitive conditions. Profit is the result of continued scarcity. It can exist only in an imperfect market where output is for various reasons restricted and the consumers are deprived of the opportunity of alternative sources of supply.

Sources of such powers are usually found in legal restrictions, sole ownership of raw materials or access of sale to particular markets. Even some degree of uniqueness in a firm's product confers some monopoly power. Summarising, it can be said that profits may come to exist as a result of monopoly.

Windfall Profit:

Some consider profit as a windfall gain. According to them, profit is not a reward for any entrepreneurial function or monopoly power. It is merely a windfall gain. It arises due to changes in the general price level in the market. If the producer or trader buys his inputs and raw materials when the prices are low and sells the output when the prices have

abruptly gone up due to some unforeseen external factors, we call the profit as windfall profit. This is also included under net profit.

Earning of Management:

The entrepreneur having good bargaining power, purchases raw materials at reasonable prices. He makes suitable arrangements to store the raw materials properly. By proper inventory building, he maintains the supply of raw materials regularly.

He hires labour at normal wages and borrows working capital at reasonable rates of interest. Thus he manages and controls explicit costs. Ensuring of supply of capital is the most important function of profit. A certain percentage of net profit is set apart for better management of business.

2. Profit Policies:

It is generally held that the main motive of a firm is to make profits. The volume of profit made by it is regarded as a primary measure of its success. Economic theory advocates profit maximisation as the chief policy of a firm. Modem business enterprises do not accept this view and relegate the profit maximisation theory to the back ground. This does not mean that modem firms do not aim at profits. They do aim at maximum profits but aim at other goals as well. All these constitute the profit policy.

(i) Industry Leadership:

Industry leadership may involve either the achievement of the maximum sales volume or the manufacture of the maximum product lines. For the attainment of leadership in the industry, there has to be a satisfactory level of profit consistent with capital invested, labour force employed and volume of output produced.

(ii) Restricting the Entry:

If a firm follows a policy of restricting its profit, no competitors are likely to enter the market. Reasonable profits which guarantee its survival and growth are essential. According to Joel Dean, "Competitors can invade the market as soon as they discover its profitability and find ways to shift the patents and make necessary changes in design, technique, and production plant and market penetration."

(iii) Political Impact:

High profits are considered to be suicidal for a firm. If the government comes to know that the firms are earning huge returns, it may resort to high taxation or to nationalisation. High profits are often considered as an index of monopoly power and to prevent the government may introduce price control and profit regulation policies.

(iv) Consumer Goodwill:

Consumer is the foundation of any business. For maintaining consumer goodwill, firms have to restrict the profit. By maintaining low profit, the firms may seek the goodwill of the consumers. Consumer goodwill is valued so much these days that firms often make organised efforts through advertisements.

(v) Wage Consideration:

Higher profits may be taken as an evidence of the ability to pay higher wages. If the labour associations come to know that the firms are declaring higher dividends to the shareholders, naturally they demand higher wages, bonus, etc. Under these circumstances in the interest of harmonious relations with employees, firms keep the profit margin at a reasonable level.

(vi) Liquidity Preference:

Many concerns give greater importance to capital soundness of a firm and hence prefer liquidity to profit maximisation. Liquidity preference means the preference to hold cash to meet the day to day transactions. The first item that attracts one's attention in the balance sheet is the ratio of current assets to current liabilities. In order to give capital soundness, the business concerns keep less profit and maintain high cash.

(vii) Avoid Risk:

Avoiding risk is another objective of the modem business for which the firms have to restrict the profit. Risk element is high under profit maximisation. Managerial decision involving the setting up of a new venture has to face a number of uncertainties. Very often experienced managements avoid the possibility of such risks. When there is oligopolistic uncertainty, firms may focus attention at minimising losses. The guiding principle of business economics is not maximisation of profit but the avoidance of loss.

a. Alternative Profit Policies:

Economists have suggested different profit policies which business firms may adopt as an alternative to profit maximisation.

These alternative profit policies are listed below:

Prof. K. Rothschild observes, "Profit maximisation has until now served as the wonderful market key that opened all doors leading to an understanding of the behaviour of the entrepreneur. It was always realised that family pride, moral and ethical considerations, poor intelligences and similar factors may modify the results built on the maximum profit assumption, but it was right by assuming that these disturbing phenomena are sufficiently exceptional to justify their exclusion from the main body of price theory. But there is another motive which cannot be so lightly dismissed and which is probably a similar order of magnitude as the desire for

maximum profits, namely the desire for secure profits”. He has suggested that the primary motive of an enterprise is long run survival.

According to him, the assumption of profit maximisation is no doubt valid to the situation of perfect competition or monopolistic competition. Under monopolistic condition, the aim of the firm is to secure monopoly profits. In the case of oligopoly, he says that the assumption of profit maximisation is not sufficient.

