

FACULTY OF JURIDICAL SCIENCES

Lecture-17



Plant Location

Location, localization and planned location of industries are often felt to be synonymous. But, the distinction among these three terms is of immense importance. Entrepreneurs locate their enterprises where the cost of production comes, the lowest at the time of establishing industries. This is known as 'location of industries'.

The concentration of a particular industry mainly in one area, as occurred with many industries in India, for example, textile industry in Mumbai is known as 'localization of industries'. 'Planned location of industries' is a term whereby the location of industries is planned to give each industrial area a variety of industries so that large industries are dispersed and not localized.

It was Alfred Weber (1929) to whom the credit of enunciating the theory of industrial location went when his magnum opus "The Theory of the Location of Industry," was published in German in 1909 and English in 1929.

The early theories of industrial location carried out the analysis on a simple framework where the location and special diversification was simply determined by an adjustment between location and weight distance characteristics of inputs and outputs.

The reason is that the then industrial structure was heavily dominated by the natural resource-base and consumer-oriented industries. But, over the period the very consideration for locating industries in a particular region has undergone a considerable change so the early theories of industrial location have become improper to explain location. Consideration of natural resources in the choice of industrial location has declined and the industries are likely to be established even in those areas with poor natural endowment.

This holds especially true in the case of industries which are not heavily biased in favor of raw material source for their location. It is seen that such industries are gaining increasingly greater importance in the industrial map of India during the recent decades. Concentration of IT industries in Bangalore and Hyderabad are such examples.

It is not always possible to explain industrial location independently with the help of any one factor. In fact, several factors/ considerations influence the entrepreneur's decision in selecting the location for industry. Selection of industrial location is a strategic decision. It is a onetime decision and not be retracted again and again without bearing heavy costs.

Nonetheless, regardless of the type of business/enterprise, there are host of factors but not confined to the following only that influence the selection of the location of an enterprise:

- (i) Availability of Raw Materials
- (ii) Proximity to Market
- (iii) Infrastructural Facilities
- (iv) Government Policy
- (v) Availability of Manpower
- (vi) Local Laws, Regulations and Taxation
- (vii) Ecological and Environmental Factors
- (viii) Competition
- (ix) Incentives, Land costs. Subsidies for Backward Areas
- (x) Climatic Conditions
- (xi) Political conditions.

Availability of Raw Materials:

One of the most important considerations involved in selection of industrial location has been the availability of raw materials required. The biggest advantage of availability of raw material at the location of industry is that it involves less cost in terms of 'transportation cost.

If the raw materials are perishable and to be consumed as such, then the industries always tend to locate nearer to raw material source. Steel and cement industries can be such examples. In the case of small- scale industries, these could be food and fruit processing, meat and fish canning, jams, juices and ketchups, etc.

Proximity to Market:

If the proof of pudding lies in eating, the proof of production lies in consumption. Production has no value without consumption. Consumption involves market that is, selling goods and products to the consumers. Thus, an industry cannot be thought of without market.

Therefore, while considering the market an entrepreneur has not only to assess the existing segment and the region but also the potential growth, newer regions and the location of competitors. For example, if one's products are fragile and susceptible to spoilage, then the proximity to market condition assumes added importance in selecting the location of the enterprise.

Similarly if the transportation costs add substantially to one's product costs, then also a location close to the market becomes all the more essential. If the market is widely scattered over a vast territory, then entrepreneur needs to find out a central location that provides the lowest distribution cost. In case of goods for export, availability of processing facilities gains importance in deciding the location of one's industry. Export Promotion Zones (EPZ) are such examples.

Infrastructural Facilities:

Of course, the degree of dependency upon infrastructural facilities may vary from industry to industry, yet there is no denying of the fact that availability of infrastructural facilities plays a deciding role in the location selection of an industry. The infrastructural facilities include power, transport and communication, water, banking, etc.

Yes, depending upon the types of industry these could assume disproportionate priorities. Power situation should be studied with reference to its reliability, adequacy, rates (concessional, if any), own requirements, subsidy for standby arrangements etc. If power contributes substantially to your inputs costs and it is difficult to break even partly using your own standby source, entrepreneur may essentially have to locate his/her enterprise in lower surplus areas such as Maharashtra or Rajasthan.

Similarly adequate water supply at low cost may become a dominant decisional factor in case of selection of industrial location for leather, chemical, rayon, food processing, chemical and alike.

Just to give you an idea what gigantic proportions can water as a resource assumes. Note that a tone of synthetic rubber requires 60 thousand gallons, a tone of aluminum takes 3 lakh gallons, and a tone of rayon consumes 2 lakh gallons of water.

Similarly, location of jute industry on river presents an example where transportation media becomes a dominant decisional factor for plant location. Establishing sea food industry next to port of embarkation is yet another example where transportation becomes the deciding criteria for industrial location.

Government Policy:

In order to promote the balanced regional development, the Government also offers several incentives, concessions, tax holidays for number of years, cheaper power supply, factory shed, etc., to attract the entrepreneurs to set up industries in less developed and backward areas. Then, other factors being comparative, these factors become the most significant in deciding the location of an industry.

