

The rapid growth of global markets business essay

[Business](#)



Facility location is actually a term used in operation management, facility location or location analysis is done so that the better uses of the location can be understood. The company by understanding the materials and production process done nearby the location can save ample time in production process and also save a lot in terms of transportation cost. And also the company can find out optimum position for the location of the company so that all the factors that are needed will be not a long distance from the company. Facility location determination is a business critical strategic decision. There are several factors, which determine the location of facility among them competition, cost and corresponding associated effects. Units concerning both manufacturing as well as the assembling of the products are on a very large scale affected by the decisions involving the location of the plant. Location of the plant itself becomes a very important factor concerning service facilities, as the plant location decisions are strategic and long-term in nature. Plant location decisions need detailed analysis because: 1. Wrong plant location generally affects cost parameters i. e. poor location can act as a continuous stimulus of higher cost. Marketing, transportation, quality, customer satisfaction are some of the other factors which are greatly influenced by the plant location decisions – hence these decisions require in-depth analysis. 2. Once a plant is set up at a location which is not much suitable, it is a very disturbing as well as very expensive process to shift works of a company to some other place, as it would largely affect the cycle of production. 3. The investments involved in the in setting up of the plant premises . buying of the land etc are very large and especially in the case of big multinational companies, the investments can go into millions of rupees, so economic factors of the location should be very

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minutely and carefully checked and discussed in order to achieve good returns on the money which has been invested. **THE NEED FOR LOCATION DECISIONS** –These decisions are needed when a new plant is to be set up or when the operations involved in the company at the present location need to be expanded but expansion becomes difficult because of the poor selection of the site for such operations. These decisions are sometimes taken because of the social or the political conditions engulfing the working of a company. The way the works of a company have to be performed, largely depends upon the industrial policies issued by the government. Any change that creeps in the industrial policy of the government which favors decentralization and hence does not permit any change or any expansion of the existing plant – requires strictly evaluated location decisions. Some factors which should be considered while evaluating location options for a facility are studied because globalization has made consumers expect the best products at the lowest prices irrespective of where they are produced. Companies are under competitive pressure to engage in global production and service operations due to the rapid growth of global markets

FACTORS INFLUENCING PLANT LOCATION/FACILITY LOCATION

Facility location is the process of determining a geographic site for a firm's operations. Managers of both service and manufacturing organizations must weigh many factors when assessing the desirability of a particular site, including proximity to customers and suppliers, labour costs, and transportation costs. Location conditions are complex and each comprises a different characteristic of a tangible (i. e. Freight rates, production costs) and

non-tangible (i. e. reliability, Frequency security, quality) nature. Location conditions are hard to measure. Tangible cost based factors such as wages and products costs can be quantified precisely into what makes locations better to compare. On the other hand non-tangible features, which refer to such characteristics as reliability, availability and security, can only be measured along an ordinal or even nominal scale. Other non-tangible features like the percentage of employees that are unionized can be measured as well. To sum this up non-tangible features are very important for business location decisions. It is appropriate to divide the factors, which influence the plant location or facility location on the basis of the nature of the organisation as: 1. General locational factors, which include controllable and uncontrollable factors for all type of organisations. 2. Specific locational factors specifically required for manufacturing and service organisations. Location factors can be further divided into two categories: Dominant factors are those derived from competitive priorities (cost, quality, time, and flexibility) and have a particularly strong impact on sales or costs. Secondary factors also are important, but management may downplay or even ignore some of them if other factors are more important.

General Locational Factors

Following are the general factors required for location of plant in case of all types of organisations. 1. Controllable factors 2. Uncontrollable factors

CONTROLLABLE FACTORS

1. Proximity to markets: Every company is expected to serve its customers by providing goods and services at the time needed and at reasonable price organizations may choose to locate facilities close to the market or away

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from the market depending upon the product. When the buyers for the product are concentrated, it is advisable to locate the facilities close to the market. Locating nearer to the market is preferred if

- The products are delicate and susceptible to spoilage.
- After sales services are promptly required very often.
- Transportation cost is high and increase the cost significantly.
- Shelf life of the product is low. Nearness to the market ensures a consistent supply of goods to customers and reduces the cost of transportation.