W.J. Baumol puts forth the maximisation of sales as the ultimate aim of the firm. He says while maximising sales the producer will not regard costs incurred as output and profits to be made. If the sales of the company increase, it means that the producer is not only covering costs but also making a usual rate of return on investment. Baumol’s theory of sales maximisation as a rational behaviour of the producer is considered as an alternative to the theory of profit maximisation.

Benjamin Higgins, Mekin Reder and Tibor Scitovsky have developed another alternative to the theory of profit maximisation, that of utility maximisation, if the producer is supposed to maximise his satisfaction. In this approach, they have introduced leisure as a variable. Leisure is an essential ingredient of an individual welfare. If more work is put in by the producer, the less leisure he will be able to enjoy. It is said that the producer would get maximum satisfaction where his net profit is optimum.

Donaldson and Lorsch are of the opinion that career managers prefer policies that favour long term stability and growth of their firms which are possible only when they get maximum current profits. For the survival, self sufficiency and success, the top managers strive hard and augment corporate wealth. The more the wealth, the greater the assurance of the means of survival.

b. Aims of Profit Policy:

The firm seeks to achieve many objectives and profit making is the main objective but it is not the only objective. Profit making is no doubt necessary. In addition to adequate profit, the firm often pursues multiple and even contradictory objectives. If a firm makes sufficient profits, it can give good dividends and attractive salaries, etc. The firm can fix a target rate for profits as its investment. There is a problem in determining the target rate of profits.

They are:

(i) Competitive rate of profit

(ii) Historical profit rate

(iii) Rate of profit sufficient enough to protect the equity, and

(iv) Plough back of profit rate.

Competitive rate of profit is the rate earned by other companies in the same industry or of selected companies in other industries working under similar conditions. It may be slightly different from the rate of profit of other companies.

Historical rate of profit is the rate of profit determined as the basis of past earnings in the normal times. The rates should be sufficient enough to attract equity capital, have provided adequate dividend to share holders and have not encouraged much competition.

Rate of profit sufficient enough to protect the equity is the rate sufficient enough to attract equity capital and the rate of return on investment should protect the interest of

present shareholders. Plough back of profit late is that late of profit Which should be such that there is a surplus after paying the dividends to finance further growth of the industry. Cyert and March have focused on five aims which represent main operative organisational goals.

They are:

(i) Production goal

(ii) Inventory goal

(iii) Sales goal

(iv) Marketing share goal and

(v) Profit goal

Production Goal:

The firms want to maintain the production of the product at a stable level to ensure stable employment and growth. The basic requirement is that the production does not fluctuate.

Inventory Goal:

To ensure a complete and convenient stock of inventory throughout the production, a minimum level of inventory has to be maintained so that the firm can prevent fluctuations in prices.

Sales Goal:

It is considered as very important from the point of view of stability and survival of the firm. Increasing sales mean progress of the firm. Sales strengthen the organisation. The more are the sales, the more is the profit.

Market Share Goal:

Company sales do not reveal how well the company is performing. If the company's market share goes up, the company is gaining as a competitor, if it goes down the company is losing relative to competitors.

Profit Goal:

Profits are a function of the chosen price, advertising and sales promotion budgets. Normal profit is essential not only to pay dividends but also to ensure additional resources for reinvestment.

3. The Measurement of Profit

The problem of profit measurement has always been a difficult affair. In the present business world, the tendency is to discard the word 'profit' and use a neutral expression as "business income". In the accounting sense, profit is an ex-post concept. Accountants follow conventions and define their terms by enumeration.

Conventional accounting is largely concerned with historical profits rather than anticipated profits. Economists disagree with conventional techniques and they define their terms functionally. For an economist, profit is an ex-ante concept.

It is a surplus in excess of all opportunity costs or the difference between the cash value of an enterprise at the beginning and end of a period. From the management point of

view, economic profits are a better reflection of profitability of business. The economist is basically interested in the theoretical analysis of profit.

The most important points of difference between the economist's and accountant's approaches centre around:

(i) Inclusiveness of Costs:

To determine profits, economists include in costs, wages, rent and interest for all the services employed in the business, including both those actually paid for in the market and virtual wage or interest or rent for services rendered by the owner himself.

To determine profits, accountants only deduct explicit or paid out costs from the income. The non-cost items as the entrepreneurial wages, rental income on land and the interest that the capital could earn elsewhere do not appear in the books of accounts.

The economist s costs of production are a payment which is necessary to keep resources out of the next best alternative employment. The economist does not agree with the accountant's approach. The accountant would only deduct actual costs from the revenues, the economist points out that in addition to the deduction of actual cost imputed cost should also be deducted.