Availability of Manpower:

Availability of required manpower skilled in specific trades may be yet another deciding factor for the location of skill- intensive industries. As regards the availability of skilled labor, the existence of technical training institutes in the area proves useful. Besides, an entrepreneur should also study labor relations through turnover rates, absenteeism and liveliness of trade unionism in the particular area.

Such information can be obtained from existing industries working in the area. Whether the labor should be rural or urban; also assumes significance in selecting the location for one's industry. Similarly, the wage rates prevalent in the area also have an important bearing on selection of location decision.

While one can get cheaper labor in industrially backward areas, higher cost of their training and fall in quality of production may not allow the entrepreneur to employ the cheap manpower and, thus, establish his/her enterprise in such areas.

Local Laws, Regulations and Taxes:

Laws prohibit the setting up of polluting industries in prone areas particularly which are environmentally sensitive. Air (Prevention and Control of Pollution) Act, 1981 is a classical example of such laws prohibiting putting up polluting industries in prone areas. Therefore, in order to control industrial growth, laws are enforced to decongest some areas while simultaneously encourage certain other areas.

For example, while taxation on a higher rate may discourage some industries from setting up in an area, the same in terms of tax holidays for some years may become the dominant decisional factor for establishing some other industries in other areas. Taxation is a Centre as well as State Subject. In some highly competitive consumer products, its high quantum may turn out to be the negative factor while its relief may become the final deciding factor for some other industry.

Ecological and Environmental Factors:

In case of certain industries, the ecological and environmental factors like water and air pollution may turn out to be negative factor in deciding enterprise location. For example, manufacturing plants apart from producing solid waste can also pollute water and air. Moreover, stringent waste disposal laws, in case of such industries, add to the manufacturing cost to exorbitant limits.

In view of this, the industries which are likely to damage the ecology and environment of an area will not be established in such areas. The Government will not grant permission to the entrepreneurs to establish such industries in such ecologically and environmentally sensitive areas.

Competition:

In case of some enterprises like retail stores where the revenue of a particular site depends on the degree of competition from other competitors' location nearby plays a crucial role in selecting the location of an enterprise. The areas where there is more competition among industries, the new units will not be established in these areas. On the other hand, the areas where there is either no or very less competition, new enterprises will tend to be established in such areas.

Incentives, Land Costs, Subsidies for Backward Areas:

With an objective to foster balanced economic development in the country, the Government decentralizes industries to less developed and backward areas in the country. This is because the progress made in islands only cannot sustain for long. The reason is not difficult to seek.

“Poverty anywhere is dangerous for prosperity everywhere.” That many will not tolerate a few haves is evidently clear from ongoing protests leading to problems like terrorism. Therefore, the Government offers several incentives, concessions, tax holidays, cheaper lands, assured and cheaper power supply, price concessions for departmental (state) purchases, etc. to make the backward areas also conducive for setting up industries.

It is seen that good number of entrepreneurs considers these facilities as decisive factor to establish industries in these locations. However, it has also been observed that these facilities can attract entrepreneurs to establish industries in backward areas provided other required facilities do also exist there.

For example, incentives and concessions cannot duly compensate for lack of infrastructural facilities like communication and transportation facilities. This is precisely one of the major reasons why people in spite of so many incentives and concessions on offer by the Government, are not coming forward to establish industries in some backward areas.

Climatic Conditions:

Climatic conditions vary from place to place in any country including India. And, climatic conditions affect both people and manufacturing activity. It affects human efficiency and behavior to a great extent. Warm and cold climate is conducive to higher productivity. Likewise, certain industries require specific type of climatic conditions to produce their goods. For example, jute and textiles manufacturing industries require high humidity.

As such, these can be established in Kashmir experiencing humidity-less climate. On the other hand, industrial units manufacturing precision goods like watches require cold climate and hence, will be established in the locations having cold climate like Kashmir and Himachal Pradesh.

Political Conditions:

Political stability is essential for industrial growth. That political stability fosters industrial activity and political upheaval derails industrial initiatives is duly confirmed by political situations across the countries and regions within the same country. The reason is not difficult to seek.

The political stability builds confidence and political instability causes lack of confidence among the prospective and present entrepreneurs to venture into industry which is filled with risks. Community attitudes such as the “Sons of the Soil Feeling” also affect entrepreneurial spirits and may not be viable in every case.

Besides, an entrepreneur will have also to look into the availability of community services such as housing, schools and colleges, recreational facilities and municipal services. Lack of these facilities makes people hesitant and disinterested to move to such locations for work.

Very closer to political conditions is law and order situation prevalent in an area also influences selection of industrial location. Hardly any entrepreneur will be interested to establish his / her industry in an area trouble-torn by nexalites and terrorists like Jharkhand, Nagaland and Jammu & Kashmir.

People will be interested to move to areas having no law and order problem to establish their industries like Maharashtra and Gujarat. It is due to this law and order problem the Nano car manufacturing unit shifted from Nandi gram in West Bengal to Gujarat.

There are many qualitative and quantitative techniques adopted to interpolate the above factors to arrive at a logical decision. The simplest and most commonly adopted is weight rating method illustrated in Figure below.

Besides above factors, the location of certain industries also depends upon the delivery of emergency services like fire, police, hospital, etc.