2. Supply of raw material: It is essential for the organization to get raw material in right qualities and time in order to have an uninterrupted production. This factor becomes very important if the materials are perishable and cost of transportation is very high. General guidelines suggested by Yaseen regarding effects of raw materials on plant location are:

- When a single raw material is used without loss of weight, locate the plant at the raw material source, at the market or at any point in between.
- When weight losing raw material is demanded, locate the plant at the raw material source.
- When raw material is universally available, locate close to the market area.
- If the raw materials are processed from variety of locations, the plant may be situated so as to minimize total transportation costs. Nearness to raw material is important in case of industries such as sugar, cement, jute and cotton textiles.

3. Transportation facilities: Speedy transport facilities ensure timely supply of raw materials to the company and finished goods to the customers. The transport facility is a prerequisite for the location of the plant. There are five basic modes of physical transportation, air, road, rail, water and pipeline. Goods that are mainly intended for exports demand a location near to the port or large airport. The choice of transport method and hence the location will depend

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on relative costs, convenience, and suitability. Thus transportation cost to value added is one of the criteria for plant location.

4. Infrastructure availability: The basic infrastructure facilities like power, water and waste disposal, etc., become the prominent factors in deciding the location. Certain types of industries are power hungry e. g., aluminum and steel and they should be located close to the power station or location where uninterrupted power supply is assured throughout the year. The non-availability of power may become a survival problem for such industries. Process industries like paper, chemical, cement, etc., require continuous. Supply of water in large amount and good quality, and mineral content of water becomes an important factor. A waste disposal facility for process industries is an important factor, which influences the plant location.

5. Labour and wages: The problem of securing adequate number of labour and with skills specific is a factor to be considered both at territorial as well as at community level during plant location. Importing labour is usually costly and involve administrative problem. The history of labour relations in a prospective community is to be studied. Prospective community is to be studied. Productivity of labour is also an important factor to be considered. Prevailing wage pattern, cost of living and industrial relation and bargaining power of the unions' forms in important considerations.

6. External economies of scale: External economies of scale can be described as urbanization and locational economies of scale. It refers to advantages of a company by setting up operations in a large city while the second one refers to the "settling down" among other companies of related Industries. In the case of urbanization economies, firms derive from locating in larger cities rather than in smaller ones in a search of having access to a large pool of labour,

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transport facilities, and as well to increase their markets for selling their products and have access to a much wider range of business services. Location economies of scale in the manufacturing sector have evolved over time and have mainly increased competition due to production facilities and lower production costs as a result of lower transportation and logistical costs. This led to manufacturing districts where many companies of related industries are located more or less in the same area. As large corporations have realized that inventories and warehouses have become a major cost factor, they have tried reducing inventory costs by launching "Just in Time" production system (the so called Kanban System). This high efficient production system was one main factor in the Japanese car industry for being so successful. Just in time ensures to get spare parts from suppliers within just a few hours after ordering. To fulfill these criteria corporations have to be located in the same area increasing their market and service for large corporations.

7. Capital: By looking at capital as a location condition, it is important to distinguish the physiology of fixed capital in buildings and equipment from financial capital. Fixed capital costs as building and construction costs vary from region to region. But on the other hand buildings can also be rented and existing plants can be expanded. Financial capital is highly mobile and does not very much influence decisions. For example, large Multinational Corporations such as coca-Cola operate in many different countries and can raise capital where interest rates are lowest and conditions are most suitable. Capital becomes a main factor when it comes to venture capital. In that case young, fast growing (or not) high tech firms are concerned which usually have not many fixed assets. These firms

particularly need access to financial capital and also skilled educated employees.

UNCONTROLLABLE FACTORS

8. Government policy: The policies of the state governments and local bodies concerning labour laws, building codes, safety, etc., are the factors that demand attention. In order to have a balanced regional growth of industries, both central and state governments in our country offer the package of incentives to entrepreneurs in particular locations. The incentive package may be in the form of exemption from a sales tax and excise duties for a specific period, soft loan from financial institutions, subsidy in electricity charges and investment subsidy. Some of these incentives may tempt to locate the plant to avail these facilities offered.