(ii) Depreciation:

The treatment of depreciation has an important bearing on the measurement of profit. To the economist, depreciation is capital consumption cost. The cost of capital consumption is the replacement cost of the equipment. It has various meanings. In the accounting sense, it refers to the writing off the unamortised cost over the useful life of an asset. In the value sense, it may be defined as the lessening in the value of a physical asset caused by deterioration.

Economists recognise only two kinds of depreciation charges and they are:

(a) The opportunity cost of the equipment, and

(b) The exhaustion of a year's worth of limited valuable life.

The former includes the most profitable alternative use of it that is forgone by putting it into its present use, while the latter aims at preserving enough capital so that the equipment may be replaced without causing any loss. Both these concepts are useful to the management.

Causes of Depreciation:

The major causes of depreciation may be classified as follows:

(i) Physical depreciation,

(ii) Functional depreciation, and

(iii) Accidental depreciation.

Physical depreciation resulting in the decline of the physical usefulness of an asset due to normal use is frequently known as physical depreciation. The deterioration may be due to abrasion, shock, vibration, impact and so on.

Functional depreciation arises due to economic factors such as suppression, obsolescence and inadequacy. Here nothing happens to the ability of the asset but the demand for an asset may be suppressed or it becomes so obsolete or it is not adequate enough to accommodate the demand placed upon it.

Accidental depreciation may be the physical damages caused by fire, explosion, collision and wind storm are generally insured and there are some normal risks or business such

as minor damages due to natural calamities. All these are, therefore, accounted and treated as depreciation.

Methods of Depreciation:

In the economics of an enterprise, the methods of depreciation occupy a very important role. Depreciation is an important internal source of funds and the method of depreciation becomes important as a tool of capital accumulation. Different methods are used to offset depreciation. The main aim of depreciation policy is to reduce the gap between the present depreciated value of the asset and its present book value.

There are many accepted methods of depreciation and they are:

(i) The straight line method

(ii) The unit of production method

(iii) The sinking fund method

(iv) The declining balance method

(v) The double declining balance method

(vi) The sum of the years digits method

(vii) The revaluation method

(viii) The repair provision method

(ix) The retirement accounting method

(x) The insurance policy method, and

(xi) The mileage method

(i) The Straight Line Method:

It is the simplest and the most commonly used method of depreciation. It is otherwise known as proportional or equal installments method. This method is based on the assumption that the value of an asset declines at a constant rate. The amount of annual depreciation is calculated by dividing the initial costs of the assets by the estimated life in years, assuming that there is no scrap value. If the asset has scrap value then the amount should be deducted from the initial cost.

(ii) The Unit of Production Method:

This method is also known as machine hour rate method. This method of depreciation is more or less a depletion method. Under this method, instead of counting the life of the assets in years, it is estimated in terms of working hours. The speciality of this method is that it utilises production instead of time as the unit of measurement. According to this method, capital expenses of the equipment are recovered on the basis of the expected production. This method is best suited for providing depreciation on costly machine.

(iii) The Sinking Fund Method:

Under this method of depreciation, the amount written off as depreciation is calculated by means of fixed periodic charges and is deposited in readily saleable securities at compound interest which accumulates to provide a sum equal to the original cost of the asset. The securities are then sold and the new asset is purchased with the sale proceeds. This method is useful if the asset has to be replaced when it becomes a scrap. It is best suited for the replacement of machinery and plant.

(iv) The Declining Balance Method:

It is differently known as “fixed percentage method or Mathesan method of depreciation.” Under this method, a constant percentage of depreciation is charged each year as the value of the asset as it stands in the books at the beginning of the year. The basic idea behind the use of this method is to provide for a more or less uniform total cost of production of the asset over different years of its life. Under this method, depreciation is high in the early part of the asset’s life but it declines in the later years.

(v) The Double Declining Balance Method:

Under this method, depreciation is provided at a uniform rate on the book value of the asset as it stands at the beginning of the year. The book value is the balance of the unamortised cost of the asset as well as depreciation expenses and both go on declining at a constant rate. Any method of calculating depreciation that allows huge amounts in the initial years is preferred by management, as it helps in the quick recovery of the major part of the original investment.

(vi) The Sum of the Years Digit Method:

Previously, this method was known as Cole method. Under this method, annual depreciation charge also declines each year. The economic advantage of this method is that it allows one to write off investment very rapidly. The very idea of this method is similar to that of the declining balance method.

The amount of depreciation in the beginning of the life of the asset is higher and it declines with the span of time. This method is realistic. It takes into account the immediate drop in the value of the asset and makes the decision to sell and replace the asset earlier before die expiry of its estimated life.

