

GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS) KUMBAKONAM



DEPARTMENT OF ECONOMICS
M.A. Economics – IIInd Year
INDUSTRIAL ECONOMICS
Sub Code : P18ECC310
Study Material

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Semester - III

Hour – 6

Core Course - X

Credit - 5

INDUSTRIAL ECONOMICS

Objectives

1. To the students understand the role industries and corporate form of organization.
2. To gain the knowledge of the new industrial policy and some issues in industry.

Module-I Patterns and Structure

Process and Pattern of Industrialization - Industrial structure and Change - Alternate Patterns - Hoffman's Hypothesis - Simon Kuznets' Interpretation of Secular Changes in Industrial Development - HB Chenery's Patter of industrial Change.

Module-II Industrial Location Analysis

The General Determinats of Industrial Location - Theories of Industrial Location: Weber - Floraence - Losch.

Module-III Industrial Finance

Need - Sources: Internal, External and other Components of funds - Role-Nature-Volume and Types of institutional Finance-IDBI, IFCI, SFCs, SIDC, Commercial Bank-Financial statement - Balance Sheet, Profit and Loss Account-Assessment of Financial Soundness Ratio Analysis.

Module-IV Industrial Labour

Structure and Characteristics of Industrial labour-Employment dimension of Indian Industry; industrial Legislation, Industrial relations exit Policy and Social Security-Wages and Bonus Problems- Labour Market Reforms.

Module-V Project Planning and Appraisal

Project Formulation - Project Evaluation - Steps- Methods of project Evaluation-Cost - Benefit Analysis - Net Present Value (NPV) and Internal Rate of Returns (IRR) criteria.

MODULE – I PATTERNS AND STRUCTURE

Industrialization is the key to economic progress. In today's world there is no nation which can survive honourably without proper industrial advancement. Absence of industries from a country make it dependent on other nations thereby infringing the dignity of the people. Since the end of World War II most countries especially the underdeveloped ones have regarded industrialization as the 'short cut to greater wealth'. Even the planners of most developing countries are of the opinion that Industrialization is the only solution to their problems of poverty, insecurity, over population and economic backwardness. Industrialization and economic development go hand in hand. Prof. Gunnar Myrdal has rightly described the relationship of industrialization to economic development and writes- 'the manufacturing industry represents in a sense, a higher stage of production in advanced countries, the development of manufacturing industries has been concomitant with these countries spectacular economic progress and rise in the levels of living.

Industrial development is associated with an increase in per capita industrial output just the same way economic development is expected to increase the per capita income. Industrialization refers to a process in which changes of a series of strategical production functions are taking place. It involves those basic changes that accompanies mechanization of manufacturing enterprises, structural diversification of industries and expansion of markets in both domestic and export spheres.

Contents

1. Introduction to Industrialization.
2. Patterns of Industrialization.
3. Process of Industrialization.
4. Social Problems and Consequences of Industrialization.
5. Industrialization Influence.
6. Appropriate Industrial Technology.
7. Factors to Promote Industrialization.

1. Introduction to Industrialization

Pei Kang-Chang has said that, “industrialization in a way is a process of developing as well as widening of capital”. Eugene Staley has linked industrialization with high productivity and has said that “High productivity produces industrialization and that industrialization produces high productivity.”

Prof. S.C. Kuchhal has said that, “industrialization is also treated as a process in which the economic gains of industrial progress, mainly in the nature of increasing returns are continuously created and wholly or partially realised”. In UNESCO “industrialization means an absolute and relative growth in the importance of factories, mills, mines, power plants, railways and so on of manufacturing and closely related activities, especially activities involved in the

building and operation of a modern economic infrastructure.” Industrialization has also been defined as use of more capital per unit of output.

Industrialization and Per Capita Income:

Living standard of people is adjudged by the per capita income of the people. Needless to say that income is directly linked with industrialization. It is industry which provides employment to the skilled, semi-skilled and un-skilled labourers. No one can deny that vast difference between low per capita income of undeveloped and developing countries on the one hand and high rate of consumption and per capita income of developing countries is primarily due to industrialization.

Industrialization and Economic Development:

Industrialization and economic development always go hand in hand. In the words of Myrdal, “In advanced countries the development of manufacturing industry has been concomitant with these countries’ spectacular economic progress and rise in the levels of living – many of its products are indeed almost symbolic of a high living standard.”

Industrialization helps providing employment, raising paying capacity of the masses, national productivity and income. It also provides a viable solution to the ever-increasing economic problems of the countries faced with population explosion. It is industrialization alone which can help in proper exploitation of natural resources of a country to the best advantage of the natives themselves.

2. Patterns of Industrialization:

Patterns of industrialization vary from one country to the other. In England, France and the USA, by and large industry is in private sector whereas in China and USSR it is in public sector. In India we have mixed economy, where both public and private sectors are free participants in industrialization. Another pattern of classification can be whether process of industrialization is evolutionary or revolutionary though it is in fact very difficult to clearly differentiate between the two.

It is commonly believed that the pattern of industrialization in USSR was revolutionary whereas the one in the USA evolutionary. In an evolutionary pattern and process enterprising spirit, personal freedom and technology are main generating forces.

3. Process of Industrialization:

Each society had to pass through different stages before it became industrially progressive and advanced. Industrialization process is linked with social system on the one hand and rate of economic development and growth on the other. Whole process also proceeds from simple to the complex and that too passes through different stages, though the time taken may not be the same at every stage.

The time would always depend on available resources, availability of manpower, attitude of the government and its policies and programmes and also social system favouring or

disfavouring industrialization. Industrialization process and policy cannot however be framed in isolation.

Industrialization is a continuous process and usually passes through three stages. In the first stage secondary industry concerns itself with the processing of primary products e.g. milling grains and tanning leather etc. In the second stage secondary industry begins to transfer material to somewhat finished goods e.g., preparation of bread and confectionery etc.

In the third stage machine and equipment is used not for direct satisfaction of any want but for facilitating future process of production. Where there is first stage of industrialization, the country will be exporting bulk of its output whereas at the second stage the industry will be capable enough to serve its local needs.

Most of the developing countries have only reached second stage of industrialization. Third stage of industrialization indicates industrial maturity of the nation. At this stage the nation is in a position to not only satisfactorily meet its own needs and necessities but to export goods to other countries to meet their requirements as well.

Industrialization has become today motto and watch word of every developing nation. Those nations which have recently won freedom are making every effort to industrialise themselves. Of course the task is not easy, because the process of industrialization needs vast men and material resources and needs of the society are many which need immediate tackling.

4. Social Problems and Consequences of Industrialization:

Industrialization very deeply affects social patterns and processes. It changes our social outlook and approach to social problems. It influences family, religion and whole of our urban and rural pattern and set up.

Some of the important social effects may be discussed as under:

1. Social Adjustment:

Industrialization creates great problem of social adjustment. In a rural economy usually there is village solidarity and spirit of collectiveness. There is less of competition and more of co-operation. But with industrialization spirit of collectivism is replaced by individualism. Not only this, but village loses its family character.

2. Setback to Customs and Traditions:

The villages all over the world have their own customs and traditions. These develop after long years of labour. Industrialization changes whole outlook of the people towards these customs and traditions to the disadvantage of the society.

3. Effect on Family System:

Agricultural pattern favours joint family system, whereas industrialization not only discourages the system but makes that impossible because every village boy who manages to get a job in the industry cannot take his whole family with him.

4. Problem of Moral Standards:

Usually the old and young in a family live in a hut built by the workers around the factory. This creates moral problems for the grown up children both boys and girls.

5. Problem of Taxation Structure:

Pattern of taxation in agricultural economy is definitely different than the one which can be in industrialized society. Agriculture cannot be taxed to the extent to which industry can be taxed. Similarly agriculture can afford to have more direct taxation than the industry.

6. Health Problems:

Industrialization creates as well as solves many health problems. It can produce goods, which help in maintaining cleanliness etc. But usually it creates health problems. Industries fail to provide good accommodation to their low paid employees, who are forced to live in huts and shanties without proper drainage and water facilities. The smoke of the health is in itself a disease trap. Even there is problem of inhaling and exhaling. Thus industry creates its own health problems as well.

7. Setback to Handicrafts:

Handicrafts receive serious setback. Industry can produce goods quickly, in a better manner and with less cost. The goods produced by machine are better to look at. The people thus prefer to purchase machine made goods rather than handicrafts resulting in loss of income to the villagers and also lowering their living standard, making their lives economically miserable.

8. Deterioration in Urban Environment:

While discussing social effects of industrialization, Prof. Kuchhal has said “During a period of rapid industrialization there may be time lag between establishment of factories in the urban areas and making associated investments in public utilities, road and means of transport, housing, sanitation schools, hospitals and recreation facilities. It may lead to deterioration in urban environment, creation of slum conditions, overtaking of facilities and consequent reduction in the standard of living.”

9. Dis-Proportionate Urban-Rural Development:

When there is Industrialization naturally more stress is laid on the development of urban areas where the industries are located rather than the rural areas where there are no industries. The problem of urban-rural development is created. Urban areas develop only at the cost of rural area, which in turn creates its own problems.

It will thus be observed that industrialization results in the creation of many social problems. It influences our family and religion. In fact there is no aspect of life which is not influenced by industrialization either in one way or the other.

5. Industrialization Influence:

i. Influence of Industrialization on Internal Trade:

In an agricultural economy pace of trade inside the country is very slow. Whatsoever is produced, is locally consumed but, if there is at all any surplus production that is consumed in the nearby areas and localities without much bargaining. In an agricultural economy except agricultural goods there is no commodity in excess supply.

ii. Bulk Production becomes Possible:

But industrialization gives a new fillip to trade. With the establishment of new industries more and more goods are produced. It becomes then possible to produce goods in bulk so that demands of the consumers are met. An industrialist will then try to monopolise and ensure that his brand reaches every nook and corner of the country. The result of all this is that trade becomes brisk and more the industries are set more brisk the trade becomes. The whole nation then gets activities with business activities and nation becomes a centre of trade.

iii. Trade Pattern Changes:

In an agriculture economy, whatsoever is surplus is sent out as raw material, because the chances of internal consumption do not exist. But when country is industrialised, whole trade pattern changes. Raw material is consumed by the industry itself. Then there is no need to trade with outside market. The trade in these goods in the country becomes brisk.

iv. Effects on Foreign Trade Restrictions on Import of Goods:

But effects of industrialization are more on foreign rather than on internal trade. One of the important effects is that with the production of indigenous goods, and because of emergence of industrial area, import quota is considerably reduced. Thus every effort is made to put every restriction on the import of goods which are being manufactured in the country.

This is done with two main objects in view. The first object is that the newly set up industry is protected from competition of already established industries in the market. If newly set up industries are required to face world competition, these are bound to be ruined.

Then another objective is that foreign exchange is saved. Since each nation is always short of foreign exchange, therefore by putting ban on import of these goods, foreign exchange is saved. But one adverse effect of this policy is that extent of foreign trade comes down.

v. Diversification in Trade:

As long as the country is not industrialised, it is to depend on foreign market, for the purchase of only those commodities which are most essentially needed by the society. Thus trade is confined to few commodities only and that too, to a limited extent because limited foreign exchange availability does not permit to increase its scope. But when country becomes industrialised it becomes self-sufficient in some respects and is in a position to save some foreign exchange. Money thus saved can be used for the purchase of other goods and commodities.

vi. Both Way Trade:

Still another effect is that the trade becomes both ways traffic. Before industrialization, a nation is to depend on other countries. It is only to take and not to give. The exporting country is always in a better bargaining position and quotes terms to suit its convenience. On the other hand importing country has nothing to export or bargain. But with industrialization, the situation change.

vii. Dependence on Capital Goods:

Dependence for spare parts and capital equipments increases, in so far as countries going to be industrialised are concerned. For the establishment of industry machines and spare parts are needed. These are not manufactured in the country and ought to be imported from the countries which can provide them. In this way industrialization brings dependence on capital goods in foreign trade.

Industrialization in fact, influences balance of international trade. There are many instances to quote that those countries which were having adverse balance of trade before industrialization had a favourable trade balance after industrialization. Not only this, but after industrialization had many nations emerged as exporters instead of remaining as importers only.

6. Appropriate Industrial Technology:

1. Technology Factors:

There is no doubt that technological factors contribute very substantially to the raising of industrial productivity. In fact, it is the single most powerful factor with the greatest impact on industrial productivity. Just compare production of cloth by a worker with the aid of a handloom, a power loom and automatic loom and one can notice what difference technological factors have made to productivity.

Thus, "The application of motive power and mechanical improvement to the processes of production have accelerated the pace of industrialization to an unprecedented degree, and have given us the vision of the past and unexplored frontiers that still lie ahead of us in the realm of science and technology." Mechanical power highly complicated and sophisticated machines, efficient integration of various processes of production, specialisation of work have all tremendously increased industrial productivity.

If Ford could produce just about six cars per month when the factory was established in the beginning of the present century, the same factory can now turn out, a car per minute, thanks to the unprecedented advances in sciences and technology and assembly line production system.

i. Increase in Productivity:

But it is very difficult to measure exactly how much increase there has taken place in industrial productivity due to technological progress and advances, though it's tremendously favourable impact on industrial productivity is undoubted.

If, in developing countries like India, industrial productivity is relatively low compared to that in the developed countries, one very important reason is obsolete machinery, lack of spare parts, absence of or inadequate skills for handling machines, inadequate power supply and comparative neglect of Research and Development which are the very foundation and basis of technological progress and continual advances.

ii. Technological Aspect of Production:

So far as technological aspect of rationalisation is concerned, it involved standardisation of product, simplification of process of production wherever possible, mechanisation of process of production, intensification of efforts by labour, and specialisation of work.

iii. Standardisation:

Standardisation implies a judicious process of selection of materials and products. It means fixing of certain standards, eliminating unsuitable sizes (for example, two or three standard sizes of toilet soaps rather than having hundreds of sizes of different shapes and forms). Elimination of undesirable sizes would increase productivity of existing industrial units and of capital equipment.

iv. Simplification:

Simplification implies rendering complex industrial productive processes simple. On the basis of experience and experimentation complex technical process can be reduced to simple processes. With the simplification of technical operations, workers would find it easy to acquire the skills and, thus, become more efficient and productive.

Standardisation of a product would be beneficial from the point of view of retailers who will have to keep a smaller stock and also beneficial from the point of view of consumers as they will have to choose from among a fewer but better varieties of a product.

v. Mechanisation:

Mechanisation implies mechanical operations in place of manual handling of production process. Mechanisation ensures uniformity, accuracy and regularity of supply.

Mechanisation helps to bring about standardisation of products and thus helps to reap all the advantages of standardisation.

vi. Intensification:

Intensification implies increasingly rapid speed of execution. The main objective of 'intensification' is increasing the rapidity of productive processes by removing inefficiency and slackness. Mechanisation also results in specialisation or helps to bring about specialisation with increasing efficiency of labour and productivity and lower costs of production and prices of goods.

Thus, it would be observed that standardisation, simplification, mechanisation with increasing efficiency of labour and productivity and lower costs of production and prices of goods.

2. Organisational Aspect:

On the organisational front, rationalisation implies some sort of agreement and coordinated action by all the producers in an industry with a view to coordinate total supply with total.

7. Factors to Promote Industrialization:

Process of industrialization is not very easy. The difficulties are of course great, but it is wrong to think that these are insurmountable. Though it may take time but gradually a determined nation will be in a position to industrialise itself.

Some of the factors which promote industrialization may briefly be discussed as under:

1. Availability of Natural Resources:

A country which wishes to industrialise itself will be in a position to do so soon in case natural resources are available in the country and the nation is not to depend on other nations for making these available. Natural resources provide basic raw material needed for the promotion of industry.

It is then left to the Government to arrange and to see that these resources are properly exploited and made available to the industry as such low rates that it can afford to produce goods at cheap rates for the nation as whole.

2. Entrepreneurial Ability:

A country having able entrepreneurs will always go faster on the path of industrialization, as compared with a country, which has no able managers. It is the responsibility of the country to produce able managers. The nation should also see that those who are trained in industrially advanced countries do not become a class among themselves, but provide sufficient training to others in the country so that stream of trained people flows in the country itself.

3. Facilities to Labourers and Workers:

Industrialization becomes easy where facilities to labourers and workers are available in the industries and they feel attracted and tempted to join these. These facilities should be so alluring and attractive.

4. Setting Up of Corporations:

One method which can promote industrialization is that Industrial Development Corporations should be set up, which should be exclusively responsible for the development of different sectors in the industry and should ensure that problems which come on the path of industrialization are immediately removed so that whole process becomes smooth.

5. Availability of Labour:

In the countries where manpower both skilled and unskilled is available, path of industrialization will be easy, as compared with the industries, where it is not available.

6. Availability of Capital:

In underdeveloped and undeveloped countries the capital for setting up new industries is usually very short and shy. It is preferred to be spent on purchase of agricultural land, because more prestige is attached to that. Moreover whereas returns from agricultural lands are sure, these are speculative in the case of industrial investments.

The government can promote industrialization by providing incentives to the shy capital by way of guaranteeing return of capital used in setting up industries or by giving some minimum profit on the investments made so that the problem of risk in investments is solved.

7. Role of International Organisations:

In the process of industrialization international bodies play a vital role. It is with the help of these bodies that the exchange of expertise, technical knowhow and difficulties of foreign exchange are considerably solved. Who does not know that such international bodies as World Bank; International Finance Corporation; International Development Association; International Monetary Fund and International Fund for Economic Development have played a vital role in the industrialization of non-industrialised countries.

8. Role of Industrially Advanced Countries:

Industrially advanced countries can play a big role in the complex and difficult task of industrialization.

This they can do by:

- (i) Technical personnel to train the untrained people of less advanced countries;

- (ii) By providing training facilities to the students of developing countries in their own country;
- (iii) By providing them machinery and where necessary funds as well;
- (iv) By assuring non-industrialised nations that supply of spare parts of the machinery being supplied to them will be continued;
- (v) By way of long term loans, thereby not taxing their limited resources;
- (vi) By assuring countries that situation will not be allowed to develop in which good produced will not be consumed.

1. Easy Availability of Foreign Capital:

In case foreign capital is easily available, then industrialization becomes easy. It helps in two ways; firstly foreign exchange becomes easily available and secondly it becomes possible to fully utilise internal available resources for industrialization. In many cases though the nation may spare finances from internal resources, yet their utilisation might not become possible because necessary foreign capital for setting up industry is not available.

2. Arrangements for Providing Protection:

It is essential that newly set up industries should be given protection, from foreign manufactured cheap but good goods till these come of age and are in a position to compete with advanced countries of the world.