9. Climatic conditions: The geology of the area needs to be considered together with climatic conditions (humidity, temperature). Climates greatly influence human efficiency and behaviour. Some industries require specific climatic conditions e. g., textile mill will require humidity.

10. Supporting industries and services: Now a day the manufacturing organisation will not make all the components and parts by itself and it subcontracts the work to vendors. So, the source of supply of component parts will be the one of the factors that influences the location. The various services like communications, banking services professional consultancy services and other civil amenities services will play a vital role in selection of a location.

11. Community and labour attitudes: Community attitude towards their work and towards the prospective industries can make or mar the industry. Community attitudes towards supporting trade union activities are important criteria. Facility location in specific location is not

desirable even though all factors are favouring because of labour attitude towards management, which brings very often the strikes and lockouts. 12. Community infrastructure and amenity: All manufacturing activities require access to a community infrastructure, most notably economic overhead capital, such as roads, railways, port facilities, power lines and service facilities and social overhead capital like schools, universities and hospitals. These factors are also needed to be considered by location decisions as infrastructure is enormously expensive to build and for most manufacturing activities the existing stock of infrastructure provides physical restrictions on location possibilities.

Specific Locational Factors For Manufacturing Organisation

DOMINANT FACTORS

Factors dominating location decisions for new manufacturing plants can be broadly classified in six groups. They are listed in the order of their importance as follows. 1. Favourable labour climate: A favorable labour climate may be the most important factor in location decisions for labour-intensive firms in industries such as textiles furniture and consumer electronics. Labour climate includes wage rates, training requirements attitudes toward work, worker productivity and union strength. Many executives consider weak unions or a low probability of union organizing efforts as a distinct advantage. 2. Proximity to markets: After determining where the demand for goods and services is greatest, management must select a location for the facility that will supply that demand. Locating near markets is particularly important when the final goods are bulky or heavy

and outbound transportation rates are high. For example, manufacturers of products such as plastic pipe and heavy metals all emphasize proximity to their markets. 3. Quality of life: Good schools, recreational facilities, cultural events, and an attractive lifestyle contribute to quality of life. This factor is relatively unimportant on its own, but it can make the difference in location decisions. 4. Proximity to suppliers and resources: In many companies, plants supply parts to other facilities or rely on other facilities for management and staff support. These require frequent coordination and communication, which can become more difficult as distance increases. 5. Utilities, taxes, and real estate costs: Other important factors that may emerge include utility costs (telephone, energy, and water), local and state taxes, financing incentives offered by local or state governments, relocation costs, and land costs.

SECONDARY FACTORS

There are some other factors needed to be considered, including room for expansion, construction costs, accessibility to multiple modes of transportation, the cost of shuffling people and materials between plants, competition from other firms for the workforce, community attitudes, and many others. For global operations, firms are emphasizing local employee skills and education and the local infrastructure.

Specific Locational Factors for Service Organisation

DOMINANT FACTORS

The factors considered for manufacturers are also applied to service providers, with one important addition — the impact of location on sales and

customer satisfaction. Customers usually look about how close a service facility is, particularly if the process requires considerable customer contact.

PROXIMITY TO CUSTOMERS

Location is a key factor in determining how conveniently customers can carry on business with a firm. For example, few people would like to go to remotely located dry cleaner or supermarket if another is more convenient. Thus the influence of location on revenues tends to be the dominant factor.

TRANSPORTATION COSTS AND PROXIMITY TO MARKETS

For warehousing and distribution operations, transportation costs and proximity to markets are extremely important. With a warehouse nearby, many firms can hold inventory closer to the customer, thus reducing delivery time and promoting sales.

LOCATION OF COMPETITORS

One complication in estimating the sales potential at different location is the impact of competitors. Management must not only consider the current location of competitors but also try to anticipate their reaction to the firm's new location. Avoiding areas where competitors are already well established often pays. However, in some industries, such as new-car sales showrooms and fast food chains, locating near competitors is actually advantageous. The strategy is to create a critical mass, whereby several competing firms clustered in one location attract more customers than the total number who would shop at the same stores at scattered locations. Recognizing this effect, some firms use a follow -the leader strategy when selecting new sites.