(vii) The Revaluation Method:

This method is frequently used in the case of small items such as loose tools, laboratory glassware, livestock, jigs, packages, patterns, etc. where it is not possible to provide for depreciation on mathematical basis. The method of providing depreciation by means of periodic deductions each of which is equal to the difference between the value of such assets and their revalued value at the close of the financial year is considered as the amount of depreciation.

(viii) The Repair Provision Method:

According to this method, the cost of repairs is added to the cost of the equipment. This method provides for the aggregate of depreciation and maintenance cost by means of periodic charges each of which is a constant proportion of the aggregate of the cost of the asset depreciated and the expected maintenance cost during its life. This method is commonly used by the public works contractors while hiring their own plants to other contractors. This method not only deals with depreciation but with repairs and maintenance too.

(ix) The Retirement Accounting Method:

This method stresses that we shall charge the cost of capital less salvage value as depreciation only when the asset is worn out. This method is considered one of the most objective methods. The validity of the method is that the total cost of the capital is charged as depreciation once and for all.

(x) Insurance Policy Method:

This method is similar to sinking fund method. According to this method, an endowment policy is taken as the life of the asset so that at the end of a definite period the insurance company will pay the assured money and with the help of that money a

new asset can be purchased. This method is suitable for leases where the life of the asset is definitely known.

(xi) The Mileage Method:

This method is otherwise known as 'use method'. This method appears to be fair as the depreciation charged will be according to the use to which the asset is put. This technique is followed in the case of those assets the use of which can be measured in terms of miles, e.g. automobiles.

So far we have discussed the different methods of depreciation but not about the methods used in actual practice. The suitability of methods of depreciation depends on the nature of assets concerned and their owner's discretion. But a liberal depreciation policy is helpful to stimulate capital formation and encourages risky investments.

(iii) Treatment of Capital Gains and Losses:

All the assets of a firm are subject to windfalls due to inflation or natural calamities or legal judgements. It plays an important role in the economics of a firm. These changes generally result in larger losses than gains. Conservative concerns never record such changes. The gains accruing from revaluation of assets are usually transferred to capital reserves.

Certain concerns add capital gains to the profit of the year in which such gains occur. Capital losses are charged either to current profits or to retained earnings. Economists are least interested in recording these windfalls. They are concerned about the future. Economists are of the view that most of these gains or losses can be foreseen before they are realised.

Conclusion:

Thus profit estimates play a pivotal role in business decision. For measuring profits, accountants rely on historical costs rather than current prices. Economists are concerned with income, assets and net worth in the future. Gross profits for the economist come much closer to the accountant's net profits.

4. Profit Planning and Control:

Profit planning is a disciplined method whereby the environments encroaching on an organisation are analysed, the available resources and internal competence identified, agreed objectives established and plans made to achieve them. Profit planning is largely routine and covers a definite time span.

Strategy is a word often used in conjunction with profit planning. Profit planning and strategy formulation are complementary. Profit planning is often a reasonable substitute for the fair and imagination need of the entrepreneurs.

Essential Elements in Profit Planning:

The following are the essential elements in profit planning:

1. Objectives and results are established and measured at all management levels.

2. The role of the chief executive is often vital in ensuring success.

3. The system should become the major framework in guiding and controlling management performance.

4. The system should be totally pervasive, especially in framing objectives.

5. The system is recognised as the key method of management in the organisation.

6. Planners have been trained in economics or associated disciplines.

7. Budgeting, cost control, and contribution analyses are the key elements in controlling a profit plan.

Steps in Profit Planning:

Some rudimentary form of planning may already be in existence in most organisations. Many of the techniques used in profit planning may be in use. The following activities will need to be introduced or improved or enhanced if they are undertaken at present.

1. Establish Suitable Objectives:

Objectives can cover many factors of the business survival, profits or increase in net worth. The way in which objectives are determined is nearly as important as the types that are pursued. It will be essential to take account of past performance, resource availability, management competence, environment changes, competitors' activities and so on. Objectives should not be imposed.

2. Establish Suitable Control System:

Profit planning and control may have grown out of budgetary control systems. It is necessary to have some form of budgetary cost control, plan monitoring and management information systems which will serve to enable profit planning to be effective.

3. Establishing Job Responsibilities:

Often job responsibilities are too imprecise to provide the information on which performance standards can be established and then judged. It is necessary to have job breakdowns in such detail that the need for resources can be identified.

4. Carry Out a Situation Audit:

It entails an audit of all the factors both internal and external that will have an influence on company affairs. It should include establishing the skills of competition, the economic situation which will impinge on company performance and the potential and actual social, technological and cultural changes to be accommodated.

5. Gap Analysis:

This is an activity where the desired company objectives are compared with the probable results of continuing current trends. A gap will almost certainly be obvious between the two. Profit planning is largely concerned with how the gap can be closed.