3. Checking of Inflation:

Industrialization needs heavy investments, for which money can be raised both by internal resources and with the help of foreign nations. Usually less advanced countries of the world are not in a position to bear the burden of this extra investment resulting in inflation. This makes masses vehemently oppose industrialization. It is therefore, essential that investment in industrialization should be made only to the extent to which economy can bear that and inflationary tendencies are effectively checked.

4. International Trade:

Each nation today has international trade both for development and survival. It is with its help that foreign exchange becomes easily available, and nation can procure machinery and spare parts. Consumption of goods produced is facilitated.

5. Industrial Planning

Industrialization of non-industrialised nations needs proper planning. Industrial planning must clearly specify the extent to which the nation is prepared to industrialise, itself and also the ways and means of industrialization. It should decide priority areas of

industrialization. But greatest care to be taken is that different sectors of industrial economy do not clash with each other and are harmoniously allowed to grow.

6. Government's Fiscal Policies

If a nation wants to go industrially fast, it enjoins upon the Government of that nation to follow a fiscal policy which is sound and conducive for industry. The policy should discourage speculative investment, bring about an increased investment; increase in number of subsidiary industries and provide for tax concessions in re-investment.

These are some of the steps which promote industrialization, but all these cannot be taken all at once. It takes a very long time to formulate industrial policy and still more to implement that, because no industrially backward nation can successfully launch programme of industrialization without active co-operation of international organisations on the one hand and industrially advanced countries on the other. In the wake of industrialization, cottage industries receive a setback and importance of agriculture is reduced to a considerable extent.

Main Components of the Industry Structure

1. Competitors

The intensity of competition from existing competitors will depend on several factors including:

1. The number of competitors.
2. Their relative size.
3. Whether their product offering and strategies are similar.
4. The existence of high fixed costs.
5. The commitment of competitors.
6. The size and nature of exist barriers.

2. Potential competitors:

Potential competitors who might have an interest in entering an industry. Whether potential competitors, identified or not, actually do enter, however, depends in large part upon the size and nature of barriers to entry. Thus, an analysis of barriers to entry is important in projecting the likely competitive intensity and profitability levels in the future.

3. Economies of scale:

If scale economies exist in production, advertising, distribution, or other areas, it becomes necessary to obtain a large volume quickly. Such an effort not only increases the investment but it also increase the risk of retaliation from existing competitors.

Reliance Fresh opted this strategy for reducing the price of fruits and vegetables in its retail outlets.

4. Distribution channels:

Gaining distribution in some industries can be extremely difficult and costly. Even large established firms that sell products with substantial marketing budgets have trouble obtaining space on the supermarket shelf. Competition between Pepsi and Coke limit the customers' choice on cola as most of the retail outlets have a policy of eliminating one cola product from their shelves.

5. Product differentiation:

Established firms may have high levels of customer loyalty caused and maintained by protected product features, a brand name and image, advertising, and customer service. Industries in which product differentiation barriers are particularly high include soft drinks, beer, cosmetics, over-the-counter drugs, and banking.

6. Substitute products:

Substitute products are represented by those sets of competitors that are identified as competing with less intensity than the primary competitors.

7. Customer power:

When customers have relatively more power than sellers do, they can force prices down or demand more services, thereby affecting profitability. A customer's power will be greater when its purchase size is a large proportion of the seller's business, when alternative suppliers are available, and when the customer can integrate backward and make all or part of the product.

8. Supplier power:

When the supplier industry is concentrated and sells to a variety of customers in diverse industries, it will have relative power that can be used to influence prices. Power will also tend to be enhanced when the costs of customers to switch suppliers is high.

Hoffmann and the Growth of Industrial Economies:

One pioneer study concerns the division of industrial output between consumer and capital goods. It was made by Walter Hoffman in his book *The Growth of Industrial Economies*, in which he states:

Our main argument is as follows: whatever the relative amounts of the factors of production, whatever the location factors, whatever the state of technology, the structure of the manufacturing sector of the economy has always followed a uniform pattern. The food, textiles, leather and furniture industries which we define as 'consumer goods industries' always develop first during the process of industrialization. But the metal working, vehicle building engineering and chemical

industries the capital goods industries in the consumer goods industries continually declines as compared with the net output of the capital goods industries.

This, Hoffman argues, is a gradual process but in his analysis he divides it into a number of stages which, he says “can be identified for all free economies”

Stage of Industrialization:

In Hoffman’s frame work the pattern of industrial growth is as follows:

Stage I : domination of consumer-goods industries

Stage II : capital-goods industries become increasingly important and have an output nearly half as great as the consumer-goods industries

Stage III : Balance of consumer-goods industries and capital-goods industries with a tendency for the capital-goods industries to expand rather more rapidly than the consumer goods industries. The downward movement in the ratio of the net output of consumer goods industries to that of capital goods industries is observable for a wide range of countries.

According to Hoffman the older industrial countries passed through first stage of industrialization before the end of the 19th century. These included Belgium, Great Britain, France, Switzerland and by the end of century Japan. The same stage was reached by a number of other countries in the years 1906-48: Brazil, Chile, Mexico, Argentina, India and New Zealand. Most of the more Industrialized countries had already reached the second stage of industrialization by the end of the 19th century: Germany, France, Switzerland, USA, Belgium and Great Britain.

Other countries had all reached this stage by 1940. Some but not all of these countries had by the middle of the 20th century or earlier reached the third stage of industrialization: these were Great Britain, France, Switzerland, Denmark, Belgium, Italy, Sweden, USA, Germany, Canada, Australia and Africa.

There were, of course, differences in the speed with which countries moved from one stage of industrialization to the next. In terms of the net output ratio of consumer goods to capital goods in the industrial sector.

Hoffman identifies three groups of Countries:

Those with a sharp rate of decline (Japan and Germany)

Those with a medium rate of decline (Britain, France, Belgium. Australia and South Africa)

Those with a low rate of decline (USA, Canada, Argentina and Denmark).

Countries such as the United States for Which Hoffmann has data for a continuous series of years reveal the same continual decline in the ratio which the figures for years at discrete intervals also show.

He does suggest that certain particular industries have normally been dominant during particular phases of industrial growth: in successive stages of development new industries will

come to the fore and take the place of the original 'dinubabt' industry. The dominant industries have, in general, been the food and textile industries during the first two stage of development. In some cases, however, the textile industries have continued to occupy the dominant place even during the third stage of industrialization.

Comments on Hoffman's Patten:

Firstly, there are three rather minor points. One is the limitations of the statistical sources upon which Hoffmann relies; particularly for the earlier years, industrial statistics tended to be generally inadequate, and also they often not strictly comparable between different countries; at times Hoffmann is forced to estimate net output from employment figures.

A second criticism which has been leveled against Hoffmann's analysis invites a similar dismissal. This is that his choice of industries for inclusion in the two industrial sectors is misleading. Hoffmann discusses in some detail the classification of industries between the two sectors and certain industries, which are hardest to classify are left out altogether.

A third objection to Hoffmann's analysis which is not of fundamental significance is his attachment to the notion of 'stages' of industrialization which are defined in terms of certain specific values of the net output ratios between consumer and capital goods. The values of the ratio which define them are purely arbitrary and it would have been just as logical to choose less or indeed many more, stages of industrialization on these criteria.

It is clear that in the early years of industrialization there is no necessity for newly industrializing countries to follow the pattern which Hoffmann has identified.

It is interesting that China appears to have passed through all Hoffmann's stages in a single decade.

If a country is to be described as highly industrialized only on the basis of the net output ratio between capital goods and consumer goods then it is possible that a country which happens to have a high proportion of its industrial sector producing capital goods could be classified in the third stage of industrialization even though total industrial output might be extremely small.

Finally, the categories of industrial production within which Hoffman finds his broad pattern are still too broad to be of very much use to policy makers in countries wishing to industrialize.

Hoffmann's pattern suggests that if governments adopt no particular policy towards industrialization, consumer goods are liable to develop before capital goods. But the output of capital goods within the industrial sector will, in the long run, grow faster. The pattern does not tell planners whether it would be wise to leap over portions of this progression and take positive measures to establish capital goods industries in such a way as deliberately to alter the net output ratio between the two sectors.

This is one argument against the operational usefulness of Hoffmann's patterns for industrial planning or forecasting which might be removed by the establishment of patterns of industrial growth based on much finer sectoral categories.

Chenery's Patterns of Industrial Growth:

If fact, most of the attempts to establish patterns of industrial growth are just of this kind, and the most important of these studies are those by Chenery and Taylor and by the UN Department of Economic and Social Affairs.

Chenery is concerned with three major changes in economic structure as industrialization proceeds:

A rise in the relative importance of manufacturing industry;

A change in the composition of industrial input;

Changes in production techniques and sources of supply for individual commodities. In his study, Chenery estimates a liner logarithmic regression equation in which per capita value added depends upon per capita income and population based on his analysis he characterizes this pattern as follows:

In the 1960 study Chenery proceeds to determine normal output levels from group of industries classified according to the nature of demand for their product. There are:

- Investment and related products.
- Intermediate goods.
- Consumer goods.

This is a similar type of calculation to that made by Hoffmann, but at least one of the minor objections to Hoffmann's analysis is overcome by Chenery through a more satisfactory division of industries.

Chenery reaches the following conclusions:

The difference in growth elasticities between investment goods and consumer goods is almost as great as the difference between agriculture and industry.

The original conclusions are contained in the two further sections of Chenery's 1960 analysis on the causes of industrialization and on the detailed composition of output between industries within the manufacturing sector, and also in Chenery and Taylor's division of countries into size categories.

By "cause of industrialization" Chenery means three sources of demand for industrial products:

The substitution of domestic production for imports;

Growth in final use of industrial products;

Growth in intermediate demand stemming from 1 and 2.

Chenery further explains 70 per cent of industrial growth through the regression on levels of income per head. Among the other factors at work he attached most importance to scale effects resulting from differences in the size of countries and to the effects of different resource endowments.

In the Chenery and Tylor study the importance of both size and resource endowments are brought out much more specifically by division of the sample into three groups of countries:

- Large
- Small industry oriented
- Small primary oriented

This desegregation allows for a much more discriminating cross section regression analysis from which Chenery and Taylor derive three quite distinct patterns of growth.

For the large country the proportion of industry in national product rises rapidly then levels off to reach a peak.

There are few countries which deviate significantly lower than average share of industry and other have a noticeably higher share.

The pattern of growth for the small industry-oriented country is very similar to the large country pattern in terms of the effects of level of income. But other variables in the regression equations have a very different effect; not surprisingly, for small countries changes in the composition of exports between primary products and manufactured goods make a considerable difference in the composition of output as a whole; the share of investment however is less significant since most capital goods are imported.

They also show the relationship between income per head and the share of twelve manufacturing industries in GNP for the three groups of countries. One interesting common feature of these patterns is the tendency for the share of individual industries to fall or to rise more slowly, after high levels of income are reached in large countries. This tendency is not noticeable for the smaller countries, though there are in fact very few small countries with high income levels. A common pattern for small primary oriented countries is an accelerating increase in the output of several industries as a share of national output as higher levels of income are reached for almost all industrial sectors the differences between shares of national output at high levels of income are much closer for the three categories of country than they are at low levels of income. Since at low levels of income small industry-oriented countries are almost certain to be specializing in a few industries rather than to have a full industrial structure, then as incomes rise we find the share of some industrial sectors in national product falling.

The hope, which dictated such detailed examination of Chenery's conclusions, was that an analysis of patterns of industrial growth based on a more detailed breakdown of sectors and industries would have more relevance to policy making than the broader patterns identified by other writers. But the main aim in developing countries is to raise income levels as rapidly as possible and the association which Chenery finds "tells us very little about the factors causing the

rise in income itself. Nevertheless, he claims, growth is likely to be 'accelerated by anticipating derivable changes in resource use, and retarded by institutional arrangements or government policies that inhabit such changes.

The principal feature of this pattern is the rise in the share of industrial output as become level increases. The share of transportation and communication also doubles over this range, while primary production declines. This regression analysis confirms Kuznets conclusion that the share of services in national product does not vary significantly with the level of per capita income.

Chenery and Taylor found a better explanation of the share of industry in national product in a more recent study by using a considerably more complex regression equation: the explanatory variables, which in the earlier study were income per head and population, are in the later study income per head population, the share of gross fixed capital formation in GNP the share of primary exports in GNP and the share of manufactured exports GNP; in addition the equation contains one non-linear term which 'allows for the decline in elasticities with rising income noticed in most industrial sectors and avoids the necessity of dividing the sample by income level. Even so there are considerable contrasts in the relationship between the growth of industry and the growth of total output.

Simon Kuznets Interpretation of Secular Changes in Industrial Development

Secular change is a descriptive word used to refer to market activities that occur over the long term. Secular change can also point to specific stocks or stock sectors unaffected by short-term trends. Secular trends are not seasonal or cyclical. Instead, they remain consistent over time. Secular change stocks maintain a static trajectory regardless of current economic trends. When applying the term to the stock market, a secular market is the market's overarching trend or direction for five years or more.

The long secular movements of the shares of agriculture, industry and service sectors in total output provide confirmation at higher levels of aggregation of the enduring presence of growth rate diversity and structural change. As do the shifting rural-urban balance of the population, changes in working hours and changes in the pattern of household consumption. Indeed the long swing of development must have been marked by as much by the transformation of preferences as by the transformation of industry.

Secular Growth

Secular growth occurs when something fundamentally changes within a sector or industry, creating a wave of new demand. Secular growth rates can be materially higher than cyclical growth rates, as secular growth depends on changes in customer behavior rather than changes to GDP.

Types of Secular Growth

Secular growth can take many forms, and trends can differ across industries, but at the highest level we feel there are three primary types: (1) foundational technology; (2) replacement product, existing market; (3) new product, new market. And of course, individual companies sometimes fit into multiple categories.

Foundational Technology

Some technological innovations are so impactful that they not only generate their own wave of demand, but they also create a foundation upon which other businesses can grow. Importantly, companies at the epicenter of a foundational secular trend do not necessarily perform better or become larger than the firms that they eventually spawn.

The advent of the internet is a great example. Plenty of companies profited from the development of the internet infrastructure, but over time the biggest winners have been firms that successfully leveraged the technology, including Amazon, Google, Facebook, and Netflix.

Replacement Product, Existing Market

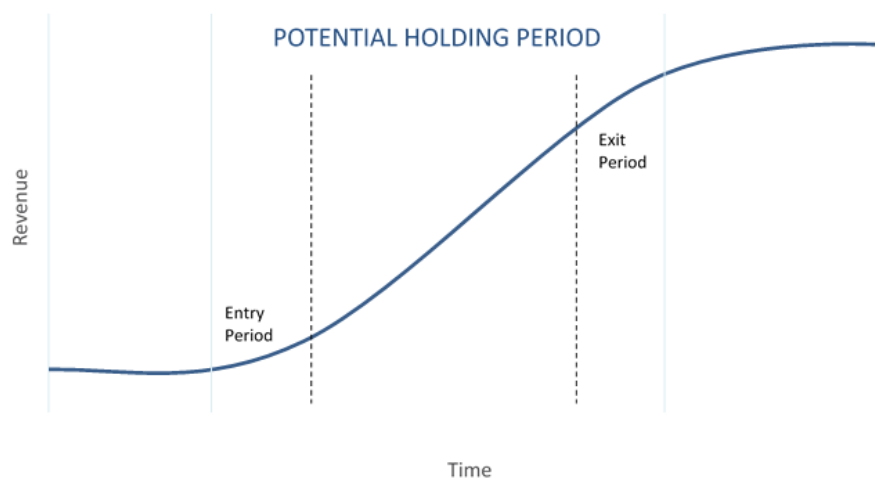
Another major catalyst for secular growth occurs when an innovative startup builds a “better mousetrap,” taking market share from established incumbents. The key element to this type of growth is that the new company already knows that a viable market exists for its products/services. If they can truly deliver a superior solution, customers happily migrate, which results in outsized growth.

New Product, New Market

The third major type of secular growth occurs when an innovative startup develops a new product/service for a new market. In this case, the new offering must address a growing problem that has been previously unsolved, creating naturally strong demand.

Secular Growth in Practice

As emerging growth managers, we are constantly searching for companies that are well-positioned to take advantage of an untapped secular trend and deliver above market returns. The chart below provides a visual representation of our objective – to invest in companies just as they enter a period of sustained revenue acceleration.



Below we have listed three companies from our portfolio that we feel have identified important secular growth trends and that we expect to deliver attractive returns over the near to medium term.

MODULE – II INDUSTRIAL LOCATION ANALYSIS

Meaning of Industrial location

Localisation means the concentration of a certain industry in a particular area, locality or region. Localisation is related to the territorial division of labour, that is, specialisation by areas or regions. A certain town or region tends to specialise in the production of a particular commodity.

Causes of Localisation:

What factors influence the location of an industry in one area rather than in another? “When a firm chooses its location it may be influenced by a wide range of factors from the relative costs of alternative sites to the irrational whims of the businessman. Fancy and chance play a part; liking for a particular district, the accident of having been born in it, and so on.” But all factors are influenced by low costs of production, and minimum transport costs. These causes may be enumerated as under:

1) Climatic Conditions:

Climatic or soil conditions in certain areas are suited for the production of a particular product. Such an area has got an overwhelming advantage over other areas. If efforts are made to develop other areas by artificial means, the cost of manufacture would be very high. This is the reason for the concentration of tea industry in Assam and North Bengal and of coffee industry in the Nilgiris.

2) Nearness to Raw Materials:

Nearness to raw materials is a dominant factor in the location of an industry, especially that industry which uses bulky raw material that is expensive to transport and loses weight in the manufacturing process.

3) Nearness to Sources of power:

Nearness to the sources of power is another important cause of localisation of industries. This explains the concentration of iron and steel industry near the coal-fields. The farther coal is carried away from the coal mines, the higher become the costs of transportation. But with the development of hydro-power and atomic-power, coal as a source of power has become less important because the former can be carried to hundreds of kilometres with comparatively less cost.

4) Nearness to Markets:

Before starting an industry, an entrepreneur has to take into consideration the market potentialities of his product. If the market is quite away from the place of manufacture, transport costs will be high which will raise the selling price of the product in comparison with other similar products which are manufactured near the market.

5) Adequate and Trained Labour:

Industries tend to be concentrated in those areas where adequate supplies of trained labour are available. New industries are also attracted to such areas. The growth of many industries around Mumbai, Calcutta, Chennai and Delhi is due to a regular supply of labour in these areas from far and near.