SECONDARY FACTORS

Retailers also must consider the level of retail activity, residential density, traffic flow, and site visibility. Retail activity in the area is important, as shoppers often decide on impulse to go shopping or to eat in a restaurant. Traffic flows and visibility are important because businesses customers arrive in cars. Visibility involves distance from the street and size of nearby buildings and signs. High residential density ensures night time and weekend business when the population in the area fits the firm's competitive priorities and target market segment. EXAMPLES OF PLANT LOCATION (INDIA)

- Most of the textile mills are found in or near Mumbai and Ahmedabad because of the humidity conditions that prevail there.
- Sites for nuclear power plants to be located in different parts of the country largely depend upon environmental, safety, socio-economic and also the engineering factors affecting the construction and operation of such plants.
- Steel plants are generally located near the Jharkhand, Bengal, Chhattisgarh and Orissa regions. This choice of site is mainly because of more economical transport of the finished goods as compared to basic raw materials.
- Similar case is observed in the plants which manufacture cement; such plants are located near the lime and the coal deposits.
- Namroop and Thal Vaishet, both act as very important sites for the gas-based fertilizer plants. Coal based fertilizer plants at Ramagundum are located near the source of raw materials (coal).
- Naptha / oil based fertilizer plants at Mangalore, Madras, Cochin have been located near ports, which act as a great source for the import of the raw materials.
- ' Proximity to market' forms a major factor which affects plant location decisions in case of machine tool industries. In case of such

industries, sites are scattered over different parts of the country such as Ludhiana, Pune, Bangalore, Calcutta, Mumbai etc. • Information Technology/BPO/Software Industries depend largely on availability of skilled personnel, infrastructure etc... Because of these reasons most of such organizations operate in urban areas such as Delhi, Chennai, Hyderabad, Bangalore, Pune etc.

Facility layout

For an organization to have an effective and efficient manufacturing unit, it is important that special attention is given to facility layout. Facility layout is an arrangement of different aspects of manufacturing in an appropriate manner as to achieve desired production results. Facility layout considers available space, final product, safety of users and facility and convenience of operations. An effective facility layout ensures that there is a smooth and steady flow of production material, equipment and manpower at minimum cost. Facility layout looks at physical allocation of space for economic activity in the plant. Therefore, main objective of the facility layout planning is to design effective workflow as to make equipment and workers more productive.

Facility Layout Objective

A model facility layout should be able to provide an ideal relationship between raw material, equipment, manpower and final product at minimal cost under safe and comfortable environment. An efficient and effective facility layout can cover following objectives: To provide optimum space to organize equipment and facilitate movement of goods and to create safe and comfortable work environment. To promote order in production towards a

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single objective To reduce movement of workers, raw material and equipment To promote safety of plant as well as its workers To facilitate extension or change in the layout to accommodate new product line or technology upgradation To increase production capacity of the organization An organization can achieve the above-mentioned objective by ensuring the following: Better training of the workers and supervisors. Creating awareness about of health hazard and safety standards Optimum utilization of workforce and equipment Encouraging empowerment and reducing administrative and other indirect work

Factors affecting Facility Layout

Facility layout designing and implementation is influenced by various factors. These factors vary from industry to industry but influence facility layout. These factors are as follows: The design of the facility layout should consider overall objectives set by the organization. Optimum space needs to be allocated for process and technology. A proper safety measure as to avoid mishaps. Overall management policies and future direction of the organization

Design of Facility Layout

Principles which drive design of the facility layout need to take into the consideration objective of facility layout, factors influencing facility layout and constraints of facility layout. These principles are as follows:

Flexibility: Facility layout should provide flexibility for expansion or modification. Space Utilization: Optimum space utilization reduces the time in material and people movement and promotes safety. Capital: Capital

investment should be minimal when finalizing different models of facility layout.

Design Layout Techniques

There are three techniques of design layout, and they are as follows: Two or Three Dimensional Templates: This technique utilizes development of a scaled-down model based on approved drawings. Sequence Analysis: This technique utilizes computer technology in designing the facility layout by sequencing out all activities and then arranging them in circular or in a straight line. Line Balancing: This kind of technique is used for assembly line.