6. Establishing Base Data:

Often the base data essential for profit planning is either nonexistent or set out in a way that is inappropriate for planning purposes. The data include product and operational costs, production speeds, material utilisation, labour efficiency, etc.

7. Establish Appropriate Plans and Strategies:

The management should ensure that there is plan integration. Strategies are the results of choosing between alternatives in the use of the company resources through which it is hoped that the corporate objectives will be achieved. They can be highly complex and appropriate alternatives need to be set out.

Need for Profit Planning:

The need for profit planning arises:

(i) To improve management performance.

(ii) To ensure that the organisation as a whole pulls in the right direction.

(iii) To ensure that objectives should be set which will stretch but not overwhelm managers.

(iv) To encourage strict evaluation of manager's performance in monetary terms.

(v) To run a company in a more demanding way.

Aids to Profit Planning:

The following are the aids to profit planning in an organisation:

Organisation:

Profit planning organisation must ensure that it is sensitive to environmental changes and that such changes are speedily reflected in profit plans. To carry profit planning, the organisation must be designed accordingly. A high state of expertise is required and this should be reflected in the profit planning organisation.

Involvement and participation are more important. Wherever possible, decentralisation should be established. It is essential that the organisation should be dynamic. The organisation must help goal identification and problem resolution.

Information System:

Management information systems are an essential factor in profit planning and control. This system must help to provide the means for allocation of resources and the measurement of results. It should help to identify the various strategy alternatives and help for the integration of various main plans and sub-plans.

The Computer:

A computer can be applied in profit planning modelling. Information of all kinds can be obtained much faster than when normal files are used. The computer should be able to

help management to make profit planning decisions. The interactive nature of many planning decisions can be generated more cheaply. Application programme changes are simplified and amendments to output requirements take less time and cost.

Use of Modelling:

A model is a representation of a real life situation. A model is fabricating and integrating the relationships. Models have been used to aid decision making and forecasting. A model provides an opportunity to manipulate a situation. It is the only way in which a solution to the problem can reasonably be obtained.

Planning Techniques:

Profit planning should be a management activity that guides the use of company resources at all management levels. Profit planning can itself be regarded as a technique. Most techniques used by management services like forecasting, investment appraisal, risk analysis, decision theory, and organisational development might be applied in profit planning.

Control of Profit:

The main goal of the business firm is to produce and market the goods and services which satisfy the buyers and thereby earn a profit sufficient for the survival and growth of business. Profit making is no doubt an essential function of a business firm.

Profit as such is not at all a defective objective. The future growth of the economy depends upon generation and reinvestment of profit. Profit should serve as a motivation for expansion, diversification and innovation. Therefore, we need some control over it.

Profit control may be achieved by controlling the internal and external factors which have an influence on profits. Some planning at a particular level has to be done to

achieve this control. For this, we have to find out the chief factors which influence the volume of profit. In reality, sales revenue and the total cost of production are the chief factors which influence the volume of profit.

Profit is usually interpreted as the difference between the total expenses involved in making or buying of a commodity and the total revenue accruing from its sales. However, sales revenue, the price per unit of output sold, the total cost of production, the volume of inputs and the price per unit of input are all interrelated.

Similarly, provision of depreciation and taxes create measurement problems in profit analysis, as they are likely to vary from firm to firm depending on the method of estimation and taxation laws respectively. A large firm may follow different method of depreciation accounting than a smaller one.

Let us go back to the profit accounting system. For that the relationship between various factors mentioned above are to be understood and established. If profit (P) is the difference between the sales revenue (R) and the total cost of production (C), the relationship is:

$P = R - C$

P is gross or net profit which depends on what is included in C. We may express $C = r.K + D$ where C is the total cost of production, r is a rate of return covering depreciation, interest rate and risk premium appropriate to the industry and K is capital. D is direct cost such as labour cost, material cost, cost of fuel and power, selling cost, managerial remuneration, etc.

Now the sales revenue (R) is the result of the volume of sale (S), and the price per unit of output sold is (U),

Therefore, the relationship is:

$R = S.U$

The total cost of production (C) is the result of the price per unit of input (I) and the volume of inputs (V).

Hence the relationship is:

$C = I.V$

Let us re-write the three equations:

$P = R - C$

$R = S.U$

$C – I.V$

$P – (S. U) – (I. V)$

To control profits, the volume of sales (S) or the volume of inputs (I) can be manipulated. Therefore, if a firm wants to increase its profits, it may either increase the volume of sales or reduce the volume of inputs.

Profit Policy and Forecasting:

A project plays two primary roles in the functioning of the economic system. First, the project acts as a signal to producers to change the rate of output or to enter or leave an industry. Second, profit is a reward that encourages entrepreneurs to organise factors of

production and take risk. High profits in an industry usually are a signal that buyers want more output from that industry.