6) Availability of Finance:

Finance is the life of every industry. Industries are located in those areas where banking and financial facilities are easily available. As a matter of fact, capital is attracted to those areas where industries are localised which, in turn, attract more industries. Mumbai, Calcutta, Chennai and Delhi being the centres of industry have better banking and financial facilities than other cities.

7) Political Patronage:

Political causes have the greatest influence in the concentration of industries. The patronage given by the Hindu and Muslim rulers led to the concentration of silk industry in Varanasi and ivory work in Delhi. In recent years, the various concessions provided by the State Governments in India in the form of cheap land, credit, power and transport facilities have led to the development of new industrial centres.

Consequences of Localisation:

Localisation has both advantages and disadvantages.

Advantages:

When an industry is localised in a particular locality, it enjoys a number of advantages which are enumerated below.

1) Reputation:

The place where an industry is localised gains reputation, and so do the products manufactured there. As a result, products bearing the name of that place find wide markets, such as Sheffield cutlery, Swiss watches, Ludhiana hosiery, etc.

2) Skilled Labour:

Localisation leads to specialisation in particular trades. As a result, workers skilled in those trades are attracted to that place. The localised industry is continuously fed by a regular supply of skilled labour that also attracts new firms into the industry. Besides, there is the local supply of skilled labour which children of the workers inherit from them. The developments of the watch industry in Switzerland, of the shawl industry in Kashmir, and of the brassware industry in Moradabad are primarily due to this factor.

3) Growth of Facilities:

Concentration of an industry in particular locality leads to the growth of certain facilities there. To cater to the needs of the industry, banks and financial institutions open their branches, whereby the firms are able to get timely credit facilities. Railways and transport companies provide special transport facilities which the firms utilise for bringing inputs and transporting outputs. Similarly, insurance companies provide insurance facilities and thus cover risks of fire, accidents, etc.

4) Subsidiary Industries:

Where industries are localised, subsidiary industries grow up to supply machines, tools, implements and other materials, and to utilise their by-products. For example, where the sugar industry is localised, plants to manufacture sugar machinery, tools and implements are set up, and subsidiary industries crop up for the manufacture of spirit from molasses and for rearing poultry which utilise molasses in feed.

5) Employment Opportunities:

As a corollary to the above, with the localisation of an industry in a particular locality and the establishment of subsidiary industries, employment opportunities considerably increase in that locality.

6) Common Problems:

All firms form an association to solve their common problems. This association secures various types of facilities from the government and other agencies for expanding business, establishes research laboratory, publishes technical and trade journals, and opens training centres for technical personnel. As a result, all firms benefit.

7) Economy Gains:

Localisation leads to the lowering of production costs and improvement in the quality of the products when the firms benefit from the availability of skilled labour, timely credit, quality materials, research facilities, market intelligence, transport facilities, etc. Besides, the trade gains through the reputation of the place, the people gain through larger employment opportunities, the government gains through larger tax revenue, and thus the economy gains on the whole.

Disadvantages:

But localisation is not an unmixed blessing. It has its disadvantages.

1) Dependence:

When an industry is localised in a particular locality, it makes the economy dependent for its requirements of the products manufactured there. Such dependence is dangerous in the event of a war, a depression, or a natural calamity because the supplies of the products will be disrupted and the entire economy will suffer.

2) Social Problems:

Localisation of industries in a particular locality creates many social problems, such as congestion, emergence of slums, accidents, strikes, etc. These adversely affect the efficiency of labour and the productive capacity of the industry.

3) Limited Employment:

Where an industry is localised, employment opportunities are limited to a particular type of labour. In the event of a recession in that industry, specialised labour fails to get alternative employment elsewhere. Again, if such specialised labour organises itself into a powerful trade union, it can force the employers to pay higher wages which may raise the cost of production and adversely affect the industry.

4) Diseconomies:

With the passage of time, the concentration of industries in a particular locality, economies of scale may give way to diseconomies. Transport bottlenecks emerge. There are frequent power break-downs. Financial institutions are unable to meet the credit requirements of the entire industry due to financial stringency. As already noted above, labour asks for higher wages and better living conditions. All these tend to raise costs of production and reduce production.

5) Regional Imbalances:

Concentration of industries in one region or area leads to the lop-sided development of the economy. When one industry is localised in a region, it attracts more entrepreneurs who establish other industries there because of the availability of infrastructure facilities like power, transport, finance, labour, etc. Employment opportunities, the level of income, and the standard of living increase at a much higher rate in these regions as compared with the other regions of the country.

Decentralisation of Industries:

To overcome the disadvantages of localisation of industries, decentralisation is recommended. Decentralisation refers to the policy of dispersal of industries, whereby an industry is scattered in different regions of the country.

Besides removing the defects of centralisation of industries, the policy of decentralisation is essential from the strategic and defence points of view. The policy of decentralisation of industries requires the development of sources of power and means of transport in all areas of the country.

To encourage private enterprise to set up industries in backward areas, the state government should provide land, power and other infrastructure facilities at concessional rates. The central government should give tax concessions and various financial institutions should provide cheap credit facilities. It is in this way that the disadvantages of localisation can be removed and the different regions develop in a balanced way.

Determinants of Industrial Location:

Geographical and Non-Geographical Factors

Many important geographical factors involved in the location of individual industries are of relative significance, e.g., availability of raw materials, power resources, water, labour, markets and the transport facilities.

Geographical Factors

1. Raw Materials:

The significance of raw materials in manufacturing industry is so fundamental that it needs no emphasising. Indeed, the location of industrial enterprises is sometimes determined simply by location of the raw materials. Modern industry is so complex that a wide range of raw materials is necessary for its growth.

2. Power:

Regular supply of power is a pre-requisite for the localisation of industries. Coal, mineral oil and hydro-electricity are the three important conventional sources of power. Most of the industries tend to concentrate at the source of power.

3. Labour:

No one can deny that the prior existence of a labour force is attractive to industry unless there are strong reasons to the contrary. Labour supply is important in two respects (a) workers in large numbers are often required; (b) people with skill or technical expertise are needed.

4. Transport:

Transport by land or water is necessary for the assembly of raw materials and for the marketing of the finished products. As industrial development also furthers the improvement of transport facilities, it is difficult to estimate how much a particular industry owes to original transport facilities available in a particular area.

5. Market:

The entire process of manufacturing is useless until the finished goods reach the market. Nearness to market is essential for quick disposal of manufactured goods. It helps in reducing the transport cost and enables the consumer to get things at cheaper rates.

6. Water:

Water is another important requirement for industries. Many industries are established near rivers, canals and lakes, because of this reason. Iron and steel industry, textile industries and chemical industries require large quantities of water, for their proper functioning.

7. Site:

Site requirements for industrial development are of considerable significance. Sites, generally, should be flat and well served by adequate transport facilities. Large areas are required to build factories. Now, there is a tendency to set up industries in rural areas because the cost of land has shot up in urban centres.

8. Climate:

Climate plays an important role in the establishment of industries at a place. Harsh climate is not much suitable for the establishment of industries. There can be no industrial development in extremely hot, humid, dry or cold climate.

II. Non-: Geographical Factors

The non-geographical factors are those including economic, political, historical and social factors. These factors influence our modern industries to a great extent. Following are some of the important non- geographical factors influencing the location of industries.

1. Capital:

Modern industries are capital-intensive and require huge investments. Capitalists are available in urban centres. Big cities like Mumbai, Kolkata, Delhi, and Chennai are big industrial centres, because the big capitalists live in these cities.

2. Government Policies:

Government activity in planning the future distribution of industries, for reducing regional disparities, elimination of pollution of air and water and for avoiding their heavy clustering in big cities, has become no less an important locational factor.

The latest example in our country is the establishment of a large number of industrial estates all over India even in the small-scale industrial sector. It is of relevance to examine the influence of India's Five Year plans on industrial location in the country.

3. Industrial Inertia:

Industries tend to develop at the place of their original establishment, though the original cause may have disappeared. This phenomenon is referred to as inertia, sometimes as geographical inertia and sometimes industrial inertia.

4. Efficient Organisation:

Efficient and enterprising organisation and management is essential for running modern industry successfully. Bad management sometimes squanders away the capital and puts the industry in financial trouble leading to industrial ruin.

5. Banking Facilities:

Establishment of industries involves daily exchange of crores of rupees which is possible through banking facilities only. So the areas with better banking facilities are better suited to the establishment of industries.

6. Insurance:

There is a constant fear of damage to machine and man in industries for which insurance facilities are badly needed.

Weber's Theory of Industrial Location:

Alfred Weber a German economist was the first economist who gave scientific exposition to the theory of location and thus filled a theoretical gap created by classical economists.

His theory, which is also known as 'Pure Theory' has analytical approach to the problem.

The basis of his theory is the study of general factors which pull an industry towards different geographical regions. It is thus deductive in approach.

Salient Features of Weber's Theory:

The first and perhaps the most important feature of the theory given by Weber is its division into two parts: Pure theory and Realistic theory. Other features of his theory are that it is based on the deductive method and incorporates all those general factors which attract or repel industries in some areas or regions and ultimately decide the basic location structure of these industries.

Weber's Problems:

Weber was faced with many serious problems. He wanted to find out why did industry moved from one place to another and what factors determined the movement. After considerable thinking he came to the conclusion that causes be responsible for this migration could be Regional Factors Primary Causes and Agglomerative and deglomerative factors (Secondary Factors).

Regional factors were concerned these, among other things, included cost of the ground, buildings, machines, material, power, fuel, labour, transportation charges and amount of interest that the capital would have earned.

(i) Regional Factors (Primary Causes):

According to Weber transportation costs play a vital role in the location of an industry. Each industry will try to find location at a place where transportation charges are the barest minimum, both in terms of availability of resources and place of consumption.

The cost will also depend on the type of transportation system available and the extent to which it is in use.

Locational Figure:

Weber has discussed the idea of locational figure. According to him every industry will try to see that it is located at a place where raw material is available nearest to the place of consumption on the one hand and most advantageously located material deposits on the other.

Classification of Material:

Weber, before proceeding further, has classified raw material into different categories e.g.:

- a) Ubiquities material; which is suitable everywhere e.g. bricks, clay etc., and
- b) Localised material e.g., iron ore, mineral etc. which is available in certain regions and not everywhere.

Laws of Transportation:

According to him, “All industries whose material index is not greater than one and whose locational weight therefore, are not greater than two lie at the place of consumption.”

Causes of Deviation of Location:

Weber himself has said that, with a high index of labour costs, a large quantity of labour costs will be available for comparison with correspondingly high critical isodapanes, and therefore we shall find a high potential attracting powers of the labour locations and vice versa.

According to Weber’s theory if the behaviour of each industry in respect of labour cost is to be measured than it is necessary to calculate the proportion of labour costs per ton of weight to be moved.

(ii) Agglomerative and Deglomerative Factory (Secondary Causes):

Weber has also discussed secondary causes responsible for industrial location. He has taken into account agglomerative and deglomerative factors. An agglomerative factor, according to him is a factor which provides an advantage in production or marketing a commodity simply because industry is located at one place. On the other hand deglomerative factor is one which gives such advantage because of decentralisation of production.

Agglomerative factors include gas, water etc. and are conducive for concentration of industry and deglomerative factors include land values and taxes and lead to decentralisation.

According to Weber Agglomeration is encouraged with high co-efficient and deglomeration with low.

Split in Location:

According to him in fact single location is an exception and split a rule. It is essential, according to him that all productive processes must go on at one and the same place and it is better that these be carried out at different stages and at number of places. Split is to occur in two stages. In the first stage it is elimination of waste and in the second working up of pure material.

Weber along with split in location has also given the idea of locational coupling, meaning thereby that different types of industries can be coupled in one and the same locality.

Sargent Florence's Theory of Location:

Professor Sargent has followed the inductive method in formulating his theory of location. Sargent's theory is more practical and realistic than that given by Weber. . According to Sargent, relation between industry and area was not as important as the relation of the industry to the distribution of occupied population as a whole.

According to him geographical location of an industry is not as important, as the distribution of occupied population. His main consideration is that occupational distribution of population should be the main and primary factor for taking into consideration the location of an industry.

His theory is mainly based on inductive analysis and while explaining location factor of an industry he has taken into consideration location factor and co-efficient of localisation. Sargent has used two new concepts in his theory of location.

Factors they are:

- (i) Location factor
- (ii) Coefficient of localization:

(i) Location factor:

Location factor refers to the percentage of all workers in a particular industry found in a certain region to the percentage of all workers in that industry.

It can be calculated by any of the following methods:

- 1) By dividing total industrial population of a place by total industrial population of the country.
- 2) By dividing total industrial population of the locality in the industry concerned by total industrial population of the country in the same industry concerned.

(i) Coefficient of localization:

Coefficient of localization indicates the propensity of concentration of industries. This has no relation as such with the area. If the percentage of workers over different areas is also

given in percentage, the variance between the two percentages is divided by 100 which give the coefficient of location.

August Losch

Profit Maximisation Theory of industrial location:

Introduction to the Profit Maximisation Theory:

August Losch, a German economist, the least cost location theory of Weber was wholly discarded by Losch. In fact, he suggested that, 'profit maximization' is the only objective of the entrepreneur, whether it is state or an individual. The major objective of the industry is, therefore, to find out the place where maximum profits occur.

Weber, who postulated his entire theory in an economic state of perfect competition, Losch, on the other hand, explained his theory within the environment of monopolistic competition. According to Losch, industry will not necessarily be located within the least cost (transport cost and labour cost) location; rather it would locate in areas where maximum profit will occur.

To get the maximum profit, as stated by Losch, total consumption is important. Higher the consumption rate, greater will be the profit. In this case, he emphasized most on the price reduction of the commodity. Any decrease of price would automatically stimulate the volume of consumption. This can be illustrated by the following diagram.

In this simple model, it is evident that when price of the commodity drops from R to P, the consumption increases from M to N. The theory of August Losch considered demand as a most important variable. The fundamental objective behind the theory was to find out the most profitable location for industrial establishment.

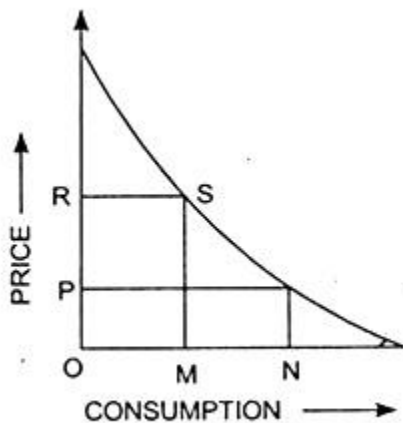


Fig. 4

The greatest profit attainable at each of these points can be determined from the cost and demand curves, and from this place of greatest money profits, the optimum location can be found.

Losch argued that most of the existing theories are all simplified and generalizations of the complex problem of industrial location.

Assumptions of the Profit Maximisation Theory:

- 1) The area under consideration should be an extensive homogenous plane where raw materials are distributed evenly.
- 2) The 'transport cost' is uniform and directly proportional in all the directions.
- 3) The people inhabiting the region have a general homogeneity either in taste, knowledge and technical skill.
- 4) There is no economic discriminations among the people. The economic and career building opportunities are open and uniform to all individuals.
- 5) The population distribution is very even and the area is self-sufficient in agricultural production.

According to Losch, to get the desired result from the location and sustained growth of the industry, these conditions are pre-requisites.

1. The entire area should be equally served by the factories. No area should be exempted from the supply; therefore, no new firm would dare to venture in the area.
2. There must be conformity in the range and quantum of profit. In case of abnormal profit, new firms may try to establish their own plant.
3. The location must satisfy both producer and consumer. The profit of the firm and satisfaction of the consumer must be optimum through the location.
4. There must be provisions for consumers to get the products from other adjacent areas.
5. The number of consumers, producers and areas should be well defined and not very extensive. Only a limited number of producers within a small area will be able to overcome the complexities and satisfy completely the handful of consumers.

Explanation to the Profit Maximisation Theory:

The major objective of the location theory is to attain equilibrium in the producing area and the product and the ability of the producer. If a single entrepreneur enters in the production process, within a vast area, the distribution cost will be very high.

But when several small producers are engaged in the production process in separate regions, the distribution cost will come down and due to increasing competition, efficiency of the product and cost of production will be lower.

The profit will increase substantially. Due to increasing competition, the area served by individual manufacturing units will be reduced. In the reduced area, several producing units will remain adjacent with each other, without leaving any area un-served. So, in this particular situation, a hexagonal area would serve the purpose.

Merits of the Profit Maximisation Theory:

- 1) August Losch tried to restore a order in the former chaotic classifications of industrial location.
- 2) He was the first person to consider the influence of the magnitude of demand on industrial location.
- 3) August Losch rightly emphasizes upon the role of competition as an important determinant of location analysis.
- 4) The calculations adopted by Losch were simple and easily applicable to any place.
- 5) The theory has also a philosophical contribution on the motive of entrepreneurs' role.
- 6) His equilibrium concept is perhaps the greatest contribution among the location theories developed later on.
- 7) The least cost concept of Weber was nullified by Losch and instead more precise 'profit maximization' concept was adopted.

Demerits of the Profit Maximisation Theory:

Of course, the theory of Losch was not entirely flawless. Numerous criticism from different quarters were put forward against the theory on various grounds.

- 1) This theory is essentially a simplified model or theorizing of an ideal condition. In reality, only in a rare occasion, these events may occur.
- 2) The assumed conditions of homogeneous plain region, equal distribution of raw materials and uniform transport rates never occur in the real world.
- 3) Losch even assumed the cultural homogeneity and uniform taste of the people within the region. This is nothing but absurdity.
- 4) He ignored the variation of technological development of different regions.
- 5) Political decisions play an important role in the industrial location. Losch ignored it.
- 6) The variation of the cost of raw materials and labour wage rates were not given proper weightage in the theory.

MODULE – III INDUSTRIAL FINANCE

Industrial Finance in India

Finance is considered as the life-force of industry. Without getting adequate finance industrial development is not at all possible. Industries require both short term, medium term and long term finance for meeting their requirements of fixed capital expenditure and also to meet their working capital needs.

Long-Term, Medium-Term and Short-Term Finance:

Long term finance for industries includes those financial resources which are advanced to the industries by the banks for a period of 3 years and above.

Long term finance is mostly available from the sale of shares and debentures, and loan from term lending financial institutions like IDBI, IFCI, ICICI etc.

Medium term loan is also available from banks and other financial institutions for a period above 1 year and up to 3 years.

Short-term finance for industries includes those financial resources which are advanced by banks to the industries for a period varying between 1 month to 12 months. Short-term finance is required to meet working capital needs and other sundry expenses of the industrial projects. Commercial banks offer short term loans on cash-credit basis on the security of stocks and overdraft facilities to the industries.

