#### MODULE I INTRODUCTION TO INDUSTRIAL ECONOMICS

Definition and scope of industrial economics - Concept and importance of industry; Concept and organization of a firm - Classification of firms based on ownership - sector (industries, formal vs. Informal) - size and use - based classification - Separation of ownership and control - Localization of industries.

#### **Definition of Industrial Economics**

Industrial Economics and management is a study of economic theories, logic and methodology applied to business decision-making in industrial and business organizations. It constitutes that part of economic theories and knowledge that is applied as a means of analyzing business complexities to arrive at rational business decisions. Industrial economics is about economic aspects of industry - of markets and firms. It is a distinctive branch of economics which deals with the economic problems of firms and industries, and their relationship with society. In other words, Industrial economics deals with the organizations or institutions of production and economic forces which operate within the industrial sector. The subject is also known with different names like Industrial Organization, Business Economics, Industry and Trade etc.

# Objectives - The following are the important objectives of Industrial Economics:

- 1. To achieve the assigned target for the development of industries
- 2. To provide information about sources of nature, climate for the industrial growth, supplies for production etc.

#### **Scope and Subject Matter of Industrial Economics**

Though the scope of the subject industrial economics is very wide, following are some of the important areas studied under the core of the subject

1. *Industrial profile:* An industry profile provides a picture of a business industry based on data related to trends and areas of growth. It also deals with ownership patterns-like public, private, cooperative and their respective performances, problems, measures to deal with such problems etc.

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- **2.** *Diversification and Industrial Combinations:* Industrial economics studies sector-wise, commodity-wise and geographical location-wise diversification of industries. It also studies the types of industrial combinations, mergers and acquisitions and also motives behind the same.
- 3. Industrial Location: It gives information about suitable locations for the proposed industrial project through analyzing various factors like availability of resources, infrastructure etc. which are the determinants of industrial location. Similarly, theories of Industrial Location is also an important area of study of this subject.
- 4. Dispersion of Industries and Regional Imbalance: The dispersion of industries deals with spread and concentration of industries in specific geographical locations. Factors responsible for such spread, types of firms located in a particular geographical location, infrastructural availability etc. are the topics covered in this aspect. Similarly, the problem, causes and measures to solve issues related to regional imbalance is also an important area of study of industrial economics.
- 5. Industrial Productivity and Industrial Sickness: Industrial productivity deals with topics like concept and measurement of industrial productivity, factors affecting industrial productivity etc. Introduction to industrial economics and industrial profile while under industrial sickness-causes, effects and remedial measures are being studied.
- **6.** *Industrial finance:* One of the important areas of industrial economics is Industrial Finance which has two levels for study available finance source and effective utilization of the same.
- 7. *Industrial Disputes:* Under this aspect- causes of Industrial Disputes, Role of trade Union, collective bargaining and Settlement Mechanism of industrial disputes etc. are studied.
- **8.** Labour welfare: Under this aspect the concept, theories and principles of labour welfare, characteristics of the labour market, problems of child labour, agencies for labour welfare, labour social security measures, role of international labour organization etc. are studied.

Thus industrial economics is predominantly an empirical discipline having both micro and macro aspects. It provides useful applications for industrial management and public policies with a strong theoretical base of microeconomics.

# **Nature and Importance of Industrial Economics**

Industrial Economics gives insights into how firms organize their activities, as well as considering their motivation. In many micro courses, profit maximization is taken as given, but many industrial economics courses examine alternative objectives, such as trying to grow market share.

There is also an international dimension – firms have the option to source inputs (or outsource production) overseas. As such, while industrial economics more frequently uses skills and knowledge from micro courses, macroeconomic concepts are sometimes employed.

One of the key issues in industrial economics is assessing whether a market is competitive. Competitive markets are normally good for consumers (although they might not always be feasible) so most industrial economics courses include analysis of how to measure the extent of competition in markets. It then considers whether regulation is needed, and if so the form it should take. There is again an international dimension to this, as firms that operate in more than one country will face different regulatory regimes.