Those profits provide the incentive for firms to increase output and for new firms to enter the market. Conversely, low profits are a signal that less output is being demanded by consumers or that production methods are not efficient. Firms may not maximise profit, but they do have a profit policy. Profit policy and profit planning must go together. The profit policy is more strategy-oriented and the profit planning is more technique-oriented.

The firm has to consider a lot of short run and long run factors in designing its profit policy. The main motive of the businessman is to make profits. The profit that a firm makes should not be at the point of exploitation of consumers. The firm while making profits should also satisfy the requirements of the consumers.

At present, the concept of social obligations has been thrust upon the businessman. The business community is required to safeguard the health and wellbeing of the society. The business people should have concern for the public. They should give priority to the goals set by the government for the betterment of the people. They are expected to solve many social and ecological problems.

There are two issues involved in profit policy decisions and they are:

(i) Setting Profit Standards:

Profit standards involve a choice of a particular measure and concept of profit with reference to which achievements and aspirations may be compared. In profit policy decision, the task is to decide 011 an acceptable rate of profit. The firm has to consider rate of profit earned by other firms in the same industry, historical profit rate earned by

the firm itself in the past, rate of profit sufficient to attract equity capital and rate of profit necessary to generate internal finance for replacement and expansion.

(ii) Limiting the Target Profit:

Apart from setting profit standards, the firm should also consider a set of environmental factors to limit its rate of target profit. The profit target should be limited which means the shareholders do not ask for higher dividends, the wage earners do not ask for higher wages, the government does not impose high taxes, the consumers do not ask for lower prices, the suppliers do not ask for higher rates, and the goodwill of the business is not affected.

Profit policy is programmed through profit planning. Profit planning gives a concrete shape to the profit policy of the firm.

Profit Forecast:

It is usual to calculate a profit forecast for each major product group or service which an organisation offers. It presupposes that it is possible to assume what rates of inflation will occur, the market share the company will obtain and the degree of overall economic activity which the company will enjoy. Profit forecasting means projection of future earnings taking into consideration all the factors affecting the size of business profits. It is an essential part of operation planning. The major factors are the turnover and costs.

1. Turnover:

Turnover is the major factor and its element is the product. It must, however, be emphasised at the outset that the product is the starting point for all planning activities. To a manufacturer, the special aspect of a product is most relevant which earns good profit. A higher turnover indicates a healthier performance.

2. Costs:

It is the costs that form the basis for many managerial decisions. It is the level of costs relative to revenue that determines the firm's overall profitability. In order to maximise profits, a firm tries to increase its revenue and lower its costs.

The costs can be brought down either by producing the optimum level of output, using the least cost combinations of inputs or increasing factor productivities, or by improving the organisational efficiency. The elements of costs are sales cost, product development, distribution, inventories, production, general administration, depreciation and reserves.

(i) Sales Costs:

Sales costs consist of salesmen's compensation, sales promotion, market research and administration. The salesman is the key figure in the economy. Salesmen have to be recruited, trained, directed, motivated and supervised.

There is particular significance in devising a good compensation plan in the case of salesmen because the functions of selling are such that its results can be judged in concrete terms. The level of comparison refers to the overall remuneration paid to salesmen.

Of these, the more common forms of payments are:

(i) Salary,

(ii) Commission,

(iii) A combination of salary and commission, and

(iv) Bonus.

Sales promotion is designed to supplement and co-ordinate personal selling and advertisement effort. Sales promotion techniques include trading stamps, mail refunds, trade shows, free demonstrations and sales and displays at retail centres. It is expensive but at the same times a controllable variable. It does not involve mass media.

Marketing research has grown into importance very rapidly. It is mainly concerned with market identification, market size, market share, market segmentation and market trends. It is a systematic search for information. It involves data collection, analysis and interpretation. Research cannot drown decisions, but it helps the marketers in the task of decision making. It is also expensive and time consuming.

Administration is the policy making function and a top level activity. Administration handles the current problems arising out of the policies laid down by the management. It requires the services of a large number of personnel. These personnel occupy the various positions created through the process of organising.

Top management is chiefly concerned with performing administrative activities. There are many decisions which the marketing manager takes which have a significant impact on the profitability of the firm. The production manager controls a major part of the investment in the form of equipments, materials and men.

The top management which is interested to ensure that the firm's long term goals are met, finds it convenient to use the financial statements as a means for keeping itself informed of the overall effectiveness of the organisation. Administration expenses will include all accounting, personnel and legal expenses and office expenses.

(ii) Product Development:

In many organisations, this activity is part of R&D's responsibility. However, the need for sales to start in the market place suggests that marketing involvement with product development should have a good impact on sales revenue and profit. Product development involves R&D and production engineering.