Sources of Industrial Finance:

(a) Shares and Debentures:

Indian industries are normally raising a major portion of their capital by selling shares in low denominations of Rs. 10 each. Share may be a preference share or an ordinary share. Debentures are also issued in the capital market by the companies and in recent years convertible debentures are gradually becoming more popular.

(b) Public Deposits:

Another source of industrial finance is the deposit raised from the public. In recent years, many industrial firms have joined hands in inviting deposits from public for one to three years by offering attractive rates of interest. The main defect of this source is that these deposits may be withdrawn at any moment and cannot be used for long-term investment projects.

(c) Commercial Banks:

Commercial banks are also offering short-term loans on cash-credit basis on the security of stock and on the additional guarantee of the managing agent. The commercial banks are generally advancing loan for meeting working capital needs of the industries in the form of advancing loan, overdraft, and cash credit facilities against government securities and pledge of

stocks. Commercial Banks, nowadays, have been advancing medium term loan to the industries particularly since the establishment of IDBI.

(d) Indigenous Bankers:

In India indigenous bankers have been rendering important services to industry in time of their difficulty. In urban areas both the small and medium size industries are getting sufficient finance from indigenous bankers.

(e) Term-lending Institutions:

Term lending institutions have been developed to advance loan in order to meet financial requirement of these industries. These institutions include Industrial Finance Corporation of India (IFCI), Industrial Credit and Investment Corporation of India (ICICI), Industrial Development Bank of India (IDBI), Industrial Reconstruction Corporation of India (IRCI), State Financial Corporations and State Industrial Development Corporations (in different states). Besides, Life Insurance Corporation of India (LIC) and Unit Trust of India are also providing a good amount of loan to Indian industries and emerged as a most important source of industrial finance in recent years.

(f) Retained Profits:

Retained profits or undistributed profits of the industries are also being ploughed back into the industry for meeting its requirements of replacement, modernisation and expansion.

Finance for small scale and medium sized industries:

The small scale and medium sized industries are also getting their necessary finance from (a) Commercial banks, (b) Credit Guarantee scheme for small scale industries which is cancelled by the Government in recent years and subsequently the work is entrusted with the Deposit Insurance and Credit Guarantee Corporation, (c) National Small Industries Corporation (NSIC).

But the system of industrial finance followed in India is not at all satisfactory as it suffers from the problem of inadequacy, rigidity, defectiveness, costliness and insignificant attention of State Governments.

Term Lending Institutions of India:

1. Industrial Finance Corporation of India (IFCI):

After the Second World War, there was a great need for the expansion of industries in India. Again with the introduction of planned industrial development, the industrial finance became inadequate to meet the requirements of industrial development of the country. Thus in July 1, 1948 the Industrial Finance Corporation of India (IFCI) was established by the Government under a special Act.

The prime object of IFCI is to provide medium term and long-term finance to public limited companies and co-operative organisations. The IDBI, scheduled banks, insurance companies, investment trusts and co-operative banks are the shareholders of the IFCI.

Functions of the IFCI

First, the main function of the IFCI is to provide medium and long-term loans and advances to industrial and manufacturing concerns. It looks into a few factors before granting any loans.

- 1) The Industrial Finance Corporation of India can also subscribe to the debentures that these companies issue in the market.
- 2) The IFCI also provides guarantees to the loans taken by such industrial companies.
- 3) When a company is issuing shares or debentures the Industrial Finance Corporation of India can choose to underwrite such securities.
- 4) It also guarantees deferred payments in case of loans taken from foreign banks in foreign currency.
- 5) There is a special department the Merchant Banking & Allied Services Department.
- 6) In the process of promoting industrialization the Industrial Finance Corporation of India has also promoted three subsidiaries of its own, namely the IFCI Financial Services Ltd, IFCI Insurance Services Ltd and I-Fin. It looks after the functioning and regulation of these three companies.

The IFCI is authorized to advance long and medium term finance only to those companies which are engaged in manufacturing, mining, shipping and generation and distribution of electricity.

The corporation is giving more preference in advancing finance to (i) new entrepreneurs, (ii) projects aimed at exploring new areas of technology, (iii) prospect of the projects in earning foreign exchange, (iv) projects involved for producing inputs for raising agricultural production, (v) projects involved in the production of essential consumer goods, and (vi) projects located in notified list.

Working:

The industries of high national priority which have been receiving financial assistance from IFCI include fertilizers, cement, power generation, paper, industrial machinery etc.

IFCI has introduced the following new promotional schemes:

- a) Interest subsidy scheme for women entrepreneurs,
- b) Consultancy fee subsidy schemes for providing marketing assistance to small scale units,
- c) Encouraging modernisation of tiny, small and ancillary units,
- d) Controlling pollution of small and medium scale units.

IFCI as a Business Facilitator

In the last few decades, the Industrial Finance Corporation of India has made a significant contribution to the development of our economy. Also, it is responsible for the growth, expansion, and modernization of our industrial sector.

The Industrial Finance Corporation of India has also been beneficial for the import and export industry, the cause of pollution control, energy conservation, import substitution, and many such initiatives and industries. Some sectors, in particular, have seen a lot of benefits. Some of these are

- 1) Agricultural Based Industries like paper, sugar, rubber, etc.
- 2) Service Industries like restaurants, hospitals, hotels, etc.
- 3) Basic industries in any economy like steel, cement. Chemicals etc.
- 4) Capital and goods industries like electronics, fibers, telecom services, etc.

2. State Financial Corporations (SFCs):

As the scope of IFCI was limited, thus it was felt that financial institutions should also be set up in each state to provide sufficient finance to medium and small scale industries for promoting industrial development there. To meet the requirement, State Financial Corporations (SFCs) were set up in different states.

The Government of India also passed the State Financial Corporation Act in 1951 and made it applicable to all states of India. The authorized capital of such corporation can vary within the maximum and minimum limit of Rs. 50 lakh and Rs. 5 crore.

The sum is divided into shares of equal value of which 25 per cent of the shares can be held by public and the remaining 75 per cent of the shares are normally held by State Government, the Reserve Bank, the scheduled banks, insurance companies, investment trusts, co-operative banks and other financial institutions. The corporation can raise capital by selling bonds and debentures and can also accept deposit from public for five years. The management of SFC is similar to that of IFCI.

Following are some of the important functions of State Financial Corporations:

- a) To guarantee loans raised by industrial units which are repayable within 20 years;
- b) To grant loans and advances to industrial units for a period not exceeding 20 years;
- c) To underwrite the issue of stocks, shares, bonds or debentures of industrial concerns; and
- d) To subscribe debentures floated by industrial concerns

3. State Industrial Development Corporations (SIDCs):

In most of the states of our country State Industrial Development Corporations have been established for the rapid industrialization of all the states. There are 24 such SIDCs working in different states of the country. These corporations are providing financial assistance to small entrepreneur and particularly a variety of functions like arranging power, lands, roads, licenses, etc to those industries which are established in backward areas.

Functions

The SIDC is set up by the various states governments. Also, these governments fully own the corporation. SIDC is more than a financial institution. Thus, they act as an instrument to speed up the process of industrialization in the respective states.

So, to achieve this process, they provide loans, guarantees, subscription of shares, etc to the companies. Besides loans to the respective industries, SIDC undertakes various promotional programs like project identification, techno-economic surveys, preparation of feasibility studies, and entrepreneurial training.

Also, they provide financial assistance by means like loans, underwriting or direct subscriptions to debentures and shares, guarantees, etc. Furthermore, they promote joint sector projects along with private promoters. In these types of projects, SIDC has a 26% share, private co-promoter takes 25%, and the rest goes to the investing public.

Also, SIDC takes the construction of sheds, development of industrial areas, and provision of various infrastructure facilities. Also, they take care of the development of various new growth centers. They also undertake various incentive schemes for state governments. For refinancing, IDBI helps it. They provide it using the term loans.

Furthermore, SIDC uses bonds to borrow the amount. They also accept the deposits to fund their resources.

4. Industrial Credit and Investment Corporation of India (ICICI):

In January 1955, the Industrial Credit and Investment Corporation of India was set up with the sponsorship of the World Bank for the development of small and medium industries in the private sector. The corporation was having an authorized capital of Rs. 60 crore and a subscribed Capital to the extent of Rs. 22 crore. The issued capital of this Corporation has been subscribed by Indian banks, insurance companies, individuals and corporations of United States, British eastern exchange banks and other companies and the general public in India.

The major functions of the Corporation are:

- (i) To assist industrial concerns with loans and guarantees for loans either in rupees or in any foreign currency;
- (ii) To assist in the creation, expansion and modernisation of the industrial units lying within private sector;

- (iii) To encourage and promote private capital, both internal and external, to participate in such enterprises;
- (iv) To underwrite ordinary and preference shares and debentures and subscribe directly to ordinary and preference shares issues; and
- (v) To encourage and promote private ownership of industrial investment along with the expansion of investment markets.

ICICI has also started leasing operation in 1983 for modernisation, computerization, energy conservation, export orientation etc.

5. The Industrial Development Bank of India (IDBI):

In order to meet the needs of rapid industrialization in the country and to coordinate the activities of all agencies a new institution with huge financial resources was necessary. Thus, to fulfill this two-fold objective, the Government of India has decided to set up the Industrial Development Bank of India (IDBI).

Accordingly in July 1964, the IDBI was set up formally to provide term finance to industries. Till 1976 this bank was a wholly owned subsidiary of the Reserve Bank of India. But in 1976 the IDBI was delinked from the RBI and was taken over by the Government of India. Since then IDBI became an autonomous, corporation.

Following are the main functions of IDBI:

(i) Coordinating Agency:

The first important function of IDBI is to co-ordinate the activities of all other institutions which are connected with the financing of industrial development. Thus to establish a harmonious relationship among the term lending institutions IDBI is working as a central coordinating agency.

(ii) Direct Financial Assistance:

The IDBI provides direct financial assistance and thus works as a development financing institution.

- a) Directly grant loans and advances to industrial units,
- b) Subscribes, purchases or underwrites shares, debentures, bonds and stocks,
- c) Has the option open to convert its loans, advances into equity shares, of the concerned industries units, and
- d) Guarantees loans taken by industrial units from scheduled co-operative banks.

(iii)Refinancing:

The IDBI is also helping the industrial units indirectly. The Bank (a) refinances long term loans repayable within 3 to 25 years given by IFCI, SFC and other financial institutions, (b) refinances medium term loan repayable within 3 to 10 years advanced by scheduled banks and State Co-operative banks, (c) Refinances export credit given by scheduled banks and the State co-operative banks.

(iv)Special Assistance:

The IDBI has created a special fund known as “Development Association Fund” for assisting those industrial units which are not in a position to secure fund in normal course due to its low rate of return.

(v) Promotional Agency:

The bank is undertaking promotional activities like marketing, investment research surveys, techno-economic studies and providing technical and administrative guidance to any industrial unit for its promotion, management and expansion.

(vi)Account aggregation, employee benefits, and pension management.

(vii) Regulation of other banks such as UTI, ICICI and other banks that provide aid to Indian industries.

6. Unit Trust of India (UTI):

To assist the small investors of middle income group in finding a safe and remunerative investment, the Unit Trust of India (UTI) was established in February 1964. The Unit Trust had an initial capital worth Rs. 5 crore contributed by RBI, Insurance Companies, State Bank of India, Scheduled banks and other financial institutions.

The Trust has two-fold objectives:

- (i) It stimulates savings among the middle and low-income groups and to mobilize these savings for further investment.
- (ii) It helps the small investor to derive a share of the profits earned by trade and industry of the country. To achieve these two objective the Trust sell Units among the small investors, invest the sale proceeds of the Units in industrial and corporate securities and finally pay dividends to the buyer of its units.

Functions of UTI

- Mobilize the saving of the relatively small investors.
- Channelize these small savings into productive investments.
- Distribute the large scale economies among small income groups.
- Encourage savings of lower and middle-class people.
- Sell nits to investors in different parts of the country.

- Convert the small savings into industrial finance.
- To give investors an opportunity to share the benefits and fruits of industrialization in the country.
- Provide liquidity to units.
- Accept discount, purchase or sell bills of exchange, warehouse receipt, documents of title to goods etc.,
- To grant loans and advances to investors.
- To provide merchant banking and investment advisory service to investors.
- Provide leasing and hire purchase business.
- To extend portfolio management service to persons residing in other countries.
- To buy or sell or deal in foreign currency.
- Formulate a unit scheme or insurance plan in association with GIC.
- Invest in any security floated by the RBI or foreign bank.

Small Industries Development Bank of India (SIDBI)

The government established SIDBI under a special Parliament Act as a subsidiary of the IDBI. Now the SIDBI is an independent body of its own that focuses mainly on the financing of the Small, Micro and Medium Enterprise (MSME) Sectors of the economy. It now is responsible for the allocation of the Small Industries Development Fund (which was the responsibility of the IDBI previously).

SIDBI makes use of the current banking network to extend credit facilities to the small business and micro industries sector. It provides direct financial assistance to such banks and institutes which are passed over to the MSME sector. It also provides indirect financial assistance via line of credit, refinancing facilities, bills discounting, etc.

Functions of SIDBI

- When a private bank or institution provides loans or advances to small units for business purposes, the SIDBI will refinance such loans.
- SIDBI has arrangements with banks, government bodies other international agencies, etc. to enable a holistic approach for the development of the MSME sector.
- It will also discount or rediscount bills of such private institutions.
- SIDBI offers small-scale units with additional services like leasing, factoring, etc.
- Ensures the timely flow of credit to make sure these small scale industries always have adequate working capital.
- Provides assistance to the MSME sector to expand its market for their products in both the domestic and the international market.

- It helps the small-scale industries modernize their technology for higher efficiency and better products.
- Financially supports other organizations doing similar work. For example, it provides financial assistance to SSI Development Corporations who then pass on the assistance to the small units.
- Besides providing credit, SIDBI also provides these small scale industries with support for development and promotion activities. They educate about entrepreneurial development, responsible financing, environment protection, energy efficiency. This we call as the Credit Plus Approach.

Importance of SIDBI

Firstly the entire institution is designed in a way to especially help the MSME sector, who have their own unique credit needs. And so SIDBI ensures that these businesses get the right funding. These loans are customized to suit the size of the organization and its business environment.

Also, because of the various tie-ups, the bank has with other institutions and government backing it can provide credit and loans at concessional rates. The interest rates are never predatory.

And not only credit facilities SIDBI provides many other kinds of assistance. This has allowed the MSME sector to grow and develop tremendously in the last few decades. And now it is one of the most highly effective sectors of the Indian economy and contributes significantly to our GDP.

Commercial Bank

Meaning of Commercial Banks:

A commercial bank is a financial institution which performs the functions of accepting deposits from the general public and giving loans for investment with the aim of earning profit.

a) Primary Functions:

It accepts deposits:

A commercial bank accepts deposits in the form of current, savings and fixed deposits. It collects the surplus balances of the Individuals, firms and finances the temporary needs of commercial transactions. The first task is, therefore, the collection of the savings of the public. The bank does this by accepting deposits from its customers. Deposits are the lifeline of banks.

Deposits are of three types as under:

(i) Current account deposits:

Such deposits are payable on demand and are, therefore, called demand deposits. These can be withdrawn by the depositors any number of times depending upon the balance in the account. The bank does not pay any Interest on these deposits but provides cheque facilities.

(ii) Fixed deposits (Time deposits):

Fixed deposits have a fixed period of maturity and are referred to as time deposits. These are deposits for a fixed term, i.e., period of time ranging from a few days to a few years. These are neither payable on demand nor they enjoy cheque facilities.

They can be withdrawn only after the maturity of the specified fixed period.

(iii) Savings account deposits:

These are deposits whose main objective is to save. Savings account is most suitable for individual households. They combine the features of both current account and fixed deposits. They are payable on demand and also withdrawable by cheque.

Difference between demand deposits and time (term) deposits:

Two traditional forms of deposits are demand deposit and term (or time) deposit:

- (i) Deposits which can be withdrawn on demand by depositors are called demand deposits, e.g., current account deposits are called demand deposits because they are payable on demand but saving account deposits do not qualify because of certain conditions on withdrawal.
- (ii) Demand deposits do not carry interest whereas time deposits carry a fixed rate of interest.
- (iii) Demand deposits are highly liquid whereas time deposits are less liquid,
- (iv) Demand deposits are chequable deposits whereas time deposits are not.

It gives loans and advances:

The second major function of a commercial bank is to give loans and advances particularly to businessmen and entrepreneurs and thereby earn interest. This is, in fact, the main source of income of the bank.

(i) Cash Credit:

An eligible borrower is first sanctioned a credit limit and within that limit he is allowed to withdraw a certain amount on a given security. The withdrawing power depends upon the borrower's current assets, the stock statement of which is submitted by him to the bank as the basis of security.

(ii) Demand Loans:

A loan which can be recalled on demand is called demand loan. There is no stated maturity. The entire loan amount is paid in lump sum by crediting it to the loan account of the borrower.

(iii) Short-term Loans:

Short-term loans are given against some security as personal loans to finance working capital or as priority sector advances. The entire amount is repaid either in one instalment or in a number of instalments over the period of loan.

Commercial banks invest their surplus fund in 3 types of securities:

- Government securities
- Other approved securities and
- Other securities. Banks earn interest on these securities.

b) Secondary Functions:

Apart from the above-mentioned two primary (major) functions, commercial banks perform the following secondary functions also.

Discounting bills of exchange or bundles:

A bill of exchange represents a promise to pay a fixed amount of money at a specific point of time in future. It can also be encashed earlier through discounting process of a commercial bank. Alternatively, a bill of exchange is a document acknowledging an amount of money owed in consideration of goods received.

Overdraft facility:

An overdraft is an advance given by allowing a customer keeping current account to overdraw his current account up to an agreed limit. It is a facility to a depositor for overdrawing the amount than the balance amount in his account.

Difference between Overdraft facility and Loan:

- (i) Overdraft is made without security in current account but loans are given against security.
- (ii) In the case of loan, the borrower has to pay interest on full amount sanctioned but in the case of overdraft, the borrower is given the facility of borrowing only as much as he requires.
- (iii) Whereas the borrower of loan pays Interest on amount outstanding against him but customer of overdraft pays interest on the daily balance.

Agency functions of the bank:

(i) Transfer of funds:

It provides facility for cheap and easy remittance of funds from place-to-place through demand drafts, mail transfers, telegraphic transfers, etc.

(ii) Collection of funds:

It collects funds through cheques, bills, bundles and demand drafts on behalf of its customers.

(iii) Payments of various items:

It makes payment of taxes. Insurance premium, bills, etc. as per the directions of its customers.