Types of Facility Layout

There are six types of facility layout, and they are as follows: Line Layout, Functional Layout, Fixed Position Layout, Cellular Technology Layout, Combined Layout, and Computerized Relative Allocation of Facility Technique.

1. Most of the textile mills are found in or near Mumbai and Ahmadabad because of the humidity conditions that prevail there. The localisation of the cotton textile industry is mainly affected by the availability of raw material, proximity of market, capital facility, port facility and cheap and skilled labor. In early days the cotton growing tracts of the Peninsula and Great Plains together with capital and port facilities helped in the concentration of cotton mills in Mumbai, Ahmadabad, Coimbatore, Sholapur, Nagpur and Indore. But with the development of modern means of transport and communication an apparent shift was noticed towards centers of consumption (market), capital and textile industries Karnataka, West Bengal and Andhra Pradesh. These areas include the Khandesh region, Gujarat, the Ganga plain and east coastal region of south India. The three southern

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states of Maharashtra, Gujarat and Tamil Nadu together account for 60 per cent of total mills, 67. 41 per cent of the total spindles, and 72. 4 per cent of total looms of the country. These produce 74. 69 per cent of cotton cloth and 40. 35 per cent of cotton yarns in the country. Outside these states Uttar Pradesh, West Bengal and Madhya Pradesh are odier three states which together contribute 14. 67 per cent of spindles, 17. 30 per cent of looms, 7. 22 per cent of yarns and 8. 68 per of mill-made cloths in die country.

States

No. of Mills

Maharashtra

106

Gujarat

130

Tamil Nadu

215

U. P

50

W. Bengal

55

M. P

33

Kerala

Tamil Nadu is the most priority location for Cotton textile because here raw material from the cotton growing tracts of the state, rich pool of skilled labour, cheap hydel power from the Py kara project and expertise in the production of quality textile goods are some of the advantages which have favoured the development of cotton textile industry in the state. Coimbatore is the leading producer of textile goods (81 mills), followed by Chennai, Madurai, Tirunel velli, Tuticorin, Salem, Virudhnagar, Udmalpet, and Pollachi, etc.

IRON AND STEEL INDUSTRY:

Iron and steel industries are heavy industries using very bulky raw materials. Therefore, its location is governed by close proximity to raw materials and good transport system. The north eastern and southern parts of Peninsular India are mineral rich suitable for location of Iron and Steel Industry. It is located near the iron and coal deposits, particularly at Jamshedpur in Bihar and in the Chhotanagpur area, bordering West Bengal, Bihar, Orissa and Madhya Pradesh, because of the following reasons:(i) Water is available from reservoirs and rivers.(ii) Means of transport facilities are available here.(iii) Goods of the peninsular states have supported this industry.(iv) Power is obtained from big hydel-power projects situated here.(v) Skilled labour is available from nearby states.(vi) All the 10 integrated plants are located in Peninsular India.(viii) Technical expertiseAll the raw materials like iron ore, manganese, limestone, cooking coal are mined in the peninsular India

Crude Steel Production and Consumption

On the global scene, China dominates the world production of crude steel. In the year 2006 the top five largest producers of crude steel together accounted for 60.62% of the total crude steel production of the world. Asia with a 54% share in world crude steel production is the largest crude steel producing region followed by European Union (15.88%). The production in Asia is driven by strong demand generated by emerging economies of China and India. Figure A3.2 depicts the production shares of the five largest crude steel producing countries of the world in and 2006. China ranks first in the international production of crude steel with an overwhelming share of 33.81 percent in 2006, followed by Japan (9.3%), United States (7.88%) and Russia (5.67%). India with a share of 3.96 percent surpassed South Korea in 2006 to become the fifth largest producer of Crude steel in the world. The key industries spurring the production of steel in China are the fast growing car-making and shipbuilding and massive expansion in infrastructure with flagship projects like facilities for 2008 Beijing Olympics and the Three Gorges Dam.