Industrial Economics uses theoretical models to understand firm and regulatory decision making, and so students should expect to use diagrams and maybe some basic mathematical models, including game theory. In addition, researchers often develop empirical statistical models to identify relationships between variables of interest: for example, to understand the relationship between product price, advertising, and profits.

Industrial Economists are also highly employable. There is an entire industry of consultancies and government agencies concerned with competition policy. There is an equally large set of consultancies and regulators which are concerned with the economics of regulation.

An industry is a group of organizations involved in producing/manufacturing or handling the same type of product and service. Industries are part of the secondary activity. Secondary activities or manufacturing converts raw material into products of more value to people. Industrial systems are made up of input, processes, and output. The inputs are raw materials, labour, land, power, and other infrastructure. The process is the plan the manufacturer has of how to turn raw materials into finished products of value. And finally, the output is the end of the product from which the income is earned.

## **Primary industry**

This sector of a nation's economy includes agriculture, forestry, fishing, mining, quarrying, and the extraction of minerals. It may be divided into two categories: genetic industry, including the production of raw materials that may be increased by human intervention in the production process; and extractive industry, including the production of exhaustible raw materials that cannot be augmented through cultivation.

The genetic industries include agriculture, forestry, and livestock management and fishing—all of which are subject to scientific and technological improvement of renewable resources. The extractive industries include the mining of mineral ores, the quarrying of stone, and the extraction of mineral fuels.

Primary industry tends to dominate the economies of undeveloped and developing nations, but as secondary and tertiary industries are developed, its share of the economic output tends to decrease.

## **Secondary industry**

This sector, also called manufacturing industry, takes the raw materials supplied by primary industries and processes them into consumer goods, or further processes goods that other secondary industries have transformed into products, or builds capital goods used to manufacture consumer and non-consumer goods. Secondary industry also includes energy-producing industries (*e.g.*, hydroelectric industries) as well as the construction industry.

Secondary industry may be divided into heavy, or large-scale, and light, or small-scale, industry. Large-scale industry generally requires heavy capital investment in plants and machinery, serves a large and diverse market including other manufacturing industries, has a complex industrial organization and frequently a skilled specialized labour force, and generates a large volume of output. Examples would include petroleum refining, steel and iron manufacturing, motor vehicle and heavy machinery manufacture, cement production, nonferrous metal refining, meat-packing, and hydroelectric power generation.

Light, or small-scale, industry may be characterized by the non-durability of manufactured products and a smaller capital investment in plants and equipment, and it may involve nonstandard products, such as customized or craft work. The labour force may be either low skilled, as in textile work and clothing manufacture, food processing, and plastics manufacture, or highly skilled, as in electronics and computer hardware manufacture, precision instrument manufacture, gemstone cutting, and craft work.

# **Tertiary industry**

The tertiary industry majorly consists of the service sector. This would include several activities where the people usually offer their expertise and knowledge for improving productivity, potential, performance and sustainability. The most prominent characteristic of the tertiary sector is the production of several nature services that include advice, care, experiences, access and discussions.

The services may also involve the distribution, transport and sales of goods from the production company to the consumers via different channels. The goods are transformed in this process as in the restaurant industry, where the raw foods are used for cooking several dishes and serving to the consumers. The focus of this industry is more to interact with a lot of people and focus on customer service even more than the transformation of the different kinds of physical goods.

## **Importance of Industry**

Economic Stability: A country that only depends upon agriculture sector cannot achieve stability. There is an imbalance, only the man-power i.e. labour-intensive technology is being used. Hence, industrialization provides economic stability to the country where in