(iv) Purchase and sale of shares and securities:

It buys sells and keeps in safe custody securities and shares on behalf of its customers.

(v) Collection of dividends, interest on shares and debentures is made on behalf of its customers.

(iv) Acts as Trustee and Executor of property of its customers on advice of its customers.

(vi) Letters of References:

It gives information about economic position of its customers to traders and provides similar information about other traders to its customers.

significance of commercial banks:

- (i) They promote savings and accelerate the rate of capital formation.
- (ii) They are source of finance and credit for trade and industry.
- (iii) They promote balanced regional development by opening branches in backward areas.
- (iv) Bank credit enables entrepreneurs to innovate and invest which accelerates the process of economic development.
- (v) They help in promoting large-scale production and growth of priority sectors such as agriculture, small-scale industry, retail trade and export.
- (vi) They create credit in the sense that they are able to give more loans and advances than the cash position of the depositor's permits.
- (vii) They help commerce and industry to expand their field of operation.
- (viii) Thus, they make optimum utilisation of resources possible.

Financial Statements

Definition

Financial Statements represent a formal record of the financial activities of an entity. These are written reports that quantify the financial strength, performance and liquidity of a company. Financial Statements reflect the financial effects of business transactions and events on the entity.

Five Types of Financial Statements

The four main types of financial statements are:

1. Statement of Financial Position

Statement of Financial Position, also known as the Balance Sheet, presents the financial position of an entity at a given date. It is comprised of the following three elements:

- **Assets:** Something a business owns or controls (e.g. cash, inventory, plant and machinery, etc)
- **Liabilities:** Something a business owes to someone (e.g. creditors, bank loans, etc)

Equity: What the business owes to its owners. This represents the amount of capital that remains in the business after its assets are used to pay off its outstanding liabilities. Equity therefore represents the difference between the assets and liabilities. Classification of Components

Statement of financial position consists of the following key elements:

Assets

An asset is something that an entity owns or controls in order to derive economic benefits from its use. Assets must be classified in the balance sheet as current or non-current depending on the duration over which the reporting entity expects to derive economic benefit from its use. An asset which will deliver economic benefits to the entity over the long term is classified as non-current whereas those assets that are expected to be realized within one year from the reporting date are classified as current assets.

Assets are also classified in the statement of financial position on the basis of their nature:

Tangible & intangible: Non-current assets with physical substance are classified as property, plant and equipment whereas assets without any physical substance are classified as intangible assets. Goodwill is a type of an intangible asset.

Inventories balance includes goods that are held for sale in the ordinary course of the business. Inventories may include raw materials, finished goods and works in progress.

Trade receivables include the amounts that are recoverable from customers upon credit sales. Trade receivables are presented in the statement of financial position after the deduction of allowance for bad debts.

Cash and cash equivalents include cash in hand along with any short term investments that are readily convertible into known amounts of cash.

Liabilities

A liability is an obligation that a business owes to someone and its settlement involves the transfer of cash or other resources. Liabilities must be classified in the statement of financial

position as current or non-current depending on the duration over which the entity intends to settle the liability. A liability which will be settled over the long term is classified as non-current whereas those liabilities that are expected to be settled within one year from the reporting date are classified as current liabilities.

Liabilities are also classified in the statement of financial position on the basis of their nature:

- Trade and other payables primarily include liabilities due to suppliers and contractors for credit purchases. Sundry payables which are too insignificant to be presented separately on the face of the balance sheet are also classified in this category.
- Short term borrowings typically include bank overdrafts and short term bank loans with a repayment schedule of less than 12 months.

Long-term borrowings comprise of loans which are to be repaid over a period that exceeds one year. Current portion of long-term borrowings include the installments of long term borrowings that are due within one year of the reporting date.

Current Tax Payable is usually presented as a separate line item in the statement of financial position due to the materiality of the amount.

Equity

Equity is what the business owes to its owners. Equity is derived by deducting total liabilities from the total assets. It therefore represents the residual interest in the business that belongs to the owners.

Equity is usually presented in the statement of financial position under the following categories:

- Share capital represents the amount invested by the owners in the entity
- Retained Earnings comprises the total net profit or loss retained in the business after distribution to the owners in the form of dividends.

Revaluation Reserve contains the net surplus of any upward revaluation of property, plant and equipment recognized directly in equity.

Income Statement

Income Statement, also known as the Profit and Loss Statement, reports the company's financial performance in terms of net profit or loss over a specified period. Income Statement is composed of the following two elements:

- Income: What the business has earned over a period (e.g. sales revenue, dividend income, etc)

- Expense: The cost incurred by the business over a period (e.g. salaries and wages, depreciation, rental charges, etc)

Net profit or loss is arrived by deducting expenses from income.

Components

Income statement comprises of the following main elements:

Revenue

Revenue includes income earned from the principal activities of an entity. So for example, in case of a manufacturer of electronic appliances, revenue will comprise of the sales from electronic appliance business. Conversely, if the same manufacturer earns interest on its bank account, it shall not be classified as revenue but as other income.

Cost of Sales

Cost of sales represents the cost of goods sold or services rendered during an accounting period.

Hence, for a retailer, cost of sales will be the sum of inventory at the start of the period and purchases during the period minus any closing inventory.

In case of a manufacturer however, cost of sales will also include production costs incurred in the manufacture of goods during a period such as the cost of direct labor, direct material consumption, depreciation of plant and machinery and factory overheads, etc.

You may refer to the article on cost of sales for an explanation of its calculation.

Other Income

Other income consists of income earned from activities that are not related to the entity's main business. For example, other income of an entity that manufactures electronic appliances may include:

- Gain on disposal of fixed assets
- Interest income on bank deposits
- Exchange gain on translation of a foreign currency bank account

Distribution Cost

Distribution cost includes expenses incurred in delivering goods from the business premises to customers.

Administrative Expenses

Administrative expenses generally comprise of costs relating to the management and support functions within an organization that are not directly involved in the production and supply of goods and services offered by the entity.

Examples of administrative expenses include:

- Salary cost of executive management
- Legal and professional charges
- Depreciation of head office building
- Rent expense of offices used for administration and management purposes
- Cost of functions / departments not directly involved in production such as finance department, HR department and administration department

Other Expenses

This is essentially a residual category in which any expenses that are not suitably classifiable elsewhere are included.

Finance Charges

Finance charges usually comprise of interest expense on loans and debentures.

The effect of present value adjustments of discounted provisions are also included in finance charges (e.g. unwinding of discount on provision for decommissioning cost).

Income tax

Income tax expense recognized during a period is generally comprised of the following three elements:

- Current period's estimated tax charge
- Prior period tax adjustments
- Deferred tax expense

Prior Period Comparatives

Prior period financial information is presented along side current period's financial results to facilitate comparison of performance over a period.

It is therefore important that prior period comparative figures presented in the income statement relate to a similar period.

Purpose & Use

Income Statement provides the basis for measuring performance of an entity over the course of an accounting period.

Performance can be assessed from the income statement in terms of the following:

- Change in sales revenue over the period and in comparison to industry growth
- Change in gross profit margin, operating profit margin and net profit margin over the period
- Increase or decrease in net profit, operating profit and gross profit over the period
- Comparison of the entity's profitability with other organizations operating in similar industries or sectors

Income statement also forms the basis of important financial evaluation of an entity when it is analyzed in conjunction with information contained in other financial statements such as:

- Change in earnings per share over the period
- Analysis of working capital in comparison to similar income statement elements (e.g. the ratio of receivables reported in the balance sheet to the credit sales reported in the income statement, i.e. debtor turnover ratio)
- Analysis of interest cover and dividend cover ratios.

Cash Flow Statement

Cash Flow Statement, presents the movement in cash and bank balances over a period. The movement in cash flows is classified into the following segments:

- **Operating Activities:** Represents the cash flow from primary activities of a business.
- **Investing Activities:** Represents cash flow from the purchase and sale of assets other than inventories (e.g. purchase of a factory plant)
- **Financing Activities:** Represents cash flow generated or spent on raising and repaying share capital and debt together with the payments of interest and dividends.

Basis of Preparation

Statement of Cash Flows presents the movement in cash and cash equivalents over the period.

Cash and cash equivalents generally consist of the following:

- Cash in hand
- Cash at bank
- Short term investments that are highly liquid and involve very low risk of change in value (therefore usually excludes investments in equity instruments)
- Bank overdrafts in cases where they comprise an integral element of the organization's treasury management (e.g. where bank account is allowed to float between a positive and negative balance (i.e. overdraft) as opposed to a bank overdraft facility specifically negotiated for financing a shortfall in funds (in which case the related cash flows will be classified under financing activities).

As income statement and balance sheet are prepared under the accruals basis of accounting, it is necessary to adjust the amounts extracted from these financial statements (e.g. in respect of non cash expenses) in order to present only the movement in cash inflows and outflows during a period.

All cash flows are classified under operating, investing and financing activities as discussed below.

Operating Activities

Cash flow from operating activities presents the movement in cash during an accounting period from the primary revenue generating activities of the entity.

For example, operating activities of a hotel will include cash inflows and outflows from the hotel business (e.g. receipts from sales revenue, salaries paid during the year etc), but interest income on a bank deposit shall not be classified as such (i.e. the hotel's interest income shall be presented in investing activities).

Profit before tax as presented in the income statement could be used as a starting point to calculate the cash flows from operating activities.

Following adjustments are required to be made to the profit before tax to arrive at the cash flow from operations:

1. Elimination of non cash expenses (e.g. depreciation, amortization, impairment losses, bad debts written off, etc)
2. Removal of expenses to be classified elsewhere in the cash flow statement (e.g. interest expense should be classified under financing activities)
3. Elimination of non cash income (e.g. gain on revaluation of investments)

4. Removal of income to be presented elsewhere in the cash flow statement (e.g. dividend income and interest income should be classified under investing activities unless in case of for example an investment bank)
5. Working capital changes (e.g. an increase in trade receivables must be deducted to arrive at sales revenue that actually resulted in cash inflow during the period)

Investing Activities

Cash flow from investing activities includes the movement in cash flow as a result of the purchase and sale of assets other than those which the entity primarily trades in (e.g. inventory). So for example, in case of a manufacturer of cars, proceeds from the sale of factory plant shall be classified as cash flow from investing activities whereas the cash inflow from the sale of cars shall be presented under the operating activities.

Cash flow from investing activities consists primarily of the following:

- Cash outflow expended on the purchase of investments and fixed assets
- Cash inflow from income from investments
- Cash inflow from disposal of investments and fixed assets

Financing activities

Cash flow from financing activities includes the movement in cash flow resulting from the following:

- Proceeds from issuance of share capital, debentures & bank loans
- Cash outflow expended on the cost of finance (i.e. dividends and interest expense)
- Cash outflow on the repurchase of share capital and repayment of debentures & loans

Purpose & Importance

Statement of cash flows provides important insights about the liquidity and solvency of a company which are vital for survival and growth of any organization. It also enables analysts to use the information about historic cash flows to form projections of future cash flows of an entity (e.g. in NPV analysis) on which to base their economic decisions. By summarizing key changes in financial position during a period, cash flow statement serves to highlight priorities of management. For example, increase in capital expenditure and development costs may indicate a higher increase in future revenue streams whereas a trend of excessive investment in short term investments may suggest lack of viable long term investment opportunities. Furthermore, comparison of the cash flows of different entities may better reveal the relative quality of their earnings since cash flow information is more objective as opposed to the financial performance reflected in income statement which is susceptible to significant variations caused by the adoption of different accounting policies.

Statement of Changes in Equity

Statement of Changes in Equity, also known as the *Statement of Retained Earnings*, details the movement in owners' equity over a period. The movement in owners' equity is derived from the following components:

- Net Profit or loss during the period as reported in the income statement
- Share capital issued or repaid during the period
- Dividend payments
- Gains or losses recognized directly in equity (e.g. revaluation surpluses)
- Effects of a change in accounting policy or correction of accounting error

Components

Following are the main elements of statement of changes in equity:

Opening Balance

This represents the balance of shareholders' equity reserves at the start of the comparative reporting period as reflected in the prior period's statement of financial position. The opening balance is unadjusted in respect of the correction of prior period errors rectified in the current period and also the effect of changes in accounting policy implemented during the year as these are presented separately in the statement of changes in equity (see below).

Effect of Changes in Accounting Policies

Since changes in accounting policies are applied retrospectively, an adjustment is required in stockholders' reserves at the start of the comparative reporting period to restate the opening equity to the amount that would be arrived if the new accounting policy had always been applied.

Effect of Correction of Prior Period Error

The effect of correction of prior period errors must be presented separately in the statement of changes in equity as an adjustment to opening reserves. The effect of the corrections may not be netted off against the opening balance of the equity reserves so that the amounts presented in current period statement might be easily reconciled and traced from prior period financial statements.

Restated Balance

This represents the equity attributable to stockholders at the start of the comparative period after the adjustments in respect of changes in accounting policies and correction of prior period errors as explained above.

Changes in Share Capital

Issue of further share capital during the period must be added in the statement of changes in equity whereas redemption of shares must be deducted therefrom. The effects of issue and redemption of shares must be presented separately for share capital reserve and share premium reserve.

Dividends

Dividend payments issued or announced during the period must be deducted from shareholder equity as they represent distribution of wealth attributable to stockholders.

Income / Loss for the period

This represents the profit or loss attributable to shareholders during the period as reported in the income statement.

Changes in Revaluation Reserve

Revaluation gains and losses recognized during the period must be presented in the statement of changes in equity to the extent that they are recognized outside the income statement. Revaluation gains recognized in income statement due to reversal of previous impairment losses however shall not be presented separately in the statement of changes in equity as they would already be incorporated in the profit or loss for the period.

Other Gains & Losses

Any other gains and losses not recognized in the income statement may be presented in the statement of changes in equity such as actuarial gains and losses arising from the application of IAS 19 Employee Benefit.

Closing Balance

This represents the balance of shareholders' equity reserves at the end of the reporting period as reflected in the statement of financial position.

BALANCE SHEET:

Definition:

Balance Sheet or Statement of Financial Position is one of Financial Statements that reports three main important financial information of the entity at the end of the balance sheet date. This three important information are Assets, Liabilities, and Equity.

Assets are classified into two types of assets: Current and Non-Current Assets based on nature and accounting classification. Same as assets, liabilities also separated into two classifications: Current Liabilities and Non-Current Liabilities.

The equity section contains the information that records about resources that owners invested and to be invested into the entity with the recording of gain or loss accumulation. The balance of equity is affected by income statement as well as assets and liabilities.

In this article, we are discussing balance sheet definition, template, key information, formula, and example. Noted: IFRS now has changed the words to call Balance Sheet to Statement of Financial Position.

ASSETS:

Assets are resources own by an entity legally and economically. For example, building, land, cars, and money are types of assets of the entity. Assets are classified into two main categories: Current Assets and Noncurrent Assets.

Current Assets refer to short term assets including cash on hand, petty cash, raw materials, work in progress, finished goods, prepayments, and a similar kind that convert and consume within 12 months from the reporting date.

Noncurrent assets including tangible and intangible assets that expected to convert and consume in more than 12 months from the reporting date. Those assets include land, building, machinery, computer equipment, long term investment and similar kind of.

Intangible fixed assets are charged into income statements systematically based on their using and contribution. In the accounting equation, assets equal to liabilities plus equities. They are increasing on debit and decreasing credit.

LIABILITIES:

Liabilities are the obligation that an entity owes to other persons or entities. For example, credit purchases, bank loans, interests payable, taxes payable, and an overdraft.

The same as assets, liabilities are classified into two types: Current Liabilities and Non-current liabilities. The liabilities are the balance sheet items and they represent the amount at the end of the accounting period.

A current liability is an obligation that is due within one year. In other words, the entity is expected to pay or willing to pay back the debt with one year.

EQUITY:

Equities are the difference between assets and liabilities. The items in equity include share capital, retain earning, common stock, prefer sock, and accumulation of Other income.

The change of assets and liabilities over the period will affect the net value of equity. You can calculate the net value of equity of an entity by removing liabilities from assets.

Importance of the Balance Sheet

The balance sheet is a very important financial statement for many reasons. It can be looked at on its own, and in conjunction with other statements like the income statement and cash flow statement to get a full picture of a company's health.

4 important takeaways include:

Liquidity – Comparing a company's current assets to its current liabilities provides a picture of liquidity. Current assets should be greater than current liabilities so the company can cover its short-term obligations. The Current Ratio and Quick Ratio are examples of liquidity financial metrics.

Leverage – Looking at how a company is financed indicates how much leverage it has, which in turn indicates how much financial risk the company is taking. Comparing debt to equity and debt to total capital are common ways of assessing leverage on the balance sheet.

Efficiency – By using the income statement in connection with the balance sheet it's possible to assess how efficiently a company uses its assets. For example, dividing revenue into fixed assets produces the Asset Turnover Ratio to indicate how efficiently the company turns assets into revenue. Additionally, the working capital cycle shows how well a company manages its cash in the short term.

Rates of Return – The balance sheet can be used to evaluate how well a company generates returns. For example, dividing net income into shareholders' equity produces Return on Equity (ROE), and dividing net income into total assets produces Return on Assets (ROA), and dividing net income into debt plus equity results in Return on Invested Capital (ROIC).

Advantages of Financial Statements

Financial statements present the financial activities and health of the business in a clear and concise manner. Financial Statements include income statements, balance sheet, cash flow statements and statement of retained earnings.

However, further disclosures are made as per relevant laws, regulations and as required by accounting standard that is used.

Financial statements record all the financial data of the business when evaluated and critically analyzed becomes more useful to various stakeholders.

Preparation of financial statement places a high emphasis on accuracy, reliability and relevance of financial data.

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Balance Sheet provides a summary of the position of the business at a particular date while the income statement shows the incomes and expenses incurred during the period.

Cash flow statement shows the movement of cash in the business.

By using these statements, stakeholders could understand and assesses the entity's financial performance and positions and especially clearly knows each element such as revenues, expenses, assets, liabilities and equity.

Profit and Loss Statement (P&L)

A profit and loss statement (P&L), or income statement or statement of operations, is a financial report that provides a summary of a company's revenues, expenses, and profits/losses over a given period of time. The P&L statement shows a company's ability to generate sales, manage expenses, and create profits. It is prepared based on accounting principles that include revenue recognition, matching, and accruals, which makes it different from the cash flow statement.

Structure of the Profit and Loss Statement

A company's statement of profit and loss is portrayed over a period of time, typically a month, quarter, or fiscal year.