COUNTRY

PRODUCTION SHARE(%)

China 33.81 Japan 9.3 United States 7.88 Russia 5.67 India 3.96

The iron and steel industry is an excellent example of an industry where changing

technology has a 'strong effect on location. (a) At the source of iron ore:

Lorraine (France), Duluth (USA), Corby (UK), Bhadravati and Vishakapatnam

(India). (b) At the sources of fuel, e. g., coal, hydel power, thermal: Coal

based locations are Ruhr Valley (Germany), Pittsburgh (USA), Donetz Basin

(CIS), Bokaro, Durgapur and Jamshedpur (India)(c) At or near the market: Those countries where coal and iron ore deposits are rare, e. g., Tokyo-Yokohama and Osaka-Kobe-Hemeji Iron and Steel region.(d) At the point in between market, raw material and fuel source (coal): This region offers maximum advantage from locational point of view - The iron and steel industries of Alabama (USA) have all the advantages.(e) At the places where coal-iron ore, coal-market, iron ore-inmarket, or coal-market-iron ore coincide. The iron-steel industry having iron ore and market facilities evolved in Adirondacks (USA) and Nova Scot'ia (Canada).

Cement industry:

Cement industry requires: i. Bulky and heavy raw materials like limestone, silica, alumina and gypsum. ii. Coal and electric power are needed as source of energy. iii. Therefore this industry is set up near source of raw material and power for which itneeds good rail transportation. iv. Gujarat has suitable access to the market in the Gulf countries for the export ofcement.

Sugarcane industry:

The important factors influencing the location of this industry are: i. Sugar industry is ideally located in the sugarcane growing regions of India because- ii. The raw material, sugarcane, used in this industry is bulky and difficult to transport at low costs. iii. In transport the sucrose content in the sugarcane reduces. iv. In cooler climates the crushing season is longer. Most of the Sugar mills in the country are in two states of Uttar Pradesh and Bihar. Other important states are Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh and Gujarat. The sugar mills in recent years have shifted and concentrated in the southern and western states, especially in Maharashtra, This is becausei.
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The cane produced here has higher sucrose content. ii. The cooler climate also ensures a longer crushing season. iii. The cooperatives are more successful in these states. [http://4. bp. blogspot. com/_Xk3wU5E36rM/TQSI4-dEGVI/AAAAAAAAACQ/UxIcC055mCc/s1600/india-map-of-textile %2526sugarindustry. jpg](http://4.bp.blogspot.com/_Xk3wU5E36rM/TQSI4-dEGVI/AAAAAAAAACQ/UxIcC055mCc/s1600/india-map-of-textile%2526sugarindustry.jpg)

Porter's Five Forces Model

Porter's five forces model helps in accessing where the power lies in a business situation. Porter's Model is actually a business strategy tool that helps in analyzing the attractiveness in an industry structure. It let you access current strength of your competitive position and the strength of the position that you are planning to attain. Porters Model is considered an important part of planning tool set. When you're clear about where the power lies, you can take advantage of your strengths and can improve the weaknesses and can compete efficiently and effectively. Porters model of competitive forces assumes that there are five competitive forces that identifies the competitive power in a business situation. These five competitive forces identified by the Michael Porter are: Threat of substitute productsThreat of new entrantsIntense rivalry among existing playersBargaining power of suppliersBargaining power of Buyers[http://notesdesk. com/wp-content/uploads/2009/04/porters-five-forces-model. jpg](http://notesdesk.com/wp-content/uploads/2009/04/porters-five-forces-model.jpg)

CONCLUSION:

BasisCementTextileAutomobileContribution To total world production9% to total world production7% of total world production6-8% to total productionContribution to India's GDP8% to the share of GDP4% to the share <https://assignbuster.com/the-rapid-growth-of-global-markets-business-essay/>

of GDP5% to the total share of GDPBest StateAndhra Pradesh, Madhya PradeshTamil Nadu, GujaratChennaiBest ZoneSouthSouthSouthMain Reason for selectionLarge amount of limestone, Water(essential raw material) is easily availableNeed hot, humid climate, as best in the south zoneMain Reason is political friendliness, and better transportation facilities