- the country is not solely dependent on only one sector. There is a balance between the contributions of both the sectors to the economy.
- ➤ Increase in Foreign Exchange Reserve: With the introduction of more and more industries, there will be a rise in foreign exchange earnings. The exports will rise and imports will start falling in numbers. There would be more cash inflow, self-sufficiency will increase.
- ➤ Utilization of Natural Resources: There may be a lot of resources lying unused like barren lands and minerals, which can be of no use to the agricultural or financial sectors of a country. Therefore, industrial development would add to the utilization of such resources, which otherwise would have been completely wasted and their contribution in monetary terms would have been nil.
- > Supports Agricultural, Defense and other Sectors of Economy: With the development of industrial sector, the other sectors are also benefited. Industries provide machinery like tractors and modern inputs to the agricultural sector. It improves the working and livestyle of the farmers. Industries also provide arms and ammunition for the defense of a country, without these the country will become extremely vulnerable. And also the country cannot rely upon other countries for its provision. Industrialization also improves other sectors like transport, construction, communication, finance etc, as it provides infrastructure and other supportive elements for all these sectors.
- ➤ Improvement of Balance of Payment and Government Revenue: Due to industrialization, domestic goods i.e. goods manufactured by own country increases, and so does its exports. It is favorable for balance of payment because value of finished goods increases as compared to the primary goods. Collection of taxes like excise duty, indirect taxes, income taxes also increases with industrialization.
- ➤ Improvement in Investment and Spending: Industrialization causes the income of people to rise, and improves their standard of living. There is a rise in income, and so rate of savings, rate of investment and rate of spending also rises automatically. This is an important event for the rapid growth of a country.

- ➤ *Employment Opportunities:* It provides huge employment to the people of a country. Thereby eliminates most of the social and economic problems of a country, as unemployment is the root cause that has underpinned all the drawbacks for a country.
- > Improvement in Capital Accumulation: Industries contribute in a good portion with the total national income of any country, but also in the level of income and saving capacity of people in general.
- ➤ Improvement of several countries' key sectors: Industrialization helps with the development of many strategic sectors like energy, transport, building, chemical, defense, etc. On the other hand, industries greatly contribute to government revenue due to the collection of different taxes that will then be used for public infrastructure.
- ➤ Greater Economic Independence: Production of several key goods helps with the implementation of import substitution measures that at the same time, helps any country to minimize its dependence on foreign imports, but also saving a great amount of foreign exchange.

# Conception of the Conception o

A firm is an association of individuals who have organized themselves for the purpose of turning inputs into output. It is an organization owned by one or jointly by a few or many individuals which is engaged in productive activity of any kind for the sake of profit or some other well defined aim.

Firms fulfill the social role of production, transforming resources into finished goods and services. Typically, firms use four different basic types of resources in productive activities:

- Natural resources: taken directly from nature without previous transformation (land, air, water, wood, etc.).
- Capital: funds needed to invest in tools, machinery, equipment, technology.
- Human resources: physical and intellectual capabilities of the workers.
- Entrepreneurship: the innovative ideas that shape the business model.

Further, resources are combined and transformed into final products or services which are, in turn, commercialized in markets to customers who are willing to pay for them. If the firm produces something that customers like, it will certainly be able to set prices that can cover production costs and more. If not, covering costs will be difficult and firm survival will be threatened.

## Firms versus Industry

Firm and industry are the terms used in the context of economics while the firm is a narrow concept as it operates within an industry but the industry is a much wider concept as it operates within an economy. In simple words, the firm is that business unit that is doing business individually, and when many firms are doing the same business then it is called an industry hence an industry is a group of many firms doing their business.

#### **Characteristics of Firms**

We may learn more about them by analyzing their characteristics. The following criteria show that the business entity is in the form of a firm:

- Firstly, a firm is a for-profit enterprise often established as a partnership. It offers professional services such as legal or accountancy.
- Secondly, the firm theory postulates that businesses exist to maximize profits.
- Thirdly, to be distinct from a firm, a company is a commercial enterprise that sells products or services for profit and encompasses all business structures and trades.
- Lastly, a company firm may have one or more locations owned by the same entity.

#### **Objectives of a Firm:**

- 1. To achieve the organizational goal
- 2. To maximize the output of the firm
- 3. To maximize the sales of the firm

- 4. To maximize the profit of the organization
- 5. To maximize the customer and stakeholder's satisfaction
- 6. To maximize shareholder's return on investment
- 7. To maximize the growth of the organization
- 8. Firms are established to earn profit, to keep the shareholders happy
- 9. To increase their market share, they try to maximize their sales
- 10. In the present business world firms try to produce goods and services without harming the environment

## **Types of Firms**

While a company's commercial operations are usually performed under the firm's name, the degree of legal protection provided to workers and owners varies according to the ownership structure used to establish the organization. Certain types of organizations, such as corporations, provide more legal protection than others.