The main categories that can be found on the P&L include:

Revenue (or Sales)

Cost of Goods Sold (or Cost of Sales)

- Selling, General & Administrative (SG&A) Expenses
- Marketing and Advertising
- Technology
- Interest Expense
- Taxes
- Net Income

Profit and Loss Statement Useful for Business

A profit and loss statement is useful for small businesses because it shows the profit (or loss) generated by the company for a specific period of time. The profit and loss statement is one of the fundamental financial statements for accounting, along with the balance sheet and cash flow statement. Together, forecasts of the three financial statements serve as a foundation for a new company's business plan.

A profits and loss statement is a useful business document because it can help you analyze the financial health of your business. It compares the money going out of your business to the money coming into it, and so it can show you areas where you can cut back costs to increase your profits.

Profit and loss statements can help you or your accountant prepare your taxes. By preparing a profit and loss statement for the full fiscal year, you'll have a useful document that will help you compile your income and expenses for your tax filing.

Need to Prepare a Profit and Loss Statement

To create a profit and loss statement, you'll need the following financial information related to your business:

BANKING TRANSACTIONS

To create a profit and loss statement, you'll need your banking records, including listings of all the transactions related to your business bank accounts and credit card records outlining your business purchases.

CASH TRANSACTIONS

Before preparing your profit and loss statement, you'll need to gather all receipts related to cash purchases for your business. Include petty cash transactions, as well, if it applies to your company.

INCOME LISTINGS

To create a profit and loss statement, you'll need an account of all your income sources, including cash, check, credit and online payments your clients have made to your business.

MODULE – IV INDUSTRIAL LABOUR

Characteristics of Labour

1. Labour is original and indispensable factor of production:

Labour is original and indispensable factor of production without it the work of production is not possible. In production work Labour plays active role.

2. Labour is an active factor of production:

Land and capital are considered as the passive factor of production, because they alone cannot start the production process. Production from land and capital starts only when a man makes efforts.

3. Labour is perishable than any other commodity:

Labour is more perishable than other factors of production. It means Labour cannot be stored. The Labour of an unemployed worker is lost forever for that day when he does not work.

4. Labour cannot be separated from the labourer:

Land and capital can be separated from their owner, but Labour cannot be separated from a labourer. Labour and labourer are indispensable for each other. Therefore, Labour and labourer cannot be separated from each other.

5. Labour supply is inelastic:

The supply of Labour is often found inelastic in a country at a particular time. It means that their supply can neither be increased nor decreased if the need demands so. Labourers cannot be “made to order” like other goods. The supply of Labour is very much dependent upon the size of population.

6. A labourer sells his labour and not himself:

A labourer sells his Labour for wages and not himself. The worker sells work but he himself remains his own property.

7. Labour has weak bargaining power:

Labourers have a very weak bargaining power, because their Labour cannot be stored and they are poor, ignorant and less organised. Therefore, the labourers have a weak bargaining power as compared to the employers.

8. Labour is both the beginning and the end of production:

The presence of land and capital alone cannot make production. Production can be started only, with the help of Labour. It means Labour is the beginning of production. Goods are produced to satisfy human wants.

9. Efficiency of labour differs:

Labourer differs in efficiency some labourers are more efficient due to their ability, training and skill, whereas others are less efficient on account of their illiteracy and ignorance etc.

10. Labour cannot be engaged continuously in production like machine:

Every labourer has his ability and efficiency to work. He has his own tastes, habits and feelings. Therefore, labourers cannot be made to work like machines.

11. Labour creates capital:

Capital is formulated and accumulated by Labour. It is evident that Labour is more important in the process of production than capital because capital is the result of the working of Labour.

12. It is difficult to calculate the cost of production of labour:

We can calculate the cost of production of a machine ; but it is not easy to calculate the cost of production of a labourer. It is very difficult to calculate the cost of bringing up children as to how much is the total cost on his education, food, clothes etc.

13. Labour has no tangible form:

Labour has no tangible form just like labour has no reserve price. Labourer can be seen, can be touched but labour cannot be seen.

Types of employment

- Full-time and part-time employees
- Casual employees
- Fixed term and contract
- Apprentices and trainees
- Commission and piece rate employees

There are a number of ways you can employ staff and it's important that you understand the correct wage and leave entitlements for each arrangement. Check your obligations by contacting Wageline or the Fair Work Ombudsman.

Full-time and part-time employees

Full-time employees work on a regular basis for an average of 38 hours per week. An employee's actual hours of work are agreed between the employer and the employee, and/ or are set by an award or registered agreement.

Full-time employees are entitled to the following leave:

- annual, personal, sick, and carers;
- bereavement or compassionate;
- parental; and
- long service

They are also entitled to public holiday pay if the holiday falls on a day they would usually work.

Part-time employees usually work less than 38 hours per week and generally have regular hours. They receive the same wages and conditions as full-time employees on a proportionate or pro-rata basis, according to the hours they work.

Casual employees

Casual employees are engaged on an irregular basis according to business demands and have:

- no expectation of ongoing work;
- no obligation to accept offers of work;
- a loading paid on top of their hourly rate of pay;
- no sick or annual leave pay; and
- no obligation to provide notice of ending their employment, unless this is a requirement of an award, employment contract or registered agreement.

In some circumstances, casual employees may be eligible for long service leave and parental leave after being employed for 12 months

Fixed term and contract employees

You can employ someone on a fixed term or contract basis for an agreed length of time or to perform a specific task; to work on a particular project or to replace an employee on leave, for example.

Fixed term employees can work full or part-time and are entitled to the same leave entitlements as permanent staff but on a pro-rata basis, depending on the length of employment

Apprentices and trainees

Apprentices and trainees may be suitable for your business. They are working towards a nationally recognised qualification and must be formally registered, usually through a contract between a registered training provider, the employee and you.

You must pay apprentices and trainees according to their award or registered agreement.

You are not required to pay payroll tax on the wages of registered apprentices and trainees during their training contract.

Commission and piece rate employees

You can pay piece rates or commission payments to employees in certain circumstances. This means that you pay them based on the results they achieve instead an hourly or weekly pay rate. You may employ people in this arrangement if:

- their award or agreement allows for it; or
- they are award and agreement free.

Requirements vary for this arrangement depending on which industrial relations system you belong to. It is advisable to seek assistance from Wageline or the Fair Work Ombudsman before entering into this arrangement.

Types of Unemployment

1. Frictional Unemployment

Frictional unemployment arises due to economic fictions arising from changes in employers' demands for different types of labour. In other words, this type of unemployment results from the time lags involved in the reemployment of labour.

2. Structural Unemployment:

This type of unemployment arises through a change in demand which switches production from one kind of work to another, it differs from frictional unemployment in that it occurs through permanent or long-term changes in the structure of the economy. In other words, structural unemployment is long-term unemployment caused by the decline of certain industries and changes in production process.

3. Cyclical Unemployment

This type of unemployment arises from the business cycle. Keynes was mainly concerned with this type of unemployment. Such unemployment occurs due to deficiency of demand or purchasing power and is also called demand-deficient unemployment.

4. Seasonal Unemployment:

This type of unemployment occurs due to seasonal pattern of demand and the consequent seasonal nature of activities in some industries. In some industries like entertainment, tourism and soft drink, the demand for goods and services fluctuates seasonally.

5. Disguised Unemployment

Disguised Unemployment' to describe a situation in which the wage workers take to less productive jobs because they lose their regular job owing to cyclical trends in economic activity. The nature of the disguised unemployment, however, is very different in under-developed countries.

First, it is chronic and not cyclical. Secondly, it relates more to self-employed workers than to wage-earners. And, thirdly, it is caused by a shortage of complementary resources, and not by any deficiency of effective demand.

Disguised unemployment exists primarily in two forms

- a) Employment of people in less productive works than they are capable of, or, in other words, an under-utilisation of skill possessed by the people;
- b) Employment of people in a number larger than that required for doing the job.

Structure of Indian Industry

Division of the Economy between Public Sector and Private Sector

The present economic structure of Indian economy is known as mixed economy, where there is a coexistence of both the public sector and the private sector. All the different types of industries are divided between these two sectors. From the very beginning, most of the industries of the country were within the purview of private sector.

But after independence and especially after the introduction of economic planning followed by the introduction of Industrial Policy Resolutions, 1948 and 1956 the importance of the public sector was realised. Accordingly, some definite category of industries was gradually reserved for the public sector for their expansion and development.

The sizes and activities of the public sector gained its momentum with the growing volume of planned expenditure for the development of public sector under different Five Year Plans of the country. Thus in a mixed economy like India, some industries are owned and managed by the State through its public sector and the remaining others are owned and managed by the private sector of the country.

The area of activities of the public sector were very much restricted to a limited range like power, irrigation, roads, railways, port, communications and some departmental undertakings at the time of independence.

Accordingly, some industries were entirely reserved for the public sector, some industrial fields were left completely for the private sector. Such division of areas between the public and private sector reveals that while the heavy, basic and strategic industries were reserved for the public sector, the entire group of consumer goods industries, producing both consumer durables and non-durables was kept open for the private sector.

- a) Private investment activity in relatively simple goods would generally be promoted by shutting out imports as well as through utilisation of excess capacity at home, with a consequent boost to profits; and
- b) Public investment, being indifferent to profits, would be made in those basic and strategic- areas which had long gestation periods, poor or zero rate of profits, a large exchange requirement, complex technology and equally complex problems of co-ordination.

Relative Role of Public and Private Sector as reflected in the Industrial Policy of India:

The Industrial Policy Resolutions of 1956 aptly observed, “The adoption of the socialistic pattern of society as the national objective, as well as the need for planned development requires that all industries of basic and strategic importance or in the nature of public utility services, should be in the public sector. Other industries which are essential and require investment on a scale which only the state in present circumstances, could provide, have also to be in the public sector. The state has, therefore, to assume direct responsibility for the future development of industries over a wider area.”

While analyzing the role of public sector in Indian economy, Mrs. Indira Gandhi the then Prime Minister of India, rightly observed, “We advocate a public sector for those reasons to gain control of the commanding heights of the economy to promote critical development in terms of social gain or strategic value rather than primarily on consideration of profit and to provide commercial surpluses with which to finance further economic development.”

The Industrial Policy Statement, 1977, has also mentioned about the role of public sector and thereby it prescribed the expansion of the role of public sector especially in respect of strategic goods of basic nature. The public sector was also encouraged to develop ancillary industries and to transfer its expertise in technology and management to small scale and cottage industry sector.

Again the industrial Policy of 1980 also made an attempt to integrate industrial development in the private sector by promoting the concept of economic federalism with setting up of a few nucleus plants in each district, identified as industrially backward district, to generate as many ancillaries and small and cottage units as possible.

The new Industrial Policy, 1991 radically liberalized the industrial policy itself and deregulates both the public and private sector industries substantially, in line with the liberalisation move introduced during the 1980s. Realising the relative role of both public and private sector

industries of the economy, the new industrial policy, 1991 unshackled both the two industrial sectors from the cobwebs of unnecessary bureaucratic controls and introduced liberalisation measures in order to integrate Indian economy with the world economy, liberated the indigenous private sector enterprises from the restrictions of MRTP Act so as to attain sustained growth in productivity and employment and also to achieve international competitiveness.

The following are some of the important relative roles of the public sector in the economic development of a country like India:

- a) Promoting economic development at a rapid pace by filling gaps in the industrial structure;
- b) Promoting adequate infrastructural facilities for the growth of the economy;
- c) Undertaking economic activity in those strategically significant development areas, where private sector may distort the spirit of national objective;
- d) Checking monopolies and concentration of power in the hands of few;
- e) Promoting balanced regional development and diversifying natural resources and other infrastructural facilities in those less developed areas of the country;
- f) Reducing the disparities in the distribution of income and wealth by bridging the gap between the rich and the poor;
- g) Creating and enhancing sufficient employment opportunities in different sectors by making heavy investments;
- h) Attaining self-reliance in different technologies as per requirement;
- i) Eliminating dependence on foreign aid and foreign technology;
- j) Exercising social control and regulation through various public finance institutions;
- k) Controlling the sensitive sectors such as distribution system, allocating the scarce imported goods rationally etc.; and
- l) Reducing the pressure of balance of payments by promoting export and reducing imports.

Important Industrial Laws of India or Industrial legislation in India

Industrial legislation helps both workers and management to know exactly about their rights, duties and obligations and also the liabilities.

The objectives of Industrial laws are:

- (i) To safeguard the workers against exploitation.
- (ii) To maintain good relationship between employees and employers.
- (iii) To provide and improve the welfare, amenities of workers.
- (iv) To settle industrial disputes.

(1) Factories Act 1948:

The main objective of the Factories Act is to improve the working conditions of the workers by implementing the provisions of industrial safety.

Factory' means any premises wherein ten or more workers are working and in any part of which a manufacturing process is carried out with the aid of power or wherein twenty or more workers are working and in any part of which a manufacturing process is being carried out without the aid of power.

(2) Industrial Disputes Act, 1947:

The Industrial Disputes Act, 1947 was enacted to promote industrial peace by providing appropriate machinery for amicable settlement of disputes arising between employers and employees.

Objectives of the Act:

- 1) The Act provides a machinery for the settlement of disputes by arbitration or adjudication.
- 2) It attempts to ensure social justice and economic progress by fostering industrial harmony.
- 3) It enables workers to achieve their demands by means of legitimate weapon of strike and thus facilitates collective bargaining.
- 4) It prohibits illegal strikes and lockouts.
- 5) It provides relief to the workman in the event of layoff or retrenchment.

(3) Workmen's Compensation Act, 1923:

It is an Act to provide for the compensation for injury by accident. It provides relief by the way of compensation to all employees who suffer an accident during the course of employment which disables him to work in the job or as a result of which death occurs.

Workmen's Compensation Act falls into three categories—

- (i) Accidents resulting in temporary disablement.
- (ii) Accidents resulting in permanent, partial or total disablement.
- (iii) Fatal accidents.

(4) Employee's Provident Fund Act, 1952:

This Act provides a compulsory contributory provident fund for employees in factories and other establishments. It applies to all factories and other establishments falling under any notified industry and employing 20 or more workers. It prescribes the obligation of employers and employees and the authorities for implementation of the provisions.

Provident Fund is refunded with interest in the event of death, permanent disability, retrenchment, migration or leaving service. Depending upon the earning on these investments interest is allowed to the workers annually, on the amount to their credit.

Employees Family Pension Scheme:

The family pension scheme seeks to provide some monetary relief to the employees who die in service i.e. before super-annuation or after retirement. The contribution to this fund is deducted from employer's contributions to Provident Fund. Depending upon the contribution and last salary drawn, the pension amount after superannuation is determined for the person as per the scheme.

(5) Payment of Gratuity Act, 1972:

This Act provides for retirement benefit to the employees with long and continuous meritorious service. Every employee, irrespective of his remuneration is entitled to receive gratuity if he has entered service of 5 years, or more.

(6) Minimum Wages Act, 1948:

It is an Act to provide for fixing minimum rates of wages in certain employments. It is meant to help the workmen to avail a fair bargain with their employers and ensure wages for them.

It lays down the procedure for fixing minimum wages and for appointment of advisory committees and boards. It prohibits wages in kind. Time and conditions of payment of wages are stipulated. Only authorised deductions are accepted from the wages.

(7) Employee State Insurance (ESI) Act, 1948:

This helps the employees from the hardships arising from sickness, maternity, invalidity, accidents occupational diseases etc. This provides the medical facilities and the employment insurance during illness to industrial workers.

The scheme is administered by the ESI Corporation, an autonomous body consisting of representatives of Central and State Governments, employers, employees, medical professionals and members of parliament.

The finances of the scheme included contributions from employee, employer, and donations from State and Central Governments and local bodies.

The scheme offers the following advantages:

- (i) Medical benefits.
- (ii) Sickness benefits.
- (iii) Maternity benefits.
- (iv) Disablement benefits.
- (v) Dependents benefits.

(8) Maternity Benefit Act, 1961:

This Act regulates employment of women in certain establishments for certain periods before and after child birth and provides maternity and certain other benefits. The act is not applicable to women employees covered under ESI scheme.

(9) Bonus Act, 1975:

This Act provides for the payment of bonus, related with profit or productivity to the employees in factories and establishments.

The important features of Bonus Act are:

- 1) Minimum Bonus was reduced to 4% and there was a condition that if the company did not earn any profit there would be no compulsion to pay minimum bonus also.
- 2) Negotiations out of the Bonus Act to get bonus in excess of 20% were sought to be curtailed.

Types of wage

1. Minimum Wage

Minimum wage is the most widely recognized term in the realm of employee compensation. It is the lowest hourly wage an employer can pay an employee for work.

In addition to the minimum wage mandated by the federal government, 45 states have their own minimum wage rates – some of which exceed the federal rate.

2. Living Wage

Living wage is the lowest wage at which the wage earner and his/her family can afford the most basic costs of living.

Because the needs of each employee differ based on marital status, number of children, location and other cost-of-living considerations, the term living wage often pushes many hot-button political issues.

Legislation and policy conversations surrounding the increase of minimum wage quite often intersect with those of living wage. Proponents of a higher federal minimum wage, for example, argue an increase would help the working poor achieve a living wage and reduce the number of full-time workers who rely on government assistance.

Although living wage and minimum wage are often used interchangeably, they differ. For instance, minimum wage is mandated and enforced by legislation, whereas a living wage is not.

To learn about the living wage in your area, try MIT's Living Wage Calculator

3. Prevailing Wage

Prevailing wage typically refers to the rate of pay contractors and vendors must offer their employees when doing business with a government agency.

For example, Los Angeles requires contractors engaged in public works contracts with the city (e.g., road construction) to pay workers a base level determined by the State of California's Department of Industrial Relations.

A prevailing wage requirement reduces the ability of vendors to unduly propose costs for government contracts to the detriment of their workers. One of the key components to its development was the Davis-Bacon Act of 1931, a federal law that mandates all laborers, contractors and subcontractors be paid a prevailing wage for all public works projects in excess of \$2,000.

4. Tipped Wage

Tipped wage is a base wage paid to an employee who receives a substantial portion of his/her compensation from tips.

At the federal level, the Fair Labor Standards Act (FLSA) states employers of tipped employees are only required to pay \$2.13 per hour in direct wages if that amount combined with tips received is equal to the federal minimum wage.

If the amount combined with tips does not equal the federal minimum wage, the employer must pay all tipped employees at least the federal minimum wage.

5. Fair Wage

By general definition, fair wage is a compilation of company practices that lead to sustainable wage developments.

According to the Fair Wage Network, These practices include:

- Living wage floor
- Compliance with national wage regulations, such as minimum wage, payment of wages, overtime payments, paid holidays and social insurance payments
- Ensuring proper wage adjustments as living wage and minimum wage change
- Wages that align with the skills necessary of the job being performed.