(a) R&D implies a function that will promote and defend profitability by maintaining and improving the company's position in product design, quality and cost and developing new products, materials and production methods where the improvement of current products is not economic. R&D must be used to help to close the gap between the required or desired profit and that anticipated, after all cost reduction and marketing plans have been made.

(b) Production engineering co-ordinates search for knowledge in rational manner cutting across the entire spectrum of integrated management and processing activities to attain optimal economic objectives of sufficiency. It lays down a disciplined use of strategies for increased productivity with ensured quality and quantity.

Production engineering is the thread of the garland of flowers of agricultural, civil and architecture; mechanical, electrical and electronics; metallurgy and mining; chemical and environment; textile; computer and telecommunications; marine and such others.

(iii) Distribution:

When a product has been developed and made ready and its price also determined, the next task is distribution, to bring it to the market and reach it to the consumer. Distribution is a key external resource and is much important as the internal operations of research, engineering and production.

It involves two operations and they are:

(i) Selection of the channel of distribution, and

(ii) Physical distribution. It involves warehousing, packaging and transport.

The place where the goods are stored is known as warehouse. It implies a house for wares. Warehouse is a building for the accommodation of goods, possessing facilities to perform other marketing functions. It is meant for final products. It holds the goods as a distribution centre. In the warehouse, allied marketing functions such as grading, standardisation, blending, mixing and packing are performed. It facilitates the user to sell the goods at the best possible price and thus derive better profit.

Packaging is an activity which is concerned with protection, economy, convenience and promotional consideration. The packaging of a consumer product is an important part of the marketing. It prevents breakage, contamination, pilferage, chemical change and insect attack.

Attractiveness is a major consideration in modem packaging. A good package stimulates sales. Packaging is the subdivision of the packing function of marketing. Innovative packaging can bring large benefits to consumers and profits to producers.

Transportation means the physical movement of persons and goods from one place to another. It is the blood stream of a country’s economy. It is described as physical marketing. It is the key link between the production and other marketing functions. It develops trade and commerce. It encourages specialisation, division of labour, large scale production and the extent of market. It increases the mobility and widens the market. Both consumers and producers benefit by the extension of the market.

(iv) Inventories:

In today's competitive and ever changing environment, it is essential to hold adequate stocks to minimise production holdups and win customer satisfaction. Material constitutes a recurring investment and modem management has recognised that a constant review of inventory can reduce this capital tied up without limbering the production and customer goodwill.

Holding large stocks will mean high inventory carrying charges and possible losses caused by price declines. Similarly, shortages in inventories interrupt production, making machines and men idle and causing sales loss. Hence there is need for inventory control or what is sometimes termed as inventory planning.

It would be appropriate to mention that an effective inventory control system secures various benefits to the concerned business unit. The purpose of holding inventories is to allow the firm to separate the process of purchasing, manufacturing and marketing of its primary products.

Inventory planning involves a forecast of unit requirement during the future period. Both a sales forecast and an estimate of the safety level of support in unexpected sales opportunities are required. The marketing department should also provide pricing information so that higher profit items receive more attention.

(v) Production:

Production reflects the ability of the organisation to produce whatever is demanded by the environment. The measures of production include profits, sales, market share, students graduated, clients served and the like. It is concerned with the supply side of the market.

The basic function of a firm is that of readying and presenting a product for sale, presumably at profit. While the broader measurement of profit and return as investment will indicate to some extent the efficiency of the manufacturing units, more appropriate and directly applicable measurements such as added value and resource utilisation of various kinds are needed.

Managers will usually have a major proportion of the company's resources under their control. How they delay these resources, could have a fundamental effect as the profit plan is being made. It involves labour, materials, manufacturing, overheads and maintenance.

(vi) General Administration:

Making policies is the function of administration. In all kinds of business, the function of administration is the same. Administration personnel are normally engaged in two activities. First, routine- covering sales order, processing accounting, secretarial duties, filing, etc. Second, development-activities that can be used to give positive help to other major functions such as the use of the computer, management accounting development, management services, various personnel services, etc.

The two activities need to be planned but with a different emphasis in each case. In a manufacturing organisation, the administration plan should show the relationship between the cost and numbers of administration staff and those in other functions and activities.

(vii) Depreciation:

There are two measures of working capital and they are gross working capital and net working capital. Gross working capital is the total of current assets. Net working capital is the difference between the total of current assets and the total of current liabilities.

The working capital of a concern is normally replaced by income from sales and is available to the owners for the payment of salaries, the purchase of raw materials and the acquisition of productive services. But the originally invested capital wears out or becomes obsolete with the passage of time.