Firms may be classified in a variety of ways depending on their ownership structures:

#### 1. Private Sector:

The ownership is exclusively in the hands of private individuals.

## a. Sole proprietorship or sole trader

Individual or Sole proprietorship is the oldest and simplest form of business organization. A sole proprietorship is a form of private enterprise that is owned, managed and controlled by one person, and consequently, that person is liable for all costs and obligations. This type of business is also called single ownership or single proprietorship. The sole proprietor arranges the finance manages the business affairs individually. A single man performs twin functions of an organizer as well as that of an entrepreneur. Legally, sole proprietorship is inseparable from its owner and business. The functions of management, supervision and risk taking are performed by the individual proprietor. Labour work is also performed by himself or with the help of his/her family members. In individual proprietorship the owner himself is responsible for the profit and

loss. The benefit is that all aspects of the business belong to that person, including all assets. It means there is unlimited liability in the individual proprietorship. Such type of proprietorship is found in small scale industries or in the case of shopkeepers. Debts accrued by the proprietorship are the personal responsibility of the proprietor. For example: If there's a local restaurant owned by one person and you want to sue the restaurant, you can sue the owner personally and try to take their possessions.

#### b. Joint Hindu family business:

Head of the family manages the business and other members help him. Profits are shared according to their contribution.

## c. Joint stock Companies or Corporation

A corporation is treated legally as a single entity owned by shareholders. Like a person, a corporation can incur debt and is therefore responsible for repayment. This stands in contrast to a partnership where particular individuals may be liable for debts incurred. Corporations who shield company executives and shareholders from fines and punishments are said to offer "limited liability." For example: If we want to sue Pepsi, we cannot sue the owners personally. We can only sue the company.

## d. Partnership

As a form of business organization, partnership has a much wider scope as compared to the individual proprietorship. When two or more than two persons join to start and run a business on the basis of their common and shared responsibility in the matter of profit or loss, it is called the partnership. In other words, the individual proprietorship is converted into partnership if one person or more than one person is taken as partners in the business. It is based on Indian Partnership Act. The minimum number of partners is 2 and the maximum is 20. Partnership generally takes place among those persons who are either relatives, friends or known to each other. Partnership is an association of persons who agree to combine their financial resources and managerial abilities to carry on a business and share the profits in an agreed ratio. The persons who have entered into partnership with one another are called individually 'partner' and collectively a 'firm'. Each partner is personally responsible for all company responsibilities, and

collectively they control the firm's assets. In an organization, partnership deeds are made and each partner decides upon their capital contribution to the firm. It is also decided on how much profit or loss each partner will share. If a partner in a law firm steals a client's money and disappears, the other partners may be responsible for absorbing some portion of the loss. For example: If there's a local restaurant with four owners and you want to sue the restaurant, you can sue each of the owners personally.

## e. Cooperative Society

The word cooperative means working together and with others for a common purpose. The cooperative society is a voluntary association of persons, who join together with the motive of welfare of the members. Cooperative is 'an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise'. In modern times, a co-operative enterprise is one of the important forms of business organization. When a few persons, who are known to each other, start business on co-operative basis, it is called a co-operative society. A few persons combine and make a co-operative society. There must be minimum 11 people in India to form a co-operative society and they may submit an application for the establishment of a co-operative society to the Registrar of Co-operative Societies. A co-operative society is established after the approval of the Registrar. There is no maximum limit of membership. In brief, a co-operative society comes into existence when people work together by pooling their resources for a business purpose on the basis of mutual benefits. Co-operative organization is a voluntary association of person who come together to promote their common economic interest through the principle of self-help and mutual help. Mutual held means each for one and all the for each. According to Sec. 40 (f) the Indian Co-operative Society Act, 1912: Cooperative society is a society which has its objectives the promotion of economic interest of its members in accordance with cooperative principle.

#### 2. Public sector companies

They aim for the economic development of the country rather than profits.