Social Security:

Social sufferings such as poverty, unemployment and disease are the sound grounds for advocating the provisions of social security measures in India as national programme.

Social security is a dynamic conception which is considered in all advanced countries of the world as an indispensable of the national programme with the development

of the idea of the welfare state; it has been considered to be the most essential for the industrial workers, though it includes all sections of society.

Social security is that security which the society furnishes through appropriate organisation, against certain risks or contingencies to which its members are exposed. These risks are essentially contingencies, against which the individual cannot afford by his small means and by his ability or fore sight alone.

As the State stands for the general well-being of the people, it is the duty of the state to promote social security which may provide the citizens with benefits, designed to prevent or cure disease, to support him when he is not able to earn and to restore him the gainful activity.

To enjoy security, one must be confident that benefits will be available as and when required. Social security means the security as provided by the society to its members, against the contingencies, they cannot meet out of their small means effectively.

Such contingencies imperil the ability of the working man to support himself and his dependents in health and decency. It has been realised after World War II that the State exists for the general well-being of the people, it must be the State's responsibility to provide social security to its citizens.

That security society furnishes through appropriate organisation against certain risks to which its members are exposed. These risks are ignorance, want, disease, squalor and unemployment. The man requires freedom from these contingencies and the provisions against these risks are labelled as social security measures.

Social security is a very comprehensive term and includes in its schemes of social insurance and social assistance as well as some schemes of commercial insurance. Social insurance scheme protects an individual from falling to the depths of poverty and misery while social assistance is one of the devices according to which benefits are given as a legal right to the workers, who are eligible for such assistance.

Commercial insurance includes all voluntary efforts and covers individual risks only. The social security system of a country consists of its social insurance and social assistance schemes and a clear-cut demarcation cannot be made between these two. Providing social

security for the workmen against social obligations to the duty of the State towards its countrymen.

It includes security of employment, security of income and security of work. Although social security measures had been introduced in many countries decades ago in India they were introduced only after the Independence of the country because of the lack of official sympathy and the weakness of trade unions. Thus, the importance of social security measures in India cannot be exaggerated.

The question arises, does the realm of social security belongs to the area of labour problems. From the point of view of labour economics we can have only three areas. Wages, unionism and employment but from social point of view we have to take a broad outlook of the whole situation.

And it is certain that in the absence of social security measures many labour problems may arise. Society is supposed to provide security through appropriate agencies and organisations to its members against certain risks to which they exposed.

It is a well-established fact that ours is a poor country and the wages of our workers are so low and so niggardly as to permit anything but a below subsistence standard. In some parts of the country, it is too low to maintain a minimum standard.

It is, therefore, an open fact that social security measures are urgently needed to Indian workman.

What are problems faced by Indian labour

1. Surplus Labour Force:

Labour market in India is suffering from surplus labour force. A huge number of labourers are rendered surplus due to lack of adequate demand arising out of both primary, secondary and tertiary sector. Due to high rate of growth of population, a huge number of labour forces is continuously being added with the existing labour force leading to a huge surplus in the labour market.

2. Unskilled Labour:

Another major problem of labour market in India is that there is a growing number of unskilled labourers in the country. In the absence of adequate vocational institutes, skill formation among the labour force in the country is very slow. This huge number of

unskilled labourers find it difficult to become self employed and thus create a huge army of unemployed in the country.

6. Lack of Absorption of Skilled Labour:

In India the absorption rate of skilled labour force is also very poor. A huge number of technically educated youths after completing their technical education like engineering, vocational courses etc. are finding it difficult to get themselves absorbed in the secondary sector, leading to a huge problem of educated unemployment in India.

7. Imperfections:

Labour market in India is also suffering from some imperfections such as lack of adequate information regarding jobs, lack of suitable agency for the proper utilisation of labour force, child labour practices, lack of proper manpower planning etc. Such imperfections have been resulting in various hurdles in the path of absorption of labour force smoothly.

8. Work Culture:

Work culture among the Indian labour force is not at all good. Whatever work force is absorbed in various productive sectors it is not adhered to healthy work culture. This has been resulting in lesser economic surplus in the production system which restricts indirectly its absorption capacity in future.

9. Militant Unionism:

Labour market in India is also facing the problem of militant unionism. In some productive sectors and that too in some particular states, trade unions are not adhering to healthy practices. This has led to militancy in the union structure and its activities, which is detrimental for the greater interest of the nation.

10. Unemployment:

Labour market is also facing a serious problem of unemployment. A huge number of work forces of our country remain partially or wholly unemployed throughout the year or some part of the season. This has led to the problems like disguised unemployment, seasonal unemployment, general unemployment and educated unemployment.

In the absence of adequate growth of employment avenues, unemployment problem in the country is gradually becoming much more alarming day by day.

11. Lack of Labour Reforms:

Labour market in India is also suffering from lack of adequate labour reforms provision. Economic reforms introduced in the country during the 1990s have changed economic scenario of the country. But the country is lagging behind in adopting necessary labour reforms which are rational and important under the present context.

What are the problems faced by Indian Industry:

1. Capital:

Iron and steel industry requires large capital investment which a developing country like India cannot afford. Many of the public sector integrated steel plants have been established with the help of foreign aid.

2. Lack of Technology:

Lower levels of investment in technological developments. Consequently, the industry lost its technology edge and is now way behind the advanced countries in this regard. Material value productivity in India is still very low.

3. Low Productivity:

The per capita labour productivity in India is at 90-100 tonnes which is one of the lowest in the world. There is an urgent need to increase the productivity which requires retraining and redevelopment of the labour force.

4. Inefficiency of public sector units:

Most of the public sector units are plagued by inefficiency caused by heavy investment on social overheads, poor labour relations, inefficient management, underutilisation of capacity, etc. This hinders proper functioning of the steel plants and results in heavy losses.

5. Low potential utilisation:

The potential utilisation in iron and steel is very low. Rarely the potential utilisation exceeds 80 per cent. For example, Durgapur steel plant utilises only 50 per cent of its potential. This is caused by several factors, like strikes, lockouts, scarcity of raw materials, energy crisis, inefficient administration, etc.

6. Heavy demand:

Even at low per capita consumption rate, demand for iron and steel is increasing with each passing day and large quantities of iron and steel are to be imported for meeting the demands. Production has to be increased to save precious foreign exchange.

7. Inferior quality of products:

Lack of modern technological and capital inputs and weak infrastructural facilities leads to a process of steel making which is more time consuming, expensive and yields inferior variety of goods. Such a situation forces us to import better quality steel from abroad. Thus there is urgent need to improve the situation and take the country out of desperate position.

Labour Reform in India

Labour reforms essentially mean taking steps in increasing production, productivity, and employment opportunities in the economy in such a manner that the interests of the workers are not

compromised. “Essentially, it means skill development, retraining, redeployment, updating knowledge base of workers-teachers, promotion of leadership qualities, etc. Labour reforms also include labour law reforms”

Labour Policies before the Reform Era:

Before we move to the labour policy in the pre- reform era of 1990s, we must make one important observation of the Indian labour market. Indian labour market is characterised by a sharp dichotomy.

Social security to organised labour force in India is provided through a variety of legislative measures. These are payment of compensation to workers in cases of industrial accidents and occupational diseases leading to disablement or death, provident fund, pension including family pension, health insurance, payment of gratuity, maternity benefit, employees’ deposit-linked insurance scheme, etc.

Another aspect about labour policies that influence labour market are labour laws relating to forming trade unions, industrial relations, and job security.

Labour Policies and the Reform Era:

Since protective labour policies and inflexible labour laws are not in the long term interests, flexible labour market policies gained legitimacy in the climate of economic liberalism so as to promote efficiency and productivity of labour and protect them against any hazards.

The Indian neo-liberal economic reforms introduced in mid-July 1991 paid rather little attention to employment generation.

labour laws and labour policy

These are:

- (i) Right to work of one’s choice
- (ii) Right against discrimination
- (iii) Prohibition of child labour
- (iv) Just and humane conditions of work
- (v) Right to social security
- (vi) Production of wages including right to guaranteed wages
- (vii) Right to redress grievances
- (viii) Right to organise and form trade unions
- (ix) Right to collective bargaining
- (x) Right to participation in management.

Along with these rights, workers need many forms of security, like labour market security, employment security, job security, income security, work security, etc.

MODULE – V PROJECT PLANNING AND APPRAISAL

Project Planning:

Project planning refers to everything you do to set up your project for success. It is the process you go through to establish the steps required to define your project objectives, clarify the scope of what needs to be done and develop the task list to do it.

The purpose of the project planning phase is to:

- Establish business requirements
- Establish cost, schedule, list of deliverables, and delivery dates
- Establish resources plans
- Obtain management approval and proceed to the next phase

The basic processes of project planning are:

- Scope planning – specifying the in-scope requirements for the project to facilitate creating the work breakdown structure
- Preparation of the work breakdown structure – spelling out the breakdown of the project into tasks and sub-tasks
- Project schedule development – listing the entire schedule of the activities and detailing their sequence of implementation
- Resource planning – indicating who will do what work, at which time, and if any special skills are needed to accomplish the project tasks
- Budget planning – specifying the budgeted cost to be incurred at the completion of the project
- Procurement planning – focusing on vendors outside your company and subcontracting
- Risk management – planning for possible risks and considering optional contingency plans and mitigation strategies
- Quality planning – assessing quality criteria to be used for the project
- Communication planning – designing the communication strategy with all project stakeholders

Project objectives:

- Specific – get into the details. Objectives should be specific and written in clear, concise, and understandable terms.

- Measurable – use quantitative language. You need to know when you have successfully completed the task.
- Acceptable – agreed with the stakeholders.
- Realistic – in terms of achievement. Objectives that are impossible to accomplish are not realistic and not attainable. Objectives must be centred in reality.
- Time based – deadlines not durations. Objectives should have a time frame with an end date assigned to them.

The Elements of A Project Plan

- A plan for managing the human resources on the team both in terms of availability and skills
- A plan for managing costs and the budgeting elements of the project including any procurements or supplier engagements you might have
- A communications plan setting out who is going to receive messages about the project, when and in what format
- A plan for dealing with project risk including the processes for logging and tracking risks

How To Create A Project Plan

By now you've probably got a good idea of how to go about creating your project plan. You need to spend time with your team:

- Clarifying what you need to achieve together
- Working out the processes you need to get there
- Developing an action plan for how you are going to take this forward.

Tools for Project Planning

Project planning is all about working out what to do and how to do it, so you need to get a lot of people involved. There are several good tools and techniques for getting information from other people including:

- Workshops
- One-to-one meetings or interviews
- Surveys or customer focus groups to gather and validate requirements.

Project Formulation

- Taking a first look carefully and critically at the project idea
- Carefully weighing its various components
- Analysing with the assistance of specialists or consultants
- Assessment of the various aspects of an investment proposition
- It is an important stage in the pre-investment phase

Stages of Project Formulation

1. Feasibility Analysis
2. Techno-Economic Analysis
3. Project Design and Network Analysis
4. Input Analysis
5. Financial Analysis
6. Cost-Benefit Analysis
7. Pre-Investment Analysis

1. Feasibility Analysis:

- First stage in project formulation.
- Examination to see whether to go in for a detailed investment proposal or not.
- Screening for internal and external constraints.

2. Techno-Economic Analysis:

- Screens the idea to-Estimate of potential of the demand for goods/services.
- Choice of optimal technology.
- This analysis gives the project a platform for preparation of detailed project design.

3. Project Design and Network Analysis:

- It is the heart of the project entity.
- It defines the sequence of events of the project.
- Time is allocated for each activity.
- It is presented in a form of a network drawing.
- It helps to identify project inputs, finance needed and cost-benefit profile of the project.

4. Input Analysis:

- Its assesses the input requirements during the construction and operation of the project.
- It defines the inputs required for each activity.
- Inputs include materials, human resources.
- It evaluates the feasibility of the project from the point of view of the availability of necessary resources.
- This aids in assessing the project cost.

5. Financial Analysis:

- It involves estimating the project costs, operating cost and fund requirements.
- It helps in comparing various project proposals on a common scale.
- Analytical tools used are discounted cash flow, cost-volume-profit relationship and ratio analysis.
- Investment decisions involve commitment of resources in future, with a long time horizon.
- It needs caution and foresight in developing financial forecasts.

6. Cost- Benefit Analysis:

- The overall worth of a project is considered.
- The project design forms the basis of evaluation.
- It considers costs that all entities have to bear and the benefit connected to it.

7. Pre-investment Analysis:

- The results obtained in previous stages are consolidated to arrive at clear conclusions.
- Helps the project-sponsoring body, the project-implementing body and the external consulting agencies to accept/reject the proposal.

Project Report

- It is a concise copy of detailed analysis done for the project.
- An entrepreneur/expert prepares the report before the investment in project is done.
- The report assesses the demand for proposed product/service, works out cost of investment and profitability on this investment.
- It acts as an instrument to convince investors to invest in the project.

A project report gives information on the following:

- Economic aspects – present market, scope for growth, justification for investment.
- Technical aspects – technology, machinery, equipment needed.
- Financial aspects – Total investment needed, entrepreneur's contribution, cost of capital and return on capital.
- Production aspects – Product details, justification for the choice of product, export worthiness.
- Managerial aspects – Qualifications, experience of people needed for managerial posts.

Contents of a project report

- Objectives and scope of the report.
- Product characteristics (product design, specifications, quality standards, uses and applications).
- Market position and trends (current capacity for production, potential demand, export prospects, trends in import-export, price structure etc).
- Raw materials (types, quality, sources, price).
- Manufacturing (process, production schedule, technique used).

Project Evaluation

A project evaluation is a process of assessing or evaluating the various projects of the business, whether it is an ongoing or finished project that a company or organization has completed. It is done systematically based on certain objectives. The main purpose of a project evaluation is for the business to be able to determine the relevance of a particular project, its effectiveness, the level of achievement of a project's objectives, the impact it has on the business, as well as its sustainability. This is an important process that every business should have when developing and implementing different projects. Through a project evaluation, the business or company will be able to gather all the necessary information needed to effectively evaluate a project and analyze the information.

Essential Steps for Project Evaluation

There are certain steps that you need to do in order to effectively evaluate a project that your business has. There are various types of evaluation methods that can be used depending on the kind of information you are required to gather or collect.

1. Planning

The first step that you need to do is to create and plan the evaluation that you will be conducting. It is important that you have properly identified the goals as well as the objectives of the project evaluation beforehand. Understanding the purpose of the project evaluation is necessary to ensure that all you will be able to identify the methods that you will use, the materials needed for the evaluation, as well as be able to identify the sources of data that you will be collecting.

2. Gathering the information

This is an important step in any evaluation, especially in ensuring that all the necessary information are collected as accurately as possible.

3. Analyzing the information

Once you have gathered all the information that you will need, analyze the data and information that you have collected, and create a report about it. The conclusions in your evaluation report should respond to the outcomes that you have previously identified.

Project Evaluation Objectives

A project evaluation is created to ensure that the entirety of the project, as well as its specific areas of planning and implementation, are assessed accordingly and in an objective manner. The process of project evaluation can benefit the following:

- The community that will either be positively or negatively affected by the project
- The project manager and the entire project planning team
- The workforce involved in the execution of the project steps
- The suppliers of the project
- The financial stakeholders of the project, which includes investors and the project owner/client.

The ability to execute a project evaluation is very helpful when it comes to identifying the strengths and weaknesses of the project. This can be used as a reference when planning or developing a future project of the same kind. Here are some of the objectives on why project evaluation is needed and used in every project:

- To know the effectiveness of the project plan.
- To identify the level of efficiency of the workforce.
- To measure the usability of the timeline followed within the duration of the project implementation.

- To evaluate the steps that have been used in all the project phases.
- To assess whether the project output is based on the existing plans and targeted results.
- To know whether the suppliers are the best options for the project.
- To list down the weak spots of the project so they can be avoided in the future.

Methods of Project Evaluation

1. Return of Investment (ROI):

The ratio of profit expected from an investment project and the proposed investment for the project is called Return on Investment (ROI).

So we may write:

$$ROI = \frac{\text{amount of profit}}{\text{amount of investment}} \quad (20.27)$$

This ROI ratio is used as a criterion for the evaluation of an investment project. The greater the ROI of a project, the greater is its acceptability. There are three concepts about the amount of investment on a project. The amount of investment may mean the amount of assets, amount of capital invested, or the amount of equity capital. We may obtain three types of ROI on the basis of these three concepts.

These are:

(i) Return on Assets (ROA):

By definition, ROA is the ratio between net profit and the assets. We may write, therefore,

$$ROA = \frac{\text{net profit excluding taxes}}{\text{total assets}} \quad (20.28)$$

Here net profit does not include the interest to be paid to the lenders. But, since interest is included in the real return on total assets, an improved form of ROA is

$$ROA = \frac{\text{net profit excluding taxes} + \text{interest paid}}{\text{total assets}} \quad (20.29)$$

(ii) Return on Capital Employed (ROCE):

ROCE is the second type of ROI. Here net profit, excluding tax, is expressed as a ratio of the total amount of invested capital. The total amount of capital provided by the owner of the firm and the lenders is the total invested capital in this case.

We may have this estimate of capital in two ways.

First, the total amount of invested capital is the sum total of long-term liabilities and equity of the shareholders.

Second, invested capital is the summation of the net circulating capital and fixed assets.

Therefore, we may write here

$$ROCE = \frac{\text{net profit minus tax}}{\text{total investment capital}} \quad (20.30)$$

Again, we may include the interest paid in net profit and write

$$ROCE = \frac{\text{net profit minus tax} + \text{interest paid}}{\text{total invested capital}} \quad (20.31)$$

(iii) Return on Shareholders' Equity (ROSE):

By definition, a general estimate of ROSE is

$$ROSE = \frac{\text{net profit minus tax}}{\text{total equity of the shareholders}} \quad (20.32)$$

Now the shares of a company may be of two types: preference shares and ordinary shares. Here, if the shares are ordinary shares, then we may write

$$ROSE = \frac{\text{net profit minus tax} - \text{dividend paid to preference shareholders}}{\text{equity of the ordinary shareholders}} \quad (20.33)$$

We may mention here two more measures of the rate at which the owners of ordinary shares may obtain return from their company. These two rates of return are “earning per share” (EPS) and “dividend per share” (DPS).

By definition, we have

$$EPS = \frac{\text{net profit minus tax} - \text{dividend paid to preference shareholders}}{\text{number of ordinary shares}} \quad (20.34)$$

$$DPS = \frac{\text{dividend paid to the owners of ordinary shares}}{\text{number of ordinary shares}} \quad (20.35)$$

It may be noted here that the share owners may earn at the rate of EPS only when the company actually distributes all the money equal to the numerator of the formula for EPS among the shareholders.