It cannot be recovered when the usefulness of these assets is exhausted. Businessmen, therefore, have realised that in order to state business income properly, some provision should be made to recover that part of the original asset which eventually becomes worthless because of depreciation. Depreciation means a fall in the quality or value of an asset.

An accountant is interested in accounting, auditing, planning and budgeting profit. The accountant does not take care of opportunity costs. On the other hand, the economist is very much concerned with the opportunity cost. The opportunity cost includes the most profitable alternative use of it that is foregone by putting it into its present use. This concept is useful to the management since it is needed for operating problems of profit making.

(viii) Reserves:

Reserve is an amount set aside out of profits and other surpluses. It is not designed to meet any existing liability, contingency or diminution of value of assets. Reserves may be divided into two main classes. Reserves arising from normal profits are known as

Revenue Reserves. They are available for distribution through the profit and loss account.

Reserves arising out of unusual profit such as sale of fixed assets at a profit on revaluation of assets and liabilities are known as Capital Reserves. There are not generally available for distribution. These are used to write off capital loss such as loss on sale of a fixed asset, discount allowed on shares or debentures, etc.

A Revenue Reserve may be created out of profits in order to strengthen the financial position of the business. This is called a 'General Reserve'. It is a free reserve available for any purpose whatsoever. It may be used for covering unforeseen losses. It may be even distributed among the proprietors, or it may be used as an additional working capital.

A Revenue Reserve may also be created for a specific purpose. It is called Specific Reserve. It is generally created for such purposes as repayment of a long term loan, replacement of an asset, creation of fund for acquiring assets in future, etc. A Specific Reserve is not available for any purpose other than the purpose for which it is created. It is not available for distribution.

Secret Reserve:

Where the existence of a reserve is not disclosed by Balance Sheet, it is called Secret Reserve. It means that the net asset position is stronger than that disclosed by the balance sheet.

Secret Reserves are created by various ways:

(i) By exclusive depreciation of assets,

(ii) By under valuation or omission of assets,

(iii) By making accessing provision for bad debts, and

(iv) By charging a capital expenditure to revenue.

Reserve Fund:

When a reserve is created out of profits and a corresponding amount of cost is withdrawn from the business and invested outside in securities, the reserve is called Reserve Fund. This depends upon the nature of the business and the purpose of the reserve.

Thus reserve is an appropriation of profits. A reserve can be created only when there are profits. The object of a reserve is to strengthen the financial position of the business. A reserve is available for distribution.

Approaches to Profit Forecasting:

Profit forecasting is indispensable for profit planning. Profit forecasting means projecting the future profits assuming the factors like growth of the size of the business, the pricing policies of the firm, the cost control policies, depreciation and so on. It is also necessary from the point of view of economic health and stability of the firm to project for certain years the growth of sales increase in costs and consequently the profits also.

According to Joel Dean, there are three approaches to profit forecasting:

(i) Spot projection

(ii) Environmental analysis, and

(iii) Break-Even analysis

Spot Projection:

It relates to projecting the entire profit and loss for a specified period, say five years or seven years or ten years. The projection of profit and loss statements for this period depends on the projection of sales, costs and prices of the same period.

Since profits are surpluses resulting from the forces that shape demand for the company's products and govern the behaviour of costs, their predictions are subject to wide margins of error, from culmination of errors in forecasting revenues and costs, and from the interrelation of the income statement.

Environmental Analysis:

It relates the company's profit to key variables in the economic development during the relevant period. The key variables are general business activity and general price level. These are external to the company. These factors are beyond the control of the firm and force the firm to abandon the profit maximising goal. In reality, factors that control profit have a tendency to move in regular and related patterns.

The controlling factors of profit are the rate of output, prices, wages, material costs and efficiency. These are all inter-connected in aggregate business activity. The environmental analysis might show areas where the company has superior competence or advantage of some kind.

Break-Even Analysis:

The break-even analysis is a powerful tool for profit planning and management control. Of the three techniques, the break-even analysis is the most important tool of profit forecasting. The break-even analysis involves the study of revenues and costs of a firm in

relation to its volume of sales and particularly the determination of that volume at which the firm's costs and revenues will be equal.

The break-even point may be defined as the level of sales at which total revenues equal total costs and the net income is equal to zero. This is also known as no-profit no-loss point. The main objective of the break-even analysis is not simply to spot the BEP, but to develop an understanding of the relationship of costs, price and volume within a company's practical range.

Problems in Setting a Profit Policy:

The objectives and aims of a business may be different. In fact, most business concerns like to earn a target rate of return on their investment.

There are four criteria to judge the target rate of return:

(i) Rate adequate enough to attract equity capital

(ii) Rate earned by other companies in the same industry

(iii) Normal or historical profits rate of return

(iv) Rate sufficient to finance growth from internal sources