Departmental organizations. E.g.: Posts and telegraphs, railways, broadcasting and defense undertakings. Public corporations. These are formed under specific acts of the parliament. e.g.: LIC, IFC, Indian Airlines etc. Govt. Company. A company with not less than 50 percent of the share capital is owned by the central or any state governments.

E.g.: Hindustan Machine Tools Ltd., Hindustan steel Ltd. Etc.

**3. Joint Sector:** Participation of both the govt. and the private sector in the business.

Madras Fertilizers Ltd. for example, was established as a joint enterprise in participation with Amoco Inc. (USA) and National Iranian Oil Co.(Iran). The same foreign companies were partners in Madras Refineries Ltd too. Maruti Udyog Ltd., is one of the latest cases where a foreign private corporation has been invited to join hands with the Government.

## Classification based on Sector (industries, formal vs. Informal)

Formal sectors or organized sector represent all jobs with specific working hours and regular wages and the worker's job is assured. This sector is registered and follows government rules and regulations having employees and employee unions. The workers are employed by the government, state or private sector enterprises. It is a licensed organization and is liable to pay taxes. It includes large-scale operations such as banks and other corporations. In India, banks, railways, insurance, industry, central government employees, etc. can be called as an organized sector.

Conversely, *informal or unorganized sectors* are the ones where the employees or the workers do not have regular working hours and wages and are exempted from taxes. It is mainly concerned with the primary production of goods and services with the primary aim of generating employment and income on a small scale. A street vendor selling his farm products on the street to generate and earn his daily bread is an example of an informal economy. Rag pickers, moneylenders, brokers are considered as a part of an informal economy. It is also described as the grey economy.

Informal sectors are deemed low with low production value. In India agriculture, dairy, horticulture and related occupation employ 52 percent of the workers. It has less remunerative, unlike the formal sectors. The latter provides incentives such as bonuses, paid leave and fixed working hours not to forget maternity leave which is devoid in informal sectors, there are no such incentives.

Moreover, it lacks security both legally and economically. Therefore, there is a greater vulnerability of the workers who are outside the reach of the labor legislation due to a worker's absence of social protection and worker's right. The vulnerability increases with women in particular. Since the organizations, informal sectors are legalized and are monitored by governments the workers by default have economic security and social protection.

#### Classification based on Size and Use

There are millions of businesses around the world and all of them vary in size, hence it is useful to classify businesses according to their size to have a better understanding of external business environment. Measuring the size of businesses is helpful to managers as we can make comparisons between various business organizations, and also assess their business growth (or lack of growth) over time. This information of business size is also of interest to other stakeholders such as workers, investors and the government. The official definitions for micro businesses, small businesses and large businesses are easily discoverable from the trade and industry department in your own country.

Industries are classified on different basis such as raw materials, size and ownership. If we talk about the basis of size, then there are four types of industries, i.e. large scale industries, small scale industries, medium industries and cottage industries. Industries on the basis of size differ from others due the amount of capital invested, number of individuals employed and the volume of production.

Industries can be classified on the basis of size into following categories.

1. *Cottage industries*: It is the smallest unit of industries. The location of cottage industries is restricted to villages and mostly these are a household industry. It is

mostly run by the family members. Cottage industries produce the goods to fulfill local requirements so it needs a very little amount of capital and work with simple tools. These are mostly located in the houses of craftsmen itself. It can be operated by part time or full-time labour. These are engaged in the production of traditional goods like earthen pots, khadi goods, Cotton and coir mattress, handmade shoes etc.