2. Payback Method:

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It may be noted here that the share owners may earn at the rate of EPS only when the company actually distributes all the money equal to the numerator of the formula for EPS among the shareholders.

2. Payback Method:

If an investment project is implemented, then the time or the number of years within which the summation of the flow of undiscounted net revenues becomes equal to the total cost of the project is called the payback period.

According to this method, if one of a number of projects is to be selected, then the project for which the payback period is minimum, should be implemented.

3. Net Present Value (NPV):

Definition of NPV:

Let us suppose that from some investment project the firm expects to obtain net revenues of R_1 in the 1st year, R_2 in the 2nd year, R_n in the nth year. Let us also suppose that the initial cost of the project is C_0 and apart from this, the firm would have to spend on the project an amount of Q in the 1st year, C_2 in the second year, C_n in the nth year.

If we now deduct the present value of the flow of costs of the project from the present value of the flow of net revenues, we would obtain the net present value (NPV) of the project.

In order to obtain the present values of the flows of revenue and cost, we shall use the rate of cost of capital (r) as the discount rate, and we shall assume that the revenue of a particular year would be obtained at the end of the year, and cost of any year should also be paid at the end of the year. Therefore, by definition, we obtain the net present value (NPV) for the project to be

$$\begin{aligned} NPV &= \left[\frac{R_1}{1+r} + \frac{R_2}{(1+r)^2} + \dots + \frac{R_n}{(1+r)^n} \right] - \left[C_0 + \frac{C_1}{1+r} + \frac{C_2}{(1+r)^2} + \dots + \frac{C_n}{(1+r)^n} \right] \\ &= \sum_{t=1}^n \frac{R_t}{(1+r)^t} - \sum_{t=0}^n \frac{C_t}{(1+r)^t} \end{aligned} \quad (20.34)$$

$$= \sum_{t=1}^n \frac{R_t}{(1+r)^t} - C \quad (20.34a)$$

$$\text{where } C = \sum_{t=0}^n \frac{C_t}{(1+r)^t}.$$

We may note here that if we have $C_1 = C_2 = \dots = C_n = 0$ then we would obtain $C = C_0$.

Accept-Reject Rule:

It follows from the definition of NPV, or, from equations (20.34) or (20.34a) that, if for an investment project, we have $NPV > 0$, then the revenue from the project is greater than its cost, i.e., the project is profitable, and, if the firm accepts the project, then the value of the firm would increase. In other words, if $NPV > 0$, the project would be accepted.

On the other hand, if $NPV < 0$, the cost of project would be greater than its revenue, and so, if the project is accepted the firm would have to suffer-a loss and its value would decrease. Therefore, if $NPV < 0$, the project would be rejected.

Lastly, if $NPV = 0$, the revenue and cost of the project would be equal. In this case, the firm would be neutral or indifferent between the acceptance and rejection of the project.

Now, let us suppose that there are n acceptable ($NPV > 0$) projects and the firm would have to select k number of them ($k < n$). In this case, the firm would have to arrange the projects in the descending order of their NPVs and should select the first k number of the projects.

Evaluation of the NPV Method:

We have discussed above the properties of a good project evaluation method. The NPV method has all these properties. Therefore, it is a good project evaluation method.

The good properties of the NPV method are:

- (i) The method uses the rate of opportunity cost of capital as the discount rate in order to find the present value of all expected revenues and costs.
- (ii) The method considers all the expected flows of revenues and costs of the concerned investment project.
- (iii) If k number of profitable investment projects are to be selected from n such projects ($k < n$), then the NPV method arranges all the n number of projects in the descending order of their NPVs and selects the first k number of projects out of this arrangement, for implementation. As a result, the firm's value is maximised.
- (iv) The NPV method separately evaluates each particular project (independent of any alternative project).

4. The Internal Rate of Return (IRR):

Definition of IRR:

The Internal Rate of Return (IRR) is a rate of discount (m) that makes the present value of the expected revenues to be obtained from an investment project equal to the present value of the cost of the project.

Let us suppose that from an investment project with n years of life, the expected revenues to be obtained at the end of years $1, 2, \dots, n$ are, respectively, R_1, R_2, \dots, R_n . Let us also suppose that the initial cost of the project is C_0 and the costs to be incurred at the end of different years are C_1, C_2, \dots, C_n . Therefore, here the present value (PV) of the costs of the project would be

$$C = \sum_{t=0}^n \frac{C_t}{(1+r)^t} \quad (20.36)$$

Here the rate of discount r is equal to the rate of cost of capital.

Now, the IRR, according to definition, would be obtained from the equation:

$$C = \frac{R_1}{1+m} + \frac{R_2}{(1+m)^2} + \dots + \frac{R_n}{(1+m)^n} \quad (20.37)$$

$$\text{or, } C = \sum_{t=1}^n \frac{R_t}{(1+m)^t} \quad (20.37a)$$

Here m is such a rate of discount that would make the sum total of the present values of R_1, R_2, \dots, R_n , equal to C . Therefore, by definition, m is the internal rate of return of the project. This IRR has been called by Keynes the marginal efficiency of capital.

We may easily understand why m is called the IRR. For the implementation of the project, the firm spends at present a sum of money equal to C . In equation (20.37), we see that spending a sum of money equal to C means simultaneous spending of the sums $R_1/1+m$, $R_2/(1+m)^2$ $R_n/(1+m)^n$.

Now, the firm spends $R_1/1+m$ of money at present and it (expectedly) recovers R_1 of money at the end of the first year—here the rate of return is m which is equal to the rate of discount.

Again, the firm spends $R_2/(1+m)^2$ of money at present and it recovers R_2 of money at the end of the second year, the rate of return being again m . Proceeding in this way, ultimately we see that the firm spends $R_n/(1+m)^n$ of money at present and recovers R_n of money at the end of the n th year, the rate of return being again m .

Therefore, what we have seen is that the firm spends at present an amount of money C on the project and earns a rate of return m on each and every portion of this investment. That is why m is called the internal rate of return or average rate of return.

Accept-Reject Rule:

If the IRR is greater than the rate of cost of capital, then investment in the concerned project would be profitable. That is, if the rate of cost of capital is r , then the project should be implemented if $m > r$.

On the other hand, if $m < r$, then the project would not be profitable—if it is taken up for implementation, then the value of the firm would decrease. Lastly, if $m = r$, then the firm would be neutral between accepting and rejecting the project, for the firm's value would remain unchanged even if the project is implemented.

Evaluation of the IRR Method:

The IRR method takes into consideration almost all the things that should be considered for the evaluation of an investment project. Therefore, the method is accepted as a good method.

The following points in favour of this method:

- (i) The IRR method determines the rate of return on the basis of the present values of all the expected revenue and cost figures. That is, the time-value of money is considered in this method.
- (ii) The IRR method considers all the revenue and cost flows that may be obtained in an investment project.
- (iii) If only a few projects are to be selected out of a number of mutually exclusive and profitable [$IRR (= m) > r$] projects, then all these projects are arranged in the descending order of their IRRs and then the required number of projects from the beginning of this arrangement are taken up for implementation. As a consequence, the firm's value increases to the maximum possible extent.
- (iv) The IRR method evaluates each project separately, i.e., independently of any alternative project.

Cost Benefit Analysis

In business today, it's essential to get the most out of every idea, option, and investment. To accomplish this, many organizations - from large enterprises to startups and small businesses - use cost benefit analyses to help make important decisions. Using a cost benefit analysis can help teams identify the highest and best return on an investment based on the cost, resources, and risk involved.

A cost benefit analysis (also known as a benefit cost analysis) is a process by which organizations can analyze decisions, systems or projects, or determine a value for intangibles. The model is built by identifying the benefits of an action as well as the associated costs, and subtracting the costs from benefits. When completed, a cost benefit analysis will yield concrete results that can be used to develop reasonable conclusions around the feasibility and/or advisability of a decision or situation.

Why Use Cost Benefit Analysis, Organizations rely on cost benefit analysis to support decision making because it provides an agnostic, evidence-based view of the issue being evaluated—without the influences of opinion, politics, or bias. By providing an unclouded view of the consequences of a decision, cost benefit analysis is an invaluable tool in developing business strategy, evaluating a new hire, or making resource allocation or purchase decisions.

Scenarios Utilizing Cost Benefit Analysis

Cost benefit analysis is the foundation of the decision-making process across a wide variety of disciplines. In business, government, finance, and even the nonprofit world, cost benefit analysis offers unique and valuable insight when:

1. Developing benchmarks for comparing projects
2. Deciding whether to pursue a proposed project
3. Evaluating new hires
4. Weighing investment opportunities
5. Measuring social benefits
6. Appraising the desirability of suggested policies
7. Assessing change initiatives
8. Quantifying effects on stakeholders and participants

The five basic steps to performing a cost benefit analysis

1. Establish a framework to outline the parameters of the analysis
2. Identify costs and benefits so they can be categorized by type, and intent
3. Calculate costs and benefits across the assumed life of a project or initiative
4. Compare cost and benefits using aggregate information
5. Analyze results and make an informed, final recommendation

According to Dr. Josiah Kaplan. The best cost-benefit analyses take a broad view of costs and benefits, including indirect and longer-term effects, reflecting the interests of all stakeholders who will be affected by the program.”

How to Establish a Framework

In establishing the framework of your cost benefit analysis, first outline the proposed program or policy change in detail. Look carefully at how you position what exactly is being evaluated in relationship to the problem being solved.

Identify and Categorize Costs and Benefits

Now that your framework is in place, it's time to sort your costs and benefits into buckets by type. The primary categories that costs and benefits fall into are direct / indirect, tangible / intangible and real:

- **Direct costs** are often associated with production of a cost object (product, service, customer, project, or activity)
- **Indirect costs** are usually fixed in nature, and may come from overhead of a department or cost center
- **Tangible costs** are easy to measure and quantify, and are usually related to an identifiable source or asset, like payroll, rent, and purchasing tools
- **Intangible costs** are difficult to identify and measure, like shifts in customer satisfaction, and productivity levels
- **Real costs** are expenses associated with producing an offering, such as labor costs and raw materials

How to Calculate Costs and Benefits

With the framework and categories in place, you can start outlining overall costs and benefits. As mentioned earlier, it's important to take both the short and long term into consideration, so ensure that you make your projections based on the life of the program or initiative, and look at how both costs and benefits will evolve over time.

3 Steps for Analyzing the Results and Make a Recommendation

1. Perform Sensitivity Analysis

“Information on costs, benefits, and risks is rarely known with certainty, especially when one looks to the future,” Dr. Kaplan says. “This makes it essential that sensitivity analysis is carried out, testing the robustness of the CBA result to changes in some of the key numbers.”

2. Consider Discount Rates

When evaluating your findings, it's important to take discount rates into consideration when determining project feasibility.

- **Social discount rates** – Used to determine the value to funds spent on government projects (education, transportation, etc.)
- **Hurdle rates** – The minimum return on investment required by investors or stakeholders.
- **Annual effective discount rates** – Based on a percentage of the end-of-year balance, the amount of interest paid or earned.

3. Use Discount Rates to Determine Course of Action

After determining the appropriate discount rate, look at the change in results as you both increase and decrease the rate:

- **Positive** - If both increasing and decreasing the rate yields a positive result, the policy or initiative is financially viable.
- **Negative** - If both increasing and decreasing the rate yields a negative result, revisit your calculations based upon adjusting to a zero-balance point, and evaluate using the new findings.

The Risks and Uncertainties of Cost Benefit Analysis

Risks

Much of the risk involved with cost benefit analysis can be correlated to the human elements involved. Stakeholders or interested parties may try to influence results by over- or understating costs. In some cases, supporters of a project may insert a personal or organizational bias into the analysis.

Uncertainties

There are several “wild-card” issues that can influence the results of any cost benefit analysis, and while they won’t apply in every situation, it’s important to keep them in mind as you work:

- **Accuracy affects value** – Inaccurate cost and benefit information can diminish findings around value.
- **Don’t rely on intuition** – Always research benefits and costs thoroughly to gather concrete data—regardless of your level of expertise with the subject at hand.

- **Cash is unpredictable** – Revenue and cash flow are moving targets, experiencing peaks and valleys, and translating them into meaningful data for analysis can be challenging.
- **Income influences decisions** – Income level can drive a customer's ability or willingness to make purchases.
- **Money isn't everything** – Some benefits cannot be directly reflected in dollar amounts.
- **Value is subjective** – The value of intangibles can always be subject to interpretation.
- **Don't automatically double up** – When measuring a project in multiple ways, be mindful that doubling benefits or costs can result in inconsistent results.

Controversial Aspects

When thinking about the most controversial aspects of cost benefit analysis, all paths seem to lead to intangibles. Concepts and things that are difficult to quantify, such as human life, brand equity, the environment, and customer loyalty can be difficult to map directly to costs or value.

“Cost benefit analysis assumes that a monetary value can be placed on all the costs and benefits of a program, including tangible and intangible returns. ...As such, a major advantage of cost-benefit analysis lies in forcing people to explicitly and systematically consider the various factors which should influence strategic choice,”

Industrial Policy in India

Industrial policy is a document that sets the tone in implementing, promoting the regulatory roles of the government. It was an effort to expand the industrialization and uplift the economy to its deserved heights. It signified the involvement of the Indian government in the development of the industrial sector. The government adopted rules and regulations for the various industries. This industrial policy introduction proved to be the turning point in Indian Industrial history.

Objectives of Industrial Policy

1. To maintain steady growth in productivity.
2. To create more employment opportunities.

3. Utilize the available human resources better
4. To accelerate the progress of the country through different means
5. To match the level of international standards and competitiveness

The industrial growth of a country is guided and regulated through its industrial policies. Let's understand the journey of various industrial policies.

I. Industrial Policy of 1948

The first industrial policy after independence was announced on 6th April 1948. It was presented by Dr. Shyama Prasad Mukherjee then Industry Minister. The main goal of this policy was to accelerate the industrial development by introducing a mixed economy where the private and public sector was accepted as important in the development of the economy. It saw the Indian economy in socialistic patterns. The large industries were classified into four categories:

- **Industries with exclusive State Monopoly/Strategic industries:** It included industries engaged in the activity of atomic energy, railways and arms, and ammunition.
- **Industries with Government control:** This category included industries of national importance. 18 such categories were mentioned in this category such as fertilizers, heavy machinery, defense equipment, heavy chemicals, etc.
- **Industries with Mixed sector:** This category included industries that were allowed to operate independently in the private or public sector. The government was allowed to review the situation to acquire any existing private undertaking.
- **Industry in the Private sector:** Industries which were not mentioned in the above categories fall into this category. High importance was granted to small businesses and small industries, leading to the utilization of local resources and creating employment.

II. Industrial Policy Resolution, 1956

This second industrial policy was announced on April 20, 1956, which replaced the policy of 1948. The features of this policy were:

- A new classification of Industries.
- Non-discriminatory and fair treatment for the private sector. Promotion of village and small-scale industries.
- To achieve development by removing regional disparity.
- Labour welfare.

The IRDA divided industries into three categories:

- **Schedule A industries:** The industries that were under the monopoly of the state or government. It included 7 industries. The private sector was also introduced in these industries if national interest required.
- **Schedule B industries:** In this category of industries, the state was allowed to establish new units but the private sector was not denied to set up or expand existing units e.g. chemical industries, fertilizer, synthetic, rubber, aluminum, etc.
- **Schedule C industries:** So the industries that were not a part of the above-mentioned industries then it formed a part of Schedule C industries.

To summarize, the policy of 1956 in which the state was given a primary role for industrial development as capital was scarce and business was not strong.

III. Indian Policy Statement, 1973

Indian Policy Statement of 1973 identified high priority industries with investment from large industrial houses and foreign companies were permitted. Large industries were permitted to start operations in rural and backward areas with a view to developing those areas and enabling the growth of small industries around. And so the basic features of Indian Policy Statement were:

- The policy was directed towards removing the distortions, it provided for closer interaction between agriculture and industrial sector.
- Priority was given towards generation and transmission of power.
- The list of industries reserved for the small-scale sector was expanded.
- Special legislation was made to protect cottage and household industries were introduced.

IV. Indian Policy Statement 1977

Indian Policy Statement was announced by George Fernandes then the union industry minister of the parliament. The highlights of this policy are:

A) Target on the development of small-scale and cottage industries.

- Household and cottage industries for self-employment.
- Tiny sector investment up to 1 lakhs.
- Smallscale industries for investment up to 1-15 lakhs.

B) Large-scale sector

- Basic industries: infrastructure and development of small-scale and village industries.
- Capital goods industries: meeting the requirement of cottage industries.
- High technological industries: development of agriculture and smallscale industries such as petrochemicals, fertilizers and pesticides.

C) Restrict the control of big business houses.

D) Role of the public sector:

- Development of ancillary industries.
- To make available expertise in technology and management in small and cottage industries.

E) Revival and rehabilitation of sick units.

V. Industrial Policy, 1980

The Congress government announced this policy on July 23rd, 1980. The features of this policy are:

- Promotion of balanced growth.
- Extension and simplification of automatic expansion.
- Taking over industrial sick units.
- Regulation and control of unauthorized excess production capabilities installed for industrial houses.
- Redefining the role of small-scale units.
- Improving the performance of the public sector.

VI. New Industrial Policy, 1991

The features of NIP, 1991 are as follows:

The New Industrial Policy, 1991 had the main objective of providing facilities to market forces and to increase efficiency.

Larger roles were provided by

- L – Liberalization (Reduction of government control)
- P – Privatization (Increasing the role & scope of the private sector)
- G – Globalisation (Integration of the Indian economy with the world economy)

Because of LPG, old domestic firms have to compete with New Domestic firms, MNC's and imported items

The government allowed Domestic firms to import better technology so as to improve efficiency and to have access to better technology. Foreign Direct Investment ceiling was increased from 40% to 51% in selected sectors.

- Public sector de-reservation and privatization of the public sector through disinvestment.
- Industrial licensing.
- Amendments to Monopolies and Restrictive Trade Practices (MRTP) Act, 1969.
- Liberalized Foreign Investment Policy.
- Foreign Technology Agreements (FTA).
- Dilution of protection to SSI and emphasis on competitiveness enhancement.

The all-around changes introduced in the industrial policy framework have given a new direction to the future industrialization of the country. There are encouraging trends on diverse fronts. Industrial growth was 1.7 percent in 1991-92 that has increased to 9.2 percent in 2007-08. The industrial structure is much more balanced. The impact of industrial reforms is reflected in multiple increases in investment envisaged, both domestic and foreign.