- 2. *Micro Enterprise:* The Ministry of MSME, New Delhi, has notified the new limit for MSMEs vide Notification No. S.O. 1702(E) dated 01st June, 2020. As per the revised definition, any firm with investment up to Rs. 1 Crore and turnover of Rs.5 Crore will be classified as "Micro".
- 3. Small Scale Industries: Small scale industries are bigger than cottage industries but use lesser amount of capital and technology when compared to large scale industries. A small enterprise is an enterprise where the investment in plant and machinery is up to Rs.10 Crore and turnover up to Rs.50 Crore. They are mostly located in urban or semi urban areas, where there is dense population. Mostly, semi skilled or skilled labours are hired for this type of industries. Simple machines run by power are used to produce goods according to the demand of people living in wider areas. These types of industries are operated in an industrial area or complex. Small-scale industries are maintained in an organized manner. They are engaged in producing sophisticated goods like electric fans, iron, bulbs and television, etc.
- 4. **Medium Enterprise:** A medium enterprise is an enterprise where the investment in plant and machinery is up to Rs. 50 Crore and turnover under Rs. 250 Crore.
- 5. Large Scale Industries: Large scale industries require different types of raw materials, means of power, huge market, skilled workers, high technology and much more capital. The origin of these industries took place after industrial revolution. In large scale industries, special attention is given to the quality of the product. These industries produce the best type of goods on large scale. Large scale industries were initially setup in Great Britain, Western Europe, Russia, Japan, etc. Cement, cotton, iron-steel, petrochemical industries are some examples of large-scale industries. The requirement of capital investment exceeds from 10

crores or above. There are a large number of individuals employed in the industry and have high volume of sales. For Example, Tata Iron and Steel Company and the commodities manufactured are cotton, jute or textile industries, banking, tourism etc.

# **Advantages of Firms**

As with other types of commercial organizations, establishing a company offers several benefits and drawbacks. The following are some of the help:

- 1. The process for forming a company corporation is usually straightforward.
- 2. The starting capital is substantial since it derived from the combined contributions of all members who are also members of the company.
- 3. Profit-sharing based on paid-up capital, simulating a stock investment. The distinction is that each member who invests in the business has the right to participate actively in its management.
- 4. Effective administration of corporate entities enhanced by the distinct distribution of responsibilities within each organizational level.

## **Disadvantages of Firms**

- 1. Each member of a business entity is personally liable for the obligations of the business.
- 2. No distinction made between ownership rights and corporate assets.
- 3. Conflict is more likely to occur since more than one individual manages it.
- 4. If your company declares bankruptcy, your wealth may be seized to compensate for the business's losses.
- 5. If one of the firm's members suffers a loss or involved in legal problems, the other members must pay the cost.

# **Separation of Ownership and Control in Business**

Ownership means that having legal title. Control means having the ability to determine use. Ownership and control generally come as part of the same package in a market-oriented capitalist economy. People buy a good, they own the good, they decide how to use it. The major distinction between ownership and management of resources is that ownership refers to the right to a particular percentage of a company's total stock. Control, on the other hand, denotes that a specific group or individual is the primary stakeholder in a given resource.

A corporation is made up of 'two organs' the board of directors and its shareholders. The view that directors would do as instructed by shareholders has long disappeared. After the 20th century, this view had been altered to the effect that the board were capable of exercising powers independently from shareholders. With this and the growth of public listed companies on the stock exchange, whereby shares are available for the public to buy; shareholder control of the company become more difficult to contain. This meant that shareholders were more geographically dispersed and the amount of shares shareholders held differed considerably, affecting voting rights. This can be contrasted with company structures such as sole-traders, partnerships or small private companies where those who own shares generally manage the company.

This has led to what has been described as the 'agency problem' whereby the directors of the company are managers of the shareholder's money and there is an element of risk that the directors will act in their own interests rather than the interest of shareholders. In modern corporate governance, the separation of ownership and control permits some hierarchical decision-making which indirectly creates multiple conflicts among the shareholders and directors.

The investors may not know what really happens within the company and the directors or employees always cannot imagine what the shareholders are thinking regarding any important matter.

The separation of ownership and control is a common practice in modern corporate governance, which keeps the shareholders out of managerial responsibilities and empowers the directors to take day-to-day decisions to run corporations smoothly.

## Dealing with the Divorce between Ownership and Control

Strategies to deal with the potential conflict between shareholders and managers include:

- Ensuring that financial rewards and incentives offered to managers are aligned with shareholder holder interests e.g. based on the share price, dividends, profits achieved
- Implementing suitable corporate governance procedures to ensure shareholders are protected as far as possible (e.g. through non-executive directors, management remuneration committees)
- Company legislation ensuring that Directors are accountable for their actions to shareholders.

#### **Localization of Industries**

The localization of industry refers to the concentration of many firms of an industry (i.e. firms producing similar goods or services) in an area. It means the concentration of a certain industry in a particular area, locality or region. Localization is related to the territorial division of labour, that is, specialization by areas or regions. A certain town or region tends to specialize in the production of a particular commodity. Switzerland specializes in watches, Brazil in coffee and India in tea. In India, iron and steel industry is concentrated in Bihar, tea industry in Assam, cotton textile industry in Maharashtra and Gujarat, sugar industry in UP and Bihar, jute industry in Bengal, and so on. Town-wise, hosiery industry is localized in Ludhiana, brass-wares in Moradabad, bangles in Firozabad, shoes in Agra, scissors and knives in Meerut, etc.

#### **Factors Affecting Localization of Industries**

A number of factors lead to the concentration of many firms which produce similar commodities in a place.

#### • 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.

## • Availability of raw materials:

Many firms which use the same raw materials as inputs may be encouraged to locate their industries in places where the raw materials are found. 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. The concentration of iron and steel industry in Bihar is due to the availability of iron ore and other smelting materials there. Similarly, the localization of sugar factories in UP and Bihar is due to the widespread cultivation of sugarcane which is bulky and costly to transport to other regions.

#### • Nearness to Sources of power:

Nearness to the sources of power is another important cause of localization 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 kilometers with comparatively less cost. The concentration of the cotton textile industry in Bombay region may be attributed to the establishment of the Tata Hydro-electric Works.

## • 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. The former will thus decay soon.

The establishment of sugar industry in the South, of the cotton textile industry, especially in UP, Punjab, and Bengal has been motivated to meet the demand of these areas. On the other hand, export-oriented industries are concentrated near the port- towns because the transport costs of carrying exports to the ports are low for such industries. This explains the concentration of the majority of industrial houses in the port cities of Mumbai, Chennai and Calcutta. Besides, industries also tend to be concentrated around railway junctions because their products can be transported to other regions with lesser transport costs.

## • 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.

## • 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 localized which, in turn, attract more industries. Mumbai, Calcutta, Chennai and Delhi being the centers of industry have better banking and financial facilities than other cities.

# • Momentum of an Early Start:

Sometimes an industry is concentrated at a particular place simply by chance, or due to the whims of the entrepreneur, or due to his attachment to that place. It was by chance that the hosiery industry was started at Ludhiana which later on attracted a number of other manufacturers. The establishment of a chain of industries at Modi Nagar in UP has been due to the whims of G.M. Modi rather than any economic consideration. The setting up of the motor car industry at Detroit in America by Henry Ford, and at Oxford in England by William Morris was due to their attachment to these places as their birth places respectively.

#### • 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 centers.

#### Advantages of Localization of Industries

#### (1) Reputation:

The place where an industry is localized 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:

Localization leads to specialization in particular trades. As a result, workers skilled in those trades are attracted to that place. The localized 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 utilize 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 localized, subsidiary industries grow up to supply machines, tools, implements and other materials, and to utilize their by-products. For example, where the sugar industry is localized, 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 utilize molasses in feed.

## (5) Employment Opportunities:

As a corollary to the above, with the localization 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 centers for technical personnel. As a result, all firms benefit.

## (7) Economy Gains:

Localization 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 of Localization of Industries**

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

## (1) Dependence:

When an industry is localized 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:

Localization 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 localized, employment opportunities are limited to a particular type of labour. In the event of a recession in that industry, specialized labour fails to get alternative employment elsewhere. Again, if such specialized labour organizes 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 localized 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. Thus such regions develop more while the other regions remain backward.

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. The people of the backward regions feel envious and jealous of the people of the developed regions and the government has to start its own industries or encourage private enterprise to start industries by giving a number of concessions.

#### **Decentralization of Industries:**

To overcome the disadvantages of localization of industries, decentralization is recommended. Decentralization refers to the policy of dispersal of industries, whereby an industry is scattered in different regions of the country.

Besides removing the defects of centralization of industries, the policy of decentralization is essential from the strategic and defense points of view. The policy of decentralization 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 localization can be removed and the different regions develop in a balanced